

DRAFT 2 June 2011

Permit with Introductory Note

The Environmental Permitting (England & Wales) Regulations 2010

Sita (Lancashire) Limited

**Clifton Marsh Landfill Site
Preston New Road
Preston
Lancashire
PR4 0XE**

Permit number

CD0235

Clifton Marsh Landfill Site

Permit number CD0235

Introductory Note

This introductory note does not form a part of this permit

The permit allows the operator to carry on specified radioactive substances activities, namely receipt, accumulation and disposal of radioactive waste, on the specified premises.

The permit is issued under the provisions of regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010. Those Regulations are concerned with the control of radioactive material and the receipt, transfer, accumulation and disposal of radioactive waste.

The operator must also comply with other legislation to which the keeping or use of radioactive material and the transfer, accumulation and disposal of radioactive waste is subject. This includes legislation enforced by the Health and Safety Executive and by the Department for Transport.

The Clifton Marsh facility is a conventional waste disposal landfill site, covering an area of 92 hectares, and is split into four phases. Phases 1, 2 and 3, now undergoing restoration, were developed on a dilute and attenuation basis. Current disposals are to Phase 4, which is being developed on a full containment basis, with composite lining and leachate collection system. It is being developed in a series of 5 cells, of which one is a separately engineered mono-cell for asbestos waste, near the site entrance.

The site accepts conventional waste mainly from Preston, Blackpool and Fylde areas. Most of the waste accepted falls into the categories of degradable household, industrial, and commercial wastes; inert waste and contaminated soils. An adjacent landfill site to the West, Grange Farm, was used for waste disposal until the present site came into operation in 1986. Low level radioactive waste disposal at Grange Farm and Clifton Marsh commenced in 1974, through authorisations granted originally to British Nuclear Fuels Ltd. in respect of their sites at Capenhurst and Springfields.

Leachate collected from the site is treated in two lagoons before being piped to United Utilities Limited for final treatment at the adjacent Preston Waste Water Treatment Works. Landfill gas is collected and used for electricity generation in gas engines located on the site.

Most wastes deposited at the site go directly to the tip face for disposal using a landfill compactor. Accumulation is only permitted for a maximum of fourteen days before disposal, and is subject to conditions requiring containment against the weather. After disposal, the wastes are covered by the end of each working day to prevent odour, windblown litter and scavenging by birds.

Other existing Permits relating to this site

Type of Permit	Reference Number	Date of issue
Landfill Waste Management Licence (Phases 1 - 3)	WML474 (EAWML54097)	14 May 1993
Landfill Environmental Permit (Phase 4)	BK2348IU / LP3132LC	25 May 2007
Leachate Treatment Plant	XP3032MQ	28 September 2007

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

Status Log of the permit

Description	Reference Number	Date	Type of change made or comments
Application	CD0235	Duly made 02/11/09	
Additional Information received	-	07/05/10	
Additional Information received	-	09/12/10	
Permit determined			

End of Introductory Note

Permit

Permit number

CD0235

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010,

Sita (Lancashire) Limited (“the operator”),

whose registered office is

Sita UK

Sita House

Grenfell Road

Maidenhead

Berkshire, SL6 1ES

company registration number **02640956**

to carry on radioactive substance activities at

Clifton Marsh Landfill Site (“the premises”)

Preston New Road

Preston

Lancashire, PR4 0XE

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

Name	Date
Mr Stephen Hardy	

Authorised on behalf of the Environment Agency

The permit shall take effect from [insert date]

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that is sufficient to achieve compliance with the conditions of this permit; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 The operator shall maintain records demonstrating compliance with condition 1.1.1.
- 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.
- 1.1.4 The operator shall manage and operate the activities in consultation with such suitable RPAs, or other such qualified experts approved by the Environment Agency in writing, as are necessary for the purpose of advising the operator as to compliance with this permit.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only 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 blue on the site plan at schedule 6 to this permit.

2.3 Operating techniques

- 2.3.1 The operator shall use the best available techniques in respect of the disposal of radioactive waste pursuant to this permit to dispose of radioactive waste at times, in a form, and in a manner so as to minimise the radiological effects on the environment and members of the public.
- 2.3.2 The operator shall maintain in good repair the systems and equipment provided:
- (a) to meet the requirements of condition 2.3.1;
 - (b) to carry out any monitoring and measurements necessary to determine compliance with the conditions of this permit;
 - (c) to measure and assess the exposure of members of the public and radioactive contamination of the environment.
- 2.3.3 The operator shall check, at an appropriate frequency, the effectiveness of systems, equipment and procedures provided to meet the requirements of condition 2.3.1.

- 2.3.4 The operator shall have and comply with appropriate criteria for the acceptance into service of systems, equipment and procedures for:
- (a) carrying out any monitoring and measurements necessary to determine compliance with the conditions of this permit;
 - (b) measuring and assessing exposure of members of the public and radioactive contamination of the environment.
- 2.3.5 The operator shall post copies of this permit on the premises, in such characters and in such positions to be conveniently read by persons who have duties on the premises which are or could be affected by the matters set out in this permit.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.2 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.3A have been completed.
- 2.5.2 The operations specified in schedule 1 table S1.3B shall not commence until the measures specified in that table have been completed.

2.6 Receipt of radioactive waste

- 2.6.1 The operator shall:
- (a) only accept radioactive waste which this permit allows the operator to accumulate and dispose of, and which meets the operator's acceptance criteria for radioactive waste as defined in the environmental safety case without the need for any mixing or dilution;
 - (b) for each type of radioactive waste that the operator is prepared to receive, produce a written specification of the information required to enable the disposal of that type of radioactive waste in compliance with this permit;
 - (c) provide that written specification to any person from whom the operator is prepared to receive radioactive waste of that type;
 - (d) only accept a consignment of radioactive waste that is accompanied by a legible note providing the information specified in condition 2.6.1 (b);
 - (e) keep a copy of any such note received;
 - (f) provide a receipt to the consignor in respect of each consignment of radioactive waste that the operator accepts.

2.6.2 The operator shall visually inspect:

- (a) without unloading it, radioactive waste that is not in an enclosed container or enclosed vehicle on arrival at the premises; and
- (b) radioactive waste at the point of burial;

and shall establish as far as reasonably practicable whether it conforms to the consignor's characterisation documentation provided for that radioactive waste.

2.6.3 The operator shall ensure that any radioactive waste which does not comply with the specifications produced pursuant to condition 2.6.1 is returned to the consignor as soon as practicable, unless the Environment Agency agrees otherwise in writing.

2.6.4 The operator shall neither dispose of, nor accept delivery of, radioactive waste for disposal by burial on the premises -

- (a) whenever landfill disposal activities authorised by environmental permit BK2348IU have ceased; or
- (b) after 31 December 2020.

2.6.5 Before the operator first receives radioactive waste from a consignor, the operator shall inform the local authority, in whose area of responsibility the premises is situated, of the origin and nature of the radioactive waste.

2.6.6 The provisions of condition 2.6.5 do not apply to the extent that it would require the disclosure of information relating to sealed radioactive sources.

2.7 Accumulation of radioactive waste

2.7.1 The operator shall not accumulate radioactive waste unless it is of a type specified in Schedule 2, Table S2.1.

2.7.2 The operator shall not accumulate radioactive waste in quantities exceeding the limits on activity or volume given in Schedule 2, Table S2.1.

2.7.3 The operator shall not accumulate radioactive waste for a time exceeding the limit given in Schedule 2, Table S2.1.

2.7.4 The operator shall keep accumulated radioactive waste under cover or in containers that prevent, so far as reasonably practicable, the dispersal of radioactive contamination.

3 Disposals of radioactive waste and monitoring

3.1 Disposals of radioactive waste

3.1.1 The Operator shall not dispose of radioactive waste unless the waste type and disposal route are both specified in the same table in Schedule 3.

3.1.2 The Operator shall not dispose of radioactive waste in excess of any of the limits on disposals given in schedule 3.

- 3.1.3 The Operator shall not dispose of radioactive waste unless:
- (a) it would be acceptable for disposal under environmental permit BK2348IU if that permit applied to radioactive waste; and
 - (b) all the relevant waste acceptance procedures have been completed as if the radioactive waste is subject to the requirements of environmental permit BK2348IU (except requirements for treatment).
- 3.1.4 The operator shall, after each disposal of radioactive waste,
- (a) cover it whenever necessary to prevent wind-blown dispersal; and
 - (b) cover it, using non-radioactive material or waste, no more than eight hours after disposal or by the end of the working day, whichever is sooner.
- 3.1.5 The operator shall, not later than 14 days after the end of each month or within such longer period as the Environment Agency may approve in writing, record all disposals of radioactive waste made during that month.

3.2 Monitoring

- 3.2.1 The operator shall:
- (a) take samples and conduct measurements, tests, surveys, analyses and calculations as necessary to determine compliance with the conditions of this permit;
 - (b) use the best available techniques when taking such samples and conducting such measurements, tests, surveys, analyses and calculations, unless the Environment Agency specifies particular techniques in accordance with condition 3.2.4 (a);
 - (c) define and document the techniques being employed to determine the activity of radioactive waste disposals, and inform the Environment Agency in writing in advance of any modifications to those techniques that have a potential to change the results obtained.
- 3.2.2 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.
- 3.2.3 For the monitoring of disposals and the environment required by condition 3.2.1 or 3.2.4, the operator shall employ monitoring equipment, techniques, personnel and organisations which have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.2.4 If required by the Environment Agency, the operator shall
- (a) take such samples and conduct such measurements, tests, surveys, analyses and calculations, including environmental measurements and assessments, at such times and using such methods and equipment as the Environment Agency specifies;

- (b) keep samples, provide samples, or dispatch samples for tests at a laboratory, as the Environment Agency specifies, and ensure that the samples or residues thereof are collected from the laboratory within three months of receiving written notification that testing and repackaging in accordance with the relevant legislation are complete.

3.2.5 The operator shall carry out:

- (a) regular calibration, at an appropriate frequency, of systems and equipment provided for:
 - (i) carrying out any monitoring and measurements necessary to determine compliance with the conditions of this permit;
 - (ii) measuring and assessing exposure of members of the public and radioactive contamination of the environment.
- (b) regular checking, at an appropriate frequency, that such systems and equipment are serviceable and correctly used.

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 until notified in writing by the Environment Agency that records no longer need to be retained.

4.1.2 The operator shall keep on the premises all records, plans and the management system required by this permit, unless otherwise agreed in writing by the Environment Agency.

4.1.3 The operator shall maintain a documented environmental safety case in relation to the burial of radioactive wastes, which demonstrates

- (a) the use of best available techniques to protect members of the public and the environment; and
- (b) protection of members of the public and the environment from the non-radiological hazards of the radioactive waste;

throughout the life-cycle of the activities.

4.1.4 The operator shall

- (a) retain records made in accordance with any previous relevant permit issued to the operator and related to the premises covered by this permit;

- (b) retain records transferred to the operator, which were made in accordance with any previous relevant permit related to the premises covered by this permit.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by this permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 The operator shall supply such information in relation to -

- (a) the disposals of radioactive waste; and
- (b) the samples, tests, surveys, analysis and calculations, environmental monitoring and assessments undertaken in accordance with conditions 3.2.1 and 3.2.4;

in such format and within such timescales as the Environment Agency may specify in writing.

4.3 Notifications

4.3.1 The operator shall notify the Environment Agency without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques and any accident, which has caused, is causing or may cause significant pollution or may generate significant amounts of radioactive waste;
- (b) the breach of a limit specified in this permit, or disposal of waste other than by a relevant permitted route;
- (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 4 within the time period specified in that schedule.

4.3.3 Where the Environment 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 Environment Agency when the relevant monitoring and / or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The operator shall notify the Environment Agency within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

- (a) where the operator is a registered company:
 - (i) any change in the operator's trading name, registered name or registered office address; and
 - (ii) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- (b) where the operator is a corporate body other than a registered company:

- (i) any change in the operator's name or address; and
- (ii) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the management system or resources, which might have, or might reasonably be seen to have a significant impact on how compliance with the conditions of this permit is achieved:

- (a) the operator shall notify the Environment Agency at least 28 days before making that change or, where that is not possible, without delay; and
- (b) shall include in the notification a description of the proposed changes.

4.3.6 Where the operator proposes to make a change to the acceptance criteria for radioactive waste buried on the premises, the operator shall:

- (a) notify the Environment Agency at least 28 days before making that change, or where that is not possible, without delay; and
- (b) include in the notification a description of the proposed changes.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 5 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities

Activity reference	Activity listed in Schedule 23 of the Environmental Permitting Regulations	Description of specified activity	Limit of specified activity
A1	Sch 23 Part 2 para 5(4)(a)	Receipt of radioactive waste for the purpose of disposal	Radioactive waste received at the site must have been transferred to the premises either (a) in accordance with a radioactive substances activity environmental permit held by the consignor; or (b) as a transfer for which the consignor is exempt from the requirement to hold a radioactive substances activity environmental permit.
A2	Sch 23 Part 2 para 5(2)(c)	Accumulation of radioactive waste	
A3	Sch 23 Part 2 para 5(2)(b)	Disposal of radioactive waste on or from the premises	

Table S1.2 Improvement programme requirements

Reference	Requirement	Date
S1.2.1	<p>The operator shall submit a stability risk assessment to the Agency for assessment. The report must -</p> <ul style="list-style-type: none">• update and improve upon the 2005 Stability Risk Assessment;• consider the stability of the flood defence bund(s) and the engineered basal / sidewall lining and capping systems to all phases of the landfill site (including Phases 1, 2 and 3), in terms of the site's ability to withstand potentially increased groundwater pressure and erosion and hydrostatic pressure from the River Ribble;• include a list of measures for implementing any necessary improvements to the landfill site; and• contain dates for the implementation of individual measures. <p>The operator shall implement the report's measures as approved by, and from the date(s) stipulated by, the Agency.</p>	Three months from the effective date of this permit.
S1.2.2	<p>The operator shall review the stability risk assessment referred to in S1.2.1 above, and shall submit a report of the review to the Agency.</p>	Six years from the effective date of this permit, and every six years thereafter.
S1.2.3	<p>The operator shall provide the Agency with a report of a review of the activities undertaken to demonstrate compliance with the limits and conditions specified within this permit (including checks, monitoring, sampling and audits). The review shall consider whether best available techniques are being used, and the report shall include a programme for carrying out any necessary changes identified by the review.</p>	Every three years from the effective date of this permit or as otherwise agreed in writing by the Agency

Table S1.3A Pre-operational measures

No measures specified

Table S1.3B Pre-operational measures for future development

Reference	Operation	Pre-operational measures
		No measures specified

Schedule 2 – Accumulation of radioactive waste**Table S2.1: Accumulation of radioactive waste**

Specified waste type	Radionuclide or group of radionuclides	Activity limit	Volume limit	Period limit
Solid Low Level Waste	Any radionuclide	The standard LLW limits apply	None specified	14 days

Schedule 3 – Disposals of radioactive waste

Table 3.1 Specified disposal by on-site burial in Phase 4 of the site

Specified Waste type	Radionuclide or group of nuclides	Activity limits		Volumetric Limits
		Annual limit GBq/year	Specific activity limit Bq/gram	
Solid Low Level Waste	Radionuclides of Uranium (U^{232} , U^{233} , U^{234} , U^{235} , U^{236} , U^{238}), taken together	500	N/A	-
	Radionuclides of Thorium (Th^{228} , Th^{229} , Th^{230} , Th^{232} , Th^{234}), Tin-126 and Niobium-94, taken together	100	N/A	-
	Radionuclides of Caesium (Cs^{134} , Cs^{137}), Europium (Eu^{152} , Eu^{154} , Eu^{155}), Ruthenium (Ru^{103} , Ru^{106}), Actinium-227, Silver-110m, Barium-133, Carbon-14, Chlorine-36, Cobalt-60, Iodine-129, Niobium-95, Antimony-125, Strontium-90, Technetium-99, Zinc-65 and Zirconium-95, taken together	10	N/A	-
	Radium-226, Radium-228, Lead-210 and Polonium-210, taken together	6	N/A	-
	Cerium-144, Iron-55, Manganese-54, Nickel-63, Promethium-147 and Plutonium-241, taken together	2,000	N/A	-
	Radionuclides of Americium (Am^{241} , Am^{243}), Curium (Cm^{242} , Cm^{243} , Cm^{244}), Alpha-emitting Plutonium radionuclides (Pu^{238} , Pu^{239} , Pu^{240} , Pu^{242}), Silver-108m, Neptunium-237 and Protactinium-231, taken together	50	N/A	-
	Tritium	10,000	N/A	-
Solid Low Level Waste	Strontium-90, in any volume of waste	-	100	-
	All radionuclides, taken together, in any volume of waste	-	1,000	-
	All radionuclides, taken together, averaged over every successive 10 tonnes of waste disposed of at the premises	-	200	-

Schedule 4 - Notification

These pages outline 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 disposal. Where appropriate, a comparison should be made of actual disposals and permitted disposal limits.

Part A

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

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or disposal which has caused, is causing or may cause significant pollution or may generate significant amounts of radioactive waste

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 disposal into the environment took place	
Radionuclides potentially released	
Best estimate of the quantity or rate of release of radionuclides or amount of radioactive waste generated	
Measures taken, or intended to be taken, to stop any disposal	
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

Disposal outlet reference / source	
Radionuclides	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the disposal	

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	
Radionuclides detected	
Activity of radionuclides detected	
Date of monitoring / sampling	

Part B - to be submitted 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 contamination of the environment which has been or may be caused by the disposal	
The dates of any unauthorised disposals from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Sita (Lancashire) Ltd.

Schedule 5 - Interpretation

In this permit, except where otherwise specified, words and expressions defined in the Environmental Permitting (England and Wales) Regulations 2010 in relation to radioactive substances regulation shall have the same meanings when used in this permit as they have in those Regulations.

"*activity*", expressed in becquerels, means the number of spontaneous nuclear transformations occurring in a period of one second.

"*annual limit*" means the limit over a period of a calendar year.

"*best available techniques*" means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available techniques in general or individual cases, special consideration shall be given to:

- a. comparable processes, facilities or methods of operation which have recently been successfully tried out;
- b. technological advances and changes in scientific knowledge and understanding;
- c. the economic feasibility of such techniques;
- d. time limits for installation in both new and existing plants;
- e. the nature and volume of the discharges and emissions concerned.

"*techniques*" include both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled.

"*Bq, kBq, MBq, GBq, TBq and PBq*" are used as abbreviations meaning becquerels, kilobecquerels, megabecquerels, gigabecquerels, terabecquerels and petabecquerels respectively.

"*calendar year*" means a period of 12 consecutive months beginning on 1 January.

"*environment*" means all, or any, of the media of air, water (to include sewers and drains) and land.

"*environmental safety case*" means the set of claims concerning the environmental safety of the disposal of solid radioactive waste, as described in the guidance on the "Near-surface Disposal Facilities on land for Solid Radioactive Waste" at <http://publications.environment-agency.gov.uk/pdf/GEHO0209BPJL-e-e.pdf>

"*LLW*" means solid radioactive waste, including any immediate packaging, with a maximum concentration of 4 gigabecquerels per tonne of alpha emitting radionuclides and 12 gigabecquerels per tonne of all other radionuclides.

"*MCERTS*" means the Environment Agency's Monitoring Certification Scheme.

"*month*" means calendar month.

"*packaging*" includes any sack, drum, container or wrapping.

"*RPA*" means a Radiation Protection Adviser appointed under Regulation 13 of the Ionising Radiations Regulations 1999.

"*samples*" includes samples that have been prepared or treated to enable measurements of activity to be made.

"*year*" means calendar year.

