

Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Cwmrhydyceirw Quarry Landfill

SI Green UK Limited
Cwmrhydyceirw Quarry
Vicarage Road
Cwmrhydyceirw
Morriston
Swansea
SA6 6DR

Variation notice number
EPR/TP3835LV/V002

Permit number
EPR/TP3835LV

Cwmrhydyceirw Quarry Landfill

Permit number EPR/TP3835LV

Introductory note

This introductory note does not form a part of the permit

The following notice, which is issued pursuant to regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2010 S.I. 2010 No. 675 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility.

This variation is to change the design of the lining system and landfill phasing. The conceptual design submitted with the permit application comprised the construction of a steep wall lining system along the northern quarry wall and re-profiling of the eastern, southern and western quarry sides with engineered fill to create gradients generally in the range 1v:2h to 1v:4h on which the lining system would be constructed. Based on the results of the detailed site investigation required by the permit it is considered that the conceptual design submitted with the permit application is not the most practical or cost effective solution.

It is proposed that the northern steep wall lining system is replaced by a more conventional lining system with a maximum gradient of 1v:1.5h to accommodate the buried benches beneath the waste identified along the northern quarry wall during the detailed site investigation and the deeper quarry base. It is proposed that the lower 5 m of the northern slope is constructed at slopes of 1v:2h to accommodate a double textured geomembrane liner placed to this level. A maximum slope gradient of 1v:2h will be used along the eastern quarry wall to accommodate the protrusion of rock and the southern and western quarry walls will be constructed with a maximum slope gradient of 1v:2h. Engineered fill will be used to create the slopes on which the landfill liner will be constructed. It is considered unlikely that it will be necessary to excavate any of the in situ rock at the site to create the landfill formation level.

The phasing has been amended to take into account the results of the detailed site investigation. It is proposed that prior to the development of Phase 1 in the east of the site Phase 0 will be developed on the benched area in the south of the site. It is estimated that sufficient existing waste can be excavated and relocated into the Phase 0 area to facilitate commencement of the construction of the Phase 1 landfill area with the remaining existing waste excavated and relocated into the Phase 1 area. The operation of the site in this way will minimise the need to handle the existing waste more than once and to store waste prior to final disposal as it will not be necessary to disturb the waste once it is placed in Phase 0 and the placement of the waste in Phase 0 will provide room for the construction of Phase 1. It is likely that Phase 1 will be constructed in two stages. Further phases then will be constructed generally in an anticlockwise direction in accordance with the original proposals.

A composite 2 mm thick geomembrane and 1 m thick clay lining system is to be installed in the base of the landfill and in the lower 5 m of the side slope lining system with the side slope lining system above the lower 5 m comprising 1 m thickness of clay only. This approach is supported by the results of the risk assessment.

In addition to the change to the lining system the operator has also requested amendments to the sewer discharge, based on the results of risk assessment work undertaken as part of an improvement condition.

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions, Schedule 3 lists any conditions that have been added and Schedule 4 shows any changes to the plan.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Detail	Date	Response Date
Application TP3835LV (EP ref EA/EPR/TP3835LV/A001)	Duly made 15/02/2006	-
Response to requests for information	16/08/2006	29/09/2006
	16/11/2006	14/12/2006
	18/12/2006	19/01/2007 & 26/01/2007
	13/02/2007	28/03/2007
	09/03/2007	23/04/2007
	18/07/2007	24/08/2007
	17/12/2007	22/02/2008
	09/04/2008	18/04/2008
Permit TP3835LV determined	Date of Issue 09/12/2008	-
Variation application EA/EPR/TP3835LV/V002	Duly made 27/10/2010	-
Request for further information	10/11/2010	01/12/2010
Variation EA/EPR/TP3835LV/V002 determined	24/12/2010	-

End of Introductory Note.

Environmental Permitting
(England and Wales) Regulations 2010

Permit number

EPR/TP3835LV

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 (S.I. 2010 No. 675) varies the permit as set out below.

SI Green UK Limited ("the operator"),

whose registered office is

**c/o Harris Bassett
5 Llys Felin Newydd
Phoenix Way
Enterprise Park
Swansea
West Glamorgan
SA7 9FG**

company registration number **02777304**

holds a permit to operate a regulated facility at

**Cwmrhydyceirw Quarry Landfill
Cwmrhydyceirw Quarry
Vicarage Road
Cwmrhydyceirw
Morriston
Swansea
SA6 6DR**

and that permit is varied to the extent set out in Schedules 1 to 4 of this notice.

The notice shall take effect from 24/12/2010.

Name	Date
	24/12/2010

Authorised on behalf of the Environment Agency.

Schedule 1 – conditions to be deleted

The following conditions are deleted:

Condition 2.3.3 is deleted.

Improvement conditions 1, 2 and 3a in Table S1.3 of Schedule S1 – 1, 2, 3a specified in condition 2.5.1 are deleted.

Pre-operational conditions A1, A2, B1, C1, C2, C3, C4, C5, C6, C7, D1, D2, D6, D7, D8, D9, D10, E5, F1, F2, F3, F4, F5, F6, F7, F8, G1, G2, G3, G4, G5, G6, G7, H1, H3. in Table S1.4 of Schedule 1 specified in condition 2.6.1 are deleted.

Schedule 2 – conditions to be amended

The following conditions are amended as follows:

Table S1.4 of schedule 1 of the permit specified in condition 2.6.1 shall be amended to include pre-operational condition I1. Following the deletions above and the amendments here for clarity the amended Table S1.4 is amended and replaced in its entirety as follows:

Table S1.4 Pre-operational measures for future development

Reference	Operation	Pre-operational Measures
Section D – Review as necessary of the management plans		
D3	The commencement of the construction of the new landfill	<p>Leachate management plan</p> <p>A leachate management plan with respect to the operation of the landfill shall be submitted to the Agency. The leachate management plan shall include procedures for the extraction, collection, storage and transfer of leachate and shall demonstrate that the system will have sufficient capacity to handle the maximum predicted volumes of leachate generation hence minimise the risk of leachate heads at the base of the landfill exceeding those detailed within permit condition 2.9.1 and Schedule 4, Table S4.1. The results of the review of the hydrogeological risk assessment carried out under pre-operational condition C1 of the original permit reference TP3835LV issued on 9 December 2008, shall be used as necessary in the preparation of the leachate management plan.</p> <p>The proposals shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none">• Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC);• Guidance on the monitoring of landfill leachate, groundwater and surface water (LFTGN02); and• Technical Guidance Note – Monitoring of discharges to water and sewer (M18).

Table S1.4 Pre-operational measures for future development

D4	The commencement of the construction of the new landfill	<p>Landfill gas management plan</p> <p>The landfill gas management plan with respect to the operation of the landfill shall be revised and submitted to the Agency. The revised landfill gas management plan shall include procedures for the extraction and management of landfill gas to minimise the risk of unacceptable releases of landfill gas from the landfill. The revised landfill gas management plan shall give consideration to both permanent and temporary management systems. The results of the review of the landfill gas risk assessment carried out under pre-operational condition C2 of the original permit reference TP3835LV issued on 9 December 2008, shall be used as necessary in the preparation of the landfill gas management plan.</p> <p>The proposals shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none"> • Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC); and • Guidance on the management of landfill gas (LFTGN03).
D5	The commencement of the construction of the new landfill	<p>Surface water management plan</p> <p>A surface water management plan with respect to the operation of the landfill shall be submitted to the Agency. The surface water management plan shall include procedures for the control, storage and discharge of surface water from the landfill and shall demonstrate that the system will have sufficient capacity to handle the maximum predicted volumes of surface water and if necessary extracted ground water from the base of the quarry. The meteorological monitoring data collected under pre-operational condition B1 of the original permit reference TP3835LV issued on 9 December 2008, shall be used in the preparation of the surface water management plan.</p> <p>The proposals shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none"> • Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC).

Notes: The excavation of the existing waste at the site shall not commence until the management plans in respect of the excavation and relocation of the existing waste (pre-operational condition D1) and noise (pre-operational condition D2) of the original permit reference TP3835LV issued on 9 December 2008, have been approved by the Agency.

The commencement of construction of the new landfill shall not commence until the management plans the subject of pre-operational conditions D3 to D10 of the original permit reference TP3835LV issued on 9 December 2008, inclusive have been approved by the Agency.

Section E – Review of the monitoring plans

E1	The excavation of the existing waste at the site	<p>Groundwater monitoring plan</p> <p>A groundwater monitoring plan shall be submitted to the Agency. The plan shall set out the methods and measures put in place to ensure that the monitoring of groundwater set out in Tables S4.5 and S4.11 is carried out to provide reliable results. These methods and measures shall include:</p> <ul style="list-style-type: none"> • Construction proposals including timescales for the installation of additional groundwater monitoring boreholes shown on drawing ESID7 (ref SIG/CW/08-05/12371revC dated 11/12/2006) and setting control and trigger levels; • Details of the preparation methods for collection of the sample (e.g. purging of groundwater borehole); • Details of the collection methods for sampling;
-----------	--	--

Table S1.4 Pre-operational measures for future development

		<ul style="list-style-type: none"> • Details of the storage and transport methods of groundwater samples; • Details of the analytical methods for each determinand, including any relevant standard; • Details of the quality control sampling and methods; and • Revision of the contingency measures to include clear responsibilities for each action. <p>The plan shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none"> • Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC); and • Guidance on the monitoring of landfill leachate, groundwater and surface water (LFTGN02);
E2	The excavation of the existing waste at the site	<p>Leachate monitoring plan</p> <p>A leachate monitoring plan shall be submitted to the Agency. The plan shall set out the methods and measures put in place to ensure that the monitoring of leachate set out in Tables S4.1 and S4.9 is carried out to provide reliable results. These methods and measure shall include:</p> <ul style="list-style-type: none"> • Details of the preparation methods for collection of the sample; • Details of the collection methods for sampling; • Details of the storage and transport methods of leachate samples; • Details of the analytical methods for each determinand, including any relevant standard; • Details of the quality control sampling and methods; and • Revision of contingency measures to include clear responsibilities for each action. <p>The proposals shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none"> • Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC); • Guidance on the monitoring of landfill leachate, groundwater and surface water (LFTGN02); and • Technical Guidance Note – Monitoring of discharges to water and sewer (M18).
E3	The excavation of the existing waste at the site	<p>Surface water monitoring plan</p> <p>A surface water monitoring plan shall be submitted to the Agency. The plan shall set out the methods and measures put in place to ensure that the monitoring of surface water set out in Tables S4.3, S4.4 and S4.10 is carried out to provide reliable results. These methods and measures shall include:</p> <ul style="list-style-type: none"> • Details of the preparation methods for collection of the sample; • Details of the collection methods for sampling; • Details of the storage and transport methods of surface water samples; • Details of the analytical methods for each determinand, including any relevant standard; • Details of the quality control sampling and methods; and • Revision of contingency measures to include clear responsibilities for each action. <p>The plan shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none"> • Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC); • Guidance on the monitoring of landfill leachate, groundwater and surface water (LFTGN02); and • Technical Guidance Note – Monitoring of discharges to water and

Table S1.4 Pre-operational measures for future development

sewer (M18).

E4	The excavation of the existing waste at the site	<p>Landfill gas monitoring plan</p> <p>A landfill gas monitoring plan shall be submitted to the Agency. The plan shall set out the methods and measures put in place to ensure that the monitoring of landfill gas set out in Tables S4.6, S4.7, S4.8 and S4.12 is carried out to provide reliable results. These methods and measures shall include:</p> <ul style="list-style-type: none"> • Construction proposals including timescales for the installation of additional landfill gas monitoring boreholes shown on drawing ESID7 (ref SIG/CW/08-05/12371revC dated 11/12/2006) and setting compliance levels; • Details of the monitoring methods; • Details of the quality control sampling and methods; and <p>Revision of contingency measures to include clear responsibilities for each action.</p> <p>The plan shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none"> • Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC); and • Agency Guidance on Landfill Gas (LFTGN03 to LFTGN08).
E6	The installation of the flare	<p>Ambient air and flare emissions monitoring</p> <p>An ambient air and flare emissions monitoring plan shall be submitted to the Agency. The plan shall set out the methods and measures put in place to ensure that the monitoring of ambient air and flare emissions set out in Tables S4.2 and S4.12 is carried out to provide reliable results.</p> <p>The proposals shall take account of the guidance provided in Agency documents:</p> <ul style="list-style-type: none"> • Sector Guidance Note S5.02 Guidance for the Landfill Sector Technical requirements of the Landfill Directive and Integrated Pollution Prevention and Control (IPPC); and • Agency Guidance on Landfill Gas (LFTGN03 to LFTGN08).
<p>Notes: The excavation of the existing waste at the site shall not commence until the monitoring plans the subject of pre-operational conditions E1 to E5 inclusive have been approved by the Agency.</p> <p>The flare shall not be instated at the site until the monitoring plan the subject of pre-operational condition E6 has been approved by the Agency.</p>		
Section H – Other issues		
H2	The recirculation of leachate	<p>The operator shall submit to the Agency a scheme for the recirculation of leachate. The scheme shall include but not be limited to:</p> <p>Details of the methods of recirculation and system design;</p> <p>An assessment of odour and fugitive emission control including any revisions to site design and/or monitoring plans; and</p> <p>An assessment of the effects of recirculation on stability of the waste and the lining system.</p> <p>No leachate will be recirculated without the approval of the Agency.</p>
Section I – Pre-operational conditions from variation EPR/TP3835LV/V002		
I1	The commencement of the construction of the northern side slope lining system.	<p>The operator shall submit to the Environment Agency an analysis of the integrity of the new design of the lining system that assesses the strains and deformations in each of the components of the lining system and between the interfaces. Realistic waste properties and the effects of groundwater rebound should be included in the modelling. The justifications for modelling method and range of input parameter values, and commentary on the acceptability of the results, shall be provided.</p>

Condition 2.8.1 (g) has been amended and conditions 2.8.5 to 2.8.10 have been renumbered. For clarity Section 2.8 is amended and replaced in its entirety as follows:

2.8.1 Wastes shall only be accepted for disposal if:

- (a) they are listed in schedule 3, and
- (b) they are non-hazardous waste, and
- (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400 mm), and
- (d) they are not shredded used tyres, and
- (e) they are not liquid waste (including waste waters but excluding sludge), and
- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
- (g) all the relevant waste acceptance procedures have been completed, and
- (h) they fulfil the relevant waste acceptance criteria, and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and
- (k) where they are wastes with a code beginning with 07 05 and 16 03 they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

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 ESID 4G (drawing reference SIG/CW/08-05/12364).
- 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 S1.5.
- 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 municipal waste and 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.

Table S1.1 of schedule 1 of the permit specified in condition 2.1.1 shall be amended to:

Table S1.1 Activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1)(a), the disposal of waste in a landfill.	Landfill for non-hazardous waste (D5 – Specially engineered landfill).	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.8, as an integral part of landfilling.
Directly Associated Activity		
Leachate management.	Storage and transfer of leachate.	Leachate arising from the landfill.
Discharges to foul sewers.	Discharge of leachate /contaminated water from the landfill.	Leachate / contaminated water arising from the landfill.
Landfill gas flaring.	Flaring of landfill gas for disposal in an appliance with a capacity up to 1,000 m ³ .hr ⁻¹ .	From the collection of the gas from the waste mass through to the release of combustion products.
Discharges to controlled waters.	Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
Fuel storage.	Storage of fuel for operation of plant and equipment.	Fuel storage tank.

Table S1.2 of schedule 1 of the permit specified in condition 2.3.1 shall be amended to:

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to questions B2.1, B2.2, B2.3 and B2.11 given in the part B application form for landfill excluding sections B2.1.5, B2.1.8, B2.2.16, B2.2.17, B2.2.29 to B2.2.34, B2.2.37, B2.2.38, B2.2.41, B2.2.42, B2.2.46, B2.2.47, B2.2.48, B2.2.50, B2.2.57, B2.2.59, B2.2.60, B2.2.67, B2.2.68, B2.2.71, B2.2.73, B2.2.74, B2.2.76, B2.2.77 and B2.2.79 to B2.2.81.	20/01/2006
	Section 4.2 of the Landfill Gas Risk Assessment given in Section 3 of the Application.	20/01/2006
	Appendix ESID3 of the ESID Report dated January 2006.	20/01/2006
	The response to questions 2, 3, 4, 7, 10, 11, 18, 20, 24, 25, 27 and 31 of the Schedule 4 notice dated 16 August 2006 presented in report entitled 'The Response To The Schedule 4 Notice By The Environment Agency On 16 th August 2006' Ref No: SIG/CW/GT/1392/01; Dated September 2006.	29/09/2006
	The response to questions 3 and 8 of the Schedule 4 Notice dated 16 November 2006 in the letter dated 14 December 2006 from MJCA.	22/12/2006
	Annex 4 entitled 'A copy of the Noise Management Plan for Landfilling Operations at Cwmrhydyceirw Quarry' (Report no. RO6.4699/8/NMP/AG Dated 14/12/06) to the letter dated 14 December 2006 from MJCA made in response to the Schedule 4 Notice dated 16 November 2006.	22/12/2006
	Paragraphs 2 & 3 of Point 3, paragraphs 1, 2 & 3 of Point 4 and Annex B of letter dated 23 April 2007 from MJCA made in response to the Schedule 4 Notice dated 9 March 2007.	24/04/2007
	Paragraphs 12, 13 and 19 and Drawing SIG/CW/08-07/13667 (Figure 2) of letter dated 24 August 2007 from MJCA made in response to the Schedule 4 Notice dated 18 July 2007.	27/08/2007
	Letter dated 20 November 2008 from MJCA with attached plans SIG/CW/08-05/12371revC and SIG/CW/08-05/12375/revB.	21/11/2008
Variation Application EPR/TP3835LV/V002	All parts.	27/09/2010
Request for further information dated 10/11/2010	Response to questions 1 to 4.	01/12/2010

Table S4.4 of schedule 4 of the permit specified in condition 3.1.1 shall be amended to:

Table S4.4 Point source emissions to sewer, effluent treatment plant or by tankering or other transfer off-site – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Leachate Discharge Point to Foul Sewer	Volume	Landfill phases	No limit set	Daily total	Continuous	Unless otherwise agreed in writing by the Environment Agency monitoring methods used shall be in accordance with Environment Agency guidance document 'Guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02).
	Rate of discharge		No limit set	Daily maximum	Continuous	
	Triphenyltin compounds		No limit set	Spot sample	Monthly ¹	
	Tributyltin compounds		No limit set	Spot sample	Monthly ¹	

Note 1: Monthly frequency shall commence prior to the start of excavation of the existing waste deposits and shall be maintained until three months after the operator has confirmed that all existing waste has been excavated and relocated within the newly constructed landfill.

The interpretation section in Schedule 7 of the permit shall be amended to take account of the changes to relevant legislation. For clarity Schedule 7 is amended and replaced in its entirety as follows:

“*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 5 to the EP 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; or
- 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.

“*EP Regulations*” means The Environmental Permitting (England and Wales) Regulations S.I. 2010 No. 675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“*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*” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“*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.

“*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;
- individual lift of northern side wall lining system;

for the New Cell.

"No impact" means that the change made to the construction procedures will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

"Notify without delay" and *"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.

"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 EP 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 EP 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.

Schedule 3 – conditions to be added

None.

Schedule 4 – amended plan

None.