ENVIRONMENT AGENCY

Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Nostell Quarry Landfill

Ibstock Brick (Nostell) Ltd
Nostell Quarry Landfill
Swine Lane
Wakefield
West Yorkshire
WF4 1QH

EAWML 61738.

Permit number

CP3134LG

DB3701UV.
EAWML210042.

Nostell Quarry Landfill
Permit Number CP3134LG

Introductory note

This introductory note does not form a part of the permit

The main features of the installation are as follows:

Nostell Quarry Landfill is located in the village of Wragby, approximately 2.5 km east south east of the village of Crofton and 4 km south west of the village of Featherstone in Wakefield. The site is located at National Grid Reference (NGR) SE 4010 1680. The installation, which is accessed via Swine Lane off the B6273, comprises an area of 14.09 hectares. The land within the installation has been quarried for clay for over a hundred years and currently comprises an active quarry and landfill site.

The installation boundary contains four phases; Phases A to D. Phase D has been filled and restored. All phases are under the regulation of the PPC Permit. The installation has been classified as a landfill for inert waste and under the PPC Permit it will only accept wastes which are strictly inert, as specified by the Landfill Directive. The landfill site was first issued a Waste Disposal Licence (ref: WD20 W1160) on 05 February 1980 under the Control of Pollution Act 1974. Historically the site has accepted uncontaminated earth and excavation waste, bricks, stone, concrete, breeze blocks, sand, gravel, tiles, road construction wastes, foundry sands and ash.

Planning permission was originally granted at the site on 05 February 1973 by the County Council of the West Riding of Yorkshire. The site currently operates in accordance with planning permission reference 01/99/61946, which was granted by Wakefield Metropolitan Council on 03 November 2001.

The geology of the installation area comprises Middle Coal Measures, which consist of a variable succession of mudstones, siltstones, sandstones and coal seams. The succession exposed at the quarry principally comprises very fissile to blocky, brownish grey to dark grey silty mudstones, which extend above the Shafton Marine Band. The Middle Coal Measures are classified as a minor aquifer.

The installation lies adjacent to the Nostell Brickworks. The closest residential receptors to the landfill are the residential properties and school located on Swine Lane. There are no other properties within 150 m of the installation boundary.

Nostell Brickyard Quarry SSSI is located within the installation boundary. It is designated for geological features, especially those of the Shafton Marine Band. There are no European Habitats Sites within 2 km of the installation.

Status log of the permit		
Detail	**Date**	**Response Date**
Application CP3134LG	Received 09/05/06	
Response to request for information	Request dated 07/07/06	Response dated 04/12/06
Permit determined	29/03/07	

Superseded or partially superseded licences/authorisations/consents relating to this installation			
Holder	**Reference Number**	**Date of Issue**	**Fully or Partially Superseded**
Ibstock Brick (Nostell) Ltd	EAWML61738 (WD20 W1160)	05/02/80	Fully superseded
Ibstock Brick (Nostell) Ltd	C4474	18/11/86	Fully superseded

End of Introductory Note

Permit

Permit number
CP3134LG

The Environment Agency (the Agency) in exercise of its powers under regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973) and Regulation 6 of the Landfill (England and Wales) Regulations 2002 (SI 2002 No.1559) hereby authorises **Ibstock Brick (Nostell) Ltd** ("the Operator"),

whose Registered Office is

Leicester Road

Ibstock

Leicestershire

LE67 6HS

Company registration number 00531826

to operate an installation at
Nostell Quarry Landfill
Swine Lane
Wakefield
West Yorkshire
WF4 1QH

to the extent authorised by and subject to the conditions of this permit.

Signed	Date
	29th March 2007

Tom Ruffell, Waste Permitting Team Leader

Authorised to sign on behalf of the Agency

Conditions

1. Management

1.1 General management

1.1.1 The Activities shall be managed and operated:

(a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and

(b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the Activities.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Accidents that may cause pollution

1.2.1 The operator shall:

(a) maintain and implement an accident management plan;

(b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;

(c) make any appropriate changes to the plan identified by a review.

1.3 Finance

1.3.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Agency dated 29th March 2007 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Agency.

1.3.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover the cost of operating the landfill, as far as possible the cost of the financial provision required by condition 1.3.1 and the estimated costs for the closure and aftercare of the landfill.

1.4 Site security

1.4.1 Site security measures shall prevent unauthorised access to the site, as far as practicable.

2. Operations

2.1 Permitted activities

2.1.1 The operator is authorised to carry out the activities specified in schedule 1 table S1.1 (the "Activities").

2.2 The site

2.2.1 The Activities shall not extend beyond the Site, being the land shown edged in red on the site plan at schedule 2 to this permit.

2.3 Operating techniques

2.3.1 The Activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1 table S1.2, unless otherwise agreed in writing by the Agency.

2.4 Off-site conditions

There are no conditions in this permit to which Regulation 12(12) of the PPC Regulations apply.

2.5 Improvement programme

2.5.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Agency.

2.5.2 Except in the case of an improvement which consists only of a submission to the Agency, the operator shall notify the Agency within 14 days of completion of each improvement.

2.6 Pre-operational conditions

There are no pre-operational conditions in this permit.

2.7 Engineering

2.7.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.

2.7.2 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:

(a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or

(b) a change has otherwise been agreed in writing by the Agency.

2.7.3 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report.

2.7.4 No construction of landfill Infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.

2.7.5 The construction of the Landfill Infrastructure shall take place only in accordance with the approved construction proposals unless:

(a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or

(b) a change has otherwise been agreed in writing by the Agency.

2.7.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant Landfill Infrastructure.

2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant Landfill Infrastructure may be constructed, provided that the construction proposals are submitted to the Agency as soon as practicable.

2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the Agency shall be deemed to be satisfied where it has not, within the period of 4 weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:

(a) confirmed whether or not it is satisfied; or

(b) informed the operator that it requires further information.

2.8 Waste acceptance

2.8.1 Wastes shall only be accepted for disposal if:

(a) they are listed in schedule 3, and

(b) they are inert waste, and

(c) they are not liquid waste, and

(d) all the relevant waste acceptance procedures set out in schedule 1 of the Landfill Regulations have been completed, and

(e) they fulfil the relevant waste acceptance criteria, and

(f) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and

(g) from 30th October 2007 they are wastes which have been treated, except for wastes for which treatment is not technically feasible.

2.8.2 The operator shall visually inspect:

(a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and

(b) waste at the point of deposit;

and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.

2.8.3 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.

2.8.4 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.8.5 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing NSTL/ESID/04.

2.8.6 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.4.

2.8.7 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

2.9 Closure, aftercare and decommissioning

2.9.1 The operator shall maintain and operate the Activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.

3. Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 4 table S4.1 .

3.2 Emissions to groundwater

3.2.1 There shall be no emission from the activities into groundwater of any substance in List I (as defined by the Groundwater Regulations) contrary to those Regulations.

3.2.2 There shall be no emission from the activities into groundwater of any substance in List II (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those Regulations).

3.2.3 The trigger levels for emissions into groundwater for the parameters and monitoring points set out in schedule 4 table S4.2 shall not be exceeded.

3.2.4 The operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:

(a) between 9 and 6 months prior to the fourth anniversary of the granting of the permit, and

(b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the permit.

3.3 Fugitive emissions of substances

3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.3.2 Litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been used to prevent or where that is not practicable to minimise, the litter and mud.

3.3.3 Litter or mud arising from the activities shall be cleared from affected areas outside the Site as soon as practicable.

3.3.4 All liquids, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3.5 The limits for landfill gas arising from the installation set out in schedule 4 table S4.3 shall not be exceeded.

3.4 Odour

3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the Site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

3.5.1 Emissions from the Activities shall be free from noise and vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

3.6.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring for the parameters, specified in the following tables in schedule 4 to this permit:

(a) Point source emissions specified in table S4.1;

(b) Groundwater specified in tables S4.2 and S4.5;

(c) Landfill gas specified in table S4.3; and

(d) Surface water specified in table S4.4.

3.6.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.6.3 A topographical survey of the site referenced to Ordnance Datum shall be carried out:

(a) annually, and

(b) prior to the disposal of waste in any new cell or new development area of the landfill, and

(c) following closure of the landfill or part of the landfill.

The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site.

3.7 Transfers off-site

3.7.1 Records of all the wastes sent off site from the activities, for either disposal or recovery, shall be maintained.

4. Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) the results of groundwater and surface water monitoring;

(ii) sub-surface landfill gas monitoring;

(iii) waste types and quantities;and

(iv) the specification and as built drawings of the basal, sidewall and capping engineering systems

4.1.2. Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.

4.1.3. All records required to be held by this permit shall be held on the site and shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

4.2.1 A report or reports on the performance of the activities over the previous year shall be submitted to the Agency by 31 January (or other date agreed in writing by the Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted with the Application;

(b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;

(c) the annual production/treatment set out in schedule 5 table S5.2.

(d) details of any contamination or decontamination of the site which has occurred;

(e) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;

(f) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;

(g) an assessment of the settlement behavior of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;

(h) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;

(i) the compliance testing undertaken in the period;

4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 5 table S5.1;

(b) for the reporting periods specified in schedule 5 table S5.1and using the forms specified in schedule 5 table S5.3; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency

4.3 Notifications

4.3.1 The Agency shall be notified without delay following the detection of:

(a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;

(b) the breach of a limit specified in the permit;

(c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.

4.3.3. Prior written notification shall be given to the Agency of the following events and in the specified timescales:

(a) as soon as practicable prior to the permanent cessation of any of the permitted activities;

(b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and

(c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.

4.3.4 Where the Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.5 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.

4.3.6 The Agency shall be provided, within 14 days of the operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.

4.3.7 The Agency shall be notified within 14 days of the operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.

4.3.8 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

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

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

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

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in schedule 1 of the PPC Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1) (b), The disposal of waste in a landfill.	Landfill for inert waste (landfill classification under the Landfill Regulations 2002).	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions in Section 2.8, as an integral part of landfilling.
Directly Associated Activity		
Water discharges to controlled waters.	Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 2.1, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 2.9, 2.11, and 3.1 given in Section B: Excluding the responses to B2.2.38 (surface water monitoring frequency), B2.2.48 (in-waste landfill gas monitoring), B2.2.64 and B2.2.65 (particulate matter management and monitoring), B2.2.71 and B2.2.73 (dirt and mud management) and B2.9.1 and B2.9.3 (noise and vibration management and monitoring).	09 May 2006
Response to Schedule 4 Notice	All Excluding the response to question 4c.	04 December 2006

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
1	The Operator shall undertake a survey of the exposed side walls in Phase A and submit the results to the Agency. For any areas that do not meet the requirements of the Landfill Regulations, e.g. where there are joints or fractures, the Operator shall submit to the Agency for approval, specifications for a geological barrier for sidewall lining. The specifications shall include recommendations for construction, location and a timescale for installing the sidewall lining. The sidewall lining shall be installed in accordance with the requirements of Condition 2.7 of this Permit.	29/04/07
2a	The Operator shall submit a copy of the mine shaft section referenced in the Stability Risk Assessment. An assessment of the stability of the mine shaft shall be undertaken, in particular, attention should be given to the possibility of settlement as the waste is tipped. Based on the outcome of the assessment, requirements to fill and/or permanently cap the mine shaft shall be recommended.	29/03/08
2b	The Operator shall confirm the depth of the shallow coal seam (Upper Shafton) below the site (it is described in the ESID and SRA as 5 m and 32 m below the base of the site, respectively). An assessment of any measures necessary to prevent possible collapse and ground movement over the mine workings of this seam shall be provided to the Agency for approval.	29/05/07
2c	The Operator shall analyse for wedge, toppling and circular failures with respect to the quarry sidewalls, using methods such as limit equilibrium slope stability analysis.	29/05/07
3	The Operator shall calculate and submit to the Agency for approval, revised emission limits for the surface water discharge for the parameters listed in Table S4.1. Emission limits shall be derived from a minimum of 12 data sets using a methodology agreed in writing with the Agency. Once approved, the emission limits shall supersede those prescribed in Table S4.1 of this Permit.	29/10/07
4	The Operator shall calculate and submit to the Agency for approval, revised trigger levels for groundwater monitoring boreholes BH1, BH2, BH3 and BH4 for the parameters listed in Table S4.2. Trigger levels shall be calculated from a minimum of 12 data sets using a methodology agreed in writing with the Agency. Once approved, the trigger levels shall supersede those prescribed in Table S4.2 of this Permit.	29/01/08 Complete
5a	The Operator shall submit to the Agency for approval, a report clarifying the groundwater flow direction at the site. The report shall consider and include the groundwater level data collected from all boreholes at the site. The report shall include an assessment whether an additional groundwater borehole is required to ensure adequate groundwater monitoring is undertaken at the site. Where an additional borehole is proposed, the report shall include details of the proposed borehole location, design, construction methodology and installation timetable.	29/09/07
5b	The Operator shall install the borehole in accordance with the requirements of Condition 2.7.	29/12/07

5c	If an additional groundwater monitoring borehole is installed via improvement condition 5b, the Operator shall calculate and submit to the Agency for approval, revised trigger levels for the additional groundwater monitoring borehole. Trigger levels shall be calculated from a minimum of 12 data sets for the substances given trigger levels in Table S4.2, using a methodology agreed in writing with the Agency. Once approved, the trigger levels shall supersede the interim trigger levels.	29/04/08
6a	The Operator shall submit to the Agency for approval, proposals for the installation of leachate monitoring wells within Phase A. The proposals shall include details of the proposed leachate well locations, design, construction methodology and installation timetable. The leachate wells shall be installed in accordance with the requirements of Condition 2.7 of this Permit.	29/09/07
6b	The Operator shall submit to the Agency for approval, proposals for monitoring leachate quality from the leachate wells installed in accordance with improvement condition 6a.	29/12/07
7	The Operator shall submit to the Agency for approval, proposals to install permanent in-waste landfill gas monitoring boreholes at a minimum of 1 per phase. The proposals shall include details of borehole design, construction methodology and a timetable for installation, in accordance with Condition 2.7. As part of the proposals the Operator shall submit assessment levels for carbon dioxide and methane.	29/04/07
8a	The Operator shall conduct a survey for great crested newts in accordance with the methodology set out in Great Crested Newts Mitigation Guidelines. The survey shall be carried out between mid April to mid May during suitable weather.	15/05/07
8b	The operator shall submit to the Agency a report using the great crested newt guidelines.	20/05/07
8c	Should newts be present at the site, the survey shall be extended further to assess the population size and shall be conducted with 6 visits mid March to mid June with 3 during mid April to mid May and a plan to take the necessary shall be submitted for agreement	30/06/07

Table S1.4 Annual waste input limits

Category	Limit Tonnes/ Year
Inert Waste	99,000

Schedule 2 - Site plan

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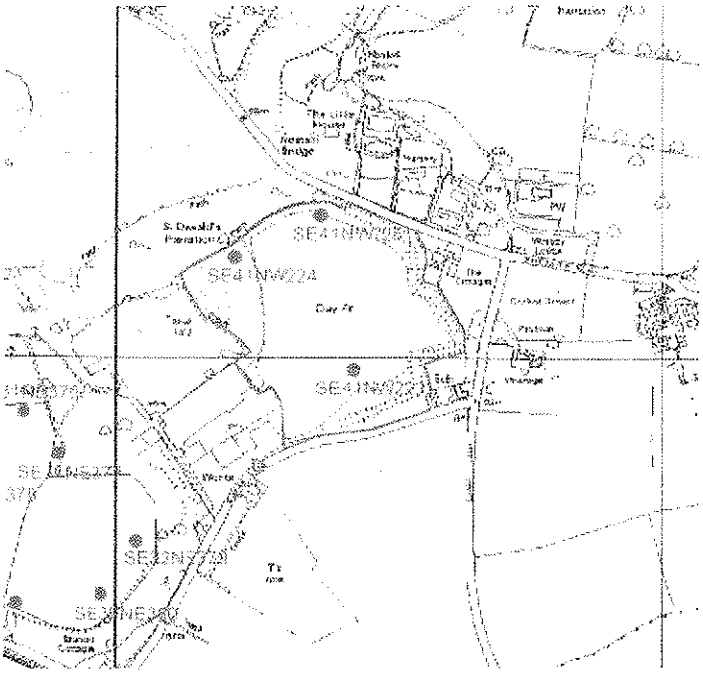

Schedule 3 - List of permitted wastes

10 11 03	Waste glass based fibrous materials
15 01 07	Glass packaging
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics
17 02 02	Glass
17 05 04	Soil and stones
19 12 05	Glass
20 01 02	Glass
20 02 02	Soil and stones

Schedule 4 – Emissions and monitoring

Table S4.1 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)[1]	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Surface water discharge monitoring point, as shown on Drawing NSTL/ESID/05	Volume	Discharge from the site surface water management system	850 m^3/day	Spot sample	Monthly for 6 months, then quarterly	In accordance with Environment Agency guidance LFTGN02 Monitoring Landfill Leachate, Groundwater and Surface Water.
	Rate of discharge		135 m^3/hour			
	Suspended solids		50 mg/l			
	Total oil and grease		5 mg/l			
	NH4-N		0.39 mg/l			

[1] Limits are interim and subject to revision in accordance with Table S1.3 (3)

Table S4.2 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Limit (including unit)[1]	Reference Period	Monitoring frequency	Monitoring standard or method
BH1 (shown on Drawing NSTL/ESID/05)	NH4-N	1.5 mg/l	Spot Sample	Monthly	In accordance with Environment Agency Guidance LFTGN02 Monitoring Landfill Leachate, Groundwater and Surface Water.
	Cl	~~600 mg/l~~ 736			
BH2, BH3 and BH4 (shown on Drawing NSTL/ESID/05)	NH4-N	1.5 mg/l	Spot Sample		
	Cl	250 mg/l			

[1] Trigger levels are interim and subject to revision in accordance with Table S1.3 (4)

Table S4.3 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
BH1, BH2, BH3 and BH4, as shown on Drawing NSTL/ESID/05	Methane	1 %v/v	Quarterly	In accordance with Environment Agency Guidance LFTGN03 Guidance on the Management of Landfill Gas.
	Carbon Dioxide	1.5 %v/v		
	Oxygen	no limit		
	Atmospheric pressure	no limit		
	Differential Pressure	no limit		
	Temperature	no limit		
	Meteorological data	no limit		

Table S4.4 Surface water – other monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Surface water discharge monitoring point, as shown on Drawing NSTL/ESID/05	Cl, TOC, phenols (total monohydric), Fe, Cr, Cu, Ni, Pb, Zn, As, BOD, B, Cd, Se, Hg, sulphide	Quarterly	In accordance with Environment Agency Guidance LFTGN02 Monitoring Landfill Leachate, Groundwater and Surface Water.	None

Table S4.5 Groundwater – other monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
BH1, BH2, BH3 and BH4 (shown on Drawing NSTL/ESID/05)	Water level pH Electrical conductivity Dissolved oxygen	Monthly	In accordance with Environment Agency Guidance LFTGN02 Monitoring Landfill Leachate, Groundwater and Surface Water.	None
	Sulphate, total alkalinity, TOC, TON, BOD, COD, Na, K, Ca, Mg, Fe, Mn, Cd, Cr, Cu, Hg, Ni, Pb, Zn	Quarterly		
	PAH, TPH, phenol	Annually		

		(Condition) TRIGGER Limit	CONTROL Limit	Ref	Freq.	STANDARD METHOD
BH 1	NH_4-N	1.0 mg/L	0.5 mg/L	SPOT Sample	MONTHLY	LFTGN02 Control monitoring Leachate, GW, SW.
	Cl	N/A	738 mg/L			
BH 2	NH_4-N	1.38 mg/L	1.0 mg/L			
	Cl	250 mg/L	200 mg/L			
BH 3	NH_4-N	0.91 mg/L	0.5 mg/L			
	Cl	N/A	400 mg/L			
BH 4	NH_4-N	0.5 mg/L	0.3 mg/L			
	Cl	250 mg/L	150 mg/L			

BH 1-4 PAH 0.01 ug/L NA Annually

BH 1-4 PHENOL

Schedule 5 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to water Parameters as required by condition 3.6.1	Surface water discharge monitoring point, as shown on Drawing NSTL/ESID/05	Quarterly	29/03/07
Groundwater Parameters as required by condition 3.6.1	BH1, BH2, BH3 and BH4, as shown on Drawing NSTL/ESID/05 and Additional borehole to be installed in accordance with Table S1.3 (5a)	Quarterly	29/03/07
PAH, TPH, phenol		Annually	
Landfill gas lateral migration Parameters as required by condition 3.6.1	BH1, BH2, BH3 and BH4, as shown on Drawing NSTL/ESID/05 and Additional borehole to be installed in accordance with Table S1.3 (5a)	Quarterly	29/03/07
Other surface water monitoring Parameters as required by condition 3.6.1	Surface water discharge monitoring point, as shown on Drawing NSTL/ESID/05	Quarterly	29/03/07

Table S5.2: Annual production/treatment

Surface water and/ or groundwater: **Disposed of off site;** **Disposed of to any onsite effluent treatment plant.**	**Cubic metres/year**

Table S5.3 Reporting forms

Media/parameter	Reporting Format	Date of Form
Controlled water	Form water 1 or other reporting format to be agreed in writing with the Agency	
Groundwater	Form groundwater 1 or other reporting format to be agreed in writing with the Agency	
Landfill gas	Form Gas 1 or other reporting format to be agreed in writing with the Agency	
Waste Return	Waste Return Form RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Agency	

Schedule 6 - Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the PPC Regulations.

Part A

Permit Number	
Name of operator	
Location of Installation	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit

Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Ibstock Brick (Nostell) Ltd.

Schedule 7 - Interpretation

"*Accident*" means an accident that may result in pollution.

"*Annually*" means once every Year.

"*Application*" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under schedule 4 to the PPC Regulations

"*Authorised Officer*" means any person authorised by the Agency 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(4) of that Act.

"*Background concentration*" means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site

"*Construction Proposals*" means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the new cell or Landfill Infrastructure.

"*CQA Validation Report*" means the final "as built" construction and engineering details of the new cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- "As-built" plans and sections of the works;
- Copies of the site engineer's daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the new cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the construction proposals.

"*Fugitive emission*" means an emission to air, water or land from the Activities which is not controlled by an emission or background concentration limit.

"*Groundwater Regulations*" means the Groundwater Regulations SI 1998 No. 2746, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"*Landfill Infrastructure*" means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;

within the Site.

"*Landfill Regulations*" means the Landfill (England and Wales) Regulations SI 2002 No. 1559, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"*Land Protection Guidance*" means Agency guidance "H7 - Guidance on the protection of land under the PPC Regime: Application site report and site protection monitoring programme".

"*Liquids*" means any liquid other than leachate within the engineered landfill containment system.

"*LFTGN 05*" means Environment Agency Guidance for monitoring enclosed landfill gas flares, September 2004.

"*LFTGN 08*" means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

"*New Cell*" means any new cell, part of a cell or other similar new area of the Site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;

- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the new cell.

"*No impact*" means that the change made to the construction process will not alter the agreed design criteria, specification or performance.

"notify without delay" or "notified without delay" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

"*PPC Regulations*" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"*Quarter*" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"*Relevant person*" and "*relevant conviction*" shall have the meanings given to them in the Environmental Protection Act 1990

"*Review of the Hydrogeological Risk Assessment*" means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the Groundwater Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the permit continue to meet the requirements of the Groundwater Regulations

"*Site Protection and Monitoring Programme*" means a document which meets the requirements for Site Protection and Monitoring Programmes described in the Land Protection Guidance.

"*Technically competent management*" and "*technical competence*" shall have the meanings given to them in the Environmental Protection Act 1990.

"waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, List of Wastes (Northern Ireland) Regulations 2005 (as amended), or The Special Waste Amendment (Scotland) Regulations 2004 as appropriate, and in relation to hazardous waste, includes the asterisk

"*Year*" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

END OF PERMIT