

Olympic Delivery Authority

Design and construction  
Health, Safety and Environment Standard  
Third edition

July 2008



# health safety environment



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# Introduction

## 1.1 Health, safety and environment policy statement<sup>1</sup>

The Olympic Delivery Authority (ODA) will create the Olympic Park and venues and infrastructure for the London 2012 Olympic and Paralympic Games. The ODA and its staff are committed to being a leader in health, safety and environmental (HS&E) management. We shall integrate good HS&E performance as a core element in every planning, design and construction operation to achieve our aim of being safe and secure.

The protection of the health and safety of everyone involved in or affected by our work, and the protection of the local and global environment is important to us. HS&E performance will be given the highest priority at all times by systematically identifying, assessing and managing HS&E risks, monitoring our performance against targets and publishing the results.

Our vision is to go beyond eliminating preventable illnesses, injuries, business losses and environmental harm due to unplanned events in our premises and on our sites. This includes improving the well-being of all involved in the project work by addressing our impact on climate change and waste, preventing pollution, enhancing biodiversity and encouraging inclusion and healthy living during the design and construction phases and beyond.

We shall engage with all our staff, partners and suppliers so that everyone is enthusiastically involved in managing risk, securing success and acting as an ambassador for our realistic and practical vision. Our approach to HS&E performance and its management is defined by a respect for the people who work for and with us, for the local communities within which we work and the wider environment. We shall ensure that we continue to engage with the workforce of our suppliers, recognise trade unions and their appointed safety representatives where applicable, and forge partnerships to meet our high standards.

A copy of this policy, together with detailed arrangements, shall be brought to the attention of all staff and will be made available for reference within ODA premises. For our staff we shall:

- manage risks to their health and safety;
- provide safe workplaces and safe systems of work;
- provide information, instruction, training and supervision; and
- consult with staff on the associated arrangements.

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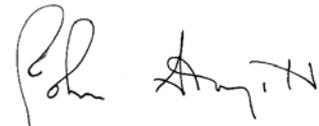
<sup>1</sup> The Delivery Partner has endorsed this policy and, in addition to having its own Health, Safety and Environment Policy, will manage the programme and individual projects such that it is implemented. Everything defined in this standard as ODA requirements are also Delivery Partner requirements.

The Chief Executive will report on HS&E performance to the ODA Board at regular intervals and in the event of a notifiable incident. The Safety, Health and Environment (SHE) Committee of the Board shall regularly review health, safety and environmental performance and the governance of the ODA's programme. The content and effectiveness of this standard will be reviewed and revised as often as is necessary and at least annually. Any changes will be communicated to all staff and suppliers.

The ODA is grateful to all our funders for their support – the National Lottery, the Department for Culture, Media and Sport, the Mayor of London and the London and the Development Agency.



**David Higgins**  
Chief Executive



**John Armitt**  
Chairman

## **1.2 Scope and purpose of the standard**

ODA works comprise a number of integrated elements such as powerlines undergrounding, land preparation, venue and other buildings design and construction, infrastructure, utilities and transportation. Each of the associated functions will operate in slightly different ways, dealing with different types of HS&E risk. This document sets out and outlines ODA HS&E expectations and requirements for all staff, accountable directors, stakeholders and suppliers.

The standard has been drafted to reflect current best practice and embodies a wide variety of mutually-supporting standard-setting initiatives, including (but not limited to): Office of Government Commerce (OGC) Gateway processes and Common Minimum Standards; Major Contractors Group Health & Safety Strategy; Constructing Excellence; corporate strategies of major clients; Clients Charter; Respect for People Code; London 2012 Construction Commitments; and the ODA's sustainable development strategy. Particular attention is drawn to the related document, the Code of Construction Practice (CoCP), submitted for the Lower Lea Valley Olympic and Legacy Planning Permission which should be read and complied with in accordance with this standard.

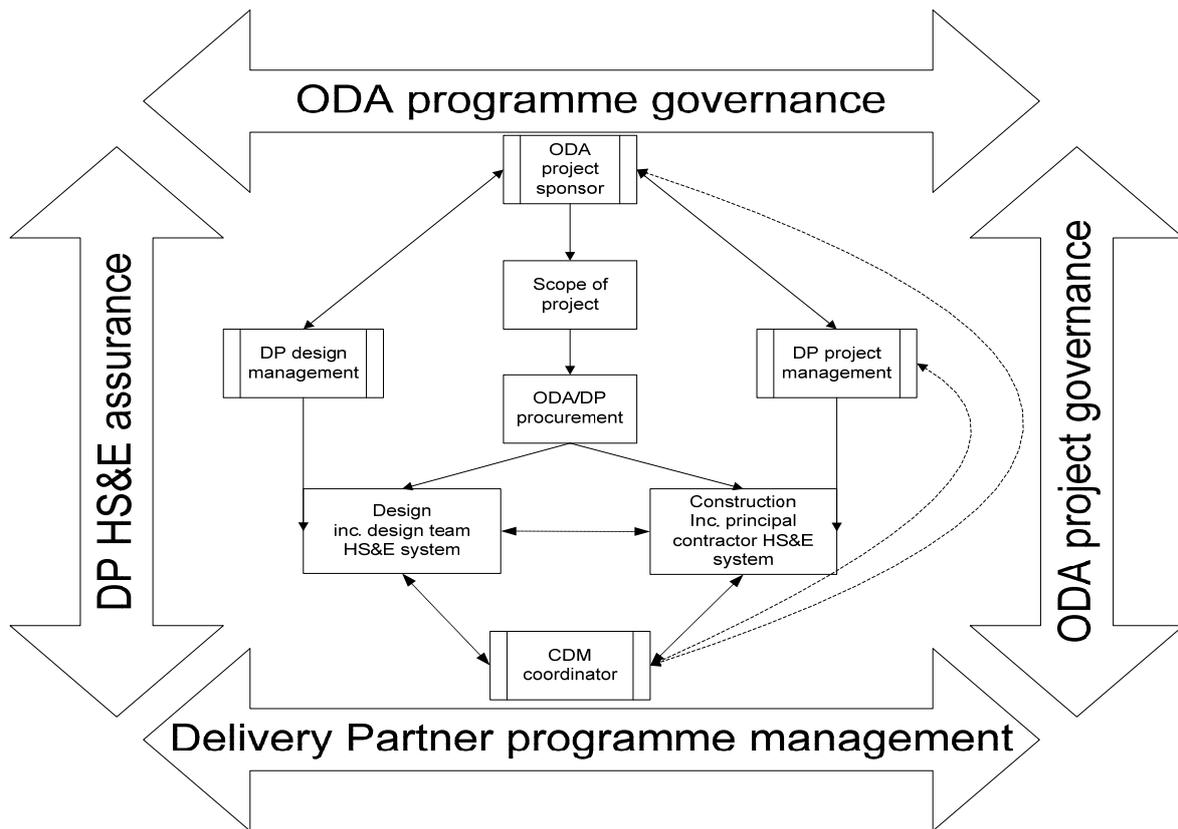
The ODA shall also continue to develop policy and standards in the related areas of security, sustainability and quality. Compliance with the standard represents ways in which suppliers can contribute toward the ODA's HS&E policy. Specific guidance for suppliers and support will be provided through the ODA and Delivery Partner HS&E management systems.

This standard applies to all design, engineering, construction, maintenance works (and other on-site activities) commissioned by or on behalf of the ODA. It should be noted that for the development of the transport infrastructure, the development of the Olympic Village and of the International Broadcast Centre/Main Press Centre (IBC/MPC) under Development Agreements, the ODA is not in the position of a controlling client and in each case a third party is effectively the client. In such circumstances and where the ODA works in partnership, those partners shall be encouraged (and where appropriate contractually required) to adopt and implement this standard. Suppliers shall:

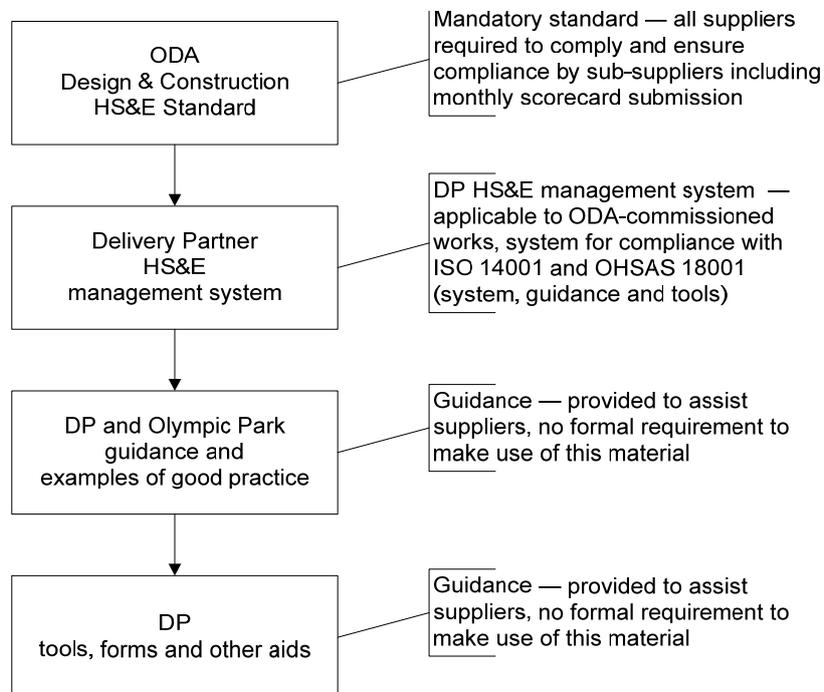
- comply with all applicable statutory and regulatory requirements including applicable planning and environmental consents, railway safety certificates, road traffic licensing requirements or others specific to a delivery mode;
- fulfil the terms of this standard in both intent and detail;
- have a clear understanding of, and take account of, all relevant and appropriate other standards and publications such as British, European and applicable international standards, Eurocodes, Health & Safety Executive (HSE), Office of the Rail Regulator (ORR) and Environment Agency (EA) guidance and industry codes of practice;
- search out other voluntary codes and standards from whatever source that could enhance personal or corporate HS&E performance;
- research and develop new best-practice approaches that will enhance HS&E performance in the work of the ODA and be prepared to share these findings with other ODA suppliers;
- obtain and disseminate information available on best-practice approaches to HS&E compiled by others;
- make certain that they understand this standard, and make representations as early as possible on any element which represents a substantial difficulty; and
- provide this standard to any sub-supplier employed by them and require their compliance with section 1.2.

### **1.3 Programme and project management structure**

Each project is managed as part of the wider programme by the Delivery Partner, and subject to assurance checks by the Delivery Partner. The ODA project sponsor is the client representative, and ensures effective overall project governance.



This standard operates at the top of a hierarchy of documentation and guidance as shown below:



## **1.4 Construction design and management regulations (CDMR)**

Construction works carried out/commissioned by the ODA are deemed to fall under the CDMR. The ODA shall formally appoint construction design and management (CDM) coordinators and principal contractors. Appointed CDM coordinators shall work with the Delivery Partner CDM integrator to ensure, when required, that updates are made to the schedule of CDM appointments provided to HSE. The relevant principal contractor shall ensure that this information is brought to the attention of all their sub-suppliers.

## **1.5 Notifications**

The CDMR require the HSE to be notified of ODA works and individual projects, and details of the client, design teams, CDM coordinators, and principal contractors. The ODA shall ensure that a schedule is provided to HSE of planned and current works and appointees and is periodically updated.

### **Asbestos**

Where asbestos is known or discovered during surveys the person in control of the premises or site is responsible for the statutory notifications and for informing the project manager. and, if different, the Delivery Partner of the notifications required and made.

### **Hazardous waste**

The producer of hazardous waste shall ensure that its transportation is conducted with appropriate notifications and record-keeping.

### **Injuries, diseases and dangerous occurrences**

All events on site which are notifiable and reportable under RIDDOR shall be notified and reported as required by the regulations by the employer of the personnel involved in such incidents. All notifiable and reportable events under RIDDOR shall also be notified to the relevant principal contractor. The principal contractor shall notify, as soon as practicable, the project manager and, if different, the Delivery Partner (see Appendix 16).

## **1.6 Approvals, permits, licences and assurance**

The ODA will take all reasonable steps to receive appropriate advance approvals for planned works. It remains the responsibility of the supplier to ensure that relevant local authority, Environment Agency and other applicable approvals, permits, permissions and/or licences are obtained to facilitate the planned works.

The supplier shall keep a register of such approvals, permits, permissions and licences and supply a copy to the Delivery Partner to facilitate efficient response to any enquiries.

Each supplier shall, on request, make appropriate contributions to the processes by which building regulations approvals, safety at sports grounds licences and other consents are sought and obtained.

## **1.7 Environmental management legal requirements**

Construction works carried out/commissioned by the ODA will operate within the United Kingdom (UK) environmental legislative framework and European Union (EU) directives. Suppliers shall identify and maintain an up to date detailed register of relevant environmental legislation related to environmental hazards and risks, and shall use it as the basis for environmental regulatory compliance. Suppliers shall ensure that applicable environmental legislation and other requirements, eg: CoCP and industry best practice, to which they subscribe are taken into account in establishing and implementing works carried out. Suppliers shall comply with all applicable planning conditions, consents, and permits.

## **1.8 HS&E aims**

The ODA, as expressed in the HS&E policy statement (at 1.1, page 4), is committed to ensuring a high standard of HS&E. To achieve this, the ODA has established some specific aims, going beyond regulatory compliance, supported by key performance indicators (KPIs) (see Appendix 1).

Specific aims include:

- The prevention of accidents and ill health and the promotion of well-being for everyone involved in the development work for the London 2012 Olympic and Paralympic Games and anyone who may be affected.
- The provision and use of an excellent occupational health service for all workers on the Olympic Park site.
- The reduction of HS&E risk and impact through design by identifying options and evaluating them while taking HS&E fully into account.
- The prevention of environmental incidents.
- To maintain a regulatory compliant project with all applicable legislation, planning conditions, consents, licenses and permits.
- Optimise positive and minimise adverse impacts on land, water, noise and air quality through design and site practice.

- The reduction of waste through design and good practice. The maximisation of reuse and recycling of material arising during demolition, remediation and construction.
- The minimisation of carbon emissions, the optimisation of opportunities for efficient water use, reuse and recycling and the identification, sourcing and use of environmentally and socially responsible materials.
- The protection and enhancement of the biodiversity and ecology of the Lower Lea Valley.
- The development and maintenance of a competent workforce.
- The development and maintenance of a positive HS&E culture, throughout the supply chain and across the site, through effective leadership and engagement.

To meet these key objectives, we recognise that this will require:

- committed leadership within all suppliers in continually improving HS&E performance;
- systematic HS&E management including good communications, consultation and access to guidance;
- formation of integrated project teams to manage HS&E risks by good design and construction practices;
- adequate resource and commitment to avoid conflicts between HS&E goals and short-term production issues;
- competent and informed staff appointed at all levels, encouraged to develop through regular appraisal, guidance, training and recognition;
- encouragement for appointed staff to stay working for the project/package until their work is complete;
- quality system arrangements within and between the parties so that self-reported performance data may be trusted as valid and verified; and
- effective consideration of HS&E throughout the planned lifecycle.

## **1.9 Key performance indicators**

The ODA has adopted a process for establishing KPIs to support and monitor progress towards the HS&E objectives (see Appendix 1).

Suppliers are responsible for adequately resourcing their work to meet this standard including self-monitoring, auditing and reporting against the KPIs. Suppliers with sub-suppliers are also responsible for communicating these requirements through their supply chain and monitoring compliance.

Principal contractors, lead designers and CDM coordinators shall report on their performance monthly, completing a HS&E scorecard and appending data as required and be prepared to provide evidence on request.

The Delivery Partner shall monitor and audit the HS&E performance of suppliers, validating and verifying the suppliers' reports.

The Delivery Partner shall monitor and report to the programme and Executive Management Board on the practical application of risk management (avoidance, control, mitigation, recovery) and compliance with the standard.

Failure to report and/or achieve the required performance shall result in an appropriate corrective action plan to be developed and implemented in accordance with the terms of the applicable contracts by the relevant suppliers in agreement with the Delivery Partner.

Where suppliers are unable to meet this standard and to work in partnership with the ODA, Delivery Partner and other suppliers in the Olympic Park to achieve excellence, instructions for cessation of work pending correction of the failure and/or termination of the contract shall be determined in accordance with the terms of the applicable contract.

## **1.10 Assurance**

The performance of designers, contractors and CDM coordinators will be monitored by a combination of the regular activities and reporting of the organisations themselves, auditing by the Delivery Partner and by independent bodies to validate and verify the reports. This will include:

- monthly reports by principal contractors, lead designers and CDM coordinators on HS&E scorecards (note: additional sustainability metrics will be measured by other methods);
- audits of work activities and processes, by suppliers, the Delivery Partner and independent verifiers;
- other indicators such as the speed, rigour and comprehensiveness of accident and incident investigations; and
- the speed of corrective actions taken following investigations; and liaison with regulators including the Health and Safety Executive (HSE), the Environment Agency (EA), the local authority environmental health officers (EHOs) and other stakeholders.

## Management of arrangements

### 2.1 ODA/Delivery Partner commitment

Design and construction works procured by the ODA are to be managed and monitored (assurance) by the Delivery Partner (excluding transportation projects, and head office management (corporate) operations). The Delivery Partner has endorsed and adopted this standard, and will manage the programme and individual projects such that it is implemented and KPIs are met. Everything defined in this standard as ODA requirements shall also be considered to be Delivery Partner requirements.

The ODA takes very seriously the commitment to avoiding injuries, investigating incidents and learning to improve performance, as reflected in the setting of explicit accident, ill health and environmental management aims (see section 1.8 and Appendix 1). Suppliers shall respond promptly if the ODA and/or Delivery Partner invite a senior representative (typically a director identified as responsible for the work) to meet with senior ODA and/or Delivery Partner staff and discuss any notifiable/reportable event, any adverse trends or any other evidence of a breach of this standard.

### 2.2 HS&E leadership

The HS&E culture is recognised as making a vital contribution to achieving excellent performance, requiring action by the ODA and every supplier. Being respectful is a core London 2012 value and we formally endorse the Respect for People Code – and shall be seeking appropriate measures including the encouragement of near miss reporting, the use by suppliers of safety climate tools and other employee satisfaction measures, behavioural safety and environmental management programmes, benchmarking, recognition, incentivisation and other mechanisms to create, embed and sustain an effective HS&E culture.

The leadership programme, developed by a Leadership Board chaired by the ODA Chief Executive, operates through a leadership panel comprising representatives of a contractors' and a designers' HS&E forums. Suppliers shall participate in these forums, with representatives at director-level. The ODA will take and support a range of related leadership initiatives, both programme-wide and with individual suppliers, to encourage workforce and management engagement in HS&E by all suppliers and their personnel. Excellence will be achieved not only by the implementation of effective systems and processes, but also by the leadership of the directors and senior staff of every supplier, with the active engagement of all personnel.

### 2.3 Recognition and reward

Suppliers and project teams are required to consider and, as appropriate, develop and implement programmes which incentivise personnel and teams at all levels to make a positive contribution to good HS&E performance. Where such programmes are initiated by the ODA and/or Delivery Partner, the suppliers shall participate.

## **2.4 Works**

The development of all infrastructure, utilities, venues and other facilities includes the following stages in the following sequence:

- scope;
- procurement;
- design including logistics;
- construction;
- commissioning & testing;
- test events overlay (temporary facilities required for test events);
- Games overlay (temporary facilities required for the Games including catering, sponsor's facilities, banners and flags to enhance the look and feel of the games);
- legacy conversion (conversion of facilities at the end of the Games); and
- legacy.

This sequence is reflected throughout this standard.

## **2.5 Design and construction programme contents**

This standard applies to five interlinked aspects of Games works:

- enabling works – the London Development Agency (LDA) has responsibility for the assembly of land. The ODA is acting as LDA client's agent in respect of site investigation, demolition, remediation and bulk earthworks and riverwalls necessary to complete the underlying site platform for the Olympic Park site;
- powerlines undergrounding – decommissioning of overhead lines and 52 pylons;
- design and construction – of venues, infrastructure and utilities;
- logistics including off site facilities and logistics centres; and
- transportation – relationships between the ODA's Transport team and a range of stakeholders, planners, designers, delivery partners and contractors are described in section 7.

## **2.6 Managing HS&E**

The ODA accepts that as the client it has one of the biggest influences over the way a project is run, and is accountable for the impact our approach has on those working on or affected by the London 2012 delivery programme.

The ODA is responsible for ensuring competent people and adequate resources are in place to manage HS&E on the Olympic Park and other venues, and to assist in delivering an inspirational, safe and inclusive Games.

A project sponsor provides the interface between project ownership and delivery, forming the single client focal point responsible to the project owner for day-to-day management of the client's interests in the project, that is, the client's representative. Therefore each project will be specified, procured and managed in a process overseen by a project sponsor.

## **2.7 Lead designers' role and responsibilities**

Designers, from concept to detail, are required by CDMR to identify hazards which may create significant risks for contractors, users and maintenance personnel and seek to reduce them. Design teams should be aware that the ODA is determined that they design for HS&E during each stage of the works as set out in section 2.4 above, and that their processes and intermediate outcomes as well as final designs shall be subject to competent external client scrutiny. Designs that do not meet these expectations, and in particular where there are opportunities that have not been seized to improve the embedding of good HS&E practice and/or eliminate/reduce significant risks, shall not be deemed acceptable and reworking will be required (subject to assessments of reasonable practicability).

The appointed CDM coordinators and appointed environment representatives shall engage with Design teams to meet this aspect of the standard. The Delivery Partner CDM integrator shall assist in achieving a consistent approach, to communicating good practice and lessons learned and ensuring that there is effective communication where projects interface.

The lead designer shall ensure that:

- all HS&E requirements are fully incorporated in the design process;
- there is clear allocation of responsibility and authority for H&S and environmental management matters;
- the teams' approach and knowledge, including sub-consultants, is developed through workshops and discussions;
- there are formal, documented systems and procedures in place to identify and evaluate design options and achieve documented reductions in HS&E risks;
- there is cooperation with the CDM coordinator and appointed environment representative;
- there is cooperation and participation in ODA/Delivery Partner programmes for HS&E for designers;
- information is passed on for residual risks, so that their mitigation may be planned by contractors and others;
- members of the team have access to appropriate, competent H&S and environmental management advice and support; and
- monitoring and reporting, including completion of the monthly HS&E scorecard and reporting of incidents and accidents is undertaken.

## 2.8 Principal contractors' role and responsibilities

Contractors are required by CDMR to identify hazards, evaluate risks and develop appropriate plans supported by risk assessments and method statements. Contractors should be aware that the ODA is determined that they manage their operations to protect the environment, and the health, safety and welfare of their own staff and anyone who may be affected. Their systems, procedures and ways of working shall be subject to competent scrutiny up the supply chain. HS&E plans and/or operations that do not meet these expectations, and in particular where there are opportunities that have not been seized to improve the embedding of good HS&E practice and/or eliminate/reduce significant risks, shall not be deemed acceptable and changes will be required (subject to assessments of reasonable practicability). Where design is part of the works, the contractor shall comply with the design requirements in this standard.

The principal contractor shall ensure that:

- all HS&E requirements are fully incorporated in the construction process;
- there is clear allocation of responsibility and authority for H&S and environmental management matters;
- there is an effective interface with regulators, including obtaining relevant licences, consents and permits;
- this standard and other requirements are clearly communicated through their supply chain, and reflected in the HS&E plans;
- ensure that sub-contractors are competent and resourced to work to the required standards;
- ensure compliance with site-wide as well as their own local rules by their personnel, sub-contractors' personnel and visitors;
- there is cooperation with the project manager, CDM coordinator and environment representative;
- there is cooperation and participation in ODA/Delivery Partner HS&E programmes for contractors;
- there are mechanisms in place to ensure cooperation and exchange of information on neighbouring/shared risks eg: lifting and transport logistics;
- ensure that relevant information on work in the area designated as under their control is provided to the Delivery Partner to facilitate coordination, so that the activity of any party does not place others at risk of injury or illness;
- members of the team have access to appropriate, competent H&S and environmental management advice and support; and
- monitoring and reporting, including completion of the monthly HS&E scorecard and reporting of incidents and accidents is undertaken.

## **2.9 Occupational health**

An ODA-appointed Occupational Health Service Provider (on site, referred to as 'Park Health') will operate for the period of the works, to provide occupational health advice to suppliers for the management of the health and well-being of workers (further details are provided in Appendix 11).

Suppliers shall ensure that all personnel actively participate in the programme for health checks and health surveillance and are aware of health promotions and other information.

Competent personnel will be able to provide advice and guidance to support suppliers in achieving compliance with the ODA HS&E standard. This will include advice on occupational health issues as they arise and lead to the development of strategies to reduce exposure to health risks, guidance on monitoring performance and the promotion of health and fitness as part of a holistic approach to occupational health.

Suppliers who already have contractual arrangements in place for occupational health shall advise ODA/Delivery Partner prior to commencement of works before determining their relationship with the on-site Occupational Health team.

## **2.10 Logistics plans**

The ODA/Delivery Partner Logistics team working with others (including security) will develop and communicate arrangements/plans to encompass the following (note: this list is not exhaustive):

- Construction Phase H&S Plan for Olympic Park boundary, common areas and primary routes;
- Construction Transport Management Plan;
- off-site (logistics centres) plans;
- temporary accommodation and welfare in common areas;
- construction phase sites security arrangements including visitor protocols; and
- emergency arrangements.

Suppliers shall reflect the logistics arrangements in their HS&E plans.

## **2.11 Communications – internal**

The structure of supply chain defines the communications channels, over and above the arrangements made to ensure good communications within the integrated project teams. Therefore:

- suppliers directly engaged by the ODA are required to communicate with the relevant ODA and Delivery Partner staff;
- suppliers that work directly with the Delivery Partner are required to communicate, report and notify the Delivery Partner;
- project teams, integrated across the disciplines of design, construction and maintenance, shall form a key focus for discussing progress and establishing opportunities to improve performance;
- project managers shall ensure that all HS&E information provided to the CDM coordinator is accurate and up to date, and shall facilitate the circulation of such information to relevant parties;
- design teams of both permanent and temporary works are required to communicate with the appointed CDM coordinator acting as a focal point for coordinating HS&E information;
- each sub-supplier appointed by a principal contractor is required to communicate with and inform their client;
- the ODA, Delivery Partner and principal contractor shall communicate through the supply chain, to those who directly report and through them to reach all sub-suppliers/sub-contractors; and
- every supplier who receives a direct communication from the ODA and/or Delivery Partner on HS&E matters is required to ensure that relevant personnel and their sub-suppliers are also in receipt of this information.

## **2.12 Communications – on-site**

Each supplier, the ODA and Delivery Partner shall ensure that there are effective communication arrangements to inform all site personnel of key issues including progress, lessons to be learned from incidents, campaigns, and programmes of risk control. The mechanisms may include newsletters, video broadcasts to welfare facility display screens, noticeboards, toolbox talks and special briefings. The communication arrangements shall ensure that recognised trades unions and appointed safety and environment representatives are consulted by the relevant employers in the development of communications.

All communications should be subject to the London 2012 'No-marketing rights protocol' for suppliers.

The engagement of all personnel on the project will include recognition of and work with trades unions and appointed safety and environment representatives where applicable. The ODA is committed to encouraging positive engagement on all aspects of HS&E, and is a supporter of the Respect for People Code of Good Working Health and Safety Practices. The ODA understands the benefits associated with collective worker organisation and representation in achieving and maintaining high standards of health and safety.

## **2.13 Communications – public**

All public communications shall be in accordance with ODA communications policies and protocols, including those applicable in the event of an incident/accident. It should be noted that information on HS&E including that pertaining to incidents may only be provided directly to the media or other third parties when specifically authorised by the ODA Communications team, and in any event in accordance with the contract conditions for the relevant works and the project communications protocol for incidents and accidents (see Appendix 16). The ODA shall publish an annual HS&E report advising of activities and outcomes associated with the HS&E objectives.

Suppliers are required to cooperate with and participate in arrangements to liaise with local communities, including:

- programmes such as those designed to encourage a positive attitude towards construction but discourage young people from seeking to enter the Olympic Park or other ODA sites; and
- providing responses to received complaints and suggestions.

## **2.14 Regulatory liaison**

The supplier is required to provide free and unhindered access to regulatory enforcement agency staff and other related parties such as representatives of insurers. The supplier shall ensure that the Delivery Partner is advised of all action by regulators such as the Local Authority, HSE, Environment Agency, British Waterways in connection with the works, including:

- site visits and comments made during such visits;
- site inspections and comments made during such inspections;
- written communication; and
- notices or other formal action.

The Head of H&S shall take primary responsibility for maintaining good communications between the HSE and the ODA on H&S issues.

The Environment Manager shall take primary responsibility for coordinating and maintaining good communications between the regulators and the ODA on environmental issues.

Suppliers are also required to recognise, apprise themselves of and comply with planning conditions and, where applicable, section 106 requirements. The Planning Decisions team (PDT) may require information from time to time on aspects of the works, requested through the relevant project manager in liaison with the ODA's Town Planning Promotion team (TPPT). Suppliers shall assist and provide relevant information to support cooperation with the PDT.

The ODA shall maintain regular and routine contact with all regulators, primarily through regular communications, formal reports and meetings. As appropriate such communications will also involve other members of the ODA team, Delivery Partner, additional inspectors, principal contractors and CDM coordinators (see section 7 for liaison in connection with transport).

## Pre-qualification and tendering guidance

### 3.1 Introduction

This standard represents the minimum to be met by tier one suppliers at all times, and shall in turn be cascaded down to sub-suppliers. Pre-qualification is designed, in part, to explore the ability of the organisation to provide relevant services while meeting the standard. Tender appraisal will include the proposals of the supplier to fully meet the standard during design, construction or other works. For each individual project, it is the responsibility of the lead designer and the principal contractor (typically the tier one or main contractor) to ensure that the standard is met by, as appropriate, supporting and assisting sub-suppliers within their supply chain.

This evaluation of competence and resource availability and allocation will be informed by the HSE Research Report 422 'Guidelines for the selection of designers and contractors under CDMR' which can be found at this link:

<http://www.hse.gov.uk/research/rrpdf/rr422.pdf>

### 3.2 Pre-qualification

The ODA requires potential suppliers to satisfy the ODA that they have the competencies, systems and resources to meet this standard were they to be allocated a project (design and/or construction). Documentation which shall be submitted by potential suppliers as part of their response to the PQQ may include:

- health and safety policy (as defined in inset 7 of the HSE publication HSG 65 'Successful health and safety management' and paragraph 3.3 below);
- environmental policy (note: an integrated HS&E policy is welcome);
- organisation and arrangements for implementing the H&S and the environmental policy/policies; these shall be based on a suitable system (BS EN 14001 and/or BS 8555 for environmental aspects; HSG 65, OHSAS 18001, BS 8800, ILO-OSH 2001, ANSI Z10, AS/NZS 4801, and Safe T Cert, for Health and Safety; ISO 9000 for quality aspects) or a suitable equivalent standard. Within the system the following should be readily identifiable:
  - policy, organisation and arrangements;
  - Management commitment;
  - Planning;
  - Implementation and management control;
  - monitoring; and
  - continual improvement.

Note: organisations with certified management systems (health and safety, environment, quality) will be particularly welcome;

- evidence of membership/registration with a suitable management/social responsibility scheme such as for contractors the site management/Good Neighbour Considerate Constructors Scheme and evidence of compliance with the scheme's code of practice;
- details of HS&E performance as measured during the previous five years, including initiatives taken, awards, accident and incident rates and enforcement action (ie: KPI data on leading/positive as well as lagging/negative indicators of HS&E performance);
- evidence of use of the Respect for People KPIs and near miss reporting as a mechanism for improvement - including information on worker engagement, culture and behaviour, occupational health and rehabilitation, design, corporate and individual competence, integrated working;
- procurement arrangements, including methods for ensuring that selected sub-contractors are HS&E competent;
- arrangements for benchmarking and independent verification of HS&E performance; and
- evidence of an acceptance that other commitments such as to corporate responsibility do not conflict with achieving high HS&E standards.

### **3.3 Supplier's H&S policy**

This shall reflect HSE guidance (inset 7, HSG 65), be regularly updated and signed off by a senior representative of the organisation and describe:

- senior management approach to health and safety;
- director responsible for H&S;
- the link to business performance;
- objectives;
- commitment to continual improvement;
- commitment to the Respect for People code;
- employee involvement;
- employee responsibilities;
- training and competence commitment;
- communication;
- access to competent advice; and
- commitment to provide resources to implement the policy.

### **3.4 Supplier's environmental policy**

This shall reflect ISO 14001 and BS 8555 guidance or equivalent standards and should be:

- appropriate to the nature, scale and environmental impacts of its activities, products, and services;
- committed to continual improvement and prevention of pollution;
- committed to comply with applicable legal requirements and with other requirements to which the organisation subscribes which relate to its environmental aspects;
- the framework for setting/reviewing environmental objectives and targets;
- documented, implemented and maintained;
- communicated to all persons working for or on behalf of the organisation;
- available to the public; and
- regularly updated and signed off by a senior representative of the organisation.

### **3.5 Tender**

The supplier's tender documents to the ODA shall include:

- confirmation that previously supplied documentation (pre-qualification) remains valid or supply replacement/updated material;
- proposals to manage known or anticipated HS&E management-related issues during the planned works (draft HS&E plans) including management, advisory personnel and other resources and the following:
  - risk assessments for significant risks;
  - risk management strategies for managing significant HS&E risks identified through risk assessments;
  - supervisory arrangements including ratio of supervisory personnel to general personnel;
  - list of operations and related method statements for high consequence (severity) risks;
  - preliminary risk register;
  - procedures for dealing with emergencies (security, fire, health and safety, environmental), documented in an emergency plan appended to or referenced in the HS&E plans;
  - evidence of compliance with all applicable HS&E legislation and statutory guidance;
  - demonstrate the arrangements for compliance with the CoCP, including an outline of the Environmental Management Plan;

- demonstrate the ODA's sustainable development strategy through the environmental programme (with reference to how the tenderer shall support each of the sustainability objectives during their works);
  - welfare arrangements (see Appendix 10);
  - arrangements for managing internal and external communications;
  - proposed level of site HS&E surveillance, including outline programmes for safety tours, detailed safety/environmental management inspections and auditing of site activities;
  - details of an occupational health programme, should one already be in place;
  - disciplinary procedures for enforcing compliance with the HS&E plans;
  - arrangements for reviewing and developing the HS&E plans, keeping them up to date, and managing and communicating changes to such plans;
  - evidence of how they will seek to attain the objectives set out in the HS&E plans; and
  - proposals for working with and consulting personnel, including trades unions and appointed safety representatives where applicable.
- case studies illustrating good practice on similar/relevant works; and
  - a business continuity plan, providing assurance that foreseeable contingencies will not have a significant adverse impact on the delivery of the specified works and services to the ODA.

### **3.6 Contract**

Prior to formal award of contract, or following award and prior to work commencement, the principal contractor shall submit final, detailed pre-commencement HS&E plans for the works (updating the plans submitted with the tender), including within the HS&E plans or as an addendum the previous HS&E plans submitted as part of the tender and the following (the equivalent for sub-contractors shall be method statements and the following) (note: the ODA and/or Delivery Partner may provide further project-specific information in respect of conditions, arrangements, requirements which will need to be effectively incorporated in the HS&E plans for site works):

- Risk assessments and method statements (comprehensive).
- Updated hazard and risk register (comprehensive).
- Updated register of environmental legislation (comprehensive);
- Updated environmental objectives and targets.
- Details of supervisory, managerial, advisory, auditing and liaison personnel and competent persons (defining competencies required). Names of the supplier-nominated director responsible for the work and appointed site person in charge.

- List of appointed sub-contractors/suppliers.

Further information on HS&E plans is given in sections 5.1–5.3.

Note: the above defined HS&E plans and associated information shall be kept up to date, any amendments/changes shall be notified as soon as possible to the Delivery Partner.

Note: the above defined HS&E plans and associated information may be separate documents (H&S and environmental management), or fully integrated.

### **3.7 Site works planning**

The work of the principal contractor shall be planned, and documented in the HS&E plans. The detail within the HS&E plans shall be proportionate and determined by the extent of risk. The fine detail of the arrangements shall be documented in works method statements which shall reflect, among other factors:

- known site conditions and adjacent works;
- risks and precautions associated with the works; and
- statutory requirements and the requirements of this standard describing:
  - appointed persons and their responsibilities;
  - site and works organisation and arrangements;
  - relevant site information;
  - safe working methods, including materials and equipment;
  - monitoring arrangements;
  - record keeping;
  - emergency procedures and contingency plans; and
  - arrangements for consulting the workforce on all of the above.

# Design

## 4.1 Partnership

The ODA and the occupational health provider will work in partnership with design teams and contractors, hosting workshops and other development opportunities so that the HS&E standard may be met by all of the integrated teams working for the ODA. The involvement and participation of design teams and contractors is required. Design teams should not hesitate to seek advice, assistance and support from the ODA and the Delivery Partner in achieving the high HS&E targets (see Appendix 1). The design team shall develop and participate in effective communication with the appointed CDM coordinator and environment representative, appointed contractors and other members of the integrated team. This standard applies when the design is undertaken within a directly appointed design team or forms part of a design and build contract.

## 4.2 Existing information

Information will be made available by the project sponsor and/or CDM coordinator regarding known site conditions and other relevant factors, so that any known factor which may represent a significant risk is drawn to the design team's (and contractors') attention. This shall be provided to the tendering design team in the form of a pre-design set of initial information (much of this information shall also subsequently form part of the pre-tender/pre-works information) including the:

- nature of the project;
- ODA and Delivery Partner management structure and reporting requirements;
- identified HS&E hazards;
- identified existing structures and services; and
- HS&E requirements/restrictions imposed by the ODA, the Delivery Partner or others.

## 4.3 Design standards for HS&E

### 4.3.1 Risk reduction

The Design team shall conduct its operation in accordance with relevant guidance and shall have regard to CDMR such that:

- It is accepted that all design teams can make a fundamental and significant contribution to the reduction of risk by the careful consideration of hazards that would be present during construction, use and maintenance. Poorly considered designs can lead to site processes which could involve health, safety and environmental risks such as noise, vibration, excessive manual handling and/or to facilities which represent a great challenge in successful future use and legacy maintenance.
- Hazards which may create risks to construction personnel engaged in executing the design are identified by a robust design review methodology.

- Such significant hazards are recorded in a risk register and all reasonable efforts are made to eliminate and/or reduce and/or mitigate such hazards through elimination and substitution.
- Hazards which may create risks to users of the designed and built structures, venues and facilities are similarly identified; and that all reasonable efforts are made to eliminate and/or reduce and/or mitigate such hazards through elimination and substitution.
- Hazards which may create risks to personnel engaged in foreseeable maintenance, repair, modification for legacy use, or the demolition of the designed and built structures, venues and facilities are similarly identified; and that all reasonable efforts are made to eliminate and/or reduce and/or mitigate such hazards through elimination and substitution.
- In each case, the hazards to people to be eliminated and/or reduced and/or mitigated shall be identified and reviewed in the context of the ODA policies and strategy on diversity, equality and inclusivity (copies of which may be found in the Publications section of [www.london2012.com](http://www.london2012.com)). Effective risk management through design is essential to facilitate as wide safe access as possible to both employment and the use of facilities.

#### 4.3.2 Red, amber and green lists

The Design team shall identify design elements, materials and processes which are either to be avoided because they are judged to represent significant risk to construction personnel and/or facilities users and/or personnel engaged in facilities cleaning, maintenance, repair or adaptation and inhibit sustainability; or to be preferred because they represent a reduction in such risks or enhance sustainability. Development of this approach shall form a core element of the activity of the integrated team during the design phase and may be based on lists developed as follows:

- The Design team may develop and use a list (the red list) of design elements, materials and processes which are effectively prohibited excepting only where no alternative may be identified. If any item on the red list is to be employed, it requires a justification within the design documentation and shall be subject to specific agreement with the ODA and/or Delivery Partner. Such items may also require additional mitigation incorporated within the design.
- The Design team may develop and use a list (the amber list) of design elements, materials and processes which are to be employed in a careful and sparing way because they represent significant risks (although they may be justified on a risk-management basis e.g. solvent-based paint may last longer than water-based and require less frequent refinishing involving work at height) or inhibit sustainability. If any item on the amber list is to be employed, it requires information within the design documentation on its minimisation and shall require advice and guidance to be provided as part of the design for the safe execution of that design.

- The Design team may develop and use a list (the green list) of design elements, materials and processes which are preferred because they represent significant risk reduction or enhance sustainability. When items on the green list are employed, they shall be identified in the design documentation.
- Examples are reproduced as a guide, and it should be noted that the ODA and CDM coordinators shall assist in developing both a generic listing and provide additional project-specific guidance. However, it is for the Design team to develop appropriate lists (or other strategies to eliminate hazards and reduce risks), not just accept existing lists without challenge, taking into account requirements within the planning consents. Alternatively, design teams shall develop and document appropriate design options/approaches that achieve the same aims (see Appendix 2 for examples).

#### **4.4 Assessing best option**

The strategy for design shall address other risks and opportunities. Designers shall ensure, for example, that artificial lighting of structures and temporary lighting to illuminate for works, movement (people and vehicles), usage and security are designed to strike a balance between illumination for operational safety and security and minimisation of light pollution, nuisance, distraction and energy use. The ODA is seeking the best options to deliver: health and safety; environmental management; sustainability; security; equality, diversity and inclusivity; fitness for purpose and value for money. Designers are responsible for identifying and evaluating alternative design elements to achieve the best option available to meet this range of objectives.

Designers should aim to achieve optimum environmental considerations in terms of both internal building environment (eg: noise abatement, air quality) and the impact of the building on both local (including external light pollution and microclimates) and global environments (minimise carbon emissions). Designers are expected to demonstrate that designs of permanent structures conserve, and where possible, enhance the local natural environment, species, habitats, and man-made heritage. Designers are expected to integrate with the Olympic Park public open-air leisure area design and consider surface water runoff impacts. Designers are expected to design for a one in 100 year flood event, allowing for a 20 per cent increase in river flow, and a 6mm per year sea level rise due to climate change.

#### **4.5 Information on residual hazards – construction phase**

The work of the design team shall include the provision of adequate information, available through reasonable enquiries and proper consideration, of hazards with the potential of creating significant residual risks associated with the nature of the site and design execution.

This information should focus on those aspects that it would not be reasonable to expect a competent supplier (principal contractor), engaged to execute the design, to know and understand. It should be noted that unnecessary and burdensome paperwork should be avoided in order that the information furnished is of maximum use to the principal contractor in the development of construction-phase HS&E plans. This information shall be provided where appropriate, as early as practicable and shall be easy to understand. The hazard and risk register should be included in this transfer/sharing of information, such that the principal contractor may contribute to its development, with the master copy maintained by the Delivery Partner.

The Design team shall cooperate with the appointed CDM coordinator and environment representative to facilitate the compilation of pre-construction HS&E information, providing the information that is required by the principal contractor to develop the construction phase HS&E plans including information on hazards that have the potential for creating significant risks. Similar cooperation shall be required in identifying and communicating information of relevance to the development of the H&S file (see Appendix 15).

#### **4.6 Information on residual hazards – use, maintenance, modification**

The Design team shall provide information which is relevant to the development of an H&S file (see Appendix 15). This shall include information on hazards, risks and safe working applicable to:

- the commissioning and trial use of the designed facility;
- the installation of test events and the Games overlays;
- the use of the facilities;
- the maintenance of the facilities;
- the removal of the overlay;
- legacy conversion; and
- legacy use and maintenance of the facility.

## Construction site risk management

### 5.1 HS&E plans

The detailed arrangements for complying with the standard shall be included in the principal contractor's HS&E plans, and associated method statements. These shall be based on comprehensive risk assessments incorporating legislative and planning requirements. The HS&E plans shall be submitted to the Delivery Partner, the ODA and the appointed CDM coordinator in good time in advance of planned commencement of work/first phase of the work. The ODA shall:

- seek advice as appropriate, and evaluate submitted HS&E plans and, if appropriate, request amendments to meet the standard;
- issue formal authority to commence the planned works when HS&E plans are deemed acceptable; and
- make arrangements for the periodic review of the HS&E plans by the CDM coordinator and environment representative, to check that they remain suitable and sufficient. If such reviews identify requirements to amend the HS&E plans, the principal contractor shall undertake such amendments as soon as possible, and where a phase/element of work to be covered by such revised HS&E plans has not yet been started the principal contractor shall endeavour to amend them prior to commencement of that phase/element. The principal contractor shall ensure that the CDM coordinator and the Delivery Partner are in possession of the current, up to date HS&E plans.

### 5.2 Environmental management plans

The detailed arrangements for complying with those environmental elements of the standard which are relevant to the planned work shall be included in Project Environmental Management Plans (EMPs). Refer to the sections below for further information on this process.

#### 5.2.1 Programme-level Environment and Sustainability Management System

The Delivery Partner is responsible for developing and maintaining a programme-level Environment and Sustainability Management System (ESMS) in accordance with ISO 14001 that sets out the framework for assuring environmental management on the programme. The ESMS manual signposts to the various elements of the system and is referred to as the programme EMP in the CoCP. The programme-level ESMS sets out the requirements for all projects to prepare a project EMP (in accordance with the CoCP) and acts as a framework for reviewing and approving these plans. The Delivery Partner will conduct periodic reviews of, and amend as necessary, the ESMS to check that it remains suitable and sufficient.

## 5.2.2 Project Environmental Management Plan (project EMP)

The principal contractor has the responsibility for developing, maintaining and implementing a project EMP reflecting the information provided and the requirements set out in the programme-level ESMS. The project EMPs shall identify the major construction activities and the projected overarching specific environmental issues and impacts of those construction activities. Project EMPs shall also identify the mitigation measure/best practice for managing each environmental impact (each sub-supplier's contractor EMP (see below) will support the project EMP by providing work process and procedure details specific to each work activity). The preferred format for a project EMP is set out in Appendix 6 of this document.

Project EMPs shall be submitted to the Delivery Partner Environment Manager for approval prior to commencement on site. Once approved by the Delivery Partner the project EMP will be submitted to the ODA's Planning Decisions team (PDT) for consultation in accordance with the CoCP.

Delivery Partner project managers are accountable to ensure that the project EMP is developed, approved and implemented, that relevant project-specific information is made available, and that the project EMP fully reflects the requirements of the programme-level ESMS. The project manager is responsible for ensuring the continuity of the project EMP if there is a change of principal contractor through the phases of a project (project managers shall also ensure that all HS&E information provided to the CDM coordinator or appointed environmental representative is accurate and up to date, and shall facilitate the circulation to relevant parties of information provided by the CDM coordinator).

The Delivery Partner project manager shall ensure that periodic reviews of EMPs are undertaken, to check that they remain suitable and sufficient. If such reviews identify requirements to amend EMPs, the principal contractor shall undertake or commission such amendments as soon as possible, and where a phase/element of work to be covered by such revised EMPs has not yet been started shall endeavour to amend them prior to commencement of that phase/element.

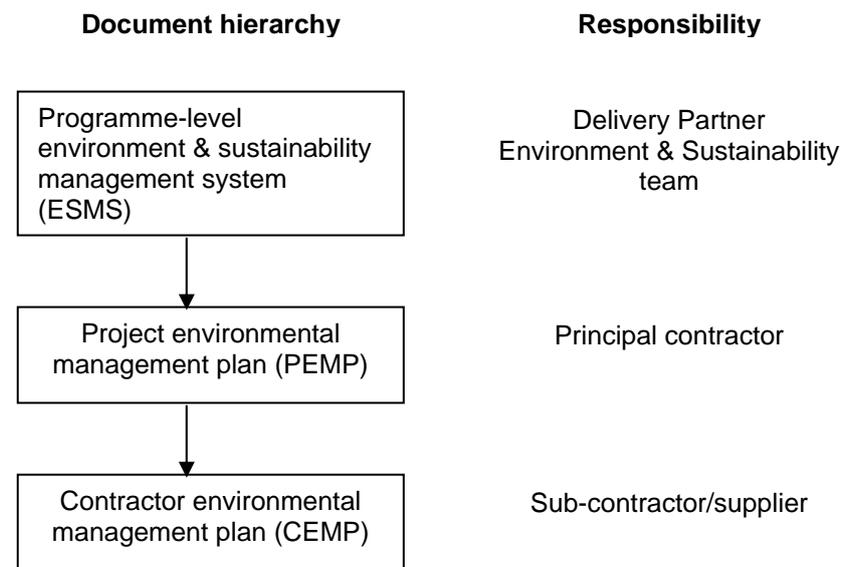
The Delivery Partner project manager shall ensure that the Delivery Partner Environment Manager is in possession of the current, up to date EMPs. The Delivery Partner shall periodically review the EMPs at all levels of a project to ensure that they remain suitable and sufficient and consistent with the programme-level ESMS.

### 5.2.3 Contractor Environmental Management Plan (contractor EMP)

Each sub-supplier shall develop a contractor EMP that is a component of/supports the project EMP, provided to and approved by the principal contractor. For each work activity, contractor EMPs shall identify specific construction work process/aspects, the environmental impact of each process/aspect, the mitigation measure/best practice and the relevant procedure or method of work to be followed. Relevant procedures or method statements shall include any associated control plans, procedures, instruction written to deliver the stated mitigation measure or environmental best practice and may include reference to any relevant training or awareness tool.

Each principal contractor is responsible for engaging in procurement such that the competence of each sub-supplier to address environmental management matters is assessed and only those capable of meeting the standard are appointed.

Refer to the diagram below which summarises the document hierarchy and responsibilities for environmental management arrangements on the site.



## 5.3 HS&E integrated plans

Integrated HS&E plans are welcome, but contractors may develop separate but mutually supportive H&S and Environmental Management Plans. For issues that have direct links between health & safety and environmental management, both aspects shall be considered in the plans. For example:

### 5.3.1 Noise and vibration

The regime for managing the noise and vibration emissions of plant and equipment to protect personnel from adverse effects shall be documented in the HS&E plans so as to minimise noise nuisance, and shall be managed in accordance with any consents under section 61 of the Control of Pollution Act 1974.

### 5.3.2 Light

Artificial lighting, including temporary lighting to illuminate for the purposes of works, movement (people and vehicles), usage and security, shall be used striking an appropriate balance between adequate illumination for operational safety and security and also minimisation of light pollution, nuisance, distraction and energy use. External lighting should meet the standards in EN 13201:2003 and BS 5489:2003 or equivalent standard. As part of regular and necessary maintenance luminance should be checked to take into account any wind disturbance.

## 5.4 Risk assessments and method statements

The supplier is required, for individual processes, to develop and maintain the overall HS&E plans, to:

- note hazards and risks advised by other suppliers including designers, the CDM coordinator and others;
- identify all hazards, and evaluate significant risks associated with the work and site;
- develop methods for dealing with those hazards (eg: employing the hierarchy of elimination, substitution) with a focus on arrangements designed to protect all construction personnel, others who may be exposed and the environment;
- document methods for risk control in the form of risk assessments and associated HS&E plans and method statements;
- develop and adopt method statements that address sequencing, work methodology and controls/precautions to protect site personnel, anyone else who may be affected and the environment;
- maintain the risk assessments and associated HS&E plans and method statements incorporating and communicating any changes required to reflect changes such as those in site conditions and the work programme;
- propose amendments to the hazard and risk register, through the principal contractor and the Delivery Partner; and
- communicate the risk control arrangements to the supplier's own personnel, to the Delivery Partner, to the CDM coordinator and others who may require this information for their own safety and security and to ensure efficient operations. Review training plans including toolbox talks with reference to risk control. Ensure that changes are communicated appropriately.

- Include a briefing on applicable method statements to all personnel at the point that they commence the work covered by each method statement, and provide update briefings if a method statement is amended.
- Throughout this process for developing and implementing risk management arrangements, to ensure effective liaison with the CDM coordinator and the active engagement of the integrated team. Note that the CDM coordinator is available to advise on considerations of competence and resource in the management of health and safety risks.

## **5.5 Specific health and safety hazards**

The supplier shall address the following issues, taking into account the information provided within the Delivery Partner HS&E management system:

- Project-wide issues including fire, site transport, slips, trips and falls, welfare facilities.
- Health hazards including asbestos, noise, vibration, hazardous substances, musculo-skeletal issues, leptospirosis, waste storage and handling, ionising and non-ionising radiation.
- Safety issues such as fragile surfaces, temporary works, climactic conditions, plant and equipment.
- Management issues including responses to accidents, incidents and emergencies, and personal protective equipment (PPE).
- Leadership issues including behavioural programmes, safety tours and other initiatives.

## **5.6 Specific environmental hazards and risks**

Construction phase environmental hazards and risks are identified in Appendix 4 – Management of construction phase environmental hazards and risks. The information in the Appendix is provided for summary guidance only.

The supplier shall refer to the appropriate and relevant regulations, the CoCP and formal guidance, and to the Delivery Partner HS&E management system which contain technical details and practical information on most common safety and environment construction hazards and issues.

The supplier shall develop best practice approaches to the hazards and risks identified, and wherever possible provide useful information on good practice and lessons learned to the Delivery Partner to enhance the HS&E management system. Note that neither the hazard listing nor the guidance cited are exhaustive.

## **5.7 Procurement and supply chain management**

The supplier is responsible for ensuring during their procurement process that the competence of sub-suppliers to address HS&E matters is assessed, and only those capable of meeting the standard are appointed. When appointing sub-suppliers, checks shall be made to ensure that the sub-supplier shall devote appropriate resource to meet the standard. During this process and after appointment, it is the responsibility of the supplier to ensure that sub-suppliers are aware of and understand the requirements of the standard as it applies to them, and to manage the relationship to achieve compliance, and to monitor and report performance.

## **5.8 Worker involvement**

The ODA is committed to encouraging positive engagement with the workforce on HS&E. It recognises that in addition to meeting H&S legal obligations, effective consultation and engagement is a fundamental mechanism for achieving high standards of HS&E. Each supplier is required to develop effective mechanisms for engaging their site personnel in the development and implementation of effective HS&E policies and procedures. Each principal contractor is required to make appropriate arrangements, and to advise the Delivery Partner, of worker engagement initiated on each of their projects based on:

- compliance with statutory requirements;
- construction personnel understanding that they are permitted to stop work if they feel at risk;
- advising personnel of the mechanisms for reporting health, safety and environmental issues within the supplier's team;
- taking no negative, critical action against any worker for raising a health, safety or environmental issue;
- ensuring that all personnel are addressed in a civil manner by all other personnel;
- include in every 'toolbox talk' an opportunity for personnel to ask questions and make comments;
- operating a consultation mechanism, and bringing this to the attention of all personnel in the principal contractor controlled area;
- where applicable, establishing arrangements for the recognition of trades unions and their engagement at an appropriate representative level in forums for reviewing and developing health, safety and environmental arrangements;
- respecting appointment arrangements established among the personnel, specifically the appointment of safety representatives. The latter shall be afforded the normal rights to be directly involved, on behalf of their members, in all aspects of health and safety planning and implementation; and
- forwarding minutes of any formal consultation meetings held at project level to the Delivery Partner, so that issues relevant beyond the project may be identified and addressed.

## **5.9 Monitoring and reporting**

In addition to all accidents, incidents and hours worked being recorded and reported through an online reporting system, principal contractors, CDM coordinators and lead designers shall be required to submit a monthly project HS&E scorecard on specific inputs and controls in the areas of compliance, standards, behaviour and culture. Additional sustainability metrics will be measured by other methods.

## **5.10 Audit and assurance**

All contractors shall allow periodic inspections of their sites, offices, work and storage areas by the Delivery Partner in respect of fire precautions and other HS&E provisions, and take any action as may be recommended. Suppliers shall also cooperate with personnel to support Delivery Partner audits required by audit schedule or in response to significant incidents or other reasons.

## **5.11 Emergency preparedness and response**

All offices, projects and establishments shall have adequate emergency arrangements which are known to and readily available to those that may require them. This shall usually be in the form of the Fire and Emergency Plan developed by the Logistics team.

Emergency planning and incident control – the HS&E plans shall include the supplier's arrangements for dealing with reasonably foreseeable environmental contingencies, addressing:

- pollution incident recognition;
- notifications and reporting, including notification as soon as possible to the Delivery Partner;
- arrangements to mitigate any incident, minimising harm arising; and recovery arrangements; and
- investigation, detailed report preparation and learning.
- The above arrangements shall take into account the project-wide incident management arrangements for responding to and reporting accidents and incidents.

## **Construction site management of HS&E**

### **6.1 Access to site**

The arrangements for access to the Olympic Park are subject to:

- The security standards: the ODA's Security team will specify security standards, including access controls, perimeter security requirements, and associated procedures. The principal contractor is required to ensure compliance by all suppliers.
- CSCS or equivalent cards and site induction. Appendix 14 details the CSCS card scheme and other schemes recognised.

There is no conflict, rather mutual support, between site security and effective HS&E management. All personnel working on site, including members of the Design team (excluding visitors accompanied at all times – see Visitors section 6.4; and excluding delivery and removal drivers, see Drivers section 6.5) are required to hold a current, valid CSCS or affiliated or equivalent card. Visitors shall normally hold a CSCS visitor's card or equivalent, unless their visit is a 'one off'.

### **6.2 Olympic Park site introduction**

All personnel working within the security zone of the Olympic Park irrespective of project, employer or developer are required to have completed an Olympic Park site introduction, provided by the Delivery Partner. Those within the Olympic Village will be provided an equivalent introduction by or for the Village Developer. Following this introduction and compliance with security requirements, personnel will be issued with authority to access the Olympic Park and the Olympic Village respectively. This authority may also be used to carry or provide access to training and other records. Identification and verification requirements are specified by the ODA's Security team - see Appendix 7.

### **6.3 Zone induction**

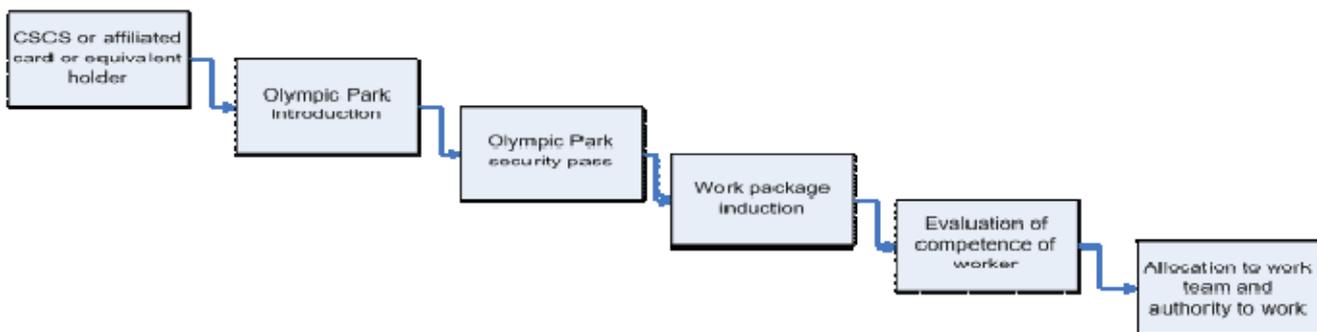
The principal contractor and the employing supplier shall cooperate to provide all personnel working under their control with an induction briefing which is specific to the works and the site location. The principal contractor shall maintain records on site to show that this has taken place. The records shall include:

- name;
- employee number (either related to the security reference that may be given or a unique reference to the contractor);
- signatures of attendees;
- date of briefing;
- content of briefing, which shall include as a minimum:
  - key members of the supplier's team;
  - the ODA commitment to HS&E and the objectives;
  - site details including layout and welfare facilities;
  - communication, consultation, suggestion and fault reporting;
  - appointed safety representatives and other trades union representatives (where appropriate) and environment representatives (where appointed);

- emergency procedures including action following an incident;
- details of the occupational health provision on site; and
- restrictions including smoking, drugs and alcohol policies and permits to work.

Key messages conveyed in site induction shall be reinforced through site hazard information boards, newsletters, videos, toolbox talks and other means. At the supplier's discretion, visitors accompanied at all times by suitably competent supplier personnel, need not complete full supplier induction where:

- they are not undertaking any physical work; their presence on site is not interfering with any work; and
- their presence places neither themselves or others at any risk.



In addition to the CSCS card or equivalent, general Olympic Park introduction and package-specific induction all personnel shall be evaluated by the employing supplier as to their skill, knowledge and experience, so that they may be authorised by the supplier to carry out work that is within their competence. Such an evaluation shall also be used to identify further training needs and supervisory requirements and be logged in a training matrix or equivalent

## 6.4 Visitors

In general, visiting the site, except for project-specific reasons, shall be discouraged by all parties. Visits are potentially disruptive to normal operations, and even when carefully managed, construction works represent a higher level of risk than most other workplaces. However, when the site-based supplier hosts bona fide visitors, subject to the security controls in place, visitors shall be required as a minimum to:

- attend a site orientation briefing (a shortened form of Olympic Park introduction);
- attend a works orientation briefing (a shortened form of the supplier's induction briefing);
- be provided by the hosting supplier with appropriate PPE (indicating clearly the visitor status of the wearer), and advised in its necessary and correct use; and
- be accompanied at all times by a competent person, who is formally allocated responsibility for the visitor during normal working and also in the event of an emergency.

## 6.5 Drivers

Drivers delivering goods and materials, or removing materials and who shall remain during their visit within the cabs of their vehicles except to visit welfare facilities adjacent to parking areas, and offices adjacent to parking areas to deal with paperwork shall receive briefings/induction at the discretion of the principal contractor.

As a minimum, they shall be provided with a short briefing and a supporting document outlining their duties, site traffic control arrangements and related matters.

Drivers who are required to work on site outside of their cabs, for example to assist in sheeting up vehicles; and/or who shall operate their vehicles in construction operational areas, and not be restricted to designated site roadways and hard-standing/parking areas, loading bays and similar locations shall either be:

- holders of a valid CSCS card and required to attend a full site induction or;
- be under appropriate supervision by the relevant principal contractor at all times, and in any event be issued with the relevant security clearance in accordance with the ODA's security team's requirements.

## 6.6 Supplier personnel

At every level supplier personnel – site personnel, supervisors, managers, auditors, advisers and others shall be competent to carry out their particular duties and tasks, or be adequately supervised if under training. It is the responsibility of the supplier to:

- ensure both specific task competence and also core health and safety competence for construction work through their organisation and their suppliers;
- to make use of suitable competency schemes including CSCS and CPCS (see Appendix 14); and
- to maintain and promptly provide on request adequate records such that competence may be readily demonstrated.

Supervisors and managers shall have practical and documented access to competent advice on health and safety matters.

- The supplier shall make use of 'tool box' training to create and maintain high levels of HS&E awareness, transfer information, advise personnel of changing circumstances and work progress and participate in supplier and site-wide campaigns. Such talks in a good environment, with a brief opportunity for questions and discussion, shall be conducted every week, and records kept of topics and personnel attendance.
- Arrangements for personnel shall reflect current good practice for the management of stress, and may include application of the HSE Stress Management Standards (which may be found at <http://www.hse.gov.uk/stress/standards/>) so that psycho-social issues are addressed to minimise harm, absence and other possible adverse outcomes.

## **6.7 Supervision**

The supplier shall ensure that work is adequately supervised at all times by competent persons. The arrangements shall specifically address the supervision of new-to-site personnel, young persons, pregnant women and other personnel at risk. The arrangements shall also include those for addressing foreseeable emergencies. The supervisory arrangements shall also be reviewed for adequacy and suitability in connection with any lone or isolated work.

## **6.8 Inspections**

The supplier shall ensure that work sites, work areas and projects shall be subject to routine inspections by competent persons. Each work area shall be subject to inspection during each working period/shift addressing work set-up, housekeeping and work practices, and suitable, simple and non-bureaucratic records shall be kept. The supplier shall cooperate with inspections by representatives of the ODA, Delivery Partner, principal contractors and other properly authorised persons including HSE, EHOs and the EA.

## **6.9 General behaviour**

The supplier shall ensure, through its policies, training and supervision that all personnel are aware of basic requirements including:

- respect for good site practice and avoidance of horseplay;
- prohibition on urination other than in provided toilets; and
- respect for other people, including no use of foul, abusive or racist language, no aggressive or violent behaviour, harassment or bullying.

The supplier shall have explicit policy statements on good site practice, horseplay, harassment and bullying. Such policies shall be supported by a complaints procedure accessible to all employees.

## **6.10 Alcohol and drugs**

There is a strict alcohol and drugs policy that applies to persons working on the Olympic Park and in connection with the Olympic Park masterplan. The details of this policy are administered by Park Health. No alcohol or drugs shall be consumed by supplier personnel within the site boundaries of any London 2012 work site. Persons suspected of being under the influence of alcohol and/or drugs shall be refused entry to site or required to leave site and shall be subject to testing by Park Health. The supply of illegal drugs by supplier personnel within the site boundaries of any London 2012 work site is also prohibited. All supplier personnel who are safety critical and are under any form of prescription medication shall advise Park Health without delay. A detailed alcohol and drugs policy is in Appendix 12.

The supplier is required to bring this policy to the attention of its personnel, and ensure compliance. Non-compliance shall result in the exclusion of the person(s) concerned. Repeated non-compliance shall lead to the supplier/employer's exclusion from the London 2012 sites.

## **6.11 Smoking**

Smoking on the London 2012 work sites is prohibited, except in specific, designated locations which shall exclude all enclosed work areas including offices and welfare facilities. Smoking facilities shall be managed to minimise any fire risk, and to avoid creating discomfort or health risk to other personnel and as a minimum represent compliance with any legal requirement to protect people from passive smoking.

## **6.12 Personal telephones, radios and audio equipment**

Personal radios and portable audio equipment are prohibited on London 2012 work sites. Telephones should be used as far as possible within the offices, and in welfare and other facilities and generally not used out on site except for essential business purposes, and taking care that their use does not create a risk to the user or others.

## **6.13 Communications – oral and written English**

The supplier shall ensure that all personnel fully understand the site HS&E requirements as expressed orally and in written signage, including emergency arrangements. The language needs of personnel shall be addressed by suppliers during induction, and through training. Emphasis should be placed on ensuring proper supervision of all staff, but in particular those who may have difficulties in understanding verbal or written communications. Where practicable, site signage shall make maximum use of pictograms.

Those who have responsibility for managing the supplier personnel on site shall be able to communicate in both written and oral English to a standard appropriate to the tasks being performed. Note that there may be personnel who are not competent in the English language, and this is permitted provided that the supplier can demonstrate that:

- such team members are able to give oral instructions and warnings to others;
- such team members shall receive the required HS&E training/briefing (including any emergency procedures) before commencing work in a form that they understand; and
- the supplier shall make appropriate arrangements to ensure that instructions are effectively communicated to, and understood by all team members.
- Particular attention shall be made to the communication requirements of safety critical workers.

## **6.14 Control of hours worked**

Suppliers shall comply with the Working Time Regulations 1998. Where the supplier has a written opt-out agreement with its employees, which shall be obtained without exerting pressure on individuals, this shall be notified to the Delivery Partner.

In calculating the numbers of hours worked by personnel, the supplier shall take fully into account those hours worked for any other supplier. Where the working day is known to include significant travelling time, this should also be taken into account. The supplier shall maintain records of employees' working hours and these shall be made available to the Delivery Partner or an appointed auditor, immediately upon request, for monitoring and audit purposes.

Hours of work shall also be controlled vis-à-vis environmental controls, respecting limitations imposed by local authorities and normal good practice, and the ODA requirements to minimise neighbour nuisance.

## **6.15 Removal of supplier's personnel from site**

Suppliers shall take appropriate actions to prevent and eliminate unacceptable behaviour or conduct. The ODA, Delivery Partner and their representatives reserve the right to object to and (where appropriate) immediately expel any of the supplier's personnel or sub-contractors employed on the works from site and to prohibit entry/re-entry of personnel. Such action will normally only be taken in serious cases, and as far as practicable shall be subject to consultation between the client, the relevant principal contractor and the relevant sub-contractor.

## **6.16 Monitoring, auditing, investigations**

The emphasis throughout the works shall be on suppliers conducting their own monitoring, auditing and investigations and providing assurance that the information so generated is valid and verifiable. Suppliers and their personnel shall also cooperate fully with any monitoring, audits or specific investigations carried out by suppliers above them in the supply chain, by the Delivery Partner or its representatives and by the ODA and its representatives. Such HS&E assurance activities will be conducted in order to maintain and improve HS&E performance. The techniques to be employed include:

- site HS&E inspections;
- HS&E audits;
- Corrective Action Requests (CARs);
- Fact-finding meetings;
- coordinated HS&E reviews; and
- monthly reports/score card (additional sustainability metrics will be measured by other methods).

# Transport

## 7.1 Construction Transport Management Plan

Contractors and suppliers shall ensure that they comply with the Construction-Phase Health and Safety Plan and the Construction Transport Management Plan for the Olympic Park primary routes and common areas as defined by the Delivery Partner Logistics team. The site design and arrangements shall include suitable provisions for segregation of pedestrians and mobile plant and vehicles, and procedures for reversing activities and similar aspects to prevent accidents. The HSEMS incorporates guidance on common standards to be maintained at vehicle/pedestrian boundaries including designated crossing points. In general, compliance is required with the Safety at Street Works and Road Works – a Code of Practice.

This shall be reinforced by the use of suitable barriers, signage and briefings and participation in campaigns as specified by the ODA and Delivery Partner integrated team. A suitable speed limit for the primary routes shall also be set and enforced.

The supplier shall comply and take steps to ensure compliance from sub-contractors. Further guidance on workplace transport (managing mobile plant) is provided in Appendices 3 and 8.

## 7.2 Transport projects – design & construction

ODA 's Transport team is committed to following the principles set out in the ODA HS&E policy statement. These shall guide the delivery of its obligations throughout the whole lifecycle of the Games.

For those projects in which the delivery mode is working with and through transport partners, excellent HS&E management shall be assured through the cooperation and commitment of existing delivery partners such as Network Rail, BAA, London Underground, Transport for London and others, who already effectively manage these issues as part of their statutory and corporate requirements. ODA's Transport team has committed to work with delivery partners to maximise the health and safety benefits for all risk groups through the delivery of the transport portfolio and reduce, so far as is reasonably practicable, the London 2012 transport risk profile.

For those projects in which the delivery mode is for ODA's Transport team to take a more direct and controlling role, excellent HS&E management shall be assured through the full implementation of this standard.

## 7.3 Transport projects – regulatory liaison

The ODA's Transport team shall take primary responsibility for maintaining good communications between the Office of Rail Regulation (ORR), HM Railway Inspectorate (HMRI), Network Rail, Transport for London, London Underground and other relevant organisations.

## Appendices

- Appendix 1 HS&E aims and indicators
- Appendix 2 Design risks
- Appendix 3 Management of construction phase H&S hazards and risks
- Appendix 4 Management of construction phase environmental hazards and risks
- Appendix 5 Construction phase H&S plan
- Appendix 6 Construction phase project Environmental Management Plan (EMP)
- Appendix 7 Construction site – work methods
- Appendix 8 Construction site – plant and equipment
- Appendix 9 Fire prevention
- Appendix 10 Welfare facilities
- Appendix 11 Occupational health provision
- Appendix 12 Alcohol and drugs policy
- Appendix 13 Worker engagement
- Appendix 14 CSCS cards and other schemes recognised by the ODA
- Appendix 15 Health and safety file
- Appendix 16 Accidents, incidents and emergencies
- Appendix 17 Definitions / glossary

# Appendix 1

## HS&E aims and indicators

### Aims and indicators

The following issues, aims and indicators have been adopted by the ODA, to be measured, reported against and met by each supplier/contractor across all projects undertaken. For each indicator, the data to be analysed shall be provided by the supplier to the Delivery Partner:

Note: the ambition is to operate the project as accident, ill health, injury and pollution incident free. Further indicators may be added as appropriate to achieve overall project aims and objectives.

Issue	Aim	Indicator/target
- accidents	- prevention of accidents	- zero fatalities - Accident frequency rate (AFR): - (RIDDOR reportable accidents; total person hours worked)
- health	- prevention of ill health - provision and use of excellent occupational health service	- Ill Health Frequency Rate (IHFR): - (RIDDOR reportable ill health; total person hours worked) - provision and attendance – health checks, health surveillance - provision and awareness of support available for workers returning after ill health absence
- well-being	- promotion of well-being	- health promotion programme activities and participation
- competence	- development and maintenance of competent workforce	- 100 per cent site workers hold CSCS or equivalent cards, logged into Scheme - five days training per year - training records logging all training activities inc. toolbox talks
- designing for HS&E	- reduction of HS&E risk through design	- evidence of processes to identify and evaluate design options with regard to HS&E risks and opportunities - lead designer and CDM coordinator scorecards

- HS&E culture	- positive HS&E culture - incorporate sustainability objectives for carbon, water, waste and material into a positive HS&E culture	- evidence of leadership, behaviour and culture (scorecard) - employee responses to HS&E climate surveys - indicators to quantify practice and impact
- environmental incidents	- prevention of environmental incidents	- zero significant environmental incidents - evidence of processes to prevent environment incidents
- compliance and continual improvement	- maintain a regulatory compliant project - maintain a competent workforce	- zero non-compliances, breaches of planning conditions, exceedance of conditions, and zero work, prohibition, enforcement and prosecution notices - incident investigations and prevention of recurrence and compliance with project health safety and environmental plans - training and awareness records
- carbon	- minimise carbon emissions associated with the development of the Olympic Park and venues	- 50 per cent of materials delivered to site by sustainable means - Energy use data, including fuel use
- waste	- minimise waste generation and maximise reuse and recycling	- elimination of waste through design - Percentage of waste diverted from landfill - volume of remediated soil/demolition material reused
- water	- minimise use of potable water during construction	- volume of water used - Percentage of non-potable water used
- materials	- source and use environmentally and socially responsible materials	- 20 per cent, by value, of construction materials to be of a reused or recycled source - 25 per cent recycled aggregate for permanent venues - all timber to be sustainably and legally sourced from a scheme approved by CPET
- biodiversity and ecology	- protect and enhance biodiversity and ecology	- area of habitats and protection of species identified in CoCP - elimination of invasive species identified in CoCP - area of new habitat created

<ul style="list-style-type: none"> <li>- land, water, air, noise</li> </ul>	<ul style="list-style-type: none"> <li>- optimise positive and minimise adverse impacts on land, water, noise and air quality</li> </ul>	<ul style="list-style-type: none"> <li>- groundwater, surface water, air quality and noise monitoring data</li> <li>- all contractors on site to have an approved project/contractor EMP prior to starting on site</li> <li>- to minimise flood risk on site and to adjacent areas, monitoring number of properties in flood risk as a result of works</li> </ul>
<ul style="list-style-type: none"> <li>- archaeology</li> </ul>	<ul style="list-style-type: none"> <li>- record areas of archaeological significance</li> </ul>	<ul style="list-style-type: none"> <li>- identification and recording of buildings and areas of archaeological significance as identified in CoCP</li> </ul>

## Appendix 2

### Design risks

#### Red list examples:

- use of hazardous materials where other less or non-hazardous material alternatives exist;
- scabbling of concrete (eg: stop ends);
- demolition by hand-held breakers of the top sections of concrete piles (pile cropping techniques are available);
- other works likely to generate loud noise or require vibrating tools;
- fragile roof-lights and roofing assemblies or other frangible surfaces;
- processes giving rise to large quantities of dust (eg: dry cutting, blasting);
- on-site spraying of harmful particulates;
- the specification of structural steelwork which is not purposely designed to accommodate safety nets;
- designing roof mounted services requiring access (eg: for maintenance), without provision for safe access (eg: barriers);
- designs that significantly increase the flood risk; and
- use of processes that may contaminate environmental media (soil, water or air).

#### Amber list examples:

- erection or other execution sequences which require personnel to work at height, exposed to leading edge risk of falls;
- inadequate external or internal illumination;
- internal manholes in circulation areas;
- external manholes in heavily used vehicle access zones;
- the specification of lip details (ie: trip hazards) at the tops of pre-cast concrete staircases;
- the specification of shallow steps (ie: risers) in external paved areas;
- the specification of heavy building blocks ie: those weighing more than 20kgs;
- large and heavy glass panels;
- the chasing out of concrete/brick/blockwork walls or floors for the installation of services;
- the specification of heavy lintels (the use of slim metal or concrete lintels being preferred);
- the specification of solvent-based paints and thinners, or isocyanates, particularly for use in confined areas;
- specification of curtain wall or panel systems without provision for the tying of scaffolds for construction and/or maintenance;

- specification of block work walls higher than 3.5m and retarded mortar mixes; and
- formaldehyde-containing materials which compromise indoor air quality.

**Green list examples:**

- off-site fabrication, and ground-level fabrication and assembly, so that work may be carried out as far as possible in a 'manufacturing environment' vis-à-vis HS&E controls, and working at height may be minimised by pre-assembly and craneage of finished/semi-finished components;
- adequate access for construction vehicles to minimise reversing requirements (one-way systems and turning radii);
- concrete products with pre-cast fixings to avoid drilling;
- half board sizes for plasterboard sheets to make handling easier;
- demolition of the top sections of concrete piles by pile cropping techniques;
- low volatile organic compound materials eg: water-based paint coatings, adhesives;
- structural steelwork purposely designed to accommodate safety net fixings and/or suitable harness anchorages;
- timber from sustainable sources;
- early installation of permanent means of access, and prefabricated staircases with hand rails;
- the provision of edge protection at permanent works where there is a foreseeable risk of falls after handover;
- practical and safe methods of window cleaning (eg: from the inside) and other normal maintenance and cleaning activities;
- thoughtful location of mechanical/electrical equipment, light fittings, security devices etc. to facilitate access and away from crowded areas;
- provision of adequate access and headroom for maintenance in plant rooms, and adequate provision for replacing heavy components;
- off-site timber treatment of PPA- and CCA-based preservatives (boron or copper salts used for cut ends on site) delivered dry and cured to site;
- water efficient welfare units;
- use recycled water for tyre washing and dust suppression;
- minimise waste due to packaging; and
- minimise construction debris.

## Appendix 3

### Management of construction phase H&S hazards and risks

Note this is not an exhaustive list; applicable elements and other hazards as determined by risk assessments shall be documented in the HS&E plans, referenced in methods statements and safe systems of work.

#### **Asbestos**

No new asbestos use is permitted, but it should be noted that existing structures and sites may contain asbestos materials. All reasonable care, in particular during the demolition and site clearance phase of the works, shall be taken to identify such materials and to remove them. All works within the scope of the Control of Asbestos Regulations 2006 shall be carried out in accordance with their requirements including taking reasonable steps to find asbestos-containing materials (ACMs), presuming that materials contain asbestos unless there is strong evidence to suppose they do not, keeping up to date records of ACMs, assessing the risk of exposure to ACMs and preparing and putting into effect a plan to manage the risk):

- survey conducted by an independent UKAS accredited agency commissioned by the principal contractor or specialist tier two contractor; samples analysed by an independent UKAS accredited laboratory;
- where sample analysis is positive (asbestos confirmed), the principal contractor shall plan to arrange for asbestos material to be removed in accordance with current best practice by a contractor licensed by HSE for asbestos works, and agree the plan with the ODA/Delivery Partner;
- if a subsequent supplier, working following the enabling works has any suspicion that asbestos materials are present, work which could disturb such material and generate airborne fibres should cease immediately. The situation shall be reported to the Delivery Partner as soon as possible in accordance with the Delivery Partner incident reporting procedures, and a sequence of survey, analysis, and planned work implemented as described above; and
- if structures are retained that are known or suspected to contain asbestos, the asbestos registers shall be updated and the appropriate warning signage placed in a suitable but conspicuous place on the ACMs. This will form part of the health and safety file and maintained as readily accessible.

#### **Confined spaces**

Working in confined spaces shall be eliminated/reduced as far as is practicable through design and planning.

Where such work cannot be avoided; the supplier shall undertake a suitable and sufficient risk assessment and draft a method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice, including:

- safe access;
- protection from risks such as oxygen deficiency, toxic gases, inundation, hypothermia, and hyperthermia;
- risk mitigation including atmosphere testing, the provision of ventilation/air supply,
- respiratory protection, training for competence; and
- emergency precautions including supervision, communications and rescue.

Such work shall be managed in detail by a 'Permit to Work' scheme.

### **Existing services**

Identification of existing services shall be undertaken as far as is practicable through design and planning.

To eliminate/minimise risks associated with existing services; the supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

Potential danger posed by above ground or underground services poses a risk of serious injury and considerable disruption to the project.

Services (pipes, cables and equipment associated with the electricity, gas, water, including piped sewage and telecommunications). All excavation works shall be suitably planned.

Prior to effecting an excavation, care shall be taken to check for buried services by utilising appropriate cable and pipe location devices suitable for the task.

Consideration of local circumstances and a suitable risk assessment shall lead to a permit system that shall be supervised and monitored.

### **Excavations**

To eliminate/minimise risks associated with existing services; the supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

Excavation work shall be planned, managed, supervised and carried out to prevent accidents. Before excavation, the following points shall be assessed:

- access to the excavation;
- risk of undermining nearby structures
- contact with underground services;
- collapse of the sides;
- materials falling onto people working in the excavation;
- fumes;
- people and vehicles falling into the excavation;
- accidents to neighbouring contractors and visitors; and
- emergency procedures including rescue.

### **Fragile (Frangible) surfaces**

Fragile surfaces shall be eliminated/reduced as far as is practicable through design and planning.

Where such materials cannot be avoided; the supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

The supplier shall ensure that any fragile surface (brittle, frangible and likely to be broken) within or adjacent to a work area shall be identified, clearly delineated, signed (BS 5378) and barriered to render it inaccessible.

The location of such surfaces shall be logged in the HS&E plans and communicated to all personnel in the area.

### **Hazardous substances**

Working with hazardous substances shall be eliminated/reduced as far as is practicable through design and planning.

Where such work cannot be avoided, the supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable. Suppliers shall:

- seek to eliminate/minimise the use of hazardous materials (or processes which generate such materials);
- make use of materials which represent a lower hazard to people;
- ensure that all hazardous materials (purchased, generated, inherited) are subject to assessment;
- take precautions to minimise exposures, and protect personnel from exposures which cannot be avoided in receipt, storage, use and disposal;

- include appropriate health surveillance by utilising 'Park Health' or own provision; and
- ensure that personnel are briefed and trained on the risks and precautions, including the appropriate and proper use of PPE as a last resort.

### **Height: working at height**

- working at height shall be eliminated/reduced as far as is practicable through design and planning;
- where such work cannot be avoided, the supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable;
- use work equipment or other measures to prevent falls where working at height cannot be avoided;
- use work equipment or other measures to minimise the distance and consequences of a fall should one occur;
- where practicable access provision shall minimise the use of step-ladders as working platforms and non-permanently fixed ladders in preference for fixed stairs, stairway access and other fixed equipment; and
- emergency procedures for the rescue of persons working at height shall be documented and communicated to all necessary personnel.

### **Ionising and non-ionising radiation**

The supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable for the use of denisimeters etc., so as to minimise risk of personal exposure to radiation. Exposure of workers to non-ionising radiation, such as surveying lasers, welding emissions and sunlight shall also be subject to risk assessment and suitable controls.

### **Lifting operations**

The need for lifting operations shall be eliminated/reduced as far as is practicable through design and planning.

Where lifting cannot be avoided; the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

All lifting operations shall be incorporated into the HS&E plans including receipt on site checks, storage, supervision, and competence of operators, slingers/riggers/load handlers, banksmen/signallers, load handling, arrangements for lifting personnel and any other relevant considerations.

Such personnel shall be holders of valid and applicable CPCS cards.

Lifting operations shall be subject to a lifting plan or a method statement (for a specific lift or for a series of repeated, similar operations).

Lifting equipment shall be marked with a unique reference, be subject to a current examination and insurance certificate available on site and be under the control of a competent person acting as lift coordinator/supervisor.

The work shall at all times be compliant with Lifting Operations and Lifting Equipment Regulations and Provision and Use of Work Equipment Regulations.

Emergency procedures shall be in place and communicated to the integrated team and the fire service for all operations that involve lifting equipment.

### **Loading and unloading vehicles**

To eliminate/minimise the risks associated with loading and unloading of vehicles; the supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

Loading and storage locations shall be considered as early as practicable in the planning process. Consideration shall be given to the types of delivery vehicle, the layout of the access routes, the location of craneage and other means of distribution.

Vehicles shall not be overloaded, loads shall be evenly distributed, secured and not project beyond the sides or the back of the vehicle.

Loading and unloading procedures shall be taken into consideration during the following risk assessments and development of safe systems of work:

- workplace transport;
- working at height;
- choosing PPE; and
- emergency planning/rescue procedures.

There shall be suitable and sufficient facilities to ensure that all vehicles that leave the Olympic Park do not create a risk to other road users by dropping mud and other debris. Wheel washing facilities shall be provided when required.

Wheel wash facilities shall be economical and wash water produced shall discharge into the foul or combined sewer.

### **Musculo-skeletal disorders (MSDs)**

- manual handling shall be eliminated/reduced as far as is practicable through design and planning;
- where manual handling cannot be avoided; the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable;
- the supplier shall avoid hazardous manual handling operations so far as is reasonably practicable – through appropriate specification, procurement and site design, and the use of mechanical aids;
- assess any hazardous manual handling operations that cannot be avoided by means of HSE approved methods or other such methods recognised by industry;
- reduce the risk of injury so far as is reasonably practicable by implementing other measures; and
- ensure that personnel are briefed and trained on the risks and precautions, including methods of safe manual handling.

### **Noise**

Noise shall be eliminated/reduced as far as is practicable through design and planning.

Where there are risks of noise that exceeds the values stated in the noise at work regulations; the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

There are four related aspects of noise control and exposure reduction which the supplier shall consider and comply with:

- noise at work regulations;
- Environmental Protection Act 1990;
- BS 5229 Code of Practice for noise control on construction and demolition sites; and
- requirements of the local authorities to minimise nuisance to neighbours (which may be reflected in planning consent conditions).

The supplier's control measures shall include:

- selection of design and work methods which limit noise emissions;
- specification, use and maintenance of equipment with as low noise emission as practicable;
- fitting, use and maintenance of noise suppression devices such as exhaust silencers;
- informed choice and management of noise generating equipment and processes, to minimise noise emissions;
- assessment of noise emissions and exposures by a competent person; and

- selection of, supply to and use by personnel of suitable personal protection.

### **Personal protective equipment (PPE)**

The supplier shall note that PPE is the least favoured option in the control hierarchy and shall seek other means to protect personnel. The supplier shall ensure that risk assessments and method statements specify suitable personal protective equipment as applicable and suitable for the task. Such PPE requires the following:

- specification that is unambiguous and specific to the risk;
- provision of specified PPE, personal issue where appropriate;
- information, instruction and training on each phase of the work to personnel required to make use of PPE;
- arrangements for issue, storage, cleaning, inspection, testing, recalibration (eg: gas testing alarms), maintenance and replacement;
- development of site rules specifying use of PPE, and appropriate signage to reinforce and communicate the rules; and
- supervision to ensure compliance with site rules and task-specific PPE requirements.

#### Eye protection:

- Unless dispensations are risk assessed, recorded in writing and approved at director level, the universal wearing of eye protection is mandatory throughout 2012 Olympic Park and venue construction sites, worksites, depots and other non-office establishments. This requirement includes visitors, employees and contractors. Safety eyewear shall comply with EN 166 or for specific risk.
- Normal prescription spectacles with plastic lenses are considered to offer a sufficient level of protection against wind blown dust and grit. However, where there is a risk of eye injury the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

#### Footwear:

- The universal wearing of foot protection is mandatory throughout 2012 Olympic Park and venue construction sites, worksites, depots and other non-office establishments. This requirement includes visitors, employees and contractors.
- All safety footwear, including Wellingtons, shall incorporate impact resistant toe caps and pierce resistant midsole protection to BS EN 345. Safety footwear or other for specific risk.
- Where there is a risk of foot injury the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

#### Hand protection/gloves:

- Unless dispensations are risk assessed, recorded in writing and approved at director level, the universal wearing of hand protection is mandatory throughout 2012 Olympic Park and venue construction sites, worksites, depots and other non-office establishments. This requirement includes visitors, employees and contractors.

#### Workwear:

- Basic class 2 hi-visibility garments are required on most construction sites. High visibility clothing – vest (to EN 471, or other for specific risk).
- Where there is a need for a higher specification of workwear, the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable.
- Where workwear is issued, arrangements shall have to be made for identifying the wearer, issue of duplicate sets and contracts for regular cleaning.

#### Head protection:

- The universal wearing of head protection is mandatory throughout 2012 Olympic Park and venue construction sites, worksites, depots and other non-office establishments. This requirement includes visitors, employees and contractors.
- Hard hat – to EN 397, or other for specific risk:
  - Suppliers shall ensure the ready availability of extra-large hard hats to include for workers with dreadlocks, which may be worn for religious or non-religious reasons.
  - The duty to wear a hard hat does not apply to turban-wearing Sikh workers. In order to ensure individuals in either of the above groups are treated with respect, suppliers shall ensure that all supervisors are briefed so that extra-large hard hats may be supplied and/or turban-wearers accepted without fuss or delay.

#### Hearing protection:

- Where there is a need for hearing protection, the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable (hearing protection to EN 352).

#### Respiratory protection:

- Where there is a need for respiratory protection, the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice.

### **Slips, trips and falls**

- the avoidance and management of this major issue and cause of injury on construction sites shall be reflected in the HS&E plans, method statements and day-to-day practice to manage safe access and maintain a high standard on site housekeeping;
- regulatory requirements such as those laid down in the Work at Height Regulations shall be complied with; and
- to protect construction personnel, the materials developed by HSE (preventing slips and trips) and standards established for access equipment (eg: fixed scaffolding, mobile scaffolds, MEWPS,) shall be specifically referred to and reproduced in the HS&E plans and method statements.

### **Temporary works**

- Temporary works and auxiliary structures shall, as part of fitness for purpose, be designed in accordance with ODA HS&E design requirements (see section 4) and be subject to competent and comprehensive risk assessment. Liaison is required with the CDM coordinator for all such works;
- Information from the Temporary Works Design team shall be provided to facilitate the updating of the overall hazard and risk register, passing this information through the principal contractor to the Delivery Partner, the CDM coordinator and the ODA.
- Risks which cannot be designed out shall be carefully mitigated and controlled.

### **Vibration**

In order to eliminate/minimise the risks associated with vibration, the supplier shall undertake a suitable and sufficient risk assessment and detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable. The control measures shall include:

- selection of design and work methods which eliminate or reduce hand-arm and whole body vibration exposure;
- specification, use and maintenance of equipment with as low vibration exposure as possible;
- informed choice and management of equipment and processes, to minimise vibration exposure; and
- assessment of vibration exposures by a competent person.

### **Leptospirosis (Weil's disease)**

The Olympic Park has a number of waterways within its boundary. Suppliers shall take precautions to protect their personnel and other persons from leptospirosis (Weil's disease) and other infections carried in contaminated water. This includes:

- dewatering, management of waste (particularly food waste), access to suitable washing facilities, personnel briefings on the risks and precautions, availability of waterproof wound dressings, briefings on the availability on site of health advice; and
- 'Park Health' will be available for advice and shall be notified of any infections contracted suspected of being directly attributable to work on the Olympic Park site.

### **Weather and its effects on operations**

- All works shall be planned and managed with due regard to climatic conditions that may contribute to an increase in risk of accidents or ill health. For example, ice in winter may require responses that address slipping risks on walkways and working platforms; cold weather may trigger additional clothing issue and increased space heating; intense sunlight requires skin protection (clothing, sun-screen); high winds limit working at height and use of cranes;
- contractors in control of any work and/or work area and/or workers shall ensure that their plans and implementation take proper account of the effect of weather;
- weather reports shall be reviewed daily (eg: from the Meteorological Office website) by the supplier; and
- 'Park Health' may on review of such data, issue Olympic Park briefings on matters such as the risk of skin exposure to sunlight, or hypothermia.

### **Worksite transport: principal contractors**

In order to eliminate/reduce the risk associated with the movement of vehicles, equipment and pedestrians on site; the supplier shall undertake a suitable and sufficient risk assessment taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

Suppliers shall develop a site specific transport management plan that integrates with the Olympic Park site (primary routes and common areas) plan that addresses the relationship between pedestrians and vehicles. ODA recognises and encourages participation in the Freight Operator Recognition Scheme (FORS) and the scheme's training package Freight Booster, or an equivalent package as part of the development of a safe system of work for worksite transport (contact Transport for London for more information).

Suppliers shall be expected to demonstrate consideration of the following in order to develop a safe system of work for workplace transport:

- vehicle routes;
- vehicle type;
- vehicle maintenance and driver checks;
- fuelling of vehicles;
- pedestrian routes and likely pedestrian footfall;

- storage location of materials and vehicles;
- condition of the terrain and foreseeable changes due to weather;
- loading and unloading procedures;
- driver training, competence, behaviour; information signs;
- sensible speed limits;
- suitable PPE;
- emergency procedures;
- hazards specific to the zone;
- integration with transport activities in other zones;
- supervision and monitoring; and
- effective communication.

**Working in or adjacent to rivers and watercourses**

To eliminate/minimise risks associated with working in or adjacent to rivers and watercourses; the supplier shall undertake a suitable and sufficient risk assessment and prepare a detailed method statement documented in the HS&E plans taking into account regulations, Approved Codes of Practice and industry good practice where applicable.

## Appendix 4

### Management of construction phase environmental hazards and risks

Construction works carried out/commissioned by the ODA will operate within the United Kingdom (UK) environmental legislative framework and the European Union (EU) Directives. Suppliers shall identify and maintain an up to date detailed register of applicable environmental legislation, to be used as the basis for regulatory compliance. Suppliers shall ensure that applicable environmental legislation and other requirements, eg: Code of Construction Practice and best practice are taken into account in establishing and implementing works. Suppliers shall comply with all applicable planning conditions, consents, and permits.

Preventing environmental incidents requires an evaluation of source, pathway, and receptor. Examples include encountering unexpected contamination, flooding, tunnel/trench/boring collapse, spill and leakages and fires. Incident planning includes:

- notification and reporting requirements;
- arrangements to mitigate any incident, minimising harm arising; and
- recovery arrangements and investigation, report preparation and learning.

The supplier shall consider, at a minimum, each of the following construction phase environmental hazards and methods to minimise the associated risks:

#### **Air quality (release to air)**

- limit use of ozone-depleting substances;
- reduce carbon dioxide emissions (vehicles and equipment);
- implement dust suppression techniques; and
- minimise emissions to air from demolition, contaminated land, transportation and construction.

#### **Biodiversity and ecological (impacts and conservation)**

- retain protected species and habitats;
- retain trees where practicable to do so – and always retain trees shown on planning approved drawings;
- minimise the threat to restored habitats and habitat creation from invasive plant species;
- minimise the impacts of demolition, remediation, transportation and construction works on the ecology of the site;
- minimise impacts on populations of protected or other important species; and
- minimise noise impacts on conservation areas.

### **Energy (emissions and efficiency)**

- reduce carbon dioxide emissions (vehicles and equipment); and
- minimise energy demand/maximise energy efficiency.

### **Land (contaminated land and releases to land)**

- prevent soil erosion, generation of sediment residues and surface water runoff;
- prevent releases from demolition, remediation and construction sites and treatment facilities; and
- prevent releases to groundwater.

### **Archaeology & Heritage**

- identify and manage archaeological or built heritage sites or items of significance.

### **Light (impacts to local communities)**

- minimise light impact to local communities.

### **Materials (use of raw materials and natural resources)**

- consider life-cycle impacts in the choice of materials;
- segregate excavated material for reuse, treatment, storage or disposal;
- maximise selection of environmentally and socially responsible materials;
- use legally and sustainably sourced timber;
- minimise the use of toxic materials;
- minimise the use of virgin materials and maximise the reuse of demolition materials and other post consumer waste streams; and
- demonstrate how the embodied impact of specifications for the major building elements have been minimised.

### **Noise and vibration (impacts on local communities)**

- identify and acknowledge sensitive receptors;
- local resident/businesses within a 100 metre radius of noisy works shall be pre-notified of noise and vibration levels associated with activities on site;
- selection of design and work methods which limit noise emissions;
- use of Best Practicable Means (BPM); and
- assessment of noise emissions and exposures by a competent person.

**Waste (management, including reuse, recycling and disposal)**

- operate within the waste hierarchy of eliminate, reduce, reuse, recycle, recover, and dispose;
- reuse or recycle at least 90%, by weight, of material arising through the demolition works;
- minimise export of material and use on-site sustainable treatment of contaminated soil wherever possible;
- utilise off-site manufacture (pre-fabrication) and standardisation to minimise waste arisings on site;
- balance the cut and fill materials on site for both its permanent and temporary components; and
- maintain a high standard of site housekeeping.

**Water (usage)**

- minimise water demand and use non-potable water wherever practical; and
- maximise reuse and recycling of water.

**Water quality (releases to water and flooding)**

- prevent soil erosion and generation of sediment residues;
- prevent surface water runoff from contaminated land;
- prevent spills or leaks from impacting water quality;
- protect integrity of surface water and groundwater systems;
- manage storm water drainage and prevent flooding;
- manage works such that the flood risk is fully addressed and managed; and
- discharge to controlled waters or foul water system in accordance with consents.

## Appendix 5

### Construction phase H&S plan

The following headings and order indicates the required format for H&S plans, designed to achieve consistency across the Olympic Park based upon Appendix 3 of the CDM 2007 Approved Code of Practice.

#### Contents

##### Part 1 – Description of project

- version number, date, authorisation, next review;
- project description and programme details including any key dates;
- details of CDM coordinator, designers, principal contractor and other consultants; and
- extent and location of existing records and plans that are relevant to health and safety on site, including information about any existing structures.

##### Part 2 – Management of the work

- management structure & responsibilities, points of contact
- health and safety goals for the project (including H&S KPIs) and arrangements for monitoring and review of health and safety performance
- arrangements for:
  - coordination, communication and liaison between parties on site;
  - consultation with the workforce;
  - exchange of design information between the ODA, delivery partner, designers, CDM coordinators and contractors on site;
  - handling design changes;
  - selection and control of contractors and other suppliers;
  - exchange of health and safety information between contractors;
  - site security;
  - site induction;
  - training and competence;
  - welfare facilities;
  - reporting and investigation of accidents and incidents including near misses;
  - production and approval of risk assessments and written systems of work;
  - site rules (including drug and alcohol policy);
  - monitoring, audits and management reviews;
  - fire and emergency plans and procedures (including First Aid); and
  - external liaison including with HSE, EA and other regulators and complaints

### **Part 3 – Arrangements for controlling significant site risks**

- safety risks including:
  - delivery and removal of materials (including waste)
  - dealing with services – water, electricity, gas, including overhead powerlines and temporary electrical installations;
  - interfaces with neighbouring sites
  - stability of structures whilst carrying out construction work, including temporary structures and existing unstable structures
  - preventing falls
  - work with or near fragile materials
  - control of lifting operations
  - maintenance of plant and equipment
  - work on excavations and work where there are poor ground conditions
  - work on wells, underground earthworks and tunnels
  - work on or near water where there is a risk of drowning;
  - work on or near railway lines
  - work involving diving
  - work in a caisson or compressed air working
  - work involving explosives (including suspected unexploded ordinance)
  - traffic routes and segregation of vehicles and pedestrians;
  - storage of materials (particularly hazardous materials) and work equipment
  - any other significant safety risks
- health risks including:
  - the removal of asbestos
  - dealing with contaminated land
  - manual handling
  - use of hazardous substances, particularly where there is a need for health monitoring
  - noise and vibration
  - work with ionising radiation
  - exposure to UV radiation (sun)
  - any other significant health risks

### **Part 3 – appendices**

- arrangements for collecting and gathering information for the H&S file
- site layouts
- company policies
- additional site safety procedures (not covered above)
- meeting agendas for routine review meetings etc.

## Appendix 6

### Construction phase project Environmental Management Plan (EMP)

The following headings and order set out the preferred format for Project Environmental Management Plans (EMPs) (to achieve consistency across Olympic Park and non-Olympic Park venues and projects). It is however recognised that house-styles and integration with H&S plans may result in a different format. Regardless of the format used, all sections set out below must be addressed.

A project EMP shall be developed by the principal contractor, and each sub-supplier shall develop a contractor EMP. Contractor EMPs are components of and shall support project EMPs, and will focus on the contractors' key environmental risks and mitigation methods/best practice associated with their activities.

#### Contents

##### Part 1

- version number, date, authorisation, next review
- project profile and scope of works
- identification of equipment
- identification of materials used
- project duration
- environmental condition of site

##### Part 2

- policy statements
- summary of significant hazards and risks (aspects and impacts) and mitigation measures:
  - activities
  - construction processes/aspects
  - environmental impacts
  - significance/risk rating (inherent risks)
  - mitigation measures
  - residual risk rating
- identification and management of environmental requirements and legislative constraints
  - ecological constraints, including:
    - permits
    - licences
    - consents
    - planning conditions
    - regulatory notifications required and notification to residents
- environmental aims, KPIs, and targets
- roles and responsibilities (including management structure and points of contact)

- competence, training and awareness (including requirements for inductions)
- coordination, communication and liaison:
  - internal
  - on-site
  - public
  - complaints
  - regulatory liaisons
- document & record control
- operational control, to include:
  - reference to specific control plans (as required in the appendices);
  - contractors/designers selection and appointment; and
  - Olympic Park site rules and any additions for specific projects
- Emergency Preparedness & Response (including Incident Reporting and Investigation):
  - environmental incident recognition/categorisation
  - emergency plan
  - emergency procedures
  - notification and reporting
  - arrangements to mitigate
  - incident investigation (including reporting and learning.)
- environmental monitoring and reporting
  - air quality and dust
  - surface water (chemical and biological)
  - groundwater (level and quality)
  - noise and vibration
  - ground gases
  - land (quality)
  - ecology
- performance monitoring and reporting
  - monthly report
  - HS&E scorecard
- evaluation of compliance
- inspection and audits
  - responsibilities
  - schedule, frequency, and planning
  - HSE leadership tours
  - environmental inspections
  - environmental audits
  - non conformance, corrective action & preventative action reports
  - procedures in the event of failure to comply with this plan
  - review and close out reports
  - record keeping and archiving

### **Part 3 – appendices**

- register of legislation and other requirements;
- schedule of permits, licenses and consents;
- site layout drawings;
- project specific control plans – the programme EMP will provide the following overarching control plans (Site Waste and Materials Management Plan [including a Spoil Handling Plan], Transportation Management Plan, Pollution Prevention and Incident Contingency Plan, Water Management Plan and an Ecological Management Plan). Each project will pull from and/or augment the specific control plans, to create their own project specific control plans as part of their project level EMP;
- company policies;
- additional environmental procedures and control plans (not covered above) (eg: noise and vibration; dust, odour and emissions; archaeological;
- environmental monitoring plans (eg: air, noise and vibration, surface water, and groundwater);
- document hierarchy table identifying all applicable documents (eg: registers, plans, method statements, templates and procedures);
- meeting agendas for routine review meetings etc;
- relevant parts of pre-construction phase information; and
- Contractor environmental management plans.

## Appendix 7

### Construction site – work methods

The methods of work to be employed by the supplier shall be documented and/or referenced as appropriate in the HS&E plans, method statements and in operational and other guides and manuals. Such methods shall include permits to work for a variety of activities including entry into confined spaces, work on live services (including where such services may be isolated and then reconnected), work which may prejudice any emergency facilities including fire protection or fire fighting systems, hot work, and permits to proceed (with regard to contaminated land). The defined methods shall address all identified significant hazards, including the protection of services, site transport, and hazardous materials.

The HS&E plans and method statements shall reflect the specific hazards and risks of the project and the phase of project. Thus, for site investigation, land remediation, landscaping, tunnelling, service relocations, etc. the HS&E plans, updated hazard and risk register, method statements and other relevant documents shall be up to date, suitable and sufficient to define the way in which the high standards for HS&E shall be achieved and maintained. Safe working methods are the responsibility of the relevant suppliers (those directly engaged in the work) and principal contractor who shall develop appropriate method statements and implement site work activities to ensure health and safety is maintained. However, the ODA may require some safe working methods to be made available for discussion within the integrated team, headed by the project sponsor for the particular package of work, the CDM coordinator and the Delivery Partner, before they are implemented. This shall occur where the integrated team agrees that the arrangements are of particular significance, importance or complexity. In these circumstances the integrated team shall review the draft method statements and development of the HS&E plans, and seek to reach agreement that they are suitable and sufficient before the particular work activities commence on site.

Permits to work shall be required for a range of high risk activities, such as hot work, entry into confined spaces, excavating in the suspected vicinity of buried services, etc. The principal contractor shall ensure that the permit system is operating effectively on works under their control, and that the arrangements are:

- documented in the HS&E plans;
- referenced as appropriate in method statements;
- reflected in training including toolbox talks for personnel directly engaged in permitted work; and
- carefully recorded and communicated to third parties as appropriate.

## Appendix 8

### Construction site – plant and equipment

#### Selection

The supplier shall select equipment suitable for the use for which it is intended. As far as practicable, choices shall be made which address:

- safety in use and maintenance;
- noise and vibration minimisation;
- low toxicity use and maintenance;
- low energy usage;
- low exhaust emissions;
- suitable maintenance schedules; and
- compliance with current UK legislation.

#### Register

The supplier shall prepare and maintain a register of Plant and Equipment and Statutory Certification, identifying:

- plant and equipment item;
- unique identification;
- test certification and renewal date;
- examination certificate and renewal date; and
- operator training certification and renewal date.

#### Compliance with PUWER

Each item of plant and equipment shall be managed in accordance with PUWER, the manufacturer's guidelines and other available and applicable guidance. This shall apply to:

- testing and commissioning;
- inspection and maintenance;
- competent persons; and
- training, such that equipment operators shall hold current Construction Plant Competence Scheme (CPCS) cards or other certification approved at director level where the activity is not covered by a specific CPCS category.

Records shall be kept to include:

- inventory of plant and equipment;
- the purpose/permissible use for which it has been provided;
- testing and commissioning details, and standards met;
- inspection and examination reports;
- maintenance details; and
- personnel training records and authorisations to use and/or supervise use of plant and equipment.

### **Lifting equipment**

Selection of suitable equipment and competent and comprehensive planning for safety of individual lifts are essential (see above section on lifting operations). Each item of plant and equipment shall be managed in accordance with LOLER, the manufacturer's guidelines, Approved Codes of Practice and other guidance applicable. This shall apply to:

- testing and commissioning;
- inspection and maintenance;
- competent persons; and
- training, such that equipment operators shall hold current Construction Plant Competence Scheme (CPCS) cards or other certification approved at director level where the activity is not covered by a specific CPCS category.

Records shall be kept to include:

- inventory of plant and equipment;
- the purpose/ permissible use for which it has been provided;
- testing and commissioning details, and standards met;
- maximum safe working load;
- inspection and examination reports;
- maintenance details;
- personnel training records and authorisations to use; and
- supervised use of plant and equipment.

Note: any lifting accessories (Note: such items of equipment shall also be subject to examination and testing)

### **Access equipment**

Arrangements for working at height shall be in accordance with the work at height regulations (see above) and the primary consideration shall be to avoid working at height. Erected steel tube scaffolding shall be subject to formal design. This shall be marked at all designated access points (by Scafftag or similar) to identify:

- date of erection, supplier and competent person responsible;
- designed loading (tonnes);
- date of last inspection, name of competent inspector;
- note that all access equipment shall have a clear and unambiguous method for notifying "out of use";
- all aluminium tower access equipment shall be under the control of a competent person, trained to PASMA standard and holding a certificate; prior to use, each newly erected tower shall be inspected by such a competent person;
- ladders shall be carefully stored, issued, used and managed to minimise unauthorised use; and
- ladders and step-ladders may be used as a means of access, but shall not be regarded as suitable working platforms/places of work.

### **Mobile equipment**

All mobile equipment used off the public highway shall be fitted with the following as standard:

- a visible and audible reversing alarm, (care needs to be taken in zones that border properties outside the Olympic Park);
- a flashing yellow hazard warning beacon operating during all movement;
- all to be fitted with mirrors etc.;
- large items of mobile plant shall be fitted with CCTV or other suitable aid to facilitate safe reversing and other manoeuvres;
- cabs shall be designed to protect the driver from noise, provide a comfortable working environment by excluding dust, providing heat in winter etc.;
- seating shall be designed to minimise whole body vibration; and
- vehicles which may be used on the public roads and are brought onto site shall have valid MOT test certificates at all times.

Mobile plant, other than vehicles travelling normally on designated site roadways, used in areas where other site personnel may be present shall only be operated with the guidance of a designated 'banksman' giving approved signals in accordance with BS 7121.

If any mobile equipment is to be used within an area for which a height restriction has been advised, the supplier shall check and if the equipment is 50cm less than that height or higher this shall be notified to the Delivery Partner prior to the equipment being used within that area. Passengers may only be carried if there is a proper place provided for this purpose. Unless a safe place has been designed into the mobile plant, no person may remain on/in the vehicle during the loading/unloading of any loose materials.

The selection and use of any mobile equipment shall be considered during the assessment undertaken for determining the safe working procedures that form the transport zone management plan, integrating with the Olympic Park (primary routes) plan and neighbouring plans if applicable.

### **Electrical equipment**

Site electrics shall comply with BS 4363, and supply systems shall be 110V centre tapped (if, exceptionally, higher voltage is required as part of temporary works, the cable shall be metal armoured or sheathed, and either suspended or buried at least 600mm below ground and carefully marked). Electrically operated equipment shall be in a good condition, and subject to periodic inspection and electrical testing. Such equipment shall be properly insulated, fitted with leads in good condition, and with plugs that are securely clamped to the leads. The permissible power usage on a circuit or transformer should not be exceeded.

Electrical supplies in welfare, office and other long-lived facilities shall be designed, installed and maintained by competent persons in accordance with IEE regulations, formally commissioned and subject to regular inspections and tests. Electrical equipment shall be subject to regular inspection and testing, and records kept.

### **Tools**

Tools should be inspected prior to each usage to check their condition and suitability. Electrically powered hand tools shall operate to 110 volts, and be double insulated or battery-powered. Power tools should be appropriately guarded, marked with maximum speeds, provided with on/off and emergency stops.

### **Equipment noise**

Site plant shall comply with relevant EC/UK noise limits, section 61 requirements and sections 5.2 and 6.3 above, but beyond this there are other steps to be taken to minimise local impact:

- processes, such as piling, which may generate significant noise shall be designed subject to the control hierarchy, seeking to eliminate or reduce noise emissions at source and by process design;
- electrically powered plant shall be preferred, where practicable;
- compressors that are sound reduced models fitted with sealed acoustic covers shall be used; and
- all generators and compressors used on the site shall be sound reduced models fitted with acoustic linings and all ancillary pneumatic percussive tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers.

Noisy equipment such as ventilation fans, which are required to run continuously, shall be housed. If necessary, to comply with the maximum permitted noise levels given below, the enclosure shall be lined with sound absorbent material:

- Stationary plant and equipment shall be located as far away as possible from sensitive receptors and away from walls.
- Hoardings, housings and temporary stockpiles shall be used to screen noise. The hoardings, built to a standard height of 2.4m, shall be constructed such that all knotholes, cracks and other joints are sealed to minimise potential noise impact.
- Doors on plant and equipment shall be closed and equipment shut down in the intervening periods between uses.
- All plant and equipment shall be properly maintained.
- Deliveries to site shall be programmed for daytime working hours only and routed to minimise disturbance to local residents. Delivery vehicles shall be prohibited from waiting within or near to the site with their engines running.
- Working outside contract hours shall be prohibited unless written agreement is obtained from the Delivery Partner at least 24 hours in advance of the work.

- The local environmental health officers shall be notified of any particularly noisy works or works which will take place outside contract hours.
- Timings of activities which may generate significant noise shall be planned with regard to local residents and sensitive receptors.

**Air Quality**

See requirements detailed in the CoCP (pp 34-35).

## Appendix 9

### Fire prevention

#### Fire risk assessment

The basic adopted standard for all construction works is Fire Prevention on Construction Sites a Joint Code of Practice published by Construction Confederation and the Fire Protection Association, and HSG 168 'Fire Safety in Construction Work'. The supplier shall comply with the statutory requirements including The Regulatory Reform (Fire Safety) Order 2005. Requirements on the supplier include:

- developing and implementing a Fire Safety Management Plan (as a component of the construction HS&E plans) integrating with the Olympic Park site fire safety plan as applicable;
- appointing a fire safety coordinator and fire marshals;
- briefing on arrangements in induction and other training;
- using signage for escape routes;
- displaying emergency telephone numbers;
- conducting fire drills as requested by the Delivery Partner;
- actively managing Hot Work by use of permits to work, including precautions, emergency arrangements, liaison with neighbouring operations, post-work inspections;
- notifying the integrated team of the location of the designated smoking areas; and
- respecting fire precautions which form part of structures under construction or completed, within or adjacent to the work area.

#### Gas cylinders

Where cylinders are required to be used for cutting or welding purposes the supplier shall ensure that a Hot Work Permit has been issued for the work site and that all requisite controls are in place. Suitable means shall be employed for movements of gas cylinders and all cylinders shall be secured by either a suitable chain or strap or held within a cage. Valves shall be protected from mechanical damage, and flash-back arrestors employed as appropriate.

#### Hot work and fire hazards

No work involving flame cutting, burning, welding, the use of a thermic lance or other heat-generating work shall be carried out unless under a Hot Work Permit. The permit shall detail the work and the precautions against fire to be employed. These precautions shall include provision of fire fighting equipment and a recorded post-work inspection of the work area.

#### Dealing with fires

The emergency plan shall include arrangements and procedures for fire alarms, evacuation, fire fighting, fire consequence mitigation, liaison with emergency services.

## Appendix 10

### Welfare facilities

Suitable and sufficient welfare facilities shall be provided from the first day on site, meeting the needs of men, women and anyone with a disability. The following guidance represents the ODA minimum standard. For sites and/or work which represent significant risks to health and where hygiene arrangements form part of the control measures, the risk assessment shall specify additional welfare arrangements as appropriate.

Toilets	<ul style="list-style-type: none"> <li>- 2 x WCs plus additional WC for each additional 25 personnel;</li> <li>- separate facilities for female personnel are required;</li> <li>- appropriate water flushing facilities;</li> <li>- adequate supply of toilet paper; and</li> <li>- accessible to all on site.</li> </ul>
Washing facilities	<ul style="list-style-type: none"> <li>- minimum number of wash basins are the same as WCs above;</li> <li>- washing facilities shall be available in both toilet and changing areas; and</li> <li>- basins shall be large enough for people to wash their face, hands and forearms.</li> </ul> <p>There shall be a supply of hot and cold or warm running water plus soap, and towels or dryers.</p> <p>Handcare stations are to be provided in washing facilities – providing dispensers of liquid soap, degreasing cleanser and skin moisturiser.</p>
Female facilities	<p>Facilities shall be provided that meet the needs of women working on site, taking into account that 15 per cent of site workers (including engineers) may be women, and 15-30 per cent of site office staff. There shall be a separating system to control access. In addition to sufficient quantity (WCs and wash basins) calculated for women as indicated above, the following shall be addressed:</p> <ul style="list-style-type: none"> <li>- provision (including maintenance and filling) of sanitary towel/tampon dispensers;</li> <li>- provision (including maintenance and emptying) of sanitary towel/tampon disposal units; and</li> <li>- where provided, separate shower facilities.</li> </ul>
Storage & changing of clothing	<ul style="list-style-type: none"> <li>- provision for storing personal clothing and footwear, protective clothing;</li> <li>- facilities shall be provided to allow clothing to dry; and</li> <li>- lockers for securing personal items.</li> </ul>
Rest facilities	<p>Provision shall be made for personnel to take breaks and shelter from the weather. Heating and lighting shall also be provided.</p> <p>Rest facilities shall have a power source, tables and chairs, facilities for making/being served hot drinks and consuming food and drink. Non-smokers shall be able to use the facilities without suffering discomfort from tobacco smoke by the provision of good ventilation or separate facilities.</p>
Faith rooms	<p>Suitable, clean, quiet and maintained faith rooms are required, with access throughout site working hours.</p>

Catering facilities	<p>During planned shifts, local authority registered catering facilities shall ensure the provision of wholesome cold and cooked food, to be served during meal breaks. Cater for all cultures and dietary needs, ensuring that healthy and nutritionally balanced options are available to everyone working on the contract(s) (this statement is similar to one already in the catering facilities section).</p> <p>Provide flexibility to cater for authorised out of sequence meal breaks by prior agreement and reasonable notice.</p> <p>Where refrigerators are provided for staff to store their own food, consideration shall be given to providing means (two refrigerators, containers, management arrangements) for separation of foods the proximity of which could cause offence to members of a faith group.</p>
Food hygiene	<p>Provide and contribute to an excellent level of welfare of the people working on the contract.</p> <p>Maintain standards of hygiene and safety in areas where food is prepared, cooked, stored, transported and consumed in accordance with legislation, company, client contractor and ODA requirements.</p> <p>Ensure waste is minimised and disposed of in an acceptable manner, and in accordance with the waste segregation provision and policies of the ODA and relevant authorities.</p> <p>Crockery to be used in all compound canteens.</p>
Drinking water	<p>Adequate supplies of drinking water shall be provided either from mains supply or from bottles, or suitable containers. Drinking water supply shall be clearly marked.</p>
Shower facilities	<p>Fully operational showers shall be provided for work including contact with sewage and sludge, contaminated ground, tunnelling operations, heavy and/or dirty work.</p> <p>These should be provided at the main facility unless the risk assessments dictate that decontamination units or showers should be provided at point of work and supplied with soap and towels.</p>
Maintenance	<p>Arrangements shall be made for the maintenance and cleaning of the above facilities.</p>
Location	<p>Personnel should not need to travel more than 5 minutes to the nearest toilet, and more than 10 minutes to all other facilities.</p>
Size/space	<p>Rest/canteen areas – minimum 0.6 square metres per person Drying/changing rooms – 0.4m per person</p>

## Appendix 11

### Occupational health provision

The following support will be provided to suppliers by the appointed on-site Olympic Park team 'Park Health':

#### **Advice and guidance**

Park Health's team of competent personnel will provide advice on (not exhaustive):

- compliance with health and hygiene aspects of the ODA HS&E Standard;
- occupational health issues as they arise;
- strategies to reduce exposure to health risks;
- monitoring performance against KPIs;
- monitoring to comply with statutory requirements based on risk assessments;
- health and fitness standards;
- emergency planning; and
- lifestyle advice.

#### **Design involvement**

'Park Health' will work with the integrated project teams, meeting with designers and others to encourage a constructive dialogue and effective processes to minimise health risks during construction, use and maintenance.

#### **Contractor planning**

Working with the integrated project teams, meeting with contractors and others to encourage a constructive dialogue in the development of HS&E plans for the construction phase.

#### **Initial personnel health checks**

As a component of the Olympic Park Introduction process, two groups of incoming personnel shall be identified: safety critical (those with the potential for significantly harming others) and non-safety critical. Safety critical personnel will receive an induction health check, characterising health status for aspects such as eyesight, blood pressure. Non-safety critical personnel shall be evaluated by use of the 'Park Health' questionnaire or equivalent, with referrals to occupational health practitioners for health checks as required.

#### **Induction**

An input into the development of the Olympic Park Introduction and principal contractors' induction programmes, and their delivery, ensuring that incoming personnel are briefed on the HS&E standards, personal responsibilities and their access to support and services.

#### **Education and training**

Supporting the site HS&E culture, including the production of communication materials, talks, workshops, campaigns on issues such as eye and hand injuries. 'Park Health' will work with the suppliers in developing a trades/training requirement matrix to

support capacity-building and the maintenance of a high quality workforce.

### **Health risk exposure assessment**

Minimising exposure to health risks is the key activity to reducing occupational ill health. Supporting the health surveillance programme, the occupational hygiene component of 'Park Health' will assist in developing, through exposure monitoring and observation, an information database of health risk exposures. This data will be used to identify opportunities for enhanced health protection.

### **Health surveillance**

The development and operation of health surveillance programmes to check the health status of personnel exposed or potentially exposed to significant health risks.

### **Health promotion**

Using venues such as canteens, talks and presentation of materials (eg: posters, leaflets) on diet, smoking, exercise etc and supported by lifestyle health checks.

### **Emergency response**

First aid/first response paramedic service with a target of response to calls within recommended response times as advised by the ambulance service; supplementing first aid arrangements of principal contractors.

### **Treatment**

In addition to referring personnel with identified or suspected health problems to their own GP, a treatment service (GP provision, nurse, supply and administration) will be operated for efficiency and effective support to site personnel.

### **Job retention and rehabilitation**

When health problems arise (individual) the information will be used to re-evaluate the health protection arrangements. Support will also be provided to assist the individual to remain in work or to return to work as soon as possible.

### **Drugs and alcohol**

A random and post incident and 'on suspicion' testing regime will be operated by 'Park Health' for drugs and alcohol. For positive drugs tests and alcohol levels at or in excess of the driving limit shall result in exclusion from the site. For a first drug test result of traces and/or an alcohol test result between 50 per cent of the driving limit and that limit, a formal and final warning will be given together with an offer of advice as to future behaviour. Appendix 12 details the drugs and alcohol policy.

### **Portal to additional and specialist support**

'Park Health' will develop and maintain a database of suppliers of support services, from local dentists and physiotherapists to training organisations and ergonomists. This information may then be made available as required to suppliers and their personnel. Liaison will be maintained with a range of organisations including local NHS Primary Care Trusts and others.

**Record keeping**

'Park Health' will maintain records of its activities, details of training provided and the results of health checks and surveillance. Appropriate, ethical confidentiality will be maintained whilst also ensuring that the information is properly conveyed and used to improve risk management.

**Partnership**

'Park Health' will work, wherever appropriate, in partnership with local NHS organisations, and take note of initiatives such as Workplace Health Connect and organisations such as Health Works.

**Independent evaluation**

The data generated by the team and other information, which may be evaluated without breaching confidentiality, will be made available to bone fide evaluators, subject to an initial agreement as to any such study by the ODA. The overriding objective will be to develop the evidence of interventions which make a positive contribution to improving HS&E performance.

## Appendix 12

### Alcohol and drugs policy

All suppliers' personnel are prohibited from consuming alcoholic drinks or consuming or using illegal drugs at work, or from being under the influence of alcohol, drugs or other substances that might impair the proper performance of their duties on site.

#### **Alcohol**

Personnel shall not to consume alcohol whilst on duty, during breaks in the working day, including breaks spent away from the site. Personnel shall neither buy alcohol during their normal working hours nor bring alcohol on to site. Alcohol shall not be sold on site. Personnel shall limit their consumption of alcohol whilst off duty to ensure that they are not under the influence of alcohol in any way when reporting for duty or carrying out work on site.

All personnel shall cooperate fully with the alcohol testing arrangements.

#### **Drugs**

Personnel shall not consume or use illegal drugs at any time, whether on site or not, so as to ensure they are not under their influence when reporting for duty or carrying out site work. Personnel shall not possess, store or sell illegal drugs on site.

When requiring medication, personnel shall find out if there may be side effects likely to impair their work performance (by informing 'Park Health' or notifying the occupational health provision made by their employer) and safety from the drug or other medication concerned, whether prescribed or available without prescription, and, where this is the case, to seek advice regarding alternatives from their medical adviser (GP) or from 'Park Health'. If they are advised that impairment may arise, they should advise their manager when reporting for work so that appropriate restrictions may be put in place on the duties they may undertake whilst on the medication.

All personnel shall cooperate fully with the drugs testing arrangements.

#### **Testing for drugs and alcohol, certification and evidence**

When required by their manager or by 'Park Health', the supplier's personnel shall cooperate by providing breath tests or specimens for analysis in the following circumstances:

- unannounced and on a random basis;
- when suspected of a breach of this policy; and
- following an incident.

Failure to comply with this requirement may result in action against the individual including exclusion from site and repeated failures of the supplier's personnel to comply may result in sanctions against the supplier.

### **Supplementary guidance**

In order to start work with a zero alcohol level, suppliers' personnel should not consume any alcohol at all in the eight hours before starting work and, in the 16 hours prior to that, should not consume more than seven units of alcohol. In respect of compliance with the standard, breathalyser tests are set at the statutory limit for driving on public roads.

ODA representatives, including security personnel, shall refuse entry or access to the supplier's personnel if they are suspected of being under the influence of or unfit for duty because of alcohol or drugs, or through the supplier's request that the personnel concerned leave the site.

The supplier shall have systems in place to show that due diligence has been exercised to ensure that all personnel comply with the alcohol and drugs standard

Following a serious incident all the supplier's personnel involved in the incident may be subjected to post incident alcohol and drugs testing. The supplier is responsible for ensuring that personnel present for testing which shall be undertaken as soon as possible after the incident. A serious incident is defined as an incident causing or having the potential to cause death or major injury or substantial damage to property.

The supplier shall have controls in place to ensure that their personnel do not report for duty or start work on any site under the influence of alcohol or drugs. If the supplier or ODA representative suspects or has clear evidence that a supplier's employee has consumed alcohol or drugs or is under the influence of them whilst on duty, the individual shall stop work immediately, leave the work site and submit to alcohol and drugs tests as soon as possible.

Suppliers shall ensure cooperation with random alcohol and drugs testing. The sampling shall achieve approximately five percent of site personnel being tested during each year.

The technical specification for action levels is kept up to date and made available by 'Park Health'.

## Appendix 13

### Worker engagement

- The ODA is committed to encouraging positive engagement with the workforce on all aspects of health, safety and environment. It recognises that in addition to meeting legal obligations, effective consultation and engagement is a fundamental mechanism for achieving high standards of health and safety throughout the programme. As a signatory to the 2012 Construction Commitments, the ODA is also a supporter of the Respect for People Code of Good Working Health and Safety Practices.
- The ODA recognises that the primary locus for HS&E management, and thus also for the engagement of the workforce, is at project level. It is here that each principal (tier one) contractor and their supply chain of sub-contractors is required to establish appropriate arrangements for consultation with the project workforce, directly and/or through appointed representatives.
- The ODA requires each principal (tier one) contractor to make appropriate arrangements for such worker engagement. Where formal meetings are held, such as those of formally constituted health and safety committees, the principal contractor is required to forward the minutes to the project manager so that matters raised may be reviewed, and issues that are relevant beyond the project itself may be identified and addressed.
- The ODA understands that through effective consultation within the project, the principal contractor and supply chain is in the best position to take appropriate action as a result of matters raised.
- The ODA has established a high level consultation forum, with representatives from a variety of organisations including the four main relevant trades unions (Amicus, T&GWU, GMB and UCATT) as well as those from contractors' bodies including the Construction Confederation, NSCC, FMB and NFB. CONIAC and independent advisors are also represented. This body will keep the standards, to which ODA seeks to work, under review.
- The ODA shall seek to support consultation and engagement activities within projects, by developing site-wide communications arrangements, so that discussions and decisions are informed with accurate information. The ODA communication strategy will also address matters such as leadership, motivation and behaviour to encourage engagement within each project.

## Appendix 14

### **CSCS cards and other schemes recognised by the ODA**

#### **ACAD**

ACAD is a trade association representing persons in the Asbestos and Asbestos removal Industry.

#### **ACE**

Assuring Competence in Engineering Construction is the UK engineering construction industry scheme for work on engineering construction sites.

#### **ACTA**

ACTA implemented a competency Passport Card Scheme in 1999 for all construction workers at airports.

#### **AITT**

The Association of Industrial Truck Trainers (AITT) covers all sectors of industry which use industrial trucks. AITT is an accredited body approved and listed by the Health and Safety Commission (HSC) in the Approved Code of Practice (ACoP) for Fork Truck Operator Training.

#### **BES**

Building Engineering Services (BES) is the division of CITB-ConstructionSkills that provides training, assessment and certification for people who work with, electrics, gas, water, steam and refrigerants.

#### **BT**

BT with Openreach operates an IOSH scheme for telecom engineers, incorporating training and retesting every three years. This results in a BT IOSH passport being issued, recognised by the Major Contractors Group and others.

#### **CCDO**

The Certificate of Competence of Demolition Operatives (CCDO) scheme is for persons who work in on-site demolition.

#### **CISRS**

The Construction Industry Scaffolders Record Scheme (CISRS) is for scaffolding operatives and is affiliated to the CSCS.

#### **CCNSG**

Client Contractor National Safety Group Nationally Accredited Safety Passport Scheme, developed to provide a standard for general health and safety training of contractors in construction and related industries.

#### **CPCS**

The Construction Plant Competence Scheme (CPCS) scheme replaces the CTA scheme, and is the main standard for plant operators.

**CSCS**

CSCS cards list the holder's qualifications and are valid for either three or five years. All cardholders have to pass the appropriate CITB-ConstructionSkills Health and Safety Test. This is the industry's largest scheme.

**CORGI**

The Council of Registered Gas Installers (CORGI) registration is a legal requirement for businesses and self-employed people working on gas fittings or appliances.

**CRO Card**

The Construction Related Occupation (CRO) card, developed by CSCS, is the card for workers in the 600 occupations not covered by a CSCS card.

**CSR**

The Construction Skills Register (CSR) is a register of construction workers living in Northern Ireland who have completed the industry approved CSR health and safety training course. The card is affiliated with the Construction Skills Certification Scheme (CSCS) in Britain.

**EMTA**

Engineering and Marine Training Authority (EMTA) scheme is affiliated to CSCS.

**EUSR**

Energy and Utility Skills Register, established by the Sector Skills Council for the electricity, gas, waste management and water industries; is an independent skills register which provides a recognised standard across the whole of the energy and utility sector.

**FAS Safe Pass Programme**

The FÁS Safe Pass Programme was developed to raise the standard of safety awareness in the construction industry in Ireland. The FÁS Safe Pass registration card indicates that the holder has attended a formal course in health and safety awareness and is affiliated to CSCS.

**FASET**

Fall Arrest Safety Equipment Training (FASET) is required from all operatives who are involved in erecting safety nets on site.

**IPAF**

The International Powered Access Federation (IPAF) is an operative record scheme,) for users of all forms of powered access equipment. The scheme is approved by the Major Contractors Group (MCG).

**IRATA**

The Industrial Rope Access Trade Association (IRATA) provides training and certification of all operatives involved in industrial rope access.

**JIB card**

JIB cards are held by electrical, electronic, installation engineering and building services personnel holding a Health & Safety Assessment Certificate).

**JIN scheme**

The JIB Electrotechnical Certification (JIN) scheme provides certification and qualification for electricians in the construction industry.

**NRSA**

The New Roads and Streetworks Act (NRSA) card is for both supervisors and operatives working in a gang, and is affiliated to CSCS.

**PMES**

The JIB Plumbers, Mechanical Engineering Services (PMES) scheme is the standard measure of skills, knowledge, competency and health and safety awareness for the UK plumbing industry.

**RTITB**

The Road Transport Industry Training Board (RTITB) is an independent and impartial training accreditation body, working extensively in the road haulage and distribution industry and recognised by CSCS. RTITB maintains a national register of Lift Truck and Large Goods Vehicle (LGV) instructors and LGV assessors, and offers a wide range of consulting services. It also operates the RTITB Master Driver Certificate of Competence for professional LGV drivers.

**Score card**

The SCORE BOARD, including the Scottish Builders Employers Federation, has established the criteria for registration, based on Skill and Safety.

**Sentinel track safety card**

The Sentinel card is a Network Rail Scheme for making sure that the people who within the Network Rail infrastructure are competent and medically fit. It is mandatory to hold the card if working on or near the line.

**SKILL card**

The engineering services 'SKILLcard' provides a register of the skills and competence of people working throughout the heating, ventilating, air conditioning and refrigeration sector of building services engineering.

## Appendix 15

### Health and safety file

There will be a succession of H&S files at various stages of in the programme before handover to the Legacy Client. These handover H&S files will contain information appropriate for the successive users and their design teams. They are likely to be held on the electronic document management system (EDMS).

The legacy requirements include well-designed, practical guides to the operation, use, maintenance, repair and demolition of facilities and structures and condition of the land to be developed within the integrated team and led by the CDM coordinator. Within such guides, going beyond strict compliance with CDMR, the following HS&E information shall be included noting that the following sequence of uses of the facility and land should be clearly identified and appropriate information provided for the health, safety and environment of all concerned:

#### Legacy (final and full H&S file)

- commissioning and testing: information on the safe commissioning and testing of the facility;
- Olympic Park overlay: information on the planned modification of the facility for the Games, and any special precautions to be taken;
- planned modification for legacy use: information on the planned modification of the facility or land for legacy use;
- safe use: information on the planned legacy use of the facility or land;
- safe maintenance: information on the planned maintenance of the facility or land;
- specific arrangements for decommissioning/demolition: a statement to demonstrate how the structure can be safely removed if required in the future; and
- specific arrangements for future land use including if a structure were to be removed.

#### Accurate identifiers

The nature of the structure and its location marked on a suitable map/plan, indicating boundaries within which the information applies, including services etc. The terms also refers to the nature of the land including remaining subsurface structures, features, residual risk assessments and general condition of the land.

#### Design criteria

A summary of the key structural design limitations of the structure.

#### Construction methods

A summary of processes used to construct the structure, as an overview. Additional details of how specific operations were undertaken is required if there is a need to repeat those operations during maintenance etc. during the life of the structure.

**Materials used**

Details of materials that may introduce unusual or significant risk to both people and process, including their safety data sheets and their location within the structure (this could be on the 'as built' drawings).

**Specialist plant/equipment**

Records of type and unique identity of equipment installed – operating and maintenance (O&M) information as necessary to ensure safe operation and maintenance to be comprehensively cross referenced in the H&S File; copies of operating instructions for such devices, together with details of operator competence where applicable should be included; details of any machinery specifically designed for the location; if CE marked a copy of the declaration of conformity (to ensure compliance with 'Supply of Machinery (Safety) Regulations 1992').

**Maintenance procedures**

Statements and written processes including access (including cleaning). Maintenance of plant and equipment included in O&M manuals should be referenced. See CIRIA Guide C611 'Safe access for maintenance and repair'.

**Plant replacement strategy**

Statements and written processes for plant replacement (part and complete items of plant). These should be comprehensively cross referenced to the O&M Manuals.

**Details of specific risks to users and maintainers**

Details of HS&E risks identified through both design and construction phases that may affect operation, maintenance, cleaning and decommissioning of the structure.

**Environmental items**

Details of any materials and processes that could create an environmental impact as a result of their use and maintenance (including unplanned events); copies of any environmental impact reports or surveys undertaken as part of the works; records as required by the Project Environmental Management Plan.

**Manuals produced by specialists**

Additional information may be contained in manufacturers' manuals, such as specifically commissioned reports, which should be supplied.

**Location of utilities and services**

Sufficient details to be included to allow for future location, identification and isolation of all services supplying the structure and in the vicinity of the structure. This includes statutory undertakings and other service providers.

**Fixed emergency and fire fighting equipment**

Details of location and types of equipment, together with training, recommended test and maintenance frequency information.

**As built drawings**

Reference to supplied as built drawings.

**Additional relevant HS&E information**

Additional items, including environmental items, not falling under any category heading above. Wherever practicable, as much of the information as possible shall be allocated under the previous headings.

**Format of presentation of the works H&S file**

The requirements for the Health and Safety File for the Olympic Park and related projects are set out in the ODA London 2012 Olympic Park Health and Safety File requirements document available from all appointed CDM coordinators.

## Appendix 16

### Accidents, incidents and emergencies

All plans shall comply with and relate to the Delivery Partner Incident Management Plan. The supplier shall include within the HS&E plans and method statements appropriate arrangements for foreseeable emergencies – emergency plans, including fire and personal injury requiring first aid and medical support ensuring integration with the Olympic Park site Occupational Health Provision, Fire Safety Plan and Security Standard. The emergency plans shall be prepared, updated, kept available and communicated to all those on site. Emergency plans shall be subject to periodic test (drills). The plan shall reflect the site arrangements for emergencies, including access, paramedic support, communications and reporting requirements as determined by the Delivery Partner Logistics team.

In addition to the notification and reporting of injuries, diseases and dangerous occurrences by the supplier to the enforcement authority, in accordance with the RIDDOR regulations, the supplier shall also as soon as possible notify the principal contractor of any notifiable/reportable environmental, health or safety incident.

All accidents/incidents which are notifiable and/or reportable and those which may have had such a serious outcome, shall be fully investigated by the supplier in control of the relevant work. A preliminary report of such an investigation shall be made available to the principal contractor within 48 hours of an incident, and a final report as soon as practicable thereafter.

The principal contractor, on receipt of notification of a notifiable/reportable accident/incident, shall as soon as practicable notify and inform the project manager and then as soon as possible thereafter make the appropriate entry in the HS&E online reporting system (see section 12 of HSEMS) which will alert the ODA and Delivery Partner. Subsequent reports arising from any investigation shall be copied to the project manager and the integrated ODA/Delivery Partner, Health & Safety and Environmental Assurance Teams, to facilitate the effective management of information associated with such an incident.

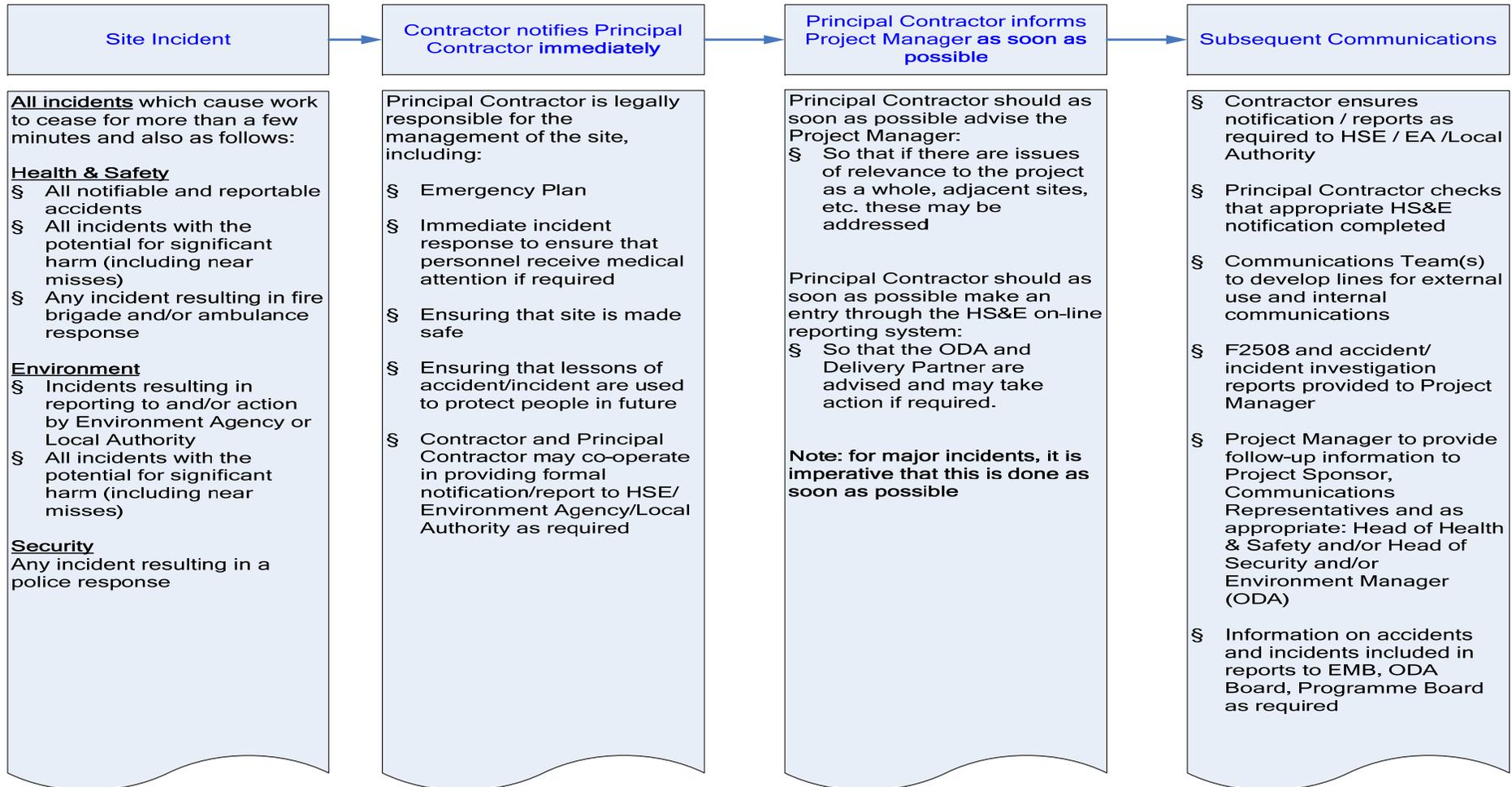
Suppliers, including principal contractors and sub-suppliers shall manage their communications in accordance with ODA policies and protocols, including making information available to third parties in the event of an accident/incident.

Each supplier shall maintain an Accident Book on site, with ready access for the supplier's personnel to record accidents resulting in personal injury.

In addition to the notification and reporting of individual injuries, diseases and dangerous occurrences, environmental incidents and significant near misses, the principal contractor shall also provide promptly the hours worked for the previous month using the HS&E online reporting system to facilitate AFR calculations.

## Project communications protocol for incidents and accidents

Note: This protocol concerns communication only. Contracts, instructions, emergency plans and other documents shall address, among others, immediate response, establishment of incident rooms (if required), investigation and follow-up, and confidentiality.



## Appendix 17

### Definitions / glossary

**ABICS**

Asbestos Building Inspectors Certification Scheme.

**Amber list**

Materials, products or processes that engender a risk to health and safety, that should be substituted for intrinsically less hazardous options where practicable, and where not to be identified to those who are tendering/planning to execute the design.

**Aspect and impact**

An aspect is an element of environmentally-relevant activity, the impact evaluates its potential for causing harm or representing an opportunity. In this standard this terminology is replaced for consistency by the terms hazard and risk.

**CDMR**

Construction (Design & Management) Regulations 2007.

**CDM Co-ordinator**

The body appointed to discharge a coordinating function for compliance with the CDMR (Note: Prior to 6 April 2007, this role with some differences was termed 'Planning Supervisor').

**Client**

The Olympic Delivery Authority (ODA).

**CLM**

The body appointed as the ODA's Delivery Partner to manage, coordinate, monitor and cost-control the works, to achieve the overall development targets including HS&E KPIs; to develop, maintain and implement a programme EMP; and approve project EMPs.

**CoCP**

The Code of Construction Practice that supports the planning application for site preparation works, venue and infrastructure construction.

**Compliance**

Includes legislation, directives, planning conditions, consents, permits, CoCP and EMPs.

**Contractor**

Any contractor including the principal contractor appointed by the ODA to this function for a venue or other package of work (in accordance with CDMR), and any supplier contracted to a principal contractor as a sub-contractor; contractors to principle contractors are responsible for developing, maintaining, and implementing a contractor EMP.

**CPCS**

Construction Plant Competence Scheme.

**CSCS**

Construction Skills Certification Scheme.

**Delivery Partner (DP)**

CLM, the body appointed to manage, coordinate, monitor and cost-control the works, to achieve the overall development targets including HS&E KPIs.

**Design Team**

Includes any designer responsible for conceptual, detailed or temporary works design for any planned or contracted works.

**EA**

The Environment Agency.

**Environmental Aspect**

Element of an organisation's activities or products or services that can interact with the environment. In this standard, environmental hazards and risks are also considered environmental aspects.

**Environmental Management Plan (EMP)**

The detailed arrangements, comparable to the Health and Safety Plan required by CDMR, for complying with the Environmental Management Standard during the construction phase. The EMP specifies the environmental issues and how they will be addressed, with a focus on compliance, best practice and continual improvement. Three levels of EMPs will be developed: programme, project and contractor.

**Green List**

Materials, products or processes that are, in general, intrinsically less hazardous and may usually be considered suitable substitutes for more hazardous alternatives.

**Hazard and Risk**

A hazard has the potential for causing harm, a risk incorporates evaluating likelihood and severity of that harm arising. In this standard this terminology is also used to reflect environmental aspects and impacts.

**HSE**

The Health and Safety Executive.

**H&S File**

Health and Safety File (under CDMR) including environmental information.

**HS&E**

Health, Safety and Environment.

**HS&E Management System**

The formal set of arrangements developed by the Delivery Partner that sit below this standard, and are supplemented by detailed guidance and good practice examples.

**Health and Safety Forum**

A stakeholder forum that conducts regular reviews of health and safety performance and forward programme. It is attended by representatives of construction trades unions, employer organisations, HSE and independent members of professional bodies.

**H&S Plans**

The health and safety plan prepared prior to commencements of a phase of work and updated as necessary during that phase of work. Integrated HS&E plans are welcome, but principal contractors may develop separate but mutually supportive H&S and Environmental Management Plans if they wish.

**Hot Work Permit**

A formal, practical mechanism for exercising control over fire risk, defining specific precautions so that hot work such as welding is properly managed.

**IEE Regulations**

British Standard Requirements for Electrical Installations BS 7671: 2001 IEE Wiring Regulations 16<sup>th</sup> Edition.

**KPI**

Key Performance Indicator, used to measure effort and input to HS&E management (matters such as training) and the results or outputs (such as accident rates).

**Lead Designer**

The design organisation that acts as the focal point for the development of the design, supported as required by other design, engineering, etc. bodies.

**LOLER**

The Lifting Operations and Lifting Equipment Regulations 1998.

**Main Contractor**

The term traditionally applied to define the construction organisation directly contracted by the client organisation to carry out the project construction works, which in turn employs sub-contractors to carry out specific packages of work.

**Method Statements**

Typically detailed descriptions of work processes, staff competencies, equipment and materials, special precautions, etc. to be employed to safely carry out the work. Method statements describe how the work will be performed to address all relevant issues and satisfy all requirements.

**ODA**

The Olympic Delivery Authority (ODA) is the client organisation for the works.

**ODA Communications Team**

Staff employed by ODA to lead on and assist with press relations and stakeholder engagement.

**OGC**

Office of Government Commerce.

**Olympic/Paralympic Family**

The term 'Olympic Family' refers to those eligible for the Games accreditation in accordance with the Olympic Charter. Accredited members of the Olympic/Paralympic Families include athletes, officials, print and broadcast media, officially recognised dignitaries and guests.

**ORR**

Office of the Rail Regulator

**Park Health**

The Occupational Health provider appointed by the ODA following a public procurement process, to provide a wide range of health protection, health risk reduction, medical and other services to designers and contractors working on infrastructure and venues on the Olympic Park.

**PPE**

Personal protective equipment.

**Principal contractor**

The main contractor for a package of work, appointed in accordance with CDMR to discharge the functions of principal contractor including developing, maintaining and implementing a Construction Health and Safety Plan and managing all aspects of the construction phase works.

**Programme Management Office (PMO)**

The ODA section which equips the Client programme team with appropriate strategic information enabling efficient decision-making, and facilitating generalising best practice and risk management.

**Project manager**

The person/organisation with the authority to manage a project for ODA responsible for planning, coordination and controlling it from inception to completion, meeting the project's requirements and ensuring completion on time, within cost and to required quality standards.

**Project Sponsor**

Acts as the client's representative on any part of the project life cycle for infrastructure and building projects, providing the key link between project ownership and delivery, and is responsible for ensuring ODA compliance with CDMR including making appointments.

**Programme Assurance Office (PAO)**

The ODA team that equips the Client programme team with appropriate strategic information enabling efficient decision-making, and facilitating generalising best practice and risk management.

**PUWER**

The Provision and Use of Work Equipment Regulations 1998.

**Railway Safety Certificates**

Issued by the Office of the Rail Regulator (ORR), replacing the previous regime of Railway Safety Cases.

**Red List**

Materials, products or processes that engender such a significant risk to health and safety, that they should always be substituted with intrinsically less-hazardous options unless there is an overwhelming case for their use, in which latter case they are to be identified to those who are tendering/planning to execute the design.

**RIDDOR**

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995.

**Risk Register**

The collation of significant hazards and risks on projects or individual works packages, defined in order to review the arrangements for prevention, minimisation and mitigation.

**Safety Climate Tools**

Means of ascertaining and analysing the perceptions of individuals and/or groups of workers of the health and safety commitments, arrangements and culture of their organisations or projects that they are engaged in.

**Section 61**

Section 61 of the Control of Pollution Act 1974.

**Security Plan**

The detailed arrangements, comparable to the Health and Safety Plan required by CDMR, for complying with the security policy during the construction phase.

**Shall ensure**

In this document each use of terms such as “shall” is intended to be read as “shall so far as is reasonably practicable”.

**SHEQ**

Safety, Health, Environment and Quality.

**Standard**

This Design & Construction Health, Safety and Environment Standard.

**Supplier**

Includes all contractors, sub-contractors, designers, consultants, Delivery Partner, anyone with direct or indirect professional connection and others, howsoever contracted, providing goods and services for design, construction or other work being commissioned directly or indirectly by the ODA.

**Supply Chain**

The relationship between the suppliers and their sub-contractors.

**UKAS**

The United Kingdom Accreditation Service.

**Venue**

Sporting facilities in the Olympic Park including the Stadium, Velodrome, Aquatic Centre, etc.

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