BARROW-IN-FURNESS BOROUGH COUNCIL

POLLUTION PREVENTION AND CONTROL ACT 1999

POLLUTION PREVENTION AND CONTROL (ENGLAND AND WALES) REGULATIONS 2000 (AS AMENDED)

A2 Permit with Introductory Note

Ref: PPC/A2/01

Furness Brick & Tile Co Ltd

Installation Address

Furness Brick & Tile Co Ltd
Askam-in-Furness
Cumbria
LA16 7HF

Application Received: 30th March 2004

A2 Permit Issued: 30th March 2006

Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended) (S.I.2000 No. 1973) ("the PPC Regulations") to operate an installation carrying out one or more of the activities listed in Part A2 and B to Schedule 1 of those Regulations, to the extent authorised by the Permit.

The Permit includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by those conditions are subject to the condition implied by Regulation 12(10) of the PPC Regulations, that the Operator shall use the best available techniques for preventing or, where that is not practical, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Description of the installation regulated by this permit

The installation manufactures bricks from mudstone sourced at High Greenscoe Quarry (600 metres away) and fireclay transported from North East England. Approximately 50 000 tonnes of mudstone and 1500 tonnes of fireclay are used per year to produce around 15 million bricks.

The clay is stored in large open-air stockpiles at the south end of the site along with waste bricks that are to be re-used in the brick making process. Crushed coke is also stored in a three-sided building at this end of the site and is used to provide a surface texture to bricks if required.

The mudstone, fireclay and waste bricks are transferred from the stockpiles by a loading shovel into a chute and then onto a conveyor that leads to the crusher. Dust from the brick making process is also added at this point.

The crushed material then enters a silo where water can be added if required. The material is then transported by conveyor to one of the two brick making machines. The 'green' bricks are then transported by conveyor (where additional water can be added if required) to the manual stacking area. Some are removed for further treatment (shaping/texturing).

The green bricks are stacked by hand onto pallets. The pallets are then transferred by forklift truck into the kiln.

The 20 chamber transverse arch kiln is top-fired with propane/air (around 800 tonnes/year) and crushed coal singles and pet coke (around 1500 tonnes/year) at a ratio of 4:1. The coal and pet coke is stored in bunkers to the east of the kiln and is transferred to the top of the kiln using a loading shovel and a conveyor. The propane is stored in tanks to the east of the site.

The firing of the kiln is continuous with each of the 20 chambers at various stages of the firing cycle i.e. at any one time a chamber is being prepared to take green bricks while another chamber at the end of the cycle is being emptied of fired bricks. Thus the drying and firing of bricks takes place at the same time in different chambers in the kiln and the emissions are drawn by a fan into a single stack 42 metres high at the northern end of the kiln.

The fired bricks are unloaded from the kiln using forklift trucks and taken to brick sorting areas. Some bricks are cut using re-circulated water system. All acceptable bricks are then

placed on pallets and wrapped in polythene and stored to the east of the installation. Any waste bricks are stored at the northern end of the site prior to re-use within the installation or for repairing the road at High Greenscoe quarry.

Contacting the Regulator

This Permit is issued by Barrow -in-Furness Borough Council as the Regulator for this installation and the address below is the principal contact address for matters relating to the Permit.

Contact details:

FAO Anne Pearson, Barrow-in-Furness Borough Council, Environmental Health Dept, Town Hall, Duke Street, Barrow-in-Furness, Cumbria, LA14 2LD.

Tel-01229 894286 **Fax-01229 894683**

www.barrowbc.gov.uk **E-mail: apearson@barrowbc.gov.uk**

Confidentiality

The Permit requires the Operator to provide information to Barrow-in-Furness Borough Council. The Council will place the information onto the public registers in accordance with the requirements of the PPC Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to the Council to have such information withheld from the register as provided in the PPC Regulations. To enable Barrow Borough Council to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations to the permit

This Permit may be varied in the future. If at any time the activity, or any aspect of the activity regulated by the following conditions changes such that the conditions no longer reflect the activity and require alteration, the Regulator should be contacted.

Surrender of the permit

Where an Operator intends to cease the operation of an installation (in whole or in part) the regulator should be informed in writing, such notification must include the information specified in regulation 19 of the PPC regulations.

Transfer of the permit or part of the permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 18 of the PPC Regulations. A transfer will be allowed unless the Authority considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit.

Responsibility under workplace health and safety legislation

This Permit is given in relation to the requirements of the PPC regulations. It must not be taken to replace any responsibilities you may have under Workplace Health and Safety legislation.

Appeal against permit conditions

Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for the Environment, Food and Rural Affairs. Appeals must be made in accordance with the requirements of Regulation 27 and Schedule 8 of the PPC regulations.

Appeals should be sent to the Secretary of State for the Environment, Food and Rural Affairs. The address is as follows:-

The Planning Inspectorate
Environmental Appeals Administration
Room 4/12 - Eagle Wing
Temple Quay House
2 the Square
Temple Quay
Bristol
BS1 6PN

Please Note - an appeal bought under Section 27 paragraph (1) (c), (d) or (e) in relation to the conditions in a permit 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 regulator either to vary any of these other conditions or to add new conditions.

End of Introductory Note

Permit reference: PPC/A2/01

Barrow-in-Furness Borough Council (the "regulator") in exercise of its powers under Regulation 10 of the Pollution Prevention and Control Regulations 2000, hereby permits

Furness Brick & Tile Co Ltd ("the operator")

whose registered office is

Furness Brick & Tile Co Ltd
Askam-in-Furness
Cumbria
LA16 7HF

to operate an installation at

Furness Brick & Tile Co Ltd
Askam-in-Furness
Cumbria
LA16 7HF

subject to compliance with the conditions in this permit.

Signed:…… **Date:……**

Authorised to sign on behalf of
Barrow-in-Furness Borough Council

CONDITIONS

1. The Operator is permitted to carry out the activities and/or the associated activities specified in the following table:-

Activities under Schedule 1 of the Regulations/ Associated Activities	Description of specified activity	Schedule 1 activity reference (if applicable)	Limits of specified activity
Storage and handling of raw materials	Unloading, transport and storage of clays and coke. Delivery and storage of other minor raw materials	Directly associated activity	Receipt and storage of raw materials for the production of bricks
Manufacture of heavy clay goods	Production of bricks using brick making equipment and kilns	3.6 (A2)	Manufacture within the confines of the buildings only
Packing and storage of finished product	Transfer to pallets and yard storage	Directly associated activity	From storage to dispatch from installation
Storage and handling of solid and liquid waste	Storage and handling of dust, waste bricks and all other waste	Directly associated activity	From separation of waste to dispatch from installation

2. The activities permitted under condition 1 shall not extend beyond the boundary of the site shown in red on the attached plan in Appendix 1.

CONTROL OF EMISSIONS

Point source emissions to air

3. The following emission limits shall apply to the installation:

Determinand	Source	Limits	Monitoring	Monitoring Frequency
Particulate Matter	Kilns with net rated thermal input of 2MW or more	100mg/m^3	Isokinetic sample filtered and weighed using BS9096 (suitable for 20mg/m^3 to 1000mg/m^3)	Annually
Fluoride (expressed as hydrogen fluoride)	Kilns with a net rated thermal input of 2MW or more	10mg/m^3	Manual extractive testing ISO DIS 15713	Annually

4. Within 6 months of the date of issue of this permit, the operator shall investigate how an additional sampling port can be added to the stack to enable compliance with BS 9096 for particulate monitoring, using appropriately qualified consultants. A report of this investigation shall be submitted to the regulator within the 6 months.

5. Emissions from combustion processes, other than the kiln, in normal operation shall 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.

6. All reasonably practicable steps shall be taken during changes of fuel or combustion load in order to minimise emissions.

7. Within 6 months of the issue of this permit the cause and nature of the persistent visible emission from the stack shall be investigated and a report sent to the regulator.

8. Emissions of water vapour shall be free from droplet fallout.

9. Within 3 months of the issue of this permit, a diagrammatic representation of all flues and ductwork shall be forwarded to the regulator.

10. All flues and ductwork shall be checked with a remote camera every 4 months and cleaned as required to prevent the accumulation of materials and as part of the preventative maintenance schedule.

11. Within 9 months of the issue of this permit, a report shall be supplied to the regulator containing a review of options to increase the buoyancy of the plume and/or its efflux velocity to prevent the plume grounding nearby.

12. Within 2 years of the issue of this permit the recommendations produced in the report described in condition 11 shall be implemented.

13. The final opening of the stack shall not be fitted with any restriction e.g. a plate, cap or cowl, with the exception of a cone which may be necessary to increase the exit velocity of the emissions.

14. All emissions from the combustion process in the kilns shall exhaust through the stack which shall be at least 42 metres above ground level.

Control of Fugitive Emissions to Air

15. There shall be no visible fugitive emissions from anywhere on the site.

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

17. All vehicles delivering coal and coke shall be sheeted.

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

19. A means of spraying the internal roadways with water shall be used and available at all times to prevent fugitive dust emissions.

20. All mudstone and fireclay shall be stored in stockpiles at the southern end of the installation (see Appendix 2 – Site Plan).

21. The coke used for texturing the bricks shall be stored within a covered building that is enclosed on three sides (see Appendix 2 – Site Plan). The coke shall be kept inside the building.

22. Dust generated inside the brick making building shall be removed at regular intervals during each working day and re-used in the brick making process.

23. The plastic sheeting around the crusher shall be maintained in accordance with the preventative maintenance schedule.

24. Coal/coke used as fuel for the kiln shall be stored within the bunkers adjacent to the kiln (see Appendix 2 – Site Plan).

25. Coal/coke shall be transported to the top of the kiln via a covered conveyor.

26. Within 3 months of the date of issue of this permit a chute shall be added below the hopper used to discharge coal into wheelbarrows on the top of the kiln.

27. A road sweeper shall be used to clean the roads immediately after mudstone has been transported from High Greenscoe Quarry to the brickworks.

EMISSIONS TO SURFACE WATER AND GROUND WATER

BIOLOGICALLY TREATED SEWAGE EFFLUENT DISCHARGE TO GROUNDWATER FROM SITE OFFICE FACILITIES

Works Operation

28. The septic tank shall be operated and the effluent shall be treated in a manner which, so far as reasonably practicable, minimises the polluting effects of the discharge made from the septic tank on groundwater.

Nature of Discharge

29. The discharge shall consist solely of biologically treated sewage effluent from the site office facilities.

Place of Discharge

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

    (a) discharging to groundwater via a soakaway system;
    (b) at National Grid Reference SD 2186 7612
    (c) there shall be no direct discharge to groundwater.

31. The soakaway shall be constructed to comply with the following:

    (a) no part of the soakaway system constructed shall be more than 2 metres below ground level;
    (b) no part of the soakaway system shall be below the saturated groundwater level;
    (c) there is no connection to any watercourse or land drainage system;
    (d) no part of the soakaway system is situated within 10 metres of any ditch or watercourse;
    (e) no part of the soakaway system is within 50 metres of a well or borehole.

Sampling Point Requirements

32. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SD 2186 7612, or some other point as agreed in writing with the Regulator, so that a representative spot sample of the Discharge may be obtained. The Operator 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 being discharged into controlled waters.

Recording and Reporting

33. Within 6 months of the issue of this permit, the Operator shall establish and operate a documented preventative maintenance schedule 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 Regulator at all reasonable times.

34. On request the Operator shall supply the Regulator with a written report on the maintenance undertaken and all non-routine actions that may have adversely affected effluent quality.

35. The Operator shall as soon as reasonably practicable report to the Regulator all non-routine actions that may have adversely affected effluent quality.

Volume

36. The volume of the Discharge shall not exceed 1.0 cubic metre per day.

Oil

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

Maintenance

38. The septic tank and soakaway system shall be operated and maintained in accordance with good operational practice such that:

    (a) it remains fully operational except at times of unavoidable mechanical or electrical breakdown which shall be attended to, and the Agency informed of the failure, as soon as practicable after the failure;

    (b) following a failure all equipment shall be returned to normal operation as soon as practicable;

    (c) tanks shall be desludged at sufficient frequency and in such a manner to prevent excessive carryover of suspended solids.

Groundwater Regulations Substances List I and II

39. There shall be no direct or indirect discharge of List I substances to groundwater (as set out in Annex 1(see Appendix 3));

40. The discharge of List II substances (as set out in Annex 1) (see Appendix 3) shall be restricted to minimise the impact on and prevent pollution of groundwater.

Expiry Date

41. This Schedule shall cease to have effect 30th March 2018.

BIOLOGICALLY TREATED SEWAGE EFFLUENT DISCHARGE TO GROUNDWATER FROM SITE CANTEEN FACILITIES

42. Within 6 months of the date of issue of this permit, a soakaway for the site canteen facilities shall be constructed to the satisfaction of the regulator. Plans showing the position of the soakaway shall be forwarded to the operator for approval as soon as is practicable, before work commences.

Works Operation

43. The septic tank shall be operated and the effluent shall be treated in a manner which, so far as reasonably practicable, minimises the polluting effects of the Discharge made from the septic tank on groundwater.

Nature of Discharge

44. The Discharge shall consist solely of biologically treated sewage effluent from the site canteen facilities.

Place of Discharge

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

    (a) discharging to groundwater via a soakaway system;
    (b) at a location to be agreed with the Regulator
    (c) there shall be no direct discharge to groundwater.

46. The soakaway shall be constructed to comply with the following:

    (a) no part of the soakaway system constructed shall be more than 2 metres below ground level;
    (b) no part of the soakaway system shall be below the saturated groundwater level;
    (c) there is no connection to any watercourse or land drainage system;
    (d) no part of the soakaway system is situated within 10 metres of any ditch or watercourse;
    (e) no part of the soakaway system is within 50 metres of a well or borehole.

Sampling Point Requirements

47. An appropriately labelled sample point shall be provided and maintained at a point as agreed in writing with the Regulator, so that a representative spot sample of the Discharge may be obtained. The Operator 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 being discharged into controlled

Recording and Reporting

48. Within 6 months of the issue of this permit, the Operator shall establish and operate a documented maintenance schedule 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 Regulator at all reasonable times.

49. On request the Operator shall supply the Regulator with a written report on the maintenance undertaken and all non-routine actions that may have adversely affected effluent quality.

50. The Operator shall as soon as reasonably practicable report to the Regulator all non-routine actions that may have adversely affected effluent quality.

Volume

51. The volume of the Discharge shall not exceed 3.0 cubic metres per day.

Oil

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

Maintenance

53. The septic tank and soakaway system shall be operated and maintained in accordance with good operational practice such that:

(a) it remains fully operational except at times of unavoidable mechanical or electrical breakdown which shall be attended to, and the Agency informed of the failure, as soon as practicable after the failure;

(b) following a failure all equipment shall be returned to normal operation as soon as practicable;

(c) tanks shall be desludged at sufficient frequency and in such a manner to prevent excessive carryover of suspended solids.

Groundwater Regulations Substances List I and II

54. There shall be no direct or indirect discharge of List I substances to groundwater (as set out in Annex 1) (see Appendix 3);

55. The discharge of List II substances (as set out in Annex 1) (see Appendix 3) shall be restricted to minimise the impact on and prevent pollution of groundwater.

Expiry Date

56. This Schedule shall cease to have effect on 30th March 2018

TRADE EFFLUENT CONSISTING OF SITE DRAINAGE

Works Operation

57. The plant shall be operated and the effluent shall be treated in a manner which, so far as reasonably practicable, minimizes the polluting effects of the Discharge made from the plant on controlled waters.

58. This condition does not require any alteration of the type of treatment used from that specified in the application.

Nature of Discharge

59. The Discharge shall consist solely of trade effluent consisting of site drainage

Place of Discharge

60. The Discharge shall be made in a manner and at the place specified as:

(a) discharging to a tributary of the Blea Beck
(b) at National Grid Reference SD 2176 7625

Sampling Point Requirements

61. The outlet to controlled waters shall be constructed and maintained so that a representative sample of the Discharge may be obtained at National Grid Reference SD 2176 7625.

Recording and Reporting

62. Within 6 months of the issue of this permit, the Operator shall establish and operate a documented preventative maintenance schedule 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 Regulator at all reasonable times.

63. On request the Operator shall supply the Regulator with a written report on the maintenance undertaken and all non-routine actions that may have adversely affected effluent quality.

64. The Operator shall as soon as reasonably practicable report to the Regulator all non-routine actions that may have adversely affected effluent quality.

Composition

65. The Discharge shall not contain more than 60 mg per litre of suspended solids (measured after drying at 105ºC).

66. The pH value of the Discharge shall not be greater than 9 nor less than 6.

Oil

67. As far as is reasonably practicable, the Operator shall prevent the discharge from containing any significant trace of visible oil or grease.

Maintenance

68. The plant shall be operated and maintained in accordance with good operational practice such that:

    (a) it remains fully operational except at times of unavoidable mechanical or electrical breakdown which shall be attended to, and the Agency informed of the failure, as soon as practicable after the failure;

    (b) following a failure all equipment shall be returned to normal operation as soon as practicable;

    (c) tanks shall be desludged at sufficient frequency and in such a manner to prevent excessive carryover of suspended solids.

Improvement Condition

69. Within 6 months of the date of issue of this permit the Operator shall devise and undertake monitoring of the discharge from the Settlement Tank to determine the concentration of substances detailed in Annex 2 (see Appendix 3), in that discharge. Only substances used in the installation need be included in the monitoring. The monitoring programme shall be designed in accordance with the Environment Agency's Dangerous Substances Policy. Two samples of the discharge shall be taken every month for six months and a report detailing the concentrations of dangerous substances in the discharge shall be submitted to the regulator within 6 weeks of completion of the sampling.

Monitoring Condition

70. The discharge from the site drainage settlement tank shall be monitored as follows:

Determinand	Location	Frequency of Sampling
Suspended solids	Discharge from site drainage settlement tank	Quarterly
pH	Discharge from site drainage settlement tank	Quarterly
Presence of oil and grease	Discharge from site drainage Settlement tank	Quarterly

Fugitive Emissions to Surface Water, Sewer and Groundwater

71. The operator shall ensure that all operational areas are equipped with an impervious surface and that surface water flows towards the settling tank.

72. Records of the design and condition of the surfacing of all operational areas shall be kept.

73. Within 6 months of the issue of this permit, a documented preventative maintenance schedule for the impervious surface shall be written and implemented.

74. Within 6 months of the issue of this permit, the operator shall provide the regulator with a detailed site drainage plan. This should include the location of all drains, soakaways, sub surface pipework and settling tanks.

75. Within 6 months of the date of issue of this permit, the gas-oil tank supplying the heating system in the brick making building and the diesel tank near the brick storage area, shall comply with the following:

    The operator shall ensure that all bunds:

    a) are impermeable and resistant to the stored materials;
    b) have no outlet and drain to a blind collection point;
    c) have pipework routed within bunded areas with no penetration of contained surfaces;
    d) are designed to catch leaks from tanks or fittings;
    e) have a capacity of at least 110% of the largest tank;
    f) are visually inspected weekly and any contents pumped out or otherwise removed under manual control after checking for contamination;
    g) have an annual maintenance inspection (normally visual but extending to water testing where structural integrity is in doubt).

    All storage tanks shall:

    a) be fitted with high level alarms or volume indicators to warn of overfilling. Where practicable the filling system shall be interlocked to the alarm system to prevent overfilling;
    b) have delivery connections located within a bunded area, fixed and locked when not in use;
    c) have their integrity inspected, recorded and documented, particularly where corrosive substances are involved. These inspections shall be included the preventative maintenance schedule.

76.

77. Within 6 months of the date of issue of this permit, storage areas and containers shall be designed and operated to minimise the risk of fugitive releases to surface water and groundwater, in particular:

    a) storage areas shall be located away from watercourses and shall be protected against vandalism;
    b) the maximum storage capacity of storage areas shall be stated and not exceeded;
    c) the maximum storage period for containers shall be specified;
    d) storage areas shall be inspected at least once a week to check for signs of leakage or potential leakage.

78. Within 3 months of the date of issue of this permit, the settling tank holding re-circulating water for the cutting of bricks shall be inspected for defects weekly and maintained according to the preventative maintenance schedule.

79. Within 3 months of the date of issue of this permit, the overflow protection device on the re-circulating water tank shall be inspected weekly and maintained according to the preventative maintenance schedule. It shall have an audible and visual alarm to warn of overfilling.

80. The overflow on the re-circulating water tank shall be kept locked at all times. It shall only be opened after the re-circulating pump has been switched off long enough for the sediment to fall to the bottom of the tank.

81. There shall be no emission to land other than using fired reject bricks to repair the roadway at High Greenscoe Quarry.

SITE INVESTIGATION

82. Within 1 year of the date of issue of this permit, a limited intrusive site condition survey to establish adequate baseline data, shall be undertaken in the following areas:

    a) any areas associated with storage of oils and diesel;
    b) areas where 'made' ground has been identified in the 1988 site report;
    c) areas where former railway sidings were situated;
    d) the area where the former pond was situated (this was infilled and used as a refuse tip).

This survey shall follow Contaminated Land Report 11 produced by the Environment Agency and Defra and shall be agreed in writing with the Regulator before any work is undertaken.

ODOUR

83. There shall be no offensive odour beyond the installation boundary as perceived by the regulator.

MANAGEMENT

Operations and Maintenance

84. Within 3 months of the issue of the permit, the operator shall produce a documented operational and maintenance system for all aspects of the installation where failure could impact on the environment.

    This should include:

    a. documented operational control procedures
    b. a documented preventative maintenance schedule, covering all plant whose failure could impact on the environment, including major 'non productive' items such as tanks, pipework, retaining walls, bunds, ducts, filters. This should be reviewed and updated annually
    c. documented procedures for monitoring emissions

85. Within 3 months of the date of issue of this permit, a list of key process equipment shall be forwarded to the regulator. This equipment shall be provided with alarms or other warning systems where practicable which indicate malfunction or breakdown.

86. 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.

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

88. The competent person who shall liaise with the regulator and the public with regard to complaints is Richard Collinge. In his absence Nicholas Collinge, Mark Collinge or James Collinge shall take over this role.

Audits

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

Competence and Training

90. Within 12 months of the issue of this permit, training systems, covering the following items, shall be in place for all relevant staff.

    a) awareness of the regulatory implications of the permit
    b) awareness of all potential environmental impacts under normal and abnormal circumstances
    c) awareness of the procedures for dealing with a breach of the permit conditions
    d) prevention of accidental emissions and action to be taken when accidental emissions occur
    e) awareness of all operating procedures.

91. Within 6 months of the date of issue of this permit, 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 maintained.

92. The potential environmental risks posed by the work of contractors shall be assessed and instructions provided to contractors about protecting the environment while working on site.

RAW MATERIALS

Raw Material Selection

93. Within 6 months of the date of issue of this permit, the operator shall:

    a. maintain an inventory covering the principal types of raw material used
    b. annually review alternatives for the principal types of raw materials used with regard to their environmental impact
    c. have quality control procedures to control the specification of raw materials used, in order to minimise any environmental impact
    d. complete any long term studies needed into less polluting options and make any material substitutions identified within the review period

Waste Minimisation (optimising the use of raw materials)

94. Within 18 months of the date of issue of this permit, the operator shall carry out a waste minimisation audit. The methodology used and an action plan for optimising the use of raw materials shall be submitted to the regulator within 2 months of the completion of the audit.

95. The operator shall carry out subsequent waste minimisation audits at least as frequently as the review period of the permit.

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

Water Use

97. Within 3 months of the issue of this permit, the operator shall carry out a review of water use (water efficiency audit).

98. The volume of water abstracted from the mains and used in activities in the installation shall be directly measured when the installation is operating once a day for at least a fortnight and there after, once a week with an annual exercise taking daily measurements for at least a fortnight. All measurements shall be recorded and the records held on site.

WASTE HANDLING

99. Within 6 months of the date of issue of this permit, the following information shall be recorded for all waste disposed of or recovered at the permitted installation:

    a) The nature (physical and chemical) of the waste;
    b) The quantity
    c) Any hazard characteristics, handling precautions and substances with which it cannot be mixed;
    d) Disposal route and destination (including consignment notes);
    e) Frequency and mode of transport; and
    f) Treatment method (if applicable).

100. The operator shall ensure that waste storage areas are clearly marked and signed, and that containers are clearly labelled.

101. The operator shall ensure that appropriate storage facilities are provided for substances that are flammable, sensitive to heat or light etc, and that incompatible waste types are kept separate.

102. The operator shall ensure that containers are stored with lids, caps and valves secured and in place (this also applies to empty containers).

103. The operator shall ensure that procedures are in place to deal with damaged and/or leaking containers.

104. The operator shall ensure that waste is segregated wherever possible.

105. The operator shall identify the disposal routes for all wastes, which should be as close to the point of production as possible.

106. The operator shall ensure that dusty wastes are stored in closed containers and handled in a manner that avoids emissions.

WASTE RE-USE, RECOVERY, RECYCLING AND DISPOSAL

107. Waste shall be re-used, recovered or recycled unless the Regulator deems this is not justifiable under BAT.

108. The operator shall carry out an annual review to demonstrate that the best environmental options are being used for dealing with all waste from the installation.

ENERGY

109. The operator shall maintain participation in a Climate Change Agreement or a Direct Participation Agreement with the Government.

110. Within 12 months of the issue of this permit, the operator shall produce a report showing the energy consumption of the installation. This shall involve the monitoring of energy flows and target areas for reduction. “Sankey” diagrams and energy balances would be useful aids.

111. The energy consumption report shall be updated annually.

112. All plant shall be operated and maintained to optimise its use and minimise the loss of energy.

113. All appropriate containment methods (e.g. seals and self closing doors) shall be employed and maintained to minimise energy loss.

ACCIDENTS

114. Within 6 months of the issue of this permit, documented procedures for investigating environmental accidents and near misses, including identifying suitable corrective action and follow up shall be completed and put into practice.

115. Within 6 months of the issue of this permit, 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 shall be written, implemented and maintained. This plan shall identify:

    a) the actions to be taken to minimise these potential occurrences; and
    b) the actions to deal with such occurrences so as to limit their consequences.

116. If abnormal emissions arise from an accident, such as a spillage, the following action shall be taken:

    a) an investigation into the cause shall be carried out immediately and remedial action undertaken as soon as possible
    b) the events and action taken shall be recorded promptly
    c) the regulator shall be made aware, as soon as is practicable.

NOISE AND VIBRATION

117. Within 6 months of the issue of this permit, an inventory of key plant and equipment with the potential to give rise to noise nuisance shall be produced and a copy provided to the regulator.

118. Plant and equipment with the potential to give rise to noise nuisance shall be included in the documented preventative maintenance schedule.

119. A condition containing noise levels shall be put in here after monitoring is carried out.

120. The testing of alarms and any other noisy activities shall not be undertaken outside the hours 9am to 5pm, Monday to Friday.

MONITORING

121. All monitoring records shall be kept on site and be made available to the regulator on request.

122. The regulator shall be informed at least 7 days in advance of any periodic monitoring exercise to determine compliance with emission limit values. This notification shall state the provisional time and date of monitoring, pollutants to be tested and the methods to be used.

123. The results of non –continuous emission testing shall be forwarded to the regulator within 8 weeks of the completion of the sampling. The results shall include a description of the process conditions at the time of monitoring.

124. Adverse results from **any** monitoring activity 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
    d) the regulator is notified

125. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions, the operator shall:

    a) investigate and take remedial action immediately
    b) adjust the process or activity to minimise the emissions
    c) promptly record the events and actions taken

d) suspend the activity if there is an immediate danger to health

126. The regulator shall be informed without delay in the following circumstances:

a) if an emission is likely to have an effect on the local community
b) if key plant, identified as a result of condition 85, fails.

127. Sampling systems shall be designed and located to obtain representative samples at all release points.

128. Sampling points on new plant shall be designed to comply with the British or equivalent standards, e.g. BS ISO 9096:2003, BS EN 13284-1 or BS ISO 12141: 2002 for sampling particulate matter in stacks.

129. Adequate facilities for sampling shall be provided on stacks and ducts.

130. Where monitoring is not in accordance with the main procedural requirements of the relevant standard, deviations shall be reported as well as any error invoked.

Monitoring and Reporting of Emissions to Air

131. The concentration of fluoride and particulate matter emissions into air from the kiln shall be reported as the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa, with **no** correction for oxygen content and averaged over the firing cycle of the kiln.

132. Exhaust flow rates of 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.

133. The introduction of dilution air to achieve emission concentration limits shall not be permitted.

134. 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 a pollutant in the waste gases.

135. Visual and olfactory assessments of emissions shall be made frequently, and at least once a day during operations. The time, location and result of these assessments shall be recorded in the log book.

136. Calibration and compliance monitoring shall meet the following requirements as appropriate. No results shall exceed the emission concentration limits specified in condition 3, except where either:

a) data is obtained over at least 5 sampling hours in increments of 15 minutes or less; or
b) at least 20 results are obtained where sampling time increments of more than 15 minutes are involved; AND in the case of a) or b)
c) no daily mean of all 15-minute mean emission concentrations shall exceed the specified emission concentration limits during normal operation (excluding start-up and shut-down); and
d) no 15 minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operation (excluding start-up and shut-down).

137. Where, in the opinion of the regulator, there is evidence of airborne dust from the process off the site, the operator shall carry out an 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 otherwise agreed in writing with the 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.

Records

142. All records shall be made available for inspection by the Regulator at any reasonable time.

143. A copy of any record shall be supplied to the Regulator on demand and without charge.

144. Records shall:-

a) be legible;

b) be made as soon as reasonably practicable; and

b) indicate any amendments which have been made and shall include the original wherever possible.

145. Records shall be retained for a minimum period of 4 years from the date the record was made.

146. A record shall be made at the Permitted Installation of any complaints concerning the installation's effect on the environment. The record shall give the date of complaint, a summary of any investigation and the results of such investigation. Such records shall be made in a log kept for this purpose.

Reporting

147. All reports and notifications required by this Permit or by Regulation 16 or the Pollution Prevention and Control Regulations 2000 shall be sent to the regulator at the address in the introductory note to this permit.

Notifications

148. The Operator shall notify the Regulator **without delay** of: -

a. the detection of an emission of any substance which exceeds any limit or criteria in this Permit specified in relation to the substance.

b. the detection of any fugitive emission which has caused or may cause pollution unless the quantity emitted is so trivial that it would be incapable of causing pollution.

c. the detection of any malfunction, breakdown or failure of plant or techniques which has caused or may have the potential to cause pollution; and

d. any accident which has caused or may have the potential to cause pollution.

149. The Operator shall give written notification as soon as practicable, of any of the following;

a. permanent cessation of the operation of any part or all of the Permitted Installation;

b. cessation of the operation of any part of or all of the Permitted Installation for a period, likely to exceed 1 year; and

c. resumption of the operation of any part of or all of the Permitted Installation after a cessation notified under 5.2 (b).

150. The Operator shall notify the following matter to the Regulator, in writing, within 14 days of their occurrence:

a) any change in the Operator's trading name, registered name or registered office address;

b) a change to any particulars of the Operator's ultimate holding company (including details of an ultimate holding company where the Operator has become a subsidiary);

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

151. Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Regulator within one month of: -

a. A decision by the Secretary of State not to re-certify that Agreement.

b. A decision by either the operator or the Secretary of state to terminate that Agreement; and

c. Any subsequent decision by the secretary of State to re-certify such an agreement.

152. Where the Operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the operator shall notify the Regulator within one month of any decision by the Operator to withdraw from or by the Secretary of State to terminate the Direct Participant Agreement.

153. Adverse results from any monitoring activity shall be investigated as soon as the monitoring data has been determined or received. The following items shall be undertaken: -

a. The cause shall be identified and corrective action taken.
b. A detailed record of the extent of the problem and action taken to rectify the situation.
c. A re-test to demonstrate compliance shall be undertaken as soon as possible.
d. The regulator shall be informed.

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

"Annual average"
means the average of all daily averages in a calendar year.

"Regulator"
means any person authorised by Barrow-in-Furness Borough Council under the Provisions of the Pollution Prevention and Control Regulations 2000 and Section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, powers specified in Section 108(4) of that Act.

"Climate Change Agreement"
means an agreement entered into with the Government for the saving of energy at the installation.

"Daily"
means a 24 hour period commencing at 00.00 hours.

"Fugitive emission"
means an emission from any point other than that specified in condition 14 of this Permit.

“L_{Aeq}”
means the A-weighted equivalent continuous equal energy level (dBA)

“Reference time interval”
means the specified interval over which an equivalent continuous A-weighted sound pressure level is determined, and is I hour during the day and 5 minutes at night. (According to BS 4142: 1997 night is the period when the general adult population are asleep or preparing for sleep which, in practice, can be regarded as between 23:00 and 07:00 hours).

“Monitoring”
includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

“Permitted Installation”
means the activities and the limits to those activities described in Condition 1 of this Permit.

“PPC Regulations”
means the Pollution Prevention and Control Regulations 2000 (S.I. 2000 No. 1973) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit.

“Staff”
includes employees, directors or other officers of the Operator, and any other person under the Operator’s direct or indirect control, including contractors.

"year"
means calendar year ending 31 December.

End of Permit