HAMBLETON
DISTRICT COUNCIL

The Pollution Prevention and Control Act 1999

The Environmental Permitting (England and Wales) Regulations 2016

Environmental Permit

To operate a Part A2 Bricks and Clay Products Manufacturing Activity

The York Handmade Brick Company Ltd
Forest Lane
Alne
North Yorkshire
YO61 1TU

Permit Reference: A202/V1

Emergency Contact Number
01609 779977

The Director of Leisure and Environment for, and on behalf of Hambleton District Council hereby permits:

York Handmade Brick Company Ltd
Forest Lane
Alne
North Yorkshire
YO61 1TU
(hereinafter called the operator)

the operator to carry out a clay bricks, pavers and terracotta floor tiles manufacturing activity, being an activity defined under Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016, made under the Pollution Prevention and Control Act 1999 at York Handmade Brick Company Ltd, Forest Lane, Alne, North Yorkshire YO61 1TU as described below and in accordance with the permit conditions.

Description of Activity

Production of clay bricks and other clay products using gas fired kilns and dryers.

Monitoring and Reporting

Condition no.	Monitoring	Source	Emission Limit	Monitoring Frequency
1	Visual and olfactory assessment of all emissions to air	All contained sources	No visible emission	Daily
6	Audits of: • Raw material use • Water use • Energy use • Waste and recycling • Noise levels at site boundary	Whole site	n/a	Within 1 year of permit issue date, then 2 yearly thereafter.
42	All Sumps and bunds	Whole site	No leaks or damage	Weekly visual inspection and annual maintenance inspection.

Emissions to air

1 Visual and olfactory assessment of all emission points shall be made frequently, and at least once a day during operations. The time, location and result of these assessments shall be recorded.

Reporting

2 The operator shall keep records of audits, inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual assessments, in such cases:
- current records shall be kept on site and be made available for the regulator to examine
- records shall be kept by the operator for at least two years.

3 Adverse results from **any** monitoring activity (continuous and non-continuous) shall be investigated immediately. The operator shall ensure that:
- the cause has been identified and correction action taken
- as much detail as possible is recorded regarding the cause and extent of the problem and the action taken to rectify the situation
- re-testing to demonstrate compliance is carried out as soon as possible, and the regulator is notified.

4 In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions:
- investigation and remedial action shall be undertaken immediately
- the process or activity shall be adjusted to minimise those emissions; and
- the events and actions taken shall be promptly recorded
- in the case of non-compliance causing immediate danger to human health, operation of the activity shall be suspended.

5 The regulator shall be informed without delay if there is an emission that is likely to have an effect on the local community.

Audits and Reporting

6 The operator shall conduct audits every 2 years of the following:
- Raw material use (in accordance with Condition 46)
- Water use (in accordance with Condition 36)
- Energy use (in accordance with Conditions 53 and 54)
- Waste and recycling (in accordance with Condition 48)
- Noise levels at site boundary (in accordance with Condition 62)

7 The audits outlined in Condition 6 above shall be submitted within 12 months of the date of issue of this permit and then at intervals of no more than 2 years.

8 The audit records of raw material usage, water usage, energy usage and waste production shall be referenced to annual production.

Emissions to Air

9 Where, in the opinion of the regulator, there is evidence of airborne dust from the process off the site, the operator shall make their own inspection and assessment, and where necessary undertake ambient monitoring with the aim of identifying those process operations giving rise to the dust. The monitoring may either be by a British Standard method or by a method agreed with regulator. In these situations, determination of wind direction may be required. Once the source of the emission is known, corrective action shall be taken without delay.

10 All operations which generate emissions to air shall be contained or minimised where practicable.

11 All emissions from combustion processes shall in normal operation be free from visible smoke and in any case shall not exceed the equivalent of Ringelmann Shade 1 as described in British Standard BS 2742:1969.

12 Hot emissions shall be emitted to atmosphere from the minimum practicable number of stacks, in order to obtain maximum advantage from thermal buoyancy. This is particularly important when new plants are being designed or when changes are being made to existing processes. If practicable a multi-flue stack shall be used.

13 Stack heights shall be sufficient to ensure adequate dispersion under normal conditions.

14 The minimum stack height shall be 3 metres above the height of the roof ridge of any building within a distance of 15 metres, and in no circumstances shall it be less than 8 metres above ground level.

15 The operator shall demonstrate to the regulator that all reasonably practicable steps are taken during start-up and shut down, and changes of fuel or combustion load in order to minimise emissions. This shall involve the automated purging of fuel system set by the operator, operator training for software and kiln management.

16 The operator shall investigate the cause and nature of any persistent visible emission and provide a report to the regulator within 14 days of the emission.

17 All emissions of water vapour shall be free from droplet fallout.

18 Flues and ductwork shall be inspected and, where necessary cleaned to prevent accumulation of materials, as part of the routine maintenance programme.

19 Exhaust gases discharged through a stack shall achieve an exit velocity greater than 15 m/s during normal operating conditions to achieve adequate dispersion.

20 Stacks 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.

Control of Fugitive Emissions to Air

21 In order to prevent or minimise emissions of dust, the operator shall undertake the following techniques:

22 All skips and vessels shall be covered

23 Outdoor stockpiles shall be subject to good stockpile management techniques, including windbreaks, keeping moist etc.

24 Use closed conveyors, pneumatic conveying (noting the higher energy needs), and minimise drop height of materials.

25 Regular housekeeping, in accordance with written maintenance programme

26 All new buildings housing processing machinery shall be clad externally with materials that can be readily cleaned.

27 All spillages which may give rise to dust emissions shall be cleaned up promptly.

28 The loading and unloading of road vehicles shall be carried out so as to minimise dust emissions.

29 Road transport of dusty materials shall be carried out in closed tankers or sheeted vehicles.

Emissions to Water

Emissions to water

30 The operator shall ensure that all emissions to surface water are controlled, as a minimum, to avoid a breach of water quality standards.

31 There shall be no intentional point source emissions of List I or List II substances to ground water or surface water.

32 Process effluent shall be kept separate from surface water.

33 Process effluent shall be collected and discharged into the on site settling pond.

34 Surface water from the installation shall be collected and discharged into an un-named tributary of the River Kyle at National Grid Reference SE 523 663

35 The outlet to the watercourse shall be constructed and maintained so that a representative sample of the Discharge may be obtained at National Grid Reference Se 523 663.

Water Use

36 The operator shall conduct a regular audit to demonstrate water use efficiency.

37 All water used as part of the activity shall be extracted from the on site pond. All waste water resulting from the activity shall be returned to the pond via settling tanks. All extracted water shall be metered and the volumes recorded.

38 If water from any other source is required for the process activity then this shall also be metered and the volumes recorded weekly.

Fugitive Emissions to Surface Water, Sewer and Groundwater

39 With regard to any new or any alteration to existing **subsurface structure,** the operator shall inform the Regulator of any routing and installation of drains and subsurface pipework, or any subsurface sumps and storage vessels. The operator shall establish an inspection and maintenance programme for all subsurface structures e.g. pressure tests, leak tests, material thickness checks or CCTV.

40 For **surfacing,** the operator shall have an inspection and maintenance programme of bunded areas, any impervious surfaces and containment kerbs.

41 The operator shall provide spill containment kits at all drains near to the fuel storage and barium storage tanks.

42 The operator shall ensure that all tanks containing liquids whose spillage could be harmful to the environment are contained. The operator shall ensure that all tanks and 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 routed within bunded areas with no penetration of contained surfaces
- are designed to catch leaks form tanks or fittings
- have a capacity of at least 110% of the largest tank*
- are visually inspected weekly and any contents pumped out or otherwise removed under manual control after checking for contamination

- where not frequently inspected, are fitted with a high-level probe and an alarm as appropriate.
- have an annual maintenance inspection (normally visual but extending to water testing where structural integrity is in doubt).

43 The barium and diesel storage tanks shall:
- be fitted with volume indicators to warn of overfilling. Where practicable the filling system shall be interlocked to the alarm system to prevent overfilling.
- have delivery connections located within a bunded area, fixed and locked when not in use.
- have their integrity inspected, recorded and documented. These inspections shall be included in the maintenance schedule.

44 The results of all inspections shall be recorded.

45 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.
- the maximum storage capacity of storage areas shall be stated and not exceeded.

Raw Materials

46 The operator shall maintain an inventory covering the principal types of raw materials used, and shall review alternatives for the principal types of raw materials used with regard to their environmental impact at least every 2 years.

47 The operator shall have quality procedures to control the specification of raw materials used, in order to minimise any potential environmental impact.

Waste Minimisation

48 The operator shall carry out a waste minimisation audit at least once every 2 years. The review shall demonstrate that the best environmental options are being used for dealing with all waste from the installation.

49 Specific improvements resulting from the recommendations of audits shall be carried out within a timescale approved by the regulator.

Waste Handling

50 The operator shall record the quantity of all sand, clay and waste bricks which are recovered for re-use on the site.

51 General site and office waste shall be stored in separate covered containers prior to disposal off site by licensed contractor.

52 Asbestos waste shall be stored separately from all other waste in covered containers prior to disposal off site by licensed contractor.

Energy

53 The operator shall produce a report annually on the energy consumption of the installation.

54 The operator shall monitor energy flows and target areas for reduction which shall be updated annually. ("Sankey" diagrams and energy balances would be useful as aids).

55 The operator shall ensure that all plant is operated and maintained to optimise the use and minimise the loss of energy.

56 The operator shall ensure that all appropriate containment methods (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss.

Energy efficiency techniques

57 The following techniques shall be considered:
- heat recovery from different parts of the processes
- minimisation of water use and closed circulating water systems.
- good insulation
- plant layout to reduce pumping distances
- phase optimisation of electronic control motors
- optimised efficiency measures for combustion plant e.g. air/feedwater preheating, excess air etc.

Accidents

58 There shall be written procedures for investigating incidents and near misses, including identifying suitable corrective action and following up.

59 The operator shall maintain an accident management plan (known as Health & Safety pledge scheme) 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 consequences

60 In the case of abnormal emissions arising from an accident, such as a spillage for example, the operator shall:
- investigate immediately and undertake remedial action as soon as practicable.
- promptly record the events and actions taken.
- ensure the regulator is made aware, as soon as practicable.

Noise and Vibration

61 The operator shall employ basic good practice measures for the control of noise, in particular:
- identification of key plant and equipment with the potential to give rise to noise nuisance
- ensuring the key plant and equipment are checked as part of the regular noise audit.

62 The operator shall conduct a regular audit to demonstrate that the noise is at a level unlikely to attract complaints beyond the site boundary, paying particular attention to the nearest noise sensitive receptors.

General Operations

Bulk Deliveries

63 The operator shall record the start and finish times of all deliveries and inform tanker drivers of the correct procedures to follow concerning spillages and leaks.

64 The operator shall check the connection points for signs that spillages or leaks have occurred. Details of any spillages shall be recorded.

65 Sand shall be stored outside within bunded areas to prevent wind whipping. Additives shall be stored in fully enclosed containers/packaging inside buildings.

66 The operator shall ensure that the transfer lines are securely connected to the silo delivery inlet point and the tanker discharge point, in that order.

67 All bulk storage tanks shall be equipped with an audible and / or visual volume indicator to warn of overfilling, the correct operation of such alarms shall be checked annually or before a delivery takes place, whichever is the longer interval.

68 The operator shall cease silo filling if liquid emissions are visible from tanks, ducting or pipework during bulk deliveries; rectify the cause of the problem prior to further deliveries taking place.

Stockpiles and ground storage

69 Roadways in normal use and any other area where there is regular movement of vehicles, including storage areas shall have a consolidated surface capable of being cleaned. They shall be kept clean in order to prevent or minimise dust emissions and shall be kept in good repair

70 Storage bays shall be used where practicable to control dust emissions. Stock shall not be piled higher than the external walls of the bay and shall not be forward of the bay.

71 Stockpiles shall be wetted where necessary to minimise dust emissions, especially during dry periods. Fixed water sprays shall be installed for long term stocking areas if appropriate.

Conveyor Systems

72 All conveyors shall be fitted with belt cleaners.

73 Conveyor belts shall not be overloaded.

74 Drop height of material from conveyors, discharge points and other plant shall be kept to a minimum. If the free fall of material gives rise to external dust emissions, the operator shall provide alternative techniques at the point of discharge to minimise this, to be agreed in advance with the regulator.

75 All conveyors and transfer points shall be boarded at the sides or enclosed in buildings to protect against wind whipping of dusty materials.

76 All conveyor systems shall be included in planned preventative maintenance schedules.

Process operations

77 All crushing, grinding, screening or drying plant shall be carried out in enclosed buildings to control dusty emissions.

78 The flow of air through crushing, grinding or screening plant shall be minimised.

Maintenance

79 The plant shall be operated and maintained in accordance with good operational practice such that, it remains fully operational except at times of unavoidable mechanical or electrical breakdown which shall be attended to, and the Regulator informed of the failure, as soon as practicable after the failure. Following a failure all equipment shall be returned to normal operations as soon as practicable.

80 Tanks shall be desludged at sufficient frequency and in such a manner to prevent excessive carryover of suspended solids.

Management

Operations and maintenance

81 Effective operational and maintenance systems shall be employed on all aspects of the installation whose failure could impact on the environment, in particular there shall be:
- documented operational control procedures.
- a documented preventative maintenance schedule, covering all plant whose failure could lead to impact on the environment, including major 'non productive' items such as tanks, pipework, retaining walls, bunds and ducts; this shall be reviewed and updated annually.
- documented procedures for monitoring emissions.

82 The regulator shall be provided with a list of key process equipment and abatement equipment (kilns). The kilns shall be fitted with a warning system comprising lights and audible alarm. The warning system shall be connected to the telephone system which shall autodial to a member of staff responsible for the kilns. The warning system shall be checked at least weekly to ensure continued correct operation, in accordance with the manufacturer's recommendations. Details of the check and any adverse conditions/faults identified shall be recorded.

83 Essential spares and consumables shall be held on site or be available at short notice from suppliers, so that plant breakdown can be rectified rapidly.

84 Records of breakdowns shall be kept and analysed by the operator in order to eliminate common failure modes.

85 A competent person shall be appointed to liaise with the regulator and the public with regard to complaints. This person shall be Dennis Throup, Health and Safety Manager until further notice.

Competence and Training

86 Training systems, covering the following items, shall be in place for all relevant staff.
- awareness of the regulatory implications of the permit.

- awareness of all potential environmental impacts under normal and abnormal circumstances.
- awareness of the procedures for dealing with a breach of the permit conditions.
- prevention of accidental emissions and action to be taken when accidental emissions occur.
- awareness of all operating procedures.

87 The skills and competencies 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 maintained.

88 The potential environmental risks posed by the work of contractors shall be assessed by method statement and conducting a risk assessment and providing instructions to contractors about protecting the environment while working on site.

Signed: Date:

John Warren
Senior Scientific Officer

Site Plan A202/V1/Plan 1

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HAMBLETON DISTRICT COUNCIL

General Notes

1. **Article 3(10) of the Industrial Emissions Directive (IED)** defines "best available techniques" as follows:

   "'Best Available Techniques' means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole."

   - "'Techniques' includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,

   - 'available techniques' means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator,

   - 'best' means most effective in achieving a high general level of protection of the environment as a whole."

   In determining the best available techniques, special consideration should be given to the items listed in Annex III of the IED.

2. **Annex III of the IED** specifies criteria for determining best available techniques:

   (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 energy efficiency;
   (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) information published by public international organisations.

3. The regulator considers that the availability of essential spares is a matter covered by the general 'BAT' requirement.

4. This permit is given in relation to the requirements of the Pollution Prevention and Control Act 1999. It must not be taken to replace any responsibilities you may have under workplace health and safety regulations.

5. This permit does not detract from the need to obtain any planning permissions, hazardous substances consent, building regulations approval or the requirements to obtain a waste disposal licence.

6. Full compliance with the conditions of this permit should eventually ensure that all emissions be free from offensive odour outside the activity boundary as defined on the attached plan A202/V1/Plan1.