Environmental Management System

Alne Brickworks Former Landfill Site

Prepared by Sarah Manwaring

ROOTS - Recycling of Organics Technical Support

On behalf of Allium Helmsley Ltd - June 2021

Introduction

This Environmental Management System (EMS) details the management of the site's environmental programs for developing, implementing, and maintaining policy for environmental protection. It is written in accordance with Environmental Permitting Regulations.
It is a working document for managing all operational issues on site and shall always be adhered to. All site personnel are trained in the requirements of the plan and priority will be given to these measures over production requirements.

The EMS identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances.

Site Overview

Company Details: Allium Helmsley Ltd

Address: Alne Brickworks Former Landfill Site**,** Forest Lane, **A**lne YO61 1TU

Grid Reference: SE 52001 66251.

Site Location

The site is a former landfill site located off Forest Lane, 1km north east of Alne.
The site is accessed directly off Forest Lane to the north. Immediately to the west of the site lies the Forest Lane Fisheries, a series of lakes and open water operating as a coarse fishing venue. Immediately to the west of the application site lies the applicant's in-vessel composting facility and associated operations beyond which lies the operations of the York Handmade brick Company Ltd at Alne Brickworks. Land to the south of the application site is currently agricultural, although quarrying operations have recently commenced.

The surrounding area is characterised by its rural nature with isolated properties scattered around the periphery of the site. The closest residential property is located approximately 100m to the west of the application site and is associated with the adjacent fisheries. Forest Hall Farm is located over 500m to the north east of the application site, whilst the access to Low Shires Farm is located immediately opposite the application site, the farm buildings are located some 750m further north.
Scope of EMS

Scope

The EMS applies to all restoration activities on the Alne Brickworks Former Landfill Site, including the receipt, storage and application of wastes to compete the landfill restoration.

Environmental Risk Assessments

Environmental risks assessments have been carried out using the Environment Agency guidance. These were carried out on all the sites activities and outputs are identified to establish those which are significant and so to take account fully of these in the EMS.

Legal and other requirements

The operator will establish and implement procedures to identify the legal and regulatory requirements and determined how these apply to the environmental risks such that they can fully take account of these in the EMS.

Objectives, targets and programmes

Once fully operational as an installation, the objectives and targets will be established for site operations, taking the policy, legal requirements, and the site significant environmental aspects into consideration. These objectives will be documented including responsibilities, targets, and timescales. The objectives and targets will be monitored and reviewed at least annually.

Resources, roles, responsibility, and authority

Ged Denny is appointed to the overall management of the site. He is responsible for implementing the EMS on site. As well as well as being the designated person for technical Competence at the site.

TCP Details: Ged Denny

Qualifications: WAMITAB Level 4

Any change to the technical competent person on site will be submitted to the Environment Agency within 5 days of the change being made.

Site Management shall ensure that suitably trained and competent staff are present to manage and operate the activities correctly. Personnel have clearly defined roles and responsibilities. Staff numbers will be maintained at a level adequate to operate and supervise the site effectively and throughout periods of employee absence.

Competence, training, and awareness

A training programme will be established to ensure that all of the site personnel are competent in the activities that they play a part in delivering.

Training needs are assessed for each position and are planned and reviewed by the site management on a regular basis, considering the requirements of the EMS and other statutory requirements.

Communication

Systems will be implemented to document the internal and external communication procedures.

Documentation & Control of Records

All records of all wastes and activities associated with the permit will be: legible; be completed as reasonably practicable; if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and be retained until permit surrender. Any person working on the site will have access to the permit and EMS.

All documents relating to the site operations will be held at the Allium Office located at the adjacent Alne Material Recovery Facility site office. Copies of the permit and EMS will be made available to all site personnel.

Document control will be demonstrated. Site documents and monitoring forms will include a title, version number and issue date. Old versions will be removed from site office and archived.

All records will be maintained until permit surrender.

Non-conformity, corrective action, and preventive action

All environmental accidents, incidents and non-conformances are reported, documented, and result in appropriate preventive and corrective actions. These will include any complaints or placement quality issues.

Internal Audits

Internal audits will be implemented which ensure that all parts of the EMS are subjected to an internal audit over a period of a year. Results are reported to senior management.

Management Review

The company will carry out at least an annual review of the EMS including all site management plans to ensure its on-going suitability, adequacy and effectiveness which shall be recorded. The review will consider opportunities for improvement, environmental objectives, and targets. The review will include actions from previous reviews, summaries of the results of internal and any external audits, assessments of compliance with legal and other requirements, complaints and communications from external parties such as regulators, environmental performance, changing circumstances in the business and for example in legislation, and status of corrective and preventive actions.

Waste Avoidance

It is not anticipated that there will be any waste generated from the recovery activity. Any wastes that arrive on site that are not suitable for use on the restoration will be rejected.

Operational Control

Emergency Preparedness and Control

The Company is committed to preventing accidents and incidents that could have an impact to people and the environment. This EMS does not replace any statutory requirements and should be read in conjunction with other documents that form the wider management system for the site. The Company will ensure they:

- Identify all hazards associated with the Site and its operations
- Provide and maintain an EMS including details for dealing with accidents and incidents on site.
- Provide comprehensible training to staff and contractors working on site on this plan and all aspects of preventing environmental accidents and incidents.
- Ensure the plan is available on site and that all staff knows where it is kept.

Monitoring

Regular (daily) monitoring and inspection of the whole site is carried out by the Site Manager. These checks are recoded in the Site Diary, any problems identified are actioned without delay.
Daily Checks include:

- Site infrastructure, building, doors, drains, tanks, concrete pad
- Housekeeping - site ensure effective housekeeping is maintained and other permit conditions are adhered to minimise fibre, dust and paper/litter build-up within the building, equipment, or in bays and around the site.
- Plant and Equipment- pre and post use checks are carried out
- Waste Piles – no signs if excessive steaming, daily checks on external piles for moisture and temperature.

Plant and Equipment Checks & Maintenance

A planned preventative maintenance system is in place to ensure proactive servicing and replacement of key plant and equipment, this type of system reduces the risk of equipment fail. This type of maintenance is in place to ensure all site plant and equipment is well maintained, meets manufacturers, legal and operational requirements and is in a serviceable condition to ensure that mechanical faults in the plant and equipment cannot cause fire.
All mobile plant used on-site is fitted with fire extinguishers.
Waste operatives will carry out daily inspections (Pre-use checks) on all plant and equipment. These checks will include check on engine and exhaust electrical checks as well as checks on cleanliness of vehicle and cleaning to prevent any build-up of dust or debris that could cause a fire.

Waste Acceptance Procedure

Pre-Acceptance Checks

It is important that wastes are understood fully, to do this a comprehensive characterisation of the waste must be carried out prior to acceptance. Characterisation includes upstream audits and waste testing to establish the legal, chemical and physical suitability for the restoration.

Prior to accepting wastes the operator will obtain, as a minimum, the following information about the characteristics of each waste stream:

- the full address where the waste was produced; and
- the identity of the producer; and
- all the reasonably identifiable previous uses of the producer site where the waste is excavation waste; and
- the process giving rise to the waste; and
- the physical appearance of the waste including colour and texture; and
- where a weighbridge isn't used a metric conversion factor for volume (cubic metres) to weight (tonnes) for each waste stream; and
- the quantity of waste to be imported; and
- It is suitable for use without further treatment.
- It can provide a benefit in isolation to soil/plants.
- It is analysed for parameters relevant to the waste type(s).
- Analysis is carried out prior to mixing with other wastes.

Wastes will only be accepted if it is listed in the approved list of wastes (shown in table 1 below). In addition, the waste must also meet the following:

- For any wastes used in the subsoil layers these are inert wastes
- For both topsoil and subsoil appropriate measures have been taken to ensure that the waste is free from contamination
- The waste has been identified as a suitable waste in the approved waste recovery plan;
- The waste is allowable on the permit
- The waste is non hazardous
- The waste's chemical, physical and biological characteristics make it suitable for its intended use on the site.

Waste Types

Table 1 Waste Types

Permitted waste types				
Source	**Sub-source**	**Waste code**	**Description**	**Additional restrictions**
17 Construction and demolition	17 05 soil stones and dredging spoil	17 05 04	Soil and stones other than those mentioned in 17 05 03	Restricted to topsoil, peat, subsoil and stones only.
19 Wastes from waste management facilities	19 05 wastes from aerobic treatment of solid wastes	19 05 99	Compost Like Output (CLO)	Restricted to topsoil layer only
	19 12 wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	19 12 09	Minerals (for example sand, stones) only	Restricted to wastes from treatment of waste aggregates that are otherwise naturally occurringminerals. Does not include fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard.
		19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	Restricted to crushed bricks, tiles, concrete and ceramics only. Metal must be removed. Does not include fines from treatment of any non- hazardous waste or gypsumfrom recovered plasterboard.
	19 05 wastes from aerobic treatment of solid wastes	19 05 99	Compost Like Output (CLO)	Restricted to waste from the Alne Material Recovery Facility. Top-soil layer only.

Testing Wastes

To carry out the initial assessment that the waste is suitable the waste producer must collect representative analysis of the waste. The parameters and limits that the waste will require to be tested against is included in 2 & 3 below. Wastes that do not meet the Waste Acceptance Criteria will not be considered suitable for the restoration.

Waste Acceptance Criteria

For each source of waste details from the initial assessment and specific WAC based on the limits below will be agreed with the producer and available on-site to be used to assess incoming wastes against. This will include details of the testing but also details of the EWC, source of waste and characteristics. This information will be used to assess the waste on arrival at site.

Table 2 Sub-soil WAC limits

Parameter	Units	Limits / Range
Analytical Tests (tested on an as received basis)		
PTEs		
Arsenic	mg/kg	50
Cadmium	mg/kg	20
Chromium	mg/kg	1000
Copper	mg/kg	1000
Lead	mg/kg	750
Mercury	mg/kg	16
Nickel	mg/kg	300
Selenium	mg/kg	10
Zinc	mg/kg	2500
Other Criteria depending on source		
PAH	mg/kg	<100

Table 3 Top-soil WAC Limits

Parameter	Units	Limit	Notes:
Total Zinc	mg/kg dm	<2,500	All Wastes
Total Copper	mg/kg dm	<1,000	
Total Cadmium	mg/kg dm	<20	
Total Nickel	mg/kg dm	<300	
Total Lead	mg/kg dm	<750	
Total Chromium	mg/kg dm	<1,000	
Total Mercury	mg/kg dm	<16	
Total Arsenic	mg/kg dm	<50	
Total Selenium	mg/kg dm	<10	
Organic Matter	% dm	>15	CLO Only
E. coli	cfu/g	<1,000	
Salmonella spp	/25g	Absent	
Stability	mg/COig OM/day	<16	
Total Plastic >2mm	% w/w	<2.5	All wastes
Total Other Physical Contaminants >2mm	% w/w	<2.5	
pH	Range	5.5-8.5	All wastes

Waste Acceptance Checks

All waste will be inspected on arrival prior to tipping to ensure it complies with the details above and the waste's agreed Waste Acceptance Criteria (WAC). Duty of Care documentation will be checked to ensure the waste is from the correct source and has the correct EWC and classification. Only wastes from agreed sources that have been pre-booked will be accepted.

In addition, waste will be visually inspected prior to tipping to ensure it is free from obvious contamination and it meets the characteristics set out in the agreed WAC.

Rejecting Wastes

Any waste that does not comply with all of the conditions of the WAC will be rejected and removed from the site; or moved to a designated quarantine area pending removal.
If there is suspicion of contamination, waste acceptance will be suspended, and a compliance sample of the waste will be collected. Any wastes that do not meet the agreed Waste Acceptance Criteria will be rejected immediately.

Compliance Sampling

As detailed above if there is any suspicion of contamination additional samples will be collected at site. Additional samples will be collected periodically (1-3 times per year) depending on waste type and what has been agreed in the WAC with the producer.