



**POLLUTION PREVENTION & CONTROL ACT 1999
Environmental Permitting (England & Wales) Regulations 2016
as amended
Statutory Instrument No. 1154**

A2 PERMIT

Michelmersh Brick UK Limited

Permit Reference - IPPC/A2/04/2018/V1

Contents List

Covering Page
Contents
Introductory Note
Signed Permit Page
Description of Activities

Conditions

1.0	Releases To Air
1.1	Point Source Emission to Air - General
1.2	Point Source Emission to Air - Emission Limits
1.3	Controlling Emissions of Fluoride from the Brick Making Process
1.4	Monitoring of Contained Emissions to Air
1.5	Control of Emissions from the Kiln Arrestment (OHLMANN) Equipment
1.6	Controlling of Dust from the Stockpiles, Transfer and Storage of Materials
1.7	Controlling of Dust from Processing Operations
1.8	Control of Dust from Roadways
1.9	Control of Fugitive Emissions to Air
1.10	Monitoring of Fugitive Emissions to Air
2.0	Emissions to Water
2.1	Point Source Emissions to Groundwater
2.2	Fugitive Emissions to Surface Water, Sewer and Groundwater
3.0	Emission to Land
4.0	Odour
5.0	Management
5.1	Environmental Management System (EMS)
5.2	Operations and Maintenance
5.3	Training
5.4	Documentation
5.5	Notification
6.0	Raw Materials
6.1	Raw Materials Selection
6.2	Waste Minimisation (optimising use of raw materials)
6.3	Waste Handling, Storage and Destination
6.4	Water Use
6.5	Energy Efficiency
7.0	Accidents
8.0	Noise and Vibration
9.0	Installation Log
10.0	Closure and Decommissioning

Appendix A
Site Location Map

Appendix B
Site Plan with Release Points

Appendix C
Submissions Summary, Interpretations, Explanatory Note and Appeals

Introductory Note

The Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016 as amended (the EP Regulations). It Permits the operation of an installation carrying out an activity described within Part A2 (a) of Section 3.6 of Chapter 3, Part 2 of Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016.

In some sections of the Permit, conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent, and where that is not practicable, to reduce emissions. In determining BAT, the Operator should pay particular attention to relevant sections of the Sector Guidance Note IPPC SG7, appropriate Horizontal Guidance, and any other relevant guidance.

Note that the Permit requires the submission of certain information to the Regulator, and in addition, the Regulator has the power to seek further information at any time under Regulation 60 of the EP Regulations provided that the request is reasonable.

Public Registers

Considerable information relating to Permits, including the application, is available on the public register in accordance with the EP Regulations. Certain information may be withheld from the public register where it is commercially confidential, or in the interest of national security to do so (subject to the local authority agreeing to a specific application for exemption made by the Operator).

Variations to the Permit

The Permit may be varied in the future by the Regulator, by serving a variation notice on the Operator. Should the Operator want any of the conditions of the Permit to be changed, a formal application must be submitted (the relevant forms are available from the Regulator).

Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an application to surrender the Permit has to be made by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Regulator that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another Operator, an application to transfer the Permit has to be made jointly by the existing and proposed Operators. A transfer will not be approved if the Regulator is not satisfied that the proposed Permit holder will be the person having control over the operation of the installation, or will not comply with the conditions of the transferred Permit. In addition, if the Permit authorises the Operator to carry out a specified waste management activity, the transfer will not be approved if the Regulator does not consider the proposed Permit holder to be a 'fit and proper person' as required by the EP Regulations.



Regulatory Services

Pollution Prevention & Control Act 1999 Environmental Permitting (England & Wales) Regulations 2016 as amended Statutory Instrument No. 1154

Permit To Operate A Scheduled Installation

Original application Received 1st March 2004

Reference No. IPPC/A2/04/2018/V1

Michelmersh Brick UK Limited is hereby permitted to operate an installation for the manufacture of ceramic products by firing in a kiln where the capacity is greater than 75 tonnes per day as defined in Schedule 1, Part 2, Section 3.6, Part A2 of the Environmental Permitting (England and Wales) Regulations 2016, as described below and in accordance with the attached conditions.

Address of Permitted Installation

Michelmersh Brick UK Limited
Carlton Works
Clayburn Road
Grimethorpe
Barnsley
S72 7BE

Registered Office

Michelmersh Brick UK Limited
Freshfield Lane
Danehill
Haywards Heath
RH17 7HH

Number 02527552

Ultimate Holding Company

Michelmersh Brick Holdings PLC
Freshfield Lane
Danehill
Haywards Heath
RH17 7HH

Number 03462378

Signed;

Carrie Abbott
Service Director
Public Health

Date:

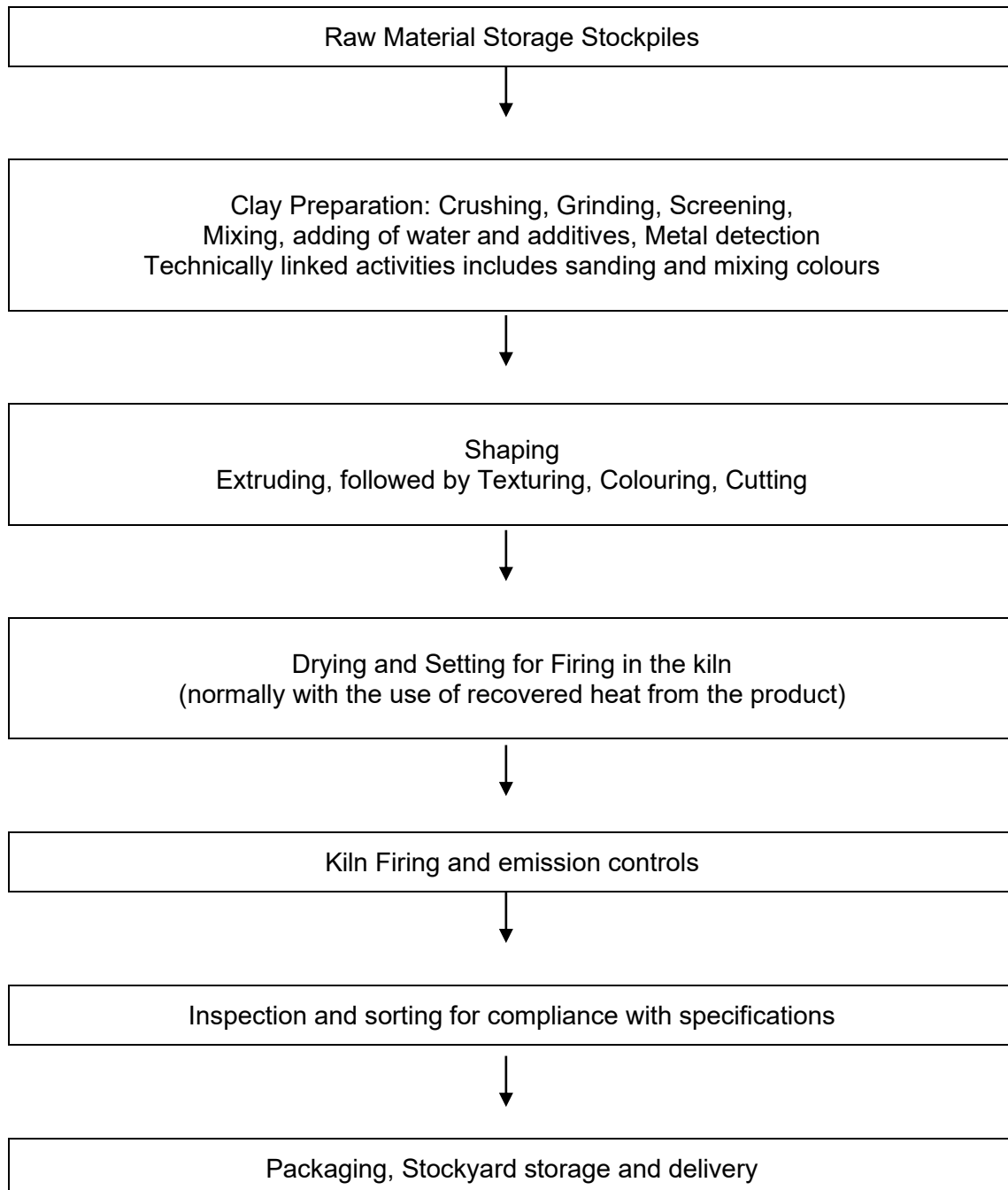
Barnsley Metropolitan Borough Council,
Regulatory Services
Public Health Directorate
PO Box 634
Barnsley
S70 9GG
(the address for all correspondence in relation to this permit)

Description of Activities

The activities carried out at the installation comprise the manufacture including firing and distribution of approximately 34 million standard and special shaped clay bricks per year predominantly using clay extracted from the adjacent quarry.

The overall process is commensurate with the flow diagram.

Flow Diagram of brick manufacturing process:



Clay Stockpiling

Clay is extracted from the adjacent quarry on an annual basis usually between the months of April and September. Characteristics of the brick making material differs throughout the quarry with several layers being mixed to form a blended annual stockpile of approximately 50,000 m³ up to 8.0 metres high.

Clay Preparation

The clay is transported from the stockpile by a mechanical loading shovel, where it is loaded into a box feeder. The box feeder feeds the clay into a set of crushers which rotate and crush the hard clay in preparation for the next stages of grinding.

From this the clay is transported via a covered conveyor belt into a pan mill to be dry ground. The ground clay is conveyed to two heated screens which have 4 mm mesh, oversize returns to the pan mill for re-grinding.

The ground clay is conveyed to a rotary silo for storage before going to the next stage of the process.

Extrusion Process

The extrusion process is used to form both standard bricks and also special shaped bricks. When clay is required it is conveyed from the rotary silo storage to the extruder.

The clay is fed into a mixer where water is added to a required moisture content of around 15%. Barium Carbonate is added at this point which renders soluble salts in the clay insoluble; Lignosulphonates to improve the workability of the clay; and Manganese Oxide is also added at this point when manufacturing brown coloured products. The clay is pushed and chopped by rotating mixer knives into a rotating shredder where knives shred the clay into a vacuum chamber which de-airs the clay. The clay then goes into an auger which pushes the clay through the die (which is specific to the product being made) and lubricated with Brick Oil to assist the process. The clay passes through a single wire cutter which cuts the clay into columns. The columns are then transported into a multi-wire cutter which cuts the column into specific sized bricks. The bricks are then transported via a conveyor and fed onto steel pallets which are then conveyed to an ascender frame. The bricks are equally spaced for the drying process. They are then loaded via a transfer finger car into the dryers. The main line extruder extrudes around 12,000 bricks per hour and the standard format are a final fired size of 215 x 102.5 x 65 or 73 mm.

Immediately following extrusion the products may have some form of texturing applied to the brick surface or may have a liquid pigment applied which then determines the final product appearance after the firing process. This may also require a thin covering of sand on the brick surface.

Drying Process

There are 22 drying chambers each holding approximately 11,424 bricks. Waste heat is taken from the tunnel kiln and used along with 3 gas burners fitted with flame failure device to reach temperatures of around 140 degrees. The current drying cycle is 48 hours. Once the drying cycle is completed the dry bricks are then transported via transfer finger car to a descender.

Setting Process

The standard bricks are chain-conveyed from the descender to the setting machine. The bricks are gathered into groups, picked up and placed onto a marshalling conveyor, they are then spaced into a setting pattern ready to be set onto the kiln cars. Four gripper heads pick up the bricks, carry and place them in the set setting pattern to form good solid ties onto a kiln car, each car holding approximately 4,480 bricks.

All special products are manually set onto kiln cars.

Firing Process

Once the kiln car has been set it is automatically transported into a pre-heater. This heats the product before entering the tunnel kiln.

Once entering the tunnel kiln the product intermittently passes through 12 automatically controlled firing zones, each zone higher in temperature, forming a controlled temperature rise until a peak temperature of around 1,060°C is reached. The product is held at peak temperature for around 3 hours allowing for complete uniformity of temperature before entering the cooling zones where all cooling air is recouped and used as detailed above for the drying processes.

The tunnel kiln has a thermal input above 2 Megawatts and to control Hydrogen Fluoride emissions, Fluoride abatement plant is installed.

De-Hacking Process

Fired cars from the main kiln are automatically transported to the de-hacking machine where three main mechanical heads pick up the bricks. The bricks are then placed onto a chain conveyor which conveys the bricks forward to be checked for quality. The bricks are then marshalled and spaced; two grippers pick up the bricks and form them into packs, paper is placed between each layer of bricks.

Once the pack is formed of approximately 500 bricks, a chain conveyor conveys the pack to the shrink-wrapping machine.

All special bricks are manually de-hacked and put into pallets, again paper is placed between each layer. The quantity of product placed onto pallets depends on the brick shape and size. They are then transported via forklift to the specials stocking area.

Shrink-wrapping Process

Upon completion the pack is moved into the shrink-wrap oven where a gas burner is ignited, the heat shrinks the wrapping tightly to the pack for stability and strength for transportation.

All special shaped products are manually shrink-wrapped.

Special Brick Production

Special shaped products are manufactured using fired products. The fired products are cut using a diamond steel saw into sections then the sections are bonded together using epoxy resin to the desired shape.

Stockyard

When the bricks leave the shrink-wrapping machine they are conveyed past a printing machine which labels the pack to denote the brick type.

The forklift operator then transports the bricks to their designated place on the stockyard. The same procedure applies to the special shaped products.

Conditions

1 Releases To Air

1.1 Point Source Emission to Air - General Conditions

- 1.1.1 Emissions from the firing of bricks in the tunnel kiln shall be contained and adequately extracted via the E.I. Tec gas filtration system and through the stack marked A1 on plan reference IPPC/A2/2017 Plan 2 to meet the specified emission limit values as detailed in Table 2 below.
- 1.1.2 The height of the tunnel kiln stack (stack marked A1 on plan reference IPPC/A2/2017 Plan 2) shall be sufficient to ensure that there is adequate dispersion of process emissions. The stack height shall be a minimum of 3 metres above roof ridge height of any building within a distance of 5 times the uncorrected stack height and in no circumstances shall it be less than 8 metres above ground level.
- 1.1.3 Process emissions from the tunnel kiln stack (stack marked A1 on plan reference IPPC/A2/2017 Plan 2) shall be dispersed in such a way as to ensure that the relevant air quality standards for oxides of nitrogen, oxides of sulphur and particulate matter or any future relevant standards are not being breached.
- 1.1.4 Exhaust gases discharged through stack numbered A1 on plan reference IPPC/A2/2017 Plan 2 shall achieve an exit velocity that is sufficient to ensure adequate dispersion of kiln emissions during normal operating conditions.
- 1.1.5 Emissions from the process exhausts marked A1 to A12 on plan reference IPPC/A2/2017 Plan 2, in normal operations, shall not exceed the equivalent of Ringelman Shade 1 as described in British Standard BS 2742:2009.
- 1.1.6 Emissions of water vapour shall be free from droplet fallout.
- 1.1.7 The Operator shall ensure that all reasonably practicable steps are taken during start-up and shut down, in order to minimise emissions.
- 1.1.8 Process stacks A1 to A12, as shown on plan reference IPPC/A2/2017 Plan 2, shall not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone which may be necessary to increase the exit velocity of the emissions.
- 1.1.9 The Operator shall ensure that flues and ductwork are cleaned to prevent accumulation of materials, as part of the routine maintenance programme, forming part of the Operators EMS as detailed in condition 5.1.1 of this permit.
- 1.1.10 The Operator shall investigate the cause and nature of any persistent visible emissions and shall provide a report on this to the Regulator. Details shall also be recorded in the site log as detailed in condition 9.1 of this permit.

- 1.1.11 The process shall operate within the installation boundary outlined in red on Plan reference IPPC/A2/04/2017 Plan 1.

1.2 Point Source Emissions To Air - Emission Limits

- 1.2.1 Monitored release points to air shall be referenced as detailed in Table 1 below.

TABLE 1	
Release Point	Description
A1	Tunnel Kiln Stack
A2	Dryer Exhaust
A3	Dryer Exhaust
A4	Dryer Exhaust
A5	Dryer Exhaust
A6	Dryer Exhaust
A7	Dryer Exhaust
A8	Dryer Exhaust
A9	Dryer Exhaust
A10	Dryer Exhaust
A11	Dryer Exhaust
A12	Dryer Exhaust

- 1.2.2 The emission limits for the following release points detailed in Table 2 shall not be exceeded.

TABLE 2		
Release Points	Emission	Limit
A1	Particulate Matter	100 mg/m ³
A1	Fluorides	10 mg/m ³ (expressed as HF)

- 1.2.3 All pollution concentrations shall be expressed at standard conditions 273K, 101kPa, without correction for water vapour content, normalised to 18% oxygen, measured dry averaged over the firing cycles of the kiln.

1.3 Controlling Emissions of Fluoride from the Brick Firing Process

- 1.3.1 Emissions from the brick firing process shall be passed through the dry limestone absorber unit prior to exhausting through the stack marked A1 on plan reference IPPC/A2/2017 Plan 2.
- 1.3.2 Within 14 days of receipt of the emission monitoring exercise results as detailed in condition 1.4.1, the Operator shall provide the Regulator (in writing) with details of the determination of the feed rate of limestone through the E.I. Tec flue gas arrestment system. The determination shall be based on the results of the emission monitoring exercise, the analysis of the kiln feedstock (current stockpile) and any other relevant operating controls.

1.4 Monitoring of Contained Emissions to Air

- 1.4.1 The release point A1 as detailed in Table 1 shall be monitored in compliance with the main procedural requirements of the following standard methods as specified in Table 3 below.

TABLE 3				
Release Point	Emission	Type of Monitoring	Frequency of Monitoring	Methodology
A1	Particulate Matter	Extractive	Annually	BS EN 13284-1
A1	Fluorides	Extractive	Annually	BS ISO 15713

- 1.4.2 The Operator shall notify the Regulator at least 7 days before any periodic monitoring exercise to determine compliance with emission limit values. The Operator shall state the provisional time and date of the monitoring, pollutants to be tested and methods to be used.
- 1.4.3 The results of the sampling as required by Condition 1.4.1, above, shall be received by the Regulator not later than eight weeks from the date of sampling. The results shall include details of process conditions at the time of monitoring.
- 1.4.4 Any deviation from the standard methods detailed in Table 3 above, shall be notified to the Regulator prior to a different method being implemented. Justification for a deviation shall also be provided to the Regulator.
- 1.4.5 The Operator shall ensure that adequate facilities for sampling are provided on stacks or ducts.
- 1.4.6 A visual assessment of emissions from release points A1 to A12 shall be made from a position with a clear view of the stacks regularly and frequently and not less than once a day. The results of the monitoring shall be recorded in the installation log, kept in accordance with Condition 9.1 of this permit. All entries shall include the date and time of the observation, location, findings of the assessment, any action taken and the identity of the person carrying out the monitoring.
- 1.4.7 All adverse assessments shall be investigated immediately and remedial action taken. Adverse results from any monitoring activity (both continuous and non-continuous) shall be investigated immediately. The Operator shall ensure that:
- a) the cause has been identified and corrective action taken

- b) as much detail as possible is recorded regarding the cause and extent of the problem and the action taken to rectify the situation
- c) re-testing to demonstrate compliance is carried out as soon as possible, and
- d) the Regulator is notified as soon as is practical

All adverse assessments together with details of any remedial action taken, shall be recorded in the installation log, kept in accordance with Condition 9.1.

- 1.4.8 Exhaust flow rates of waste gases shall be consistent with the efficient capture of emissions, good operating practice and meeting the requirements of the legislation relating to the workplace environment.
- 1.4.9 The introduction of dilution air to achieve emission concentration limits shall not be permitted. Dilution air may be added for waste gas cooling or improved dispersion where justified, but this shall not be considered when determining the mass or concentration of the pollutant in the waste gases.

1.5 Control of Emissions from the Kiln Arrestment (E.I. Tec flue gas arrestment system) Equipment

- 1.5.1 Limestone for the E.I. Tec flue gas arrestment plant shall be delivered to site in enclosed tankers. The material shall be blown into a storage silo. The Operator shall cease deliveries immediately it appears that a malfunction has occurred that leads to an emission of particulate matter to atmosphere and no further delivery shall take place until corrective action has been taken.
- 1.5.2 Tanker transfer lines must be securely connected to the tanker discharge point and the silo inlet point/storage tank before the delivery commences. During delivery, tankers shall be vented at such a rate so as to prevent over-pressurisation within the system. Tanker drivers shall be informed of the correct procedure to be followed. The extent of any emission and the steps taken to rectify the emission shall be recorded.
- 1.5.3 Visual assessments shall be undertaken during bulk deliveries to the arrestment plant storage silo, particular attention must be paid during the first and last five minutes of delivery. These assessments shall be recorded in the installation log as detailed in condition 9.1 of this permit.
- 1.5.4 The storage silo shall be fitted with a high level alarm system to warn of overfilling.
- 1.5.5 The start and finish times of limestone deliveries shall be recorded in the installation log as detailed in condition 9.1.
- 1.5.6 Waste limestone from the descaling machine shall be discharged into a sealed container/bag.
- 1.5.7 Waste limestone from the dry limestone absorber unit shall be stored in sealed bags in the designated area as detailed on plan reference IPPC/A2/2017 Plan 2 prior to removal from site by an authorised contractor.

- 1.5.8 The Operator shall keep records of the limestone used and these shall be provided to the Regulator upon request.

1.6 Control of Dust from Stockpiles, Transfer and Storage of Materials

- 1.6.1 Stockpiles of unprocessed clay shall be suitably profiled so as to minimise emissions of dust. Stockpiles shall be sprayed with water during periods of dry weather to ensure emissions to air are minimised.
- 1.6.2 The raw material storage area shall have a consolidated crushed clay surface. This surface shall be checked and maintained in a good state of repair. The surface shall be sprayed with water during periods of dry weather to ensure emissions to air are minimised.
- 1.6.3 Care shall be taken during the construction of the clay stockpile in order to ensure that emissions of particulate matter are minimised by for example ensuring drop heights are kept to a minimum.
- 1.6.4 Unprocessed clay shall be stored in the designated area as identified on plan reference IPPC/A2/2017 Plan 2.
- 1.6.5 The Operator shall ensure that all external conveyors are enclosed on the top and maintained with transfer points enclosed, in order to minimise emissions of dust.
- 1.6.6 All conveyors shall be kept clean by the use of belt scrapers. Dusty material cleaned from the conveyors shall be collected into an enclosed container prior to disposal/use in the process.
- 1.6.7 All conveyor systems shall be fitted with side chute guards, variable discharge gates and motor overload protection to prevent overloading.
- 1.6.8 Conveyor systems shall be operated to ensure that overloading and spillage of material does not occur. Any external spillage of material shall be removed as soon as possible and not allowed to build up either beneath the conveyor or within the surrounding framework.
- 1.6.9 There shall be no external vents to the building housing the rotary storage silo.

1.7 Control of Dust from Processing Operations

- 1.7.1 All processing of clay shall take place within the building. Emissions from processing operations including crushing, grinding, pan mill, conveyors and elevators shall be contained within the building.
- 1.7.2 Airflow through the grinding plant shall be minimised by keeping the doors closed as far as is practicable. Grinding shall take place within the totally enclosed building.
- 1.7.3 The transfer of all processed material shall take place within the building.
- 1.7.4 Dust suppression within the building shall be used when required to prevent any visible dust emission from the building.

1.8 Control of Dust from Roadways

- 1.8.1 Permanent internal roadways shall be hard surfaced and maintained in a good state of repair.
- 1.8.2 All roadways and other areas in general vehicular use shall be maintained so as to minimise visible emissions of dust by regular use of a roadsweeper and/or water bowser. A formal road sweeper plan shall be in place for ensuring that roadways are kept clean.
- 1.8.3 Where the transfer of dust to public roads is likely due to the regular movement of goods vehicles then the use of a roadsweeper and/or water bowser shall be increased. If increased road sweeping and damping does not prevent dust to public roads, vehicle movements shall stop.
- 1.8.4 The road transfer of dusty material shall be carried out by closed tankers or by sheeted vehicles.

1.9 Control of Fugitive Emissions to Air

- 1.9.1 The loading and unloading of road vehicles and delivery of material to stockpiles shall be carried out so as to minimise dust emissions by ensuring drop heights are kept to a minimum and the shovels are not overfilled.
- 1.9.2 Potentially dusty waste materials shall be stored in the designated waste storage area as identified on plan reference IPPC/A2/2017 Plan 2.
- 1.9.3 Spillages shall be cleaned by vacuum or using wet methods in order to ensure emissions to air are minimised.
- 1.9.4 With the exception of unprocessed clay all potentially dusty raw materials shall be stored undercover or in sealed containers.
- 1.9.5 The material collected from abatement plant, shall be transferred and contained by methods which do not give rise to particulate emissions. Such material shall be contained and kept enclosed to ensure that fugitive emissions are prevented prior to removal from site.
- 1.9.6 The transfer of unprocessed clay from the stockpile to the box feeder shall be carried out in such a way as to minimise emissions of particulate matter to atmosphere. The Operator shall ensure that loading shovels aren't overfilled and that drop heights are kept to a minimum.

1.10 Monitoring of Fugitive Emissions to air

- 1.10.1 Visual assessments shall be made of particulate matter emissions from raw material storage and processing. These assessments shall be carried out by the Operator on a daily basis to assess plant operations and also during the delivery and transfer of raw materials to site. These shall be carried out from a position with a clear view of the process.

All adverse assessments shall be investigated immediately and remedial action taken.

- 1.10.2 The results of any adverse monitoring assessments shall be recorded in the installation log, kept in accordance with Condition 9.1 of this permit. All adverse assessments shall be recorded together with details of any remedial action taken.

2.0 Emissions To Water

2.1 Point Source Emissions To Groundwater

- 2.1.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any hazardous substance, as defined by the requirements of The Groundwater (England and Wales) Regulations 2009.
- 2.1.2 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any hazardous substance, as defined by the requirements of The Groundwater (England and Wales) Regulations 2009.
- 2.1.3 For substances other than those defined as hazardous by the Groundwater Regulations 2009, the operator shall use BAT to prevent, or where that is not practicable, to reduce emissions to groundwater from the Permitted Installation.

2.2 Fugitive Emissions to Surface Water, Sewer and Groundwater

- 2.2.1 The Operator shall maintain a detailed survey of the routing of all installation drains and subsurface pipework including all subsurface sumps and storage vessels. The survey shall be reviewed and updated following any changes that take place at the installation. The survey shall be held on site as part of the installation log and made available for inspection by the Regulator on request.
- 2.2.2 The Operator shall establish an inspection and maintenance programme for all subsurface structures as part of the management system as detailed in condition 5.1.1 of this permit. This shall be held on site as part of the installation log and made available for inspection by the Regulator on request.
- 2.2.3 All operational areas shall be equipped with an impervious surface, spill containment kerbs, sealed construction joints, and connection to a sealed drainage system with the exception of the areas notified and agreed with the Regulator. The surface shall be of a good integrity and shall be inspected on an annual basis and maintained accordingly. Inspections shall be recorded as part of the installation log required by condition 9.1 of this permit.
- 2.2.4 The Operator shall maintain a record of the design and condition of the surfacing of all new and replacement operational areas. This shall include any relevant information including, as appropriate, capacities, thickness, falls, material, permeability, strength/reinforcement, and resistance to chemical attack. This shall be updated following any relevant material changes to the process.

- 2.2.5 All tanks containing liquids whose spillage could be harmful to the environment shall be contained. The Operator shall review the bunding arrangements and ensure that all bunds:
- are impermeable and resistant to the stored materials
 - have no outlet (that is, no drains or taps) and drain to a blind collection point
 - have pipework and drain cocks routed within bunded areas with no penetration of contained surfaces
 - are designed to catch leaks from tanks or fittings
 - have a capacity of at least 110% of the largest tank
 - are visually inspected at least monthly and any contents pumped out or otherwise removed under manual control after checking for contamination
 - have an annual maintenance inspection (normally visual but extending to water testing where structural integrity is in doubt)
- 2.2.6 All sumps shall be impermeable and resistant to stored materials and shall be inspected on a monthly basis. The content of the sump shall be checked for contamination prior to being pumped out.
- 2.2.7 All storage tanks shall be fitted with volume indicators to warn of overfilling. The Operator shall ensure that there is sufficient capacity in the tank prior to deliveries taking place. Filling and delivery connections shall be located within a bunded area and shall be locked when not in use (with the exception of the Manganese storage tank). The integrity of tanks shall be inspected on an annual basis. These inspections shall be included in the maintenance schedule and shall be recorded and documented.
- 2.2.8 Storage areas and containers shall be designed and operated to minimise the risk of fugitive releases to surface water, sewer and groundwater, in particular:
- storage areas shall be located away from watercourses and shall be protected against vandalism
 - containers shall be inspected prior to placing in storage for any leakage, wear and tear etc. Appropriate action shall be taken when defects are detected
 - the maximum capacity of storage areas shall be stated and shall not be exceeded
 - storage areas and silos shall be inspected at least monthly to check for signs of leakage or potential leakage
- 2.2.9 All containers of hydrocarbons and chemicals which are discharged manually shall be placed either in bunded areas or on drip trays. The filling points shall have outlets which discharge within the bunded area/drip tray.
- 2.2.10 Heavy fuel oil and diesel shall be delivered to site in enclosed tankers to the oil and diesel storage tanks.
- 2.2.11 The Operator shall check that there is sufficient capacity in the storage tanks prior to the delivery of oil and diesel taking place. This check shall be recorded in the installation log.

- 2.2.12 Tanker transfer lines must be securely connected to the tanker discharge point and the tank inlet point before the delivery commences. Visual observations shall be made during the delivery to ensure there is no leakage from the transfer lines. Deliveries shall cease immediately where there is any leakage of material from transfer lines or connection points and corrective action shall be taken prior to recommencing the delivery. Tanker drivers shall be informed of the correct procedure to be followed. The extent of any emission and the steps taken to rectify the emission shall be recorded.

3 Emissions to Land

- 3.1 No emission from the Permitted installation shall be made to land.
- 3.2 The Operator shall notify the Regulator, as soon as is reasonably practicable, of any information concerning the state of the site which affects or updates that supplied to the Regulator as part of the site report submitted as part of the Permit application.
- 3.3 The Operator shall notify the Regulator in writing of any area or zone within the boundary of the installation that has been subject to below ground remediation since the issue of the Permit. Subject to agreement in writing from the Regulator, any necessary analysis of sub-soil to re-establish baseline pollutant levels shall be undertaken.

4 Odour

- 4.1. All emissions to air from the installation shall be free from offensive odour, as perceived by the Regulator, outside of the installation boundary, as outlined in red on plan reference IPPC/A2/04/2018 Plan 1. The Operator shall not be deemed to have breached this condition if the Operator has used BAT to prevent, or where that is not practicable, to reduce such odorous emissions.

5.0 Management

5.1 Environmental Management System (EMS)

- 5.1.1 The Operator shall have an effective Environmental Management system in operation that shall be reviewed and audited on an annual basis.

The Environmental Management system shall provide an effective technique for ensuring all pollution prevention and control techniques are delivered reliably and on an integrated basis, and shall include but not be limited to:–

A documented preventative maintenance schedule, covering all plant whose failure could impact on the environment.

Documented procedures for controlling and monitoring of emissions

Records of checks made, maintenance etc. (log books etc)

Records of breakdowns (include a review following breakdowns)

Auditing systems in place for ensuring procedures are followed, maintenance carried out, records kept up to date etc.

A documented training system (including awareness of the regulatory implications of the permit, awareness of all operating procedures, awareness of potential environmental impacts under normal and abnormal circumstances, prevention of accidental emissions and action to be taken when accidental emissions occur and awareness of procedures for dealing with a breach of permit).

5.2 Operations And Maintenance

5.2.1 The Operator shall have a list of existing key process and abatement equipment and a list of procedures for dealing with arrestment plant failure and adverse conditions. The list shall be provided to the Regulator upon request.

5.2.2 An effective documented preventative maintenance programme including documented operational control procedures shall be employed on all aspects of the installation whose failure could impact on the environment. This shall also include major 'non productive' items such as tanks, pipework, retaining walls, bunds, ducts and filters. This shall be reviewed and updated annually and shall be available to the Regulator for inspection upon request.

5.2.3 Essential spares and consumables for the effective operation of arrestment systems shall be held on site or be available at short notice from suppliers, such that plant breakdown can be rectified rapidly.

5.2.4 Any malfunction or breakdown which leads to abnormal emissions shall be addressed promptly and process conditions and operations adjusted such that the abnormal emissions cease until such time as reparation is effected. All such malfunctions or breakdowns shall be recorded in the installation log kept in accordance with Condition 9.1.

5.2.5 The Regulator shall be notified within 1 hour, of any abnormal emission that is likely to effect the local community.

5.2.6 An elected person and deputy shall be appointed to liaise with the Regulator and the public with regard to complaints. The Regulator shall be informed of the designated individual, including contact details should any changes occur.

5.3 Training

5.3.1 Staff at all levels shall receive the necessary training concerning control of emissions to the environment including an awareness of operating procedures in relation to their duties. This shall include awareness of the regulatory implications of the permit and of all potential environmental impacts under normal and abnormal circumstances. Staff shall be aware of the procedures for dealing with a breach of the permit conditions, recording of incidents and for the prevention of accidental emissions and the actions

to be taken when accidental emissions occur. Training needs shall be reviewed on a 2 year basis and also as part of the induction programme for new operatives involved in operations covered by this permit.

- 5.3.2 The skills and competencies necessary for key posts (which may include contractors and those purchasing equipment and materials) shall be documented and records of training needs and training received for these posts shall be kept. This documentation shall be reviewed on a 3 yearly basis.
- 5.3.3 Contractors shall be advised of the relevant procedures to be followed in relation to carrying out duties on site and for control of emissions to the environment.
- 5.3.4 The Operator shall have in place a written formal structure that clarifies the extent of each level of employee's responsibility with regard to the control of the process and its environmental impacts. A copy of the structure shall be held on site and be reviewed on an annual basis. The Regulator shall be notified if there any changes following the review.

5.4 Documentation

- 5.4.1 All documentation and records kept in compliance with Condition 9.1, that being the installation log, shall:-
- i) be made available for inspection by the Regulator at any reasonable time;
 - ii) be supplied to the Regulator on demand and without charge;
 - iii) be legible;
 - iv) be made as soon as reasonably practicable;
 - v) indicate any amendments that have been made and shall include the original record wherever possible; and
 - vi) be retained at the Permitted Installation, or other agreed location agreed by the Regulator in writing, for a minimum period of two years from the date when the records were made, unless otherwise agreed in writing.
- 5.4.2 The Operator shall respond to any Information Notice served in respect of the installation for the purposes of complying with the obligation to report pollutant releases and off-site waste transfers pursuant to the directly applicable EU duty in accordance with Article 5 of EC Regulation No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register.

5.5 Notification

- 5.5.1 The Operator shall give written notification as soon as practicable prior to any of the following:-
- (i) permanent cessation of the operation of all or part of the Permitted Installation;

(ii)cessation of operation of all or part of the Permitted Installation for a period likely to exceed one year; and

(iii)resumption of the operation of part or all of the Permitted Installation after a cessation notified under Condition 5.5.1.(ii)above.

5.5.2 The Operator shall notify the matters to the Regulator in writing within 14 days of their occurrence:-

i) any change in the Operators trading name, registered name or registered office address;

ii) any change of particulars of the Operators ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary)

iii) any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

6.0 Raw Materials

6.1 Raw Materials Selection

6.1.1 The Operator shall maintain an inventory of raw materials and chemicals used for the various activities carried out at the installation. The inventory shall also state the quantities used (in tonnes) of each material listed.

6.1.2 The inventory, as required by Condition 6.1.1 above, shall be reviewed once every 2 years. The review shall include investigating potential alternative materials that will have less environmental impact. Any such materials so identified shall become routinely used within the review period.

6.1.3 All records pertaining to the inventory and reviews thereof, required by Conditions 6.1.1 and 6.1.2 above, shall be maintained for a period of not less than two years. These records shall form part of the installation log kept in accordance with Condition 9.1.

6.1.4 Quality checks shall be made on raw materials prior to the material being used in the batch, to ensure that it meets the required specification to minimise any potential environmental impact.

6.2 Waste Minimisation (optimising the use of raw materials)

6.2.1 The Operator shall carry out a waste minimisation audit once every 2 years. The methodology used and an action plan for optimising the use of raw materials shall be submitted to the Regulator within 2 months of completion of the audit.

The waste minimisation audit shall form part of the revised environmental management system required by Condition 5.1.1.

6.2.2 Specific improvements resulting from the recommendations of the waste minimisation audit shall be carried out within a timescale approved by the Regulator.

6.3 Waste Handling, Storage and Destination

- 6.3.1 The Operator shall ensure that all wastes generated from the Permitted Installation are dealt with according to the Waste Management System that forms part of the Operators EMS.
- 6.3.2 The Waste Management System shall be regularly reviewed and audited, at least annually, to ensure that adequate controls are being implemented to deal with all wastes generated and to identify areas of waste reduction.
- 6.3.3 An inventory shall be maintained that contains information relating to the quantity, nature, origin and destination of all wastes generated. The destination shall include details of wastes that are re-used, recovered, recycled and disposed of. The inventory shall also include details of frequency of collection, mode of transport and treatment methods of any wastes which are disposed of or recovered.
- 6.3.4 Waste storage areas shall be clearly marked with waste segregation notices, placed in appropriate positions, to ensure the correct segregation of waste material.
- 6.3.5 All documentation required to comply with the relevant waste regulations shall be maintained at the installation for a minimum period of four years. This documentation shall form part of the installation log kept in accordance with Condition 9.1.
- 6.3.6 Appropriate storage facilities shall be provided for wastes with special requirements for example flammable waste shall be stored in the recognised flammable store until disposal.
- 6.3.7 The Operator shall ensure that procedures are in place as part of the EMS for dealing with leaks and spills of waste material. This shall include the appropriate siting of spill kits.
- 6.3.8 The Operator shall carry out a review every 2 years to demonstrate that the best environmental options are being used for dealing with waste. The review should include but not be limited to;
- Unfired waste
 - Fired waste
 - Collected dusts
 - Steel bands from pallet packaging
 - Waste water treatment sludge
 - Wood, cardboard and paper
 - Oil
- Details of the review shall be provided to the Regulator no later than 3 months following the completion of the review.
- 6.3.9 The Operator shall review the potential markets for the recovery/re-use of wastes that are currently disposed of to landfill. The review shall be carried out every 2 years and be available to the Regulator upon request.

6.4 Water Use

- 6.4.1 The Operator shall carry out regular reviews and audits of water use, in line with the Operators EMS.
- 6.4.2 The review and audits of water use, required by Condition 6.4.1 above, shall be used to identify further opportunities to minimise water use and further opportunities to re-use or recycle water.
- 6.4.3 The documentation relating to reviews and audits of water use shall be kept by the Operator for a minimum period of two years. This documentation shall form part of the installation log kept in accordance with Condition 9.1.
- 6.4.4 The volume of mains and abstracted water used at the Installation shall be measured on a monthly basis. The results shall be recorded and shall be held on site.

6.5 Energy Efficiency

- 6.5.1 The Operator shall ensure that all plant and equipment within the installation is designed, operated and maintained to optimise the use and minimise the loss of energy.
- 6.5.2 The Operator shall produce a report on the energy consumed at the Permitted Installation over the previous calendar year, by the 31st January each year.
- 6.5.3 A copy of the report required in compliance of Condition 6.5.2, above, shall be available for inspection by the Regulator by the 28th February of the following year to which the data relates to.
- 6.5.4 Energy efficiency at the installation shall be reviewed and audited on an annual basis as part of the Operators EMS as detailed in Condition 5.1.1 of this permit.
- 6.5.5 The documentation relating to the reviews and audits required by Condition 6.5.4, above, shall be maintained by the Operator for a period of not less than four years. This documentation shall form part of the installation log kept in accordance with Condition 9.1.
- 6.5.6 The Operator shall demonstrate compliance with the Climate Change Levy Agreement (Facility No:BCC/CRLTON/00001). This information shall be held in compliance with condition 9.1 of this permit.
- 6.5.7 The Operator shall demonstrate compliance with the Greenhouse Gas Emissions Trading Scheme Regulations 2012 (Permit ref. UK-E-IN-11563). This information shall be held in compliance with condition 9.1 of this permit.
- 6.5.8 The Operator shall notify the Regulator, as soon as practicable, of cancellation of the Climate Change Levy Agreement or non compliance with the Greenhouse Gas Emissions Trading Scheme Regulations 2005.

7.0 Accidents

- 7.1 The Operator shall maintain an accident management plan that identifies the hazards, assesses the risks and identifies the measures required to reduce the risk of potential events or failures that might lead to an environmental impact. The plan shall identify the actions to be taken to minimise these potential occurrences; and the actions to deal with such occurrences so as to limit their consequence. The accident management plan shall be reviewed and audited on an annual basis or as soon as practicable after an accident.
- 7.2 Written procedures for the investigation of incidents and near misses shall be implemented and followed as part of the EMS. Incidents shall be investigated immediately and remedial action taken as soon as practicable. Incidents shall be recorded in the installation log along with actions taken.
- 7.3 The documentation relating to the review and audits of the accident management plan, required for compliance with Condition 7.1 above, shall be kept for a minimum period of four years and shall form part of the installation log, kept in accordance with Condition 9.1.
- 7.4 The Operator shall notify the Regulator, without delay, of any incident or accident that has caused, is causing or has the potential to cause significant pollution to any environmental medium.

8.0 Noise and Vibration

- 8.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:
- i) equipment maintenance, eg. of fans, pumps, motors, conveyors, and mobile plant;
 - ii) use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;
 - iii) timing and location of noisy activities and vehicle movements;
 - iv) periodic checking of noisy emissions, either qualitatively or quantitatively; and
 - v) maintenance of building fabric.
- 8.2 The Operator shall carry out a review and audit of noise and vibration to external atmosphere from the Permitted Installation. This review and audit shall be carried out at least once every four years or in step with operational changes.
- 8.3 The documentation relating to the review and audit of noise and vibration, required for compliance with Condition 8.2 above, shall be kept for a minimum period of four years and shall form part of the installation log, kept in accordance with Condition 9.1.

9.0 Installation Log

- 9.1 The Operator shall maintain an installation log which shall include details of the day to day activities. The log required to be kept by this condition shall not be construed as being one document.

10.0 Closure and Decommissioning

- 10.1 The Operator shall maintain a site closure plan. This plan shall be reviewed at least once every 4 years and the Regulator shall be notified of the results of the review. The plan shall be kept updated as material changes occur.
- 10.2 At such time as the Operator closes and decommissions the installation then the Operator shall ensure that any works necessary to remediate the land to at least the standards identified in the base line survey, as supplied with the Application for this Permit, are carried out.

Appendix C

Submissions Summary

TABLE 4	
Parameter	Timescale
Condition 1.4.1	Annually
Condition 6.2.1	Within 2 months of completion of the audit.

Report deviation from standard test methods	[prior to any change]
Report any change to site condition	[as soon as practicable]

Submissions Summary cont.

Notification for cessation of all or part of installation	[as soon as practicable]
Notification for cessation that is likely to exceed 1 year	[as soon as practicable]
Notification for resumption of operations	[as soon as practicable]
Notification of name change / address change	[within 14 days]
Notification for change of particulars	[within 14 days]
Notification for going in to administration / wound up	[within 14 days]
Notification of cancellation of CCLA	[as soon as practicable]
Notification of any incident/accident (pollution)	[immediately]

Interpretations

In relation to this Permit, the following expressions shall have the following meanings:

<i>“Application”</i>	means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any operational change agreed under the Conditions of this Permit.
<i>“EP Regulations”</i>	means the Environmental Permitting (England and Wales) Regulations 2016 as amended. Words and expressions defined in the EP Regulations shall have the same meanings when used in this Permit save to the extent they are explicitly defined in this Permit.
<i>“Permitted Installation”</i>	means the activities and the limits to those activities described in this Permit.
<i>“Monitoring”</i>	includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests, and surveys.
<i>“Regulator”</i>	means any officer of Barnsley Metropolitan Borough Council who is authorised under Section 108(1) of the Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(1) of that Act.
<i>“Fugitive Emission”</i>	means an emission to air or water (including sewer) from the Permitted Installation that is not controlled by an emission limit imposed by a condition of this Permit.
<i>“Groundwater”</i>	means all water that is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.
<i>“MCERTS”</i>	means the Environment Agency’s Monitoring Certification Scheme.
<i>“Sewer”</i>	means sewer within the meaning of Section 219(1) of the Water Industry Act 1991.

Explanatory Note

The Environmental Permitting (England & Wales) Regulations 2016 describes the use of “best available techniques” (BAT) for preventing and reducing emissions and the impact on the environment as a whole. For the purpose of the definition;

- (a) “available techniques” means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking in to consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator;
- (b) “best” means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole;
- (c) “techniques” include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

For determining best available techniques special consideration shall be given to the following matters, bearing in mind the likely costs and benefits of a measure and the principles of precaution and prevention –

- 1) the use of low-waste technology;
- 2) the use of less hazardous substances;
- 3) the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate;
- 4) comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;
- 5) technological advances and changes in scientific knowledge and understanding
- 6) the nature, effects and volume of the emissions concerned;
- 7) the commissioning dates for new or existing installations;
- 8) the length of time needed to introduce the best available technique;
- 9) the consumption and nature of raw materials (including water) used in the process and the energy efficiency of the process;
- 10) the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it;
- 11) the need to prevent accidents and to minimise the consequences for the environment;
- 12) the information published by the Commission pursuant to Article 16(2) of the Directive or by international organisations.

Appeals

Any person who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be received by the Secretary of State no later than 6 months from the date of the decision (the date of the Permit).

Appeals relating to Prescribed Activities in Wales should be sent to the Secretary of State for Environment, Food & Rural Affairs. The address is as follows :

The Planning Inspectorate
Environment Team, Major & Specialist Casework
Room 4/04 Kite Wing
Temple Quay House
2 The Square
Temple Quay
Bristol
BS1 6PN

Guidance on the appeal procedures is contained in Schedule 6 of the Environmental Permitting (England and Wales) Regulations 2007.

The appeal must be in the form of a written notice or letter stating that the person wishes to appeal and listing the condition(s) which is/are being appealed against. The following five items must be included :

- a] a statement of the grounds of appeal;
- b] a copy of any relevant Application;
- c] a copy of any relevant Permit;
- d] a copy of any relevant correspondence between the person making the appeal ("the appellant") and the council;
- e] a statement indicating whether the appellant wishes the appeal to be dealt with,
 - i. by a hearing attended by both parties and conducted by an inspector appointed by the Secretary of State; or
 - ii. by both parties sending the Secretary of State written statements of their case [and having the opportunity to comment on one another's statements].

At the same time, the notice of appeal and documents [a] and [e] must be sent to the Council, and the person making the appeal should inform the Secretary of State that this has been done.

- An appeal will not suspend the effect of the conditions appealed against; the conditions must still be complied with.
- In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority to either vary any of these conditions or to add new conditions.

Appendix B – Site Location Map, Site Plan with Release Points