

The logo consists of a dark grey rectangle. Inside, there is a yellow horizontal line above the text "LAING O'ROURKE" in white, and a red horizontal line below the text.

LAING O'ROURKE

ENVIRONMENTAL and ENERGY MANAGEMENT PLAN

Abraham Moss

August 2021

Revision History

	Summary of Amendments	Completed By	Date
1.0	First draft – phase 1 (temporary facilities)	T Meakin	31.01.20
2.0	Second draft – pre-start of main works	T Meakin	05.02.21
3.0	Quarterly update	E Galbraith	01.06.21
4.0	Updated with EnPIs section – remains tbc	E Galbraith	03.08.21
5.0			
6.0			
7.0			
8.0			
9.0			
10.0			
11.0			

The Laing O'Rourke Group Environmental and Energy Management Systems define in detail how environmental and energy management is applied throughout the group. The key requirements and actions within the environmental and energy management systems, at an operational level, are defined within this document, the Environmental & Energy Management Plan. The purpose of this plan is to ensure that this location is enabled to comply with all relevant environmental and energy legislation and other requirements and to continually improve environmental and energy performance and processes. These processes are based upon requirements of BS EN ISO 14001:2015 Environmental Management Systems - Specification and ISO 50001:2018 Energy Management Systems – Specification with guidance for use.

Please note: all official guidance, EMS and EnMS proformas and links to legislation and other useful websites can be accessed via iGMS through the Laing O'Rourke Environmental and Energy Planning files.

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Introduction

This Environmental & Energy Management Plan (EMP) describes the high-level processes followed to fulfil the requirements of the Laing O'Rourke Environmental and Energy Management Systems / ISO 14001 and 50001 standards.

The context of the organisation and the scope of both Management Systems are addressed online within the iGMS.

Both Environmental and Energy Management within Laing O'Rourke is a Business wide issue and is part of the Group's Sustainability strategy - it does not start and stop at the gates of a construction site or office. It affects all our employees and crosses all departmental boundaries at all locations.

The sustainability philosophy adopted by Laing O'Rourke is to ensure that the environmental and energy impacts resulting from its operations are effectively controlled and minimised, to ensure compliance with all relevant legislation and other requirements and to continually improve its environmental and energy performance and processes.

1.0 Scope of Plan

This document is a summary of the main requirements of the ISO14001 and 50001 standards, Client and stakeholder obligation and location specific goals. The main operational controls sit as appendices to it, but these are the critical and live aspects of the EMP.

This Environmental & Energy Management Plan (EMP) is prepared for Abraham Moss and covers the environmental and energy impacts relating directly to the construction activity within the site boundary, but also within the local area that may be affected by the development/activity. The Environmental Risk Assessment, Resource Management Plan and Environmental Emergency Plan are the three key planning procedures that constitute the EMP and these are discussed in later sections.

Review of this EMP and supporting procedures/documents must be completed quarterly. The summary EMP document (this one) will typically only have small changes made (appointments, objectives added/closed).

1.1 Scope of works

Abraham Moss Leisure Centre is a new development that will form part of the wider site, including a primary school, secondary school and adult learning centre.

Construction of the temporary facilities was completed in May 2020 at which point the project was put on pause due to COVID-19.

The new construction aspects will include building a new sports hall, swimming pool, gym and changing facilities, as well as a library and reception area. The build is predominantly in-situ.

It is a tight site, with the schools remaining operational throughout. In addition, there is also a Manchester Metro line stop adjacent to the site.

There will be embargo hours for deliveries in order to reduce congestion around school drop off and pick up times:

08:00 – 09:00

15:00 – 16:00

The demolition works commenced on 1st March 2021 and the main works to follow in August 2021.

1.2 Deviations from minimum EMP templates/process

There are minimum requirements for several templates/procedures and activities in accordance with the Laing O'Rourke Environmental and Energy Management Systems (see Guidance – EMS Document Revision Tracking). However, with the agreement of the visiting advisor, adjustments can be made in line with the levels or risk or activity occurring. Deviations at this location include:

Document/Procedure	Deviation	Reason	Agreed (Date/Name)

*Deviations are agreed with the Environment Leader and a record is kept of the emailed authorisation.

There are currently no deviations in place on the Abraham Moss project.

2.0 Environmental & Energy Policy (ISO 14001 Clause 5.2)

The Environmental and Energy Policy relevant to the Laing O'Rourke European Business are signed by the Chairman. Policies are held on the policy section of the Laing O'Rourke iGMS.

The policies which currently include: the Environmental & Energy Policy and Sustainability Policy. They are available on iGMS. The Environmental & Energy Policy is displayed on noticeboards and communicated to staff and to those organisations working for or on behalf of Laing O'Rourke as appropriate. Any of the policies are available to external parties including the general public, on request.

3.0 Planning (ISO 14001 Clause 6)

This Environmental & Energy Management Plan has been developed and will be implemented and maintained during all phases of demolition and construction including pre-construction phase (including design stage, demolition); construction stage and post construction as appropriate.

Post-construction EMP activity will include: closing out actions related to the Resource Management Plan, recording and archiving any relevant documentation/calibration records; closing down of any permits acquired for the project; and ensuring lessons learned are captured centrally for discussion in the annual management review.

3.1 Environmental Aspects (ISO14001 Clause 6.1.2)

The environmental aspects of our activities have initially been identified during design and bid stages and then are assessed with a 3-6 month look ahead against our activity/programme of works. To align with the rest of the business and to simplify, we do not refer to "aspects and impacts" in the traditional sense. Instead we use language our people understand i.e. "risk". These are recorded in the Environmental Risk Assessment (ERA) which considers the location and activity specific risks and impacts. The ERA is an integral part of this EMP although held as an appendix due to complexity.

The **main** environmental risks and energy issues (not all) associated with our activity at this location are in the table below. The detailed review of our aspects is held and managed through the ERA.

Risk issue (Aspect/Impact)	Activities
Noise	Various activities will generate noise which could impact the wider site, in particular the schools. The team will adopt best practicable means to limit the noise generated and will be in regular contact with the schools to communicate any specific activities that may have an affect.
Contaminated Land	The land adjacent to the site (to the east of the school is known to be contaminated. Initial ground investigation has not shown any contamination within the actual site boundary, however this has not flagged up any contamination. Whilst this is the case, it remains a risk. The workforce will be briefed on contaminated land, in the event that any contamination or hotspots are uncovered during the groundworks.
Community	With the site situated amongst a live school development, communication with the community and schools will be imperative to mitigate any risks.
Energy Management and performance	The site will be working to ISO50001 and will develop plans and targets in line with this.

3.2 Legal and Other compliance obligations (ISO14001 Clause 6.1.3, 6.1.4)

All legal and contractual (client/planning) requirements are incorporated as appropriate into the **Environmental Risk Assessment (ERA)** with appropriate controls and mitigation measures detailed. All permits, licences and consents that may be required during construction have been, and will continue to be, identified and applied for accordingly, ensuring that sufficient time is allowed.

A Group Environmental Legal Register is maintained and held on iGMS. The Legal Register includes legislation that directly impacts our business, but also that that may be indirectly related (items we have no control over but may impact on the developments we work on) and legislation that may be of interest/provides context. Any significant changes to the Group register that may impact on the organisations operations will be communicated internally, through the HS&E Bulletin, Environmental Information Notes and leadership meetings where appropriate.

At this location, the key environmental legislation that has been considered and addressed is predominantly around:

- Water quality
- Air Quality
- Waste
- Noise
- Energy Consumption
- Vibration (nuisance perspective)
- Contaminated Land
- CO₂ Emissions
- Processes that could contaminate land, water or air
- Local Authority planning permissions and requirements

3.3 Client /Planning Specific Requirements

At this location we have also a number of client / planning specific requirements. These are:

Client /Planning Requirement	How they are addressed
Remediation Strategy & Verification Report	Ramboll appointed to carry out additional testing, write the remediation strategy and also the verification report once groundworks are complete.

3.4 Stakeholders and Interested Parties (ISO14001 Clause 4.2)

At this location we have a number of local stakeholders and community groups that have an acute interest in the development and our business.

Local Stakeholder	Issues/Concerns/Goals	How they are addressed
Abraham Moss Community School	Safety risks around operating in close proximity to a live construction site. Additionally issues potential issues around construction traffic and congestion, as well as noise.	Regular meetings with the school to provide updates, particularly on exceptional activities that may have more impact on the school. Just in time deliveries.
Manchester City Council (Client)	Reputational damage of the build does not go to plan (over-run, over-budget, poor quality)	Robust processes in place, regular meetings and engagement with the client.
Metroline Users	Construction traffic, difficulty of access	Good traffic management, clear signage
Local residents	Noise, dust, congestion	Regular newsletters
Abraham Moss Leisure Centre	Change in services, quality of facilities, noise, dust, congestion	Regular updates, Just in time deliveries.

3.5 Objectives and Targets (ISO14001 Clause 6.2)

A number of key environmental and energy objectives and targets are defined and communicated on an annual basis, through the company annual report. These objectives and targets align with longer term corporate goals and strive for continuous improvement.

This location has developed specific environmental and energy objectives which align as appropriate with our environmental risk profile and any particular client/planning requirements. These are recorded in the Objectives and Targets table below which lists the corporate, Business Unit and location specific environmental and energy objectives and targets.

Objective - What is it you are targeting (water/waste/energy minimisation/timber cert./ BREEAM etc.)

Actions – what is required (detail may be embedded within e.g. Environmental Risk Assessment)

Responsibility - who is the lead that is going to make this happen?

Evidence / Progress - how is progress going to be monitored?

Target/Time Constraint – realistic timescales – some may be project duration; short term / one off?

Examples below in red – alter/replace as required

Objective	Actions	Responsibility	Evidence / Progress	Target/Time Constraint
Location Specific Objectives/Targets (Mandatory to set)				
Achieve water consumption 10m3/£100k	Collect waste data from all relevant contractors	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.

Achieve waste of 6.5t/100m2	Collect waste data from all relevant contractors	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.
Achieve 1500kgCO2/£100k	Collect electricity and fuel data from all relevant contractors	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.
Achieve X% reduction in energy use	Collect data for a 6 month period. After this period review with the project team and set target.	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Timescales to be agreed at the 6 month review. Likely to be requirement to achieve by the end of the job or after a year.
Achieve waste transportation emissions of 400kgCO2/100k	Collect km travelled, fuel consumption and total CO2 emissions	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.
Achieve materials transportation emissions of 800kgCO2/100k	Collect km travelled, fuel consumption and total CO2 emissions	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.
Client Objectives				
BREEAM Very Good	Review pre-assessment. Complete regular reviews.	Tatiana Meakin	Tracker + reviewed monthly, unless otherwise required.	Achieve Very Good at Design Stage by end April 2020 (as a minimum have all evidence submitted, awaiting review by SRL or decision by BRE).
NWCH waste target (Xt/£m)	Awaiting further details on revised targets.	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Achieve at the end of the job. Review monthly to track progress

3.5.1 Energy Action Plans

Our corporate energy management system requirements need to be considered when reviewing energy performance related risk and opportunity and may result in improvement plans in the form of the EAP – Energy Action Plan as appropriate. Energy management and performance should be a consideration in ERA, but could also form one or more of the location specific objectives. Implementation of an EAP may be triggered by a corporate initiative; client initiative or most likely as a result of the quarterly review and update of the Ste Energy Review or performance review in meetings such as HS&E or progress meetings.

Corporate	Issues/Concerns/Goals	How they are addressed
Clients	Energy efficiency considered element of quality control for construction projects Positive PR from energy-reduction innovations applied to construction processes on projects	Ensure efficient delivery Capture and communicate good news stories
All Employees	Job satisfaction & fulfilment associated with progress in saving energy/reducing carbon	Capture and communicate success
Select Plant Hire	Ensuring Select offer the most cost-effective vehicles, plant, site accommodation,	Track opportunities to update our offer to projects/sites, and ensure

	equipment to staff and projects, from a whole-life perspective	presentation of opportunities which encourage uptake of most efficient options
Facilities Management	Improving data management with respect to energy consumption Tracking technology progress relating to energy consumption Investment in the optimal energy solutions in our permanent premises, informed by data	Support development of data systems and maximise value of data collected for driving improvement Support investment in optimal solutions Communicate successes in improving energy management that results
Finance/ Commercial	Track and minimise costs relating to energy bills and related investment	Ensure financial guidance and impetus for improved energy management

3.6 Energy Reduction – EnPi's, Target and Approach

3.6.1 EnPI and Reduction Target: TBC

NB: The energy reduction target setting is TBC at this stage.

The project has opted for an Energy Performance Indicator (EnPI) of **kWh per production unit / kWh per 100k turnover / kWh per staff number / kWh per man hour [delete/amend as applicable]**.

Advice from the Carbon Trust suggests that a saving of 5-10% can be achieved through the implementation of an awareness campaign but this was not particular to a construction project that changes on a daily basis. After a review of the SEUs, 2.5 has been assessed as appropriately stretching reduction target range, to be realised by the end of the project. The baseline period against which this reduction target will be measured covers the first 3 months following the site's connection to the electricity grid.

The **2.5%** energy reduction target is based on total estimated savings from the following specific planned action(s) for this project. Performance will be monitored and measured based on the metric above.

The energy forecast for this project iskWh **per 100k turnover / / kWh per man hour** . The target reduction therefore anticipates performance of to meet a **2.5%** reduction.

<u>Specific Target</u>	<u>How it will be Monitored/Measured</u>	<u>How will it be Achieved</u>	<u>Time-frame</u>
Reduce energy consumption by [2.5%] (normalised against [kWh/100k or kWh/man hour]) compared to [insert baseline date]	Include energy performance in monthly KPI monitoring and reports and discuss progress in monthly environmental meetings with project managers.	[INSERT CURRENT / PLANNED ACTIONS BEING TAKEN] <i>Awareness campaigns, onsite Training Modules, including Toolbox Talks, Presentations, Collective Insights, Environmental Severe Risks targeted at key 'intervention points' (as per Energy Master Programme)</i>	[INSERT PERIOD OVERWHICH REDUCTION TARGET WILL BE MONITORED AND ACHIEVED]
Improve driver efficiency behaviour (micro-experiment)	Using telemetry Information	Implementing efficient driver behaviour modules (through TBTs and onsite training as far as possible)	The duration of the project, reviewed six monthly

3.6.2 Methodology

A review of all current energy-using equipment on site and the planned large consumers (SEUs) was undertaken at the point of completion of the EnMS Site Energy Review Checklist. The following schedules and programmes (all initial documents available *in Appendix....or on server location:*) were used to identify the appropriate SEUs (Significant Energy Use) to target areas for possible energy reduction: *[delete/amend as applicable]*.

- A plant location report (issued monthly) which details all plant onsite (state appendix location) – this will be reviewed on a six monthly basis*
- Supply Chain tracking document (e.g. TORPS Schedule) – much of the works completed by our supply chain is carried out on site using the project's energy, and therefore play an important role in achieving our reduction target; the responsibility for which is communicated in our sub-contractor package information and at our pre-start meetings*
- Projected labour supply information*

The following people/roles were involved in the review:

Name	Role	Name	Role

3.6.3 Energy Review Outputs

The Energy review included the following:

- Location-specific considerations/opportunities*
- Allocation of responsibilities where EAPs (Energy Action Plans) have been instigated – listed in next section*
- Any other actions to be undertaken to keep energy use as low as possible*

Please add some notes around what was actually decided upon. Below is an example only.

Based on an initial evaluation, the site delivery team generated a master programme which identifies the project's biggest current and planned consumers of energy: the cranes, the hoists and Building Management System and Goods Lifts during commissioning (see Appendix C). This allows 'intervention points' to be identified, when training should be targeted.

It was also identified that the project is supplied with the newest plant in Select's fleet (due to 'Non-Road Mobile Machinery' (NRMM) and the 'Ultra Low Emissions Zone' (ULEZ) requirements). This not only means that the plant tends to be more energy efficient, but also presents an opportunity for a micro-experiment around telemetry data, as most of the newest machines have telematics machines.

Due to the changing and operational nature of the project, running a communication and awareness campaign to promote energy-efficiency across the site was identified as the most impactful action the project could take to improve energy performance. However, through the duration of the project we will be undertaking Collective Insights and Planned vs Actual sessions (PVAs) to gather ideas and feedback which may lead to practical changes we could make to supply or particular systems (e.g. temporary electrics).

3.6.4 Energy Action Plans

Energy management and performance are already a consideration in ERA, but can also form one or more of the location specific objectives. Implementation of an EAP can be triggered by a corporate initiative; client initiative or most likely as a result of the mandated **six monthly Energy Review** including update of the Site Energy Review Checklist where appropriate or performance review in meetings such as HS&E or progress meetings. EAP's are designed to target specific areas of focus e.g. behavioural programme; fuel trial; LED replacement programme; hybrid plant trial and can be long or short term. The EAP template is held within the Environmental Risk Assessment document.

On this project we have the following EAP (s)

Date	EAP Number	Brief Description	Lead (name)

Effectiveness of this EAP and how performance is developing (positively or negatively) is evaluated during the six monthly review of energy performance and the Energy Review Checklist. Progress will be monitored along with the typical KPI monitoring sheets.

4.0 Implementation and Operation (ISO14001 Clause 5, 7, 8)

4.1 Roles and Responsibilities (ISO14011 Clause 5, 7.1)

The European Hub Director has overall accountability for the effectiveness of the Environmental and Energy Management Systems. Day to day responsibility has been delegated to the Heads of HS&E and Sustainability & Carbon. Maintenance and development of the EMS & EnMS to meet stakeholder pressures, regulatory changes, ISO 14001 & 50001 certification and industry best practice requirements is the responsibility of the Environmental Leader and Energy Management Team.

The Head of HS&E will ensure an effective HS&E service is provided, staffed by competent personnel and ensure that each Business operates within the Group Policies. The Head of HS&E will report to the executive board.

The Head of Sustainability and Carbon Management is responsible for the development of strategic Sustainability and Energy Management programmes for business reporting into the Head of HS&E.

The Project Manager is accountable for the Environmental and Energy Management Plan and its implementation, but day to day maintenance of the EMP documentation and any reports will be carried out by the appointed Project Environmental Co-ordinator. An environmental co-ordinator will be appointed in due course, but for the time being, these responsibilities will be picked up by Tatiana Meakin.

The environmental and energy management structure and main personnel with key EMP responsibilities are listed in the table below. The appointment letter describing the full responsibilities of the Project Environmental Co-ordinator can be found on the server (folder 8.14.1).

Role	Name	Contact details
Location Environmental Coordinator	Craig Bland	07341 072 322

Environmental Advisor (visiting)	Emma Galbraith	07385 421 544
Project Leader	George Holgate	07887 056 930
Section Manager	Craig Bland	07341 072 322
Design Manager	David Cartwright	07850 115 471
Procurement Manager	Noel O'Sullivan	07833 980 230

4.2 Competency (ISO14001 Clause 7.2, 7.3)

Staff will be appointed to roles with responsibilities for managing environmental and energy issues based on their knowledge, training and experience of the relevant topic area.

Environmental and energy management training courses will be offered to the staff as required to complete their roles. The primary objectives of training are to ensure that:

- i. personnel are fully aware of the Environmental & Energy Policy and their respective roles and responsibilities;
- ii. personnel are fully aware of the potential environmental and energy impact of their work and associated environmental and energy issues;
- iii. individually and collectively, personnel are committed to the provision of a sound environmental and energy performance;
- iv. activities of personnel do not expose and Laing O'Rourke company to criticism or legal/financial liability;
- v. effective communication in respect of environmental and energy issues exists within the corporate body;
- vi. the potential consequences of not complying with the EMS, EnMS and legal requirements.

Whilst the training pattern adopted is holistic in application, i.e. from managers to operatives, to be effective in ensuring environmental and energy performance improvements it must be targeted, i.e. relevant and appropriate to the receiving individual/group, in form, depth and content. Each location will determine the environmental and energy training requirements of all personnel working for or on behalf of Laing O'Rourke and ensure that those needs are met.

Where the environmental and/or energy risks are significant, it is essential that this information received during induction is subsequently reinforced and expanded and that this continual training is targeted appropriately.

Site operatives and staff will attend additional specific environmental and/or energy presentations/training if, and when, identified.

Where appropriate, Environmental and Energy Efficiency Toolbox Talks (TBTs) will be given to site operatives (including subcontractors). Toolbox talks must be relevant to the current activity or environmental and/or energy risks present. A register of all attendees will be maintained in the Training Records folder on the server (8.14.16).

The Environmental Co-ordinator must have attended the one-day workshop or one-to-one competency session around their responsibilities which includes instruction on how to use the Laing O'Rourke IMPACT monitoring system. The Coordinator receives additional support from a regional or BU Environmental Adviser.

At this location records of all environmental and energy-related training including Spill Drill/Emergency condition drills will be maintained in the Training Records folder on the server (8.14.16).

5.0 Communication (ISO14001 Clause 7.4)

Internal Communication:

The Environmental and Energy Management Systems are communicated through the iGMS. The HS&E Leader for the Business Unit shall put in place the appropriate mechanisms to ensure that communication between the various departments and projects takes place relating, but not limited, to:

- Significant risks and opportunities
- Environmental incidents, hazards, near misses and complaints
- Changes to the Environmental and Energy Management System
- Audit Results and Trends
- Results of Management Review
- Objectives and Target Results
- Receiving, distributing and responding to communications from interested parties

These will be communicated via HS&E or Environmental Information Notes or HS&E Learning Bulletins, email communications, Sustainability Champions e-Newsletters, relevant Yammer groups; and site visits, inspections or audits.

At this location environmental and energy issues are communicated through a variety of means. ERA engagement; collective insights, inductions, tool box talks, Daily Activity Briefings, weekly progress meetings and sub-contractor tender meetings will all be used on the Project on a regular basis to communicate and discuss the environmental and energy aspects and impacts on the project. Communications from Group or Business Unit environmental and energy leadership will be passed on to site staff/operatives through postings on notice boards, email and face to face meetings as appropriate.

Good and best environmental and energy management practice shall be captured and communicated as a driver for continuous improvement.

External Communication:

All Laing O'Rourke companies will engage with all relevant stakeholders to ensure effective communication with regards its operations. For example, local residents that may be affected by construction works may be notified by letter drops, newsletters or through a project specific website.

Communication with environmental regulators and all enforcement visits or letters shall be formally recorded on the IMPACT database.

The Laing O'Rourke Group has taken the decision not to communicate externally regarding its significant environmental and energy aspects, unless there is a legal requirement to do so.

Contact by the Media

In the event of any contact being made any member of the media [e.g. press, radio or television], immediate reference should be made to:

The Madano Partnership
4th Floor South
Harling House
47-51 Great Suffolk Street
London SE1 0BS

Tel: +44 (0) 20 7593 4000

6.0 Documentation (ISO14001 Clause 7.5)

The main documents that form this Environmental & Energy Management Plan (EMP) include as appendices:

Environmental Risk Assessment (including an Energy Action Plan when required) (described under section 3., 3.4.1)

Resource Management Plan (described under section 3.1.)

Environmental Emergency Plan (described under section 4.7)

Licences, Permits and Exemptions Register

EnMS Site Energy Review (available on iGMS)

These will be held electronically in an Environmental Management File on the project server, in folder 8.14.

6.1 Control of Documents (ISO14001 Clause 7.5.2 and 7.5.3)

This Environmental & Energy Management Plan shall be reviewed and updated along with the main documents that are integral to the EMP (see section 3.1 Environmental Aspects) the Environmental Risk Assessment (ERA) and Resource Management Plan (RMP) which must be reviewed and updated (as necessary) **every three months** unless otherwise agreed by the BU Environment Leader.

Licences and permits should be reviewed quarterly to check and prepare for expiry dates.

6.2 Control of Records (ISO14001 Clause 7.5.2, 7.5.3)

All records related to this the EMP and environmental and energy management processes will be identified, maintained, controlled and disposed in accordance with the processes within the Environmental Management section of iGMS.

At this location, the EMP, supporting plans, documentation, environmental training records (NOT necessarily TBT's) are held here: server folder, 8.14.

Data relating to water use, waste, and energy use along with incidents will be recorded on IMPACT. Waste tickets will be held in server folder 8.14.3.

The types of EMP related records kept will include but are not be limited to: –

- | | | |
|---|--|-----------------------------|
| • Information on applicable environmental and energy legislation or other requirements | • Information on emergency preparedness and response | • Complaints |
| • Inspection and test reports (e.g. water/air quality/noise) | • Information on significant environmental and/or energy aspects | • Training |
| • Inspection, measuring and test equipment maintenance and calibration | • Incident reports (held on IMPACT) | • Process Information |
| • Records of any visits from enforcing bodies or interest parties (environmentally related) | • Pertinent contractor and supplier information | • Product Information |
| • Environmental management plan and file including associated documentation | • Audit results | • Waste management records |
| • Environmental consents and permits | • Management review | • Energy management records |

7.0 Operational Control (ISO14001 Clause 8.1)

The Laing O'Rourke Project Manager will ensure that appropriate environmental and energy controls are fully implemented. In particular, they will:

- i. Ensure projects are designed and programmed, where possible, with a view to having minimum effect on the environment and energy consumption during construction and after completion of project;
- ii. Ensure that environmental and energy management requirements are controlled through appropriate risk assessments, method statements, and work instructions including those of organisations working on behalf of any Laing O'Rourke company;
- iii. Ensure that procured material minimises harm to the environment and ensures safe movement;
- iv. Ensure that materials are stored to prevent pollution;
- v. Encourage all project personnel (including consultants and sub-contractors) to recycle material, to conserve energy and water, to reduce waste and to protect / enhance biodiversity.
- vi. Ensure site-specific operational and maintenance controls, records and procedures for any significant energy-consuming equipment provided by third party suppliers (i.e. not Select) are maintained locally where provided, and shared with the Energy Management Team upon request.

Evidence of following company operational and maintenance planning procedures may also be required where applicable – further guidance and information is available on iGMS.

7.1 Contaminated Land

The area to the east of the development is known to be highly contaminated. The site has been set up in such a way to ensure that all building works (including construction of the temporary facilities) are kept away from the areas of known contamination. This has included movement of the temporary sports hall and the construction will mean it is 'pinned' into the ground to avoid digging in to the ground.

Ground investigation has been completed for the main construction site, as well as the areas covered by the temporary facilities. To date all samples have returned 'non-hazardous' waste classifications.

All members of the workforce will be briefed on the requirements for identifying and dealing with contamination, including hot spots as well as the contents of the remediation strategy. A verification report will be produced at the end of the phase 1 works (construction of temporary facilities). Any training records will be held on the server in folder 8.14.

7.2 Documented Procedures

The main documented procedures for Environmental and Energy Management are as follows:

- EMP – EMP Summary document (this document)
- ERA – Environmental Risk Assessment
- EAP – Energy Action Plan (embedded in ERA, applicable according to risk/opportunity)
- RMP – Resource Management Plan
- EEP – Environmental Management Plan (can be incorporated into location Fire and Emergency Plan)
- Licences, Permits and Exemptions Register (can be incorporated into this EMP summary document where permitting is minimal)

Environmental Risk Assessment

This procedure is completed via a Collective Insight (H&S Next Gear engagement tool). Facilitated by the Environmental Manager/Coordinator, the Supervisor/Manager responsible for a particular

area of works e.g. Earthworks or Logistics, as a minimum (ideally people 'doing' the work should be involved) will discuss the work activities and the potential risks and impacts associated with that work. Together they will build the ERA for that with a look 3-6 month look ahead.

A risk rating is assigned before any control measures or mitigation have been considered and then once these measures have been applied as residual risk rating remains. These are assigned as Red for high risk, Amber for medium risk and Green for low or minimal risk. Not all residual risk will revert to Green. Anything remaining at Amber once all reasonable mitigation has been applied, will need particular care and attention and therefore actions relating to items like this will require more consideration by Supervision.

Any activity considered to be particularly high risk will be communicated with project management for inclusion in the **project risk register**. This may even include BREEAM and contaminated land requirements as these are often contractual requirements. Also delivery of low embodied carbon/procurement of locally sourced materials may fall into this category.

The Energy Action Plan is contained within the ERA document. This should be completed when there are any opportunities or risks identified through the location specific ERA process or related energy performance monitoring, or when it is driven by a specific stakeholder requirement.

Resource Management Plan

Waste is a significant environmental aspect of construction activity and as such is dealt with as a specific subject using a RMP (Resource Management Plan). The RMP is an integral part of this EMP (as an appendix) and is also referenced in the Environmental Risk Assessment (ERA).

The Resource Management Plan is a mandatory Laing O'Rourke document on projects. The RMP details the location waste targets (including recovery and re-use) and responsibilities for waste disposal. All waste generated will be taken away by licensed carriers to licensed tips. All waste transfer documentation e.g. transfer notes / consignment notes will include the appropriate six-digit EWC code and the SIC code.

Trade Contractors (especially those responsible for their own waste disposal) must provide Laing O'Rourke with all/any relevant licences and Duty of Care documents.

Waste data records will be maintained on the project on IMPACT. At the end of the project all waste dockets will be kept and archived for a minimum of two years for general waste and three years for hazardous waste.

Environmental Emergency Plan

Key 'typical' emergency actions are embedded into the ERA (Environmental Risk Assessment.) The Environmental Emergency Plan also considers contingency planning where the risks are more significant. At this location we are using the EEP.

Licences, Permits and Exemptions Register

A list of permits / consents / exemptions and licences other than waste (e.g. pollution control, exemption certificates, discharge, works near watercourses, random licence checks etc.) will be maintained. It is recommended where there are many location specific permits that a quarterly check is done to ensure any expiration dates are captured early. The frequency of checking can be changed and will be noted in the Monitoring / Inspection Routine (section 9.1 of this EMP).

Where there are very few permits/consents or the number reduces, this 'register' can be incorporated into this EMP summary document in this section of the EMP.

Energy Management System Manual

This provides procedure for planning, monitoring, managing, measuring and reporting on energy performance, use, objectives and targets. It is supported by a range of documents referenced

throughout the manual and links into existing EMS documentation, some of which are list above. The manual is available on iGMS and should be referred to when considering energy efficiency and management throughout a project's lifecycle.

8.0 Emergency Preparedness and Response (ISO14001 Clause 8.2)

A full Environmental Emergency Plan (EEP) is provided as part of this EMP in the appendices. All Environmental and/or Energy-Related incidents, however small, will be recorded on IMPACT – under 'Environmental Incidents'. They will also be recorded on our monthly environmental reports for the Client if required.

Site plans indicating the location of drainage and also of spill kits will be kept in the Environmental Management File, but where risk is significant, will also be displayed as appropriate on the noticeboards on site with the Fire & Emergency plans.

The ERA (Environmental Risk Assessment) also includes some high level emergency actions.

It is imperative that the emergency response plan is tested. Training how to deal with spills is not the same as testing the effectiveness of the plan. As a minimum, spill drills (other types of drill could be simulated) should be carried out at least annually if no incidents have occurred on site in the interim period. If there is not risk of spills, the EMP will reflect this in the deviations section.

9.0 Checking (ISO14001 Clause 9)

9.1 Monitoring & Measurement (ISO 14001 Clause 9.1)

The EMP shall identify how the applicable environmental and energy aspects of the project / location will be monitored (e.g. visual inspection, tests or reports, metering) and the frequency that such monitoring will be undertaken.

All operations and activities having a significant impact on the environment and energy performance shall be regularly monitored and measured.

Any equipment used to monitor or measure shall be checked and calibrated to ensure results are reliable. Records of maintenance and calibration shall be retained and kept in the Environmental Management File.

Minimum Inspection/Monitoring/Activity for:	
Location:	Abraham Moss Leisure Centre

Activity	Weekly	Monthly	Quarterly	6 Month	Annually	As & when required
Waste info input to IMPACT (Also checking info on dockets, chasing waste reports)		X				
Water benchmark monitoring (data on Impact)		X				
Energy consumption monitoring (data on Impact)		X				
Environmental Inspection on IMPACT		X				

Environmental Incidents						X
Review of permits, licences and legislation			X			
EMS Audit and EnMS Audit (carried out by Head Office Team / Lead Auditors)					X	
Calibration Certification			X			
Environmental NCR's (to be reviewed to maintain corrective action)						X
Waste procedure re-briefs (WTN completion AND management)						X
Sub-contractor Environmental Audits (frequency/ applicability to be discussed with BU Environment Leader)						X

Red are mandatory monitoring or completion requirements

9.2 Visit by Statutory Bodies / Interested Parties

During the lifetime of the project there may be a number of visits from statutory bodies including water authorities, Environment Agency, local authorities, HSE etc. Some visits will be scheduled and part of ongoing monitoring against consents or permits. Other visits will be a response to a perhaps a concern from that body or in response to a complaint from the public or another party.

All visits - unscheduled (responsive= Incident Reporting) and scheduled (monitoring = Visits) will be recorded on IMPACT. All records/documents/emails relating to these visits should be uploaded to IMPACT with the record of attendance.

9.3 Evaluation of Legal Compliance (ISO14001 Clause 9.1.2)

The Laing O'Rourke group Legal Register is maintained and held on the EMS. At a location (project/depot/facility), legal compliance will be evidenced through fulfilment of the permitting, consents and licence (and sometimes planning conditions) requirements applicable to that location as well as testing and related records and inspection/audit. Evaluation is carried out at:

Operational level:

- Regular or mandatory inspections and/or tours as defined in the monitoring routine above.
- The monitoring and testing that is required to comply with any consents or permits and related record keeping (e.g. ph testing, notch gauge readings, noise monitoring, meter readings)
- Potentially audit or inspection (not a formal process) of the location or of any supply chain that contribute to compliance with consents, licences or permits.
- External visits from issuing bodies or contractual parties (e.g. water authorities, local authorities, EA , Client etc.

Function or Business Unit level:

- Audits, in accordance with the EMS and EnMS
- Management Review in accordance with the iGMS and Environmental/Energy Management review processes.

All records of evaluation will be maintained, controlled and disposed of in accordance with EMS and EnMS requirements.

The validity of environmental licences and permits within England and Wales can be verified from the Public Register which can be accessed from the Environment Agency's website:

<http://www2.environment-agency.gov.uk/epr/>

For requirements in Scotland please refer to: <http://www.netregs.org.uk/>

Wales also have their own resource:

<http://naturalresources.wales/how-we-regulate-you/find-out-if-a-site-has-a-permit-licence-or-exemption/?lang=en>

9.4 Non-Conformance, Corrective & Preventative Action (ISO14001 Clause 9.1.2)

Non-conformances can be raised as part of any internal or external inspection, audit or informal visit or tour in order to raise the profile and importance of a particularly significant environmentally or energy related issue on site.

All environmental and energy non-conformances raised during an Internal EMS/EnMS Audit or external Accreditation body (BSI/Achilles) will be closed out within good time (generally no later than one month). Failure to comply with the timescales for closing out actions will be notified to the Business Unit HS&E Leaders with persistent issues being reported to the Head of HS&E and relevant BU Leaders.

Environmental hazards, near misses and incidents shall all be recorded on the IMPACT database. The categorisation of environmental incidents is

- Category 1 - significant environmental impact requiring clean up or substantive action; legislation breach;
- Category 2 - significant environmental impact with more limited clean up/action; possible legislative breach
- Category 3 - small spills, emissions, that cause no environmental impact (examples: hydraulic hose burst on tarmac; noise complaint where no restrictions);

Category 1 & 2 incidents shall be communicated to HS&E Leaders and will be investigated, actions assigned and close out expected.

In the event of a significant pollution incident, it is essential that the Project Manager and BU HS&E Leader be informed immediately, so that they can contact the relevant regulator if required.

All projects and facilities are required to implement pollution prevention measures, to minimise the risk of their activities impacting on the environment.

10.0 Internal Audit (ISO14001 Clause 9.2)

The number of internal audits against the Environmental and Energy Management Systems implementation depends (see EM/EnM Manual) on the risk, size and duration of the project. Where possible, the environmental/energy review will form part of the Integrated Management System Audits however as these do not happen on every project, the Central HS&E team will ensure that all projects are at least annually audited against the EMS and EnMS (where applicable).

The Central HS&E team has supplied an audit schedule identifying the locations provisional auditing dates. All environmental and energy audits are carried out in accordance with the EMS and EnMS audit process.

Results of audit are shared with the project team and any significant findings (positive or negative) and best practice shared with the HS&E or BU Leadership as appropriate.

11.0 Management Review (ISO14001 Clause 9.3)

There are no actions for projects except to provide any information requested. It is the responsibility of the Business Unit HS&E Leaders to ensure that the effectiveness of the environmental and energy management systems is reviewed so that they continue to reflect accurately the organisation and environmental and energy management practices as applied to all Laing O'Rourke businesses.

BU Management Reviews will be carried out in the group HQ's and communicated out as appropriate.

The items listed below as a minimum will be considered in the review:

1. Results of internal audits including evaluations of compliance with legal requirements and other applicable requirements
2. Communication from interested parties including complaints
3. Evaluation/trend analysis of environmental and energy incidents and audit findings
4. Environmental and energy performance
5. The extent to which objectives and targets have been met
6. Non-conformance, corrective and preventive actions
7. Results of the previous management review
8. Changing circumstances (which includes developments in legal and other requirements related to environmental and energy aspects)
9. Recommendations for improvement

Results of these reviews will be analysed by the Central HS&E and Energy Management teams and any resulting actions or amendments to the EMS, EnMS or related policy or procedures will then be signed off by the HS&E or Technical Directors on an annual basis.

Actions arising from Management Review will be communicated to projects as appropriate as they may affect or require changes to the EMP and related objectives, targets or controls measures.

APPENDICES

APPENDIX A - ENVIRONMENTAL RISK ASSESSMENT

APPENDIX B - RESOURCE MANAGEMENT PLAN

APPENDIX C - LICENCES, PERMITS AND EXEMPTIONS

APPENDIX D - ENVIRONMENTAL EMERGENCY AND CONTINGENCY PLAN

