

Leadership and worker involvement on the Olympic Park

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Daniel Lucy (BSc, MSc)
Penny Tamkin (BSc, PhD)
Claire Tyers (BSc, MSc)
Ben Hicks (BSc)

Institute for Employment Studies
Sovereign House
Church Street
Brighton
East Sussex
BN1 1UJ

This research considers leadership and worker involvement practice across selected projects on the London 2012 Olympic Park.

The aim was to understand the degree to which the various approaches impacted positively or negatively on worker involvement in health and safety matters, and identify what could potentially be transferable both to other construction projects and to industry more widely.

More specifically, this research project sought to explore in more detail the range of initiatives and approaches used, for example behavioural safety training and daily activity briefings (DABs), assessing their impact on worker involvement, attitudes and behaviours and other desired outcomes.

The research explored these issues through a review of documents, analysis of existing data, four in-depth case studies of projects within the Olympic Park, interviews with senior leaders from the Olympic Delivery Authority (ODA) and CLM (a delivery partner appointed by ODA to manage the construction programme), and an indicative survey of worker (including managers, supervisors and operatives) views.

The context for the research is a strong public commitment to safety from the ODA resulting in a remarkably good safety record that was recognised in the form of a five star award for safety from the British Safety Council.

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This research is part of a suite of research projects and independent evaluations undertaken on Health and Safety on the London 2012 construction programme comprising:

- Leadership and worker involvement.
- Site communications and other health and safety Initiatives.
- CDM 2007 Regulations: duty holder roles and impact.
- Safety climate tool and measuring site culture.
- Health and Safety in the supply chain.
- Occupational health programme provision on the Olympic Park and Athletes' Village.
- Food safety and sustainability.
- Preconditioning for success.

All the research reports should be read in conjunction with the paper below, which provides an overview of health and safety on the London 2012 construction programme:

- Delivering health and safety on the development of the London 2012 Olympic Park and Athletes' Village.

Full research reports for all projects will be published at a later date.

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KEY MESSAGES

Available data indicates positive health and safety outcomes for the Olympic Park. By June 2011 the Olympic Delivery Authority (ODA) recorded around 62 million man hours worked with an accident frequency rate (AFR) of 0.17 (calculated per 100,000 hours worked). In addition, 22 periods of one million man hours have been worked without a RIDDOR-reportable injury accident¹.

ODA had a significant impact on health and safety. One of the clearest and strongest elements in creating a strong safety culture was the role played by the ODA in articulating a clear vision, priorities and a strategy for health and safety. The ODA produced a clear statement of its expectations which incorporated a set of standards concerning health and safety, including requirements for effective (two-way) communication, behavioural safety, and reward and recognition.

Project leaders (from both the ODA and their delivery partner, CLM) engaged with the supply chain and developed a collaborative, mutually responsible, challenging and learning culture where each Tier 1 contractor assumed accountability not only for their own area but across the site. Alongside this engagement, there was also a willingness amongst the project leaders to stop work if standards were not met.

A wealth of data was collected, reviewed and analysed by CLM enabling the identification of trends, the spotting of problems, and the discussion of how health and safety could be improved. The focus on analysing the data and subsequent action served to emphasise the senior-level commitment to health and safety.

Effective communication both up and down the chain of command was achieved through the use of a variety of methods (induction, daily pre-task briefings, meetings, posters, safety alerts, anonymous near-miss reporting) and constant reinforcement. Multiple opportunities existed for two-way dialogue and this was supported by behavioural safety initiatives such as a course for supervisors designed to improve their communication skills and ability to engage the workforce. Providing feedback to workers on issues they had raised, and the actions taken as a result, was felt to be key in maintaining their engagement. The commitment of senior managers to health and safety on site was emphasised by their delivery of a number of briefings, their attendance at health and safety meetings, and their regular presence on site.

Behavioural safety initiatives sought to engage workers with health and safety, and to make safety personal to them. In addition, specific initiatives were aimed to encourage workers to observe and provide feedback on other work areas (with the permission of those working in the area). Good safety practice was recognised through incentives and awards (breakfast vouchers, and branded badges and fleeces).

¹ RIDDOR - Reporting of Injuries, Diseases and Dangerous Occurrences Regulations

EXECUTIVE SUMMARY

The Olympic Park has proved to be a unique experience, both in terms of the construction of a complex set of venues and associated infrastructure, and in terms of the way in which it has been done with considerable regard to a set of values and targets, including a high priority given to safety. The HSE commissioned this research into leadership and worker involvement across projects on the Park to understand the degree to which approaches impacted positively or negatively and could be transferable to other construction projects and industries. More specifically, this research project sought to explore the range of initiatives and approaches used, their impact on worker involvement, attitudes and behaviours, and other desired outcomes and the context in which they were effective or ineffective.

The research explored these issues through a review of documents, analysis of existing data, four in-depth case studies of projects within the Olympic Park, interviews with senior leaders from the Olympic Delivery Authority (ODA) and CLM (a delivery partner appointed by ODA to manage the construction programme), and an indicative survey of worker (including managers, supervisors and operatives) views.

The context for this project is a remarkably good safety record with a low accident frequency rate (AFR), a five star award for safety from the British Safety Council and a strong public commitment to safety from the ODA.

In trying to understand the contributing factors to this success we identified those factors which were park-wide and instigated through the central leadership team, and those factors which were project-based ie operating at the level of individual construction or infrastructure projects on the Park.

PARK-WIDE FINDINGS

- **Vision.** One of the clearest and strongest elements in creating a strong safety culture was the role senior leaders played at a very early stage in articulating a clear vision, priorities, a strategy for health and safety, and (more broadly) welfare. Broadening the vision beyond safety alone was deliberate and motivated by a desire to create a positive employee relations climate which would enhance both employee commitment and engagement. A focus on the provision of good welfare (including the provision of occupational health facilities on site) was viewed as likely to have direct benefits for productivity.
- **Action.** Vision was translated into strategic action through creating an array of levers, such as behavioural safety training, comprehensive processes and procedures, and multiple communication channels. It was the system of levers which was felt to be especially powerful, as no initiative operated in isolation and together they provided a concerted and balanced push on safety which acted in a series of layers. First, ODA/CLM leaders set out what they wanted to achieve and translated this vision into a set of standards. They then engaged with Tier 1 contractors to communicate those standards and encouraged ownership of them. ODA/CLM leaders worked with Tier 1s, and through them, the Tier 2s, to make sure key levers, such as behavioural-based training, were carried through. A robust system of gathering intelligence on site and collaborative working through fora enabled reflection and response to identified issues.

Leaders acknowledged the inherent dangers of creating perverse incentives by placing too strong an emphasis on incentivising success or punishing failure, and the importance of working through all layers in the structure.

- **Engaging with the supply chain.** Another deep-seated philosophical stance of the leadership team was to work with and through Tier 1 contractors to develop a collaborative, mutually responsible, challenging and learning culture where each contractor assumed accountability not only for their own area but across the site. The commitment to safety was conveyed through the joint meetings with Tier 1 contractors, through clear standards and also through a willingness to stop work if these standards were not met.
- **Monitoring.** Performance against both the vision and supporting standards was subject to a detailed programme of monitoring and audit. A wealth of data (on accidents, incidents, near misses and performance against key performance indicators – KPIs) was collected via Tier 1 self-reports submitted through an online reporting system, plus regular safety climate surveys, and used to identify trends and spot problems; and formed the basis for discussions on health and safety in an effort encourage change. The focus on analysing the data and subsequent action served to emphasise the senior-level commitment to health and safety.
- **Structure.** A clear structure for health and safety was established that involved all layers of the hierarchy.
- **Communication.** Structure was supported by strong communications through all levels of the supply chain which ensured that the commitment to safety was understood by all. Communications used multiple methods (oral briefings, posters and notice boards, meetings etc.) and provided opportunities for two-way communication. The use of multiple methods acknowledged the importance of not relying on any single means to engender change.
- **Learning.** Learning was embedded into the culture through ensuring that it was encouraged and sustained. This was done through formal approaches, such as auditing particular activities or capabilities and using data in meetings to explore safety outcomes; but also informally, by encouraging contractors to share experiences and visit each other, for example.
- **A focus on engagement.** Wellbeing was emphasised rather than a narrow focus on safety. The site also insisted on employment contracts and decent terms and conditions of employment. The belief was that a cared-for workforce would be an engaged one. This resulted in relatively low employee turnover compared to other construction projects and a climate survey which reports high perceived levels of safety. Measuring the absence of incident is always difficult but the site has not been worried by employee relations disputes and issues, which was something the leadership were very keen to avoid.

PROJECT-LEVEL FINDINGS

- **Safety first.** The high-level emphasis on safety percolated through to projects and through the supply chain. There was general acknowledgement that work could be stopped if necessary, that the majority of supervisors lived the message of safety first, that safety was a motivator behind workforce induction, and that managers acted as good role models.

- **A collaborative culture.** Fostered at senior level through SHEL¹, collaboration was also practiced at project level, with Tier 2 contractors being engaged in discussions and with more supportive cultures than normally experienced. Operative safety meetings or circles provided the opportunity at project level for health and safety issues to be discussed and for potential solutions to be sought. There were specific examples of operatives solving problems jointly with management. However, there were also concerns expressed on individual projects about the degree of engagement with health and safety of some of the operatives who attended.
- **Communication.** The park-wide emphasis on communication translated into a variety of project-level activities, both formal (eg meetings for both operatives and supervisors) and informal (eg posters). These activities included the dissemination of common visual standards, face-to-face meetings such as daily activity briefings (DABs), toolbox talks, and the use of safety alerts and posters etc. They were designed to update workers on health and safety, work progress, and to encourage feedback and engagement. Oral, face-to-face communication was felt to be more effective than written information or posters in communicating health and safety issues to the workforce. However, the high level of communication was more generally viewed as effective in getting the message across. Comprehensive induction and re-induction ensured key messages were conveyed and reinforced; and using example accidents or incidents from elsewhere in the industry helped ensure that lessons could be learnt.
- **Supervisor competence.** The importance of supervisor competence, in particular the development of effective communication skills, was widely recognised as key to the delivery of effective daily briefings to the workforce and the encouragement of feedback from the workforce. An audit of capability was instigated by the ODA and subsequently a behavioural safety course for supervisors was mandated across the park. Managers reported that the quality of briefings and the quality of feedback received improved over the duration of the project.
- **Confidence of operatives and supervisors to raise issues.** As a result of the multiple activities and opportunities to raise issues, the majority of both operatives and supervisors felt that they could discuss health and safety issues with confidence and without detriment.
- **Encouraging near-miss reporting.** The ability to submit reports anonymously encouraged reporting, as did incentives to do so. Feedback on actions taken as a response to issues raised also emphasised that views were valued.
- **Operative safety meetings.** Formal safety meetings involving operatives or their representatives were felt to be useful, although the capability of operatives or their representatives to contribute was felt to be critical. On individual projects, there was a view that some of the operatives attending safety meetings were there to represent particular contractors rather than for their level of engagement with health and safety. On occasions where this was the case, efforts were made by the relevant Tier 1 to ensure attendees were more engaged with health and safety. The attendance of senior managers was noted as a powerful message of commitment.

¹ *Safety, Health, Environment and Leadership Team – comprised of director-level executive management teams from the ODA, CLM, and Tier 1 contractors.*

- **Rewarding good performance.** Good safety performance of both individual contractors and the workforce was rewarded through simple and low-cost incentives such as plaques, trophies, breakfast vouchers, and branded fleeces and badges.
- **Behavioural-based safety.** This was the approach used across the site with an emphasis on making safety personal through dialogue, and discussion of accidents and incidents. All new starters attended a behavioural-based safety orientation, shortly after but separate from their site induction. The orientation was deliberately separated from induction to ensure workers were able to focus fully on it.

In addition, on individual projects, operatives were trained to observe and inspect a different work area to their own (with the permission of those working in the area), and to provide feedback on it. In a similar vein, in one of the case studies, supervisors worked in pairs to inspect a different work area to their own and provide feedback.

- **Commitment to learning.** An emphasis on learning rather than blame ensured that there were positive responses to accidents rather than knee-jerk reactions which would have damaged the safety culture.

BENEFITS

The consequence of these multiple layers of activity was a shared view of a good, uniquely safe place to work. Managers strongly believed that the emphasis on safety and wellbeing had not only made the site safe but also much more effective, although several mentioned that this was impossible to prove.

Contractors and senior managers had adopted new approaches and many had taken this learning beyond the Park to other sites. Operatives and supervisors too had gained the experience of a strong and effective safety culture.

Some of the benefits reported as part of this research include:

- Improvements in near-miss reporting over the duration of individual projects on the Park.
- Superior 'all accidents rating' amongst some individual Tier 1 contractors compared with their own organisation's other operating units in the UK.
- Reported downward trend on lost time incidents, total injury accidents and RIDDORs over the duration of individual projects on the Park.
- A survey of a sample of workers on the site suggested that:
 - over 80 per cent of operatives reported feeling comfortable raising health and safety issues
 - 79 per cent of all survey respondents felt that their awareness of health and safety issues had improved since their involvement on the Park
 - 78 per cent of all respondents felt that the way in which they looked after their own health and safety had improved, and
 - 75 per cent of respondents viewed their project on the Olympic Park as safer than other projects not on the Park they had worked on.

London 2012 was acknowledged as being unique in terms of its profile, its importance and the resources that it was able to utilise; however there is much about it that is also transferable, both within the construction industry and more widely. The emphasis on vision,

on standards and processes, on monitoring, and behavioural-based safety are scalable aspects that could be adopted elsewhere. Equally, although practices may need to be adjusted to suit the particular circumstances of any one organisation, key principles such as effective, two-way communication, and the reward and recognition of safe working, are transferable. Examples of transferable practices include but are not limited to:

- DABs delivered by supervisors to their teams on a daily basis present an opportunity to assess key safety risks associated with the day's work and to engage the workforce in understanding and managing risk.
- Anonymous near-miss or observation cards provide a means by which workers can report near misses or other health and safety issues anonymously.
- Providing feedback on issues raised by the workforce using notices in worker canteens
- Recognising positive health and safety behaviour through simple and low-cost incentives such as breakfast vouchers.

1 CONTEXT

This report outlines the findings of the Institute for Employment Studies' (IES) research into leadership and worker involvement initiatives and approaches on the Olympic Park construction sites. The research was conducted on behalf of the Health and Safety Executive (HSE) and the Olympic Delivery Authority (ODA). This first chapter provides the reader with some background about the construction of the Park and the methods used in the research.

1.1 BUILDING THE OLYMPIC PARK

The ODA is the public body responsible for developing and building the new venues and infrastructure for the London 2012 Olympic and Paralympic Games and their use after 2012. One of the key responsibilities of the ODA was building the Olympic Park, where many of the events and activities in 2012 will take place.

The Park had previously been characterised by largely industrial land which was fragmented, polluted and divided by waterways, overhead pylons, roads and railways. Major ground clearance works were therefore required before the site could be developed. Two hundred buildings were taken down and 90 per cent of these demolition materials reused on the site. Fifty-two electricity pylons were removed, and contaminated soil was cleaned and reused using innovative techniques including soil washing and bioremediation. Nearly 2 million cubic metres of earth were moved to form the platform for the Park's 'big build', 20 million gallons of contaminated groundwater treated, and 5 km of riverbanks refurbished.

The construction phase involved creating major venues for use during and after the events of 2012 (eg Aquatics Centre, Olympic Stadium), as well as the landscaping of new parklands (more than 4,000 trees, 74,000 plants, 60,000 bulbs and 300,000 wetlands plants are being planted to create a new open green space for London – the largest planting project ever undertaken in the UK), and extensive infrastructure development. The peak workforce was estimated to be around 12,000 people and it is expected that around 30,000 people will have worked on the Park and Village over the lifetime of the project.

ODA was a 'thin' construction client and appointed CLM Delivery Partner Ltd to undertake much of the work on its behalf. CLM was the delivery partner appointed by the ODA to manage the construction programme for venues and infrastructure in the Park and is responsible to ODA for ensuring that the construction work is delivered on time, to budget and to the specified quality. CLM was also appointed as principal contractor for certain areas of the Park. The work was organised via primary contractors who took overall responsibility for their individual projects (eg the building of the Aquatics Centre). These were called Tier 1 contractors. Their sub-contractors Tier 2s and their sub-contractors Tier 3s etc.

1.2 HEALTH AND SAFETY ON THE OLYMPIC PARK

ODA had a stated commitment to the health and safety of workers and set out to provide a safe working environment. The ODA has engaged and worked with contractors on health and safety issues, both directly and through CLM, to ensure that contractors also make this a priority. ODA's Health, Safety and Environment (HS&E) standard outlines the requirements for those wishing to work on the project and formed part of the Work Instructions for every ODA construction project. The standard outlines a number of requirements relevant to leadership and worker engagement. Each Tier 1 contractor was required to have a behavioural safety management system in place, and to adopt a 'no blame' culture. The

HS&E standard stated that “*each supplier, the ODA and CLM should ensure that there were 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*”. In addition, all Tier 1s were required to consider the introduction of reward and recognition programmes to incentivise workers to contribute to good health and safety.

The standard also sets out a number of KPIs and was complemented by a system of performance monitoring on site carried out by CLM. Each Tier 1 contractor submits a monthly HS&E scorecard report, audited by CLM. The scorecard includes a number of KPIs relevant to leadership and worker engagement. For example, it included KPIs concerning the provision of toolbox talks, behavioural safety training, daily activity briefings (referred to as DABs, these daily briefings are intended to ensure that workers understand their tasks for the day and any associated health and safety hazards), reward and recognition schemes, initiatives to encourage near-miss reporting, and project leader workforce engagement tours. These KPIs measured compliance and referred generally to either initiatives being in place or to the frequency or coverage of the activity (eg all supervisors to carry out a DAB; each member of the workforce to receive a minimum of one toolbox talk per week). In addition to monitoring of Tier 1s’ compliance with these KPIs, a safety climate survey was undertaken approximately every 12 months over a period of three years (although surveys were undertaken at more frequent intervals on some projects). Results from these surveys were used to highlight performance and develop strategies for improvement at both the project level, and more widely.

The ODA also established an HS&E leadership model. This is shown below in Figure 1. The leadership model includes a Safety, Health, Environment and Leadership Team (SHELT). SHELT is comprised of director-level executive management teams from the ODA, CLM, and the Tier 1 contractors. The SHELT is designed to tackle strategic issues and set common (visual) standards across the Park. The model also includes a health and safety leadership team at the project level: the Project Leadership Team (PLT). The PLT is intended to allow the sharing of health and safety information between Tier 1s and their suppliers. As illustrated in Figure 1, the model intends that there is representation from SHELT into the PLTs.

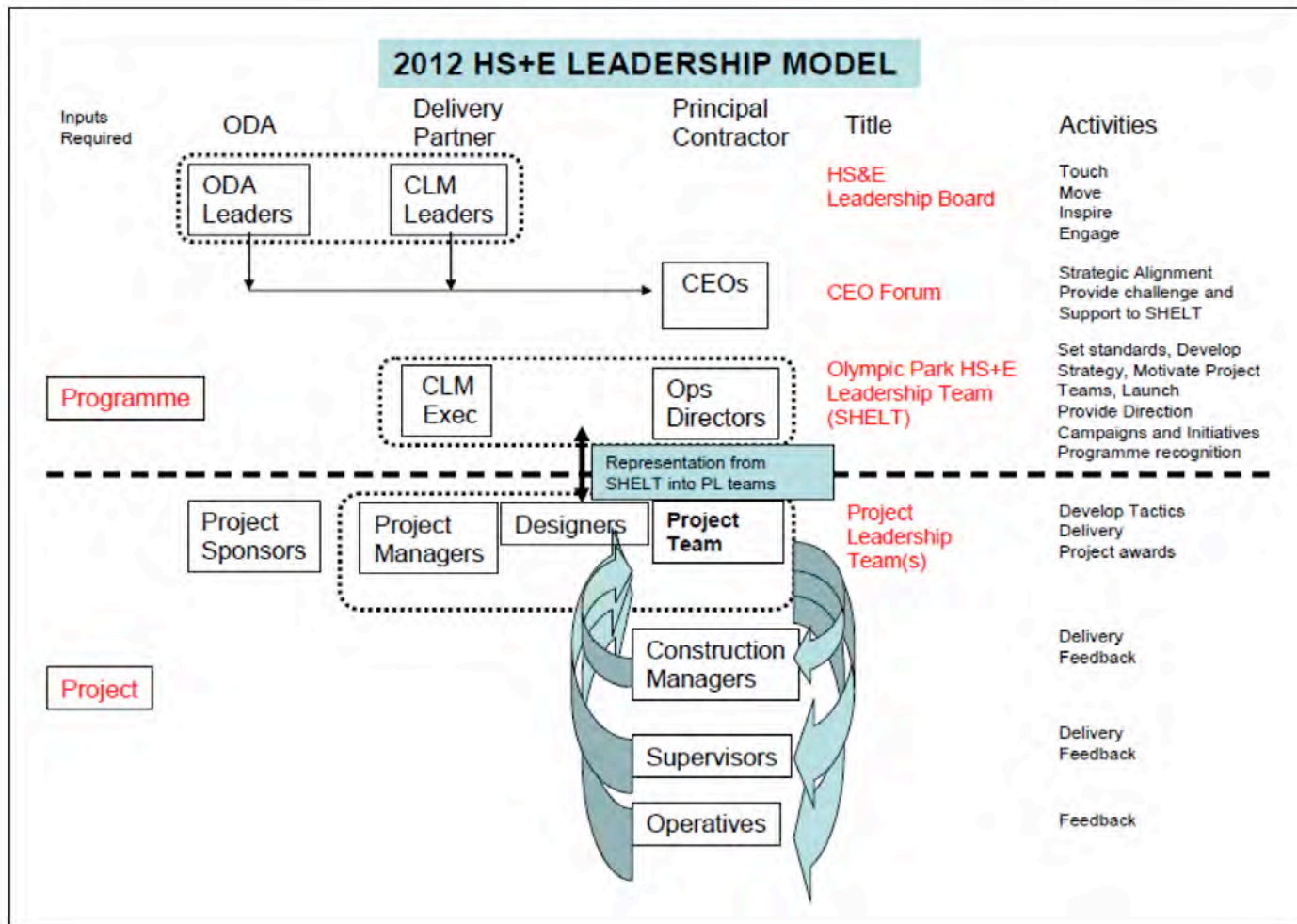


Figure 1.1 Health, Safety and Environment Leadership Model

The ODA's commitment to health and safety was recognised by a number of awards (eg the British Safety Council's five-star award, following an independent audit of the ODA's health and safety systems and processes, in which the ODA scored 98 per cent). Work on the site has also been characterised by low accident rates.

By June 2011 the ODA recorded around 62 million hours worked with a project Accident Frequency (AFR) Rate (calculated per 100,000 hours worked) of 0.17. The AFR since commencement on the Park is less than 0.15, with 22 periods of one million man hours worked without a RIDDOR-reportable injury accident.

1.3 ROLE OF THE HSE ON THE PARK

HSE have been heavily engaged with partners regarding the health and safety arrangements and legacy from the 2012 Games. As stated on their website:¹

“For HSE, this means getting lasting benefits from the construction phase: promoting good practice; embedding this in to the culture of other projects – both large and small – and sharing and learning how to manage risks more effectively.”

HSE developed a specific strategy for working with the ODA and a number of specific projects were selected for interventions. These interventions were front-loaded to focus on the identification and elimination of risks which occurred at the design stage, or to achieve an acceptable level of risk reduction before the start of main construction work.

HSE inspectors conducted initial site visits to check basic site arrangements and then targeted higher risk work activities. These were identified in a presentation by the principal contractor. HSE site inspections occurred at appropriate stages to allow checks that the systems of work matched those described. For certain specified projects, teams of construction inspectors prepared an intervention plan involving a targeted inspection regime. If early inspections provided confidence about the adequacy of management arrangements then HSE adopted a risk-based approach to further interventions. If not, HSE challenged inadequate control measures and took appropriate enforcement action (taking account of HSE's enforcement policy statement).

HSE has a dedicated section of their website (Op Cit) which provides an overview of their work on the Park (and the Athletes Village) and highlights some case studies of best practice. They are committed to learning from the experiences on the build and to taking these forward to the wider industry. They are also a partner, with the ODA, in the Learning Legacy Research Programme.

1.4 WHY LEADERSHIP MATTERS

One of the central themes running through the current Health and Safety strategy for Great Britain² is leadership. The strategy document states that:

- leadership must start at the top

¹ <http://www.hse.gov.uk/aboutus/london-2012-games/the-legacy.htm>

² *The Health and Safety of Great Britain: be part of the solution, for full document see* <http://www.hse.gov.uk/strategy/document.htm>

- members of the board have both collective and individual responsibility for health and safety
- people at board level need to champion health and safety and should be held accountable for its delivery, and
- leadership must permeate throughout the management and supervisory levels and the workforce.

The Health and Safety at Work Act 1974 places duties on employers (including limited companies and corporate bodies) to control health and safety risks arising from work activities. Breach of a duty is a criminal offence. These duties are not placed on individual directors, but by virtue of section 37 of the Act, they can be prosecuted as individuals, if it is proved that the corporate body has committed an offence that was with the ‘consent or connivance of, or was attributable to the neglect of’, that director.

In addition to the Act, the other legal measures which strengthen the responsibilities of director-level leadership of health and safety include the:

- Corporate Manslaughter and Corporate Homicide Act 2007
- Health and Safety (Offences) Act 2008.

These various acts raise the risk of legal action against individual directors, the board and organisations as a result of poor health and safety management decisions.

Despite this legal context, recent HSE research has suggested that leaders could do more on health and safety. This revealed that¹, whilst a few directors viewed health and safety as an intrinsic part of what they do as an organisation and recognised the strategic impact on their organisation, the majority viewed health and safety as a compliance issue for the *organisation*. Some directors cited specific examples of direct hands-on involvements, for example, performing health and safety inspections and risk assessments personally. Others talked about ensuring that procedures were visible and implemented, for example, by displaying the health and safety policy on their company notice board. Whilst many directors felt they consulted their workers and took their views on board, many were passive in obtaining feedback, as illustrated by the response ‘my door is always open’, used instead of a more proactive approach to involving workers.

1.5 THE IMPORTANCE OF WORKER INVOLVEMENT

The Health and Safety strategy for Great Britain also sets out a long-term commitment to worker involvement.

There are specific laws that set out how employers must consult their employees in different situations and the different choices employers have to make. As well as the Health and Safety at Work Act, there are two sets of general regulations which oblige employers to consult workers and their representatives about health and safety:

- The Safety Representatives and Safety Committees Regulations 1977
- The Health and Safety (Consultation with Employees) Regulations 1996.

¹ King K, Lunn S, Michaelis C (2010), *Director Leadership Research*, HSE Research Report 816.

There are also legal requirements in the Construction, Design and Management regulations (CDM) 2007 that require principal contractors to ensure there are arrangements to consult all workers on a project.

Despite these legal requirements, it is not clear that all workplaces do engage in effective worker consultation. In a 2005 report to the then Health and Safety Commission¹, HSE estimated that six out of ten workers in Great Britain were not consulted on health and safety matters that affect them². There is also evidence that the number of workplace representatives is falling. Case study work³ found that, amongst the organisations involved, the proportion of workplaces having at least one health and safety representative had dropped substantially. HSE's 'fit for work, fit for life, fit for tomorrow' (Fit3) programme (which involved three worker surveys in 2006, 2007 and 2008)⁴ also found a small increase in the number of workers reporting less consultation in 2008 compared to 2006. However, changes to UK employment demographics, for example an increase in the number of small- and medium-sized enterprises⁵ and a reduction in workforce unionisation⁶, may have shifted the emphasis from formal structures to informal arrangements for consultation.

The Fit3 survey⁷ provided further evidence on levels of involvement, and demonstrated that workplace size has a much greater impact on levels of worker involvement than industry sector. Larger organisations were more likely to involve workers and were particularly more likely to do this via formal systems. The level of formal involvement in micro businesses was only just over half of that in larger organisations, but there was a large amount of informal involvement in these organisations. The use of formal systems was less than half as frequent in organisations without union recognition and health and safety representatives as was the case for those with union recognition and appointed union representatives. This may explain why estimates of the level of worker involvement using surrogate measures, such as unionisation and the extent of workplace health and safety committees, tend to underestimate the extent of worker consultation as they do not include the informal consultation that tends to occur in small and micro organisations.

¹ Health and Safety Commission (2005) *Plans for the Worker Involvement Programme*. HSEC/05/16, <http://www.hse.gov.uk/aboutus/meetings/hscarchive/2005/080205/c16.pdf>

² Kersley B, Alpin C, Forth J, Bryson A, Bewley B, Dix G and Oxenbridge S (2004) *Inside the Workplace: First Findings from the 2004 Workplace Employment Relations Survey*, London: Department of Trade and Industry. Estimated that 42% of all employees work in a workplace with a joint consultative committee and this is thought to be the basis of the "six out of ten" statement in the HSC report

³ Shearn P (2005) *Workforce participation in the Management of Health and Safety*, HSL/2005/09, http://www.hse.gov.uk/research/hsl_pdf/2005/hsl0509.pdf

⁴ HSE *Fit for Work, Fit for Life, Fit for Tomorrow (Fit 3) Surveys*- unpublished.

⁵ DBIS 2009, *Statistics Press Release URN09/9214*, October 2009, <http://stats.berr.gov.uk/ed/sme/smestats2008-ukspr.pdf>

⁶ BIS/ONS *Trade Union Membership 2010*, <http://stats.bis.gov.uk/UKSA/tu/TUM2010.pdf>

⁷ HSE *Fit for Work, Fit for Life, Fit for Tomorrow (Fit 3) Surveys*- unpublished.

In 2007, both an IPA research report¹ and an evaluation of the HSE Worker Safety Advisers Initiative² indicated that ‘soft’ or ‘people’ skills – such as the ability to communicate, build trust, be impartial and manage conflict – are as important as health and safety knowledge when it comes to ensuring good consultation. The IPA study therefore concluded that a ‘dialogue culture’ was the most important factor in an organisation’s ability to develop and deploy the soft skills needed for effective employee involvement in health and safety. Such a culture requires awareness of critical issues in the organisation at all levels, as well as company leadership demonstrating appropriate behaviours, and the organisation of work to encourage problem solving and participation by employees.

There is also research³ which helps to identify effective approaches to worker engagement. This demonstrated the greater inclination of workers to participate in face-to-face, oral, communication, often of an informal nature (eg pre-start meetings, informal conversations with management), rather than written methods (eg feedback cards and suggestion forms). Training was also an important factor. Where the workforce had received formal health and safety training, more discussion on topics beyond merely site issues was recorded, and training helped worker understanding of safety controls and raised hazard awareness. Exposure to worker engagement initiatives also appears to increase worker recognition of worker engagement. However, achieving effective worker engagement requires that both managers and workers see the benefits. The research concludes that any approach to worker engagement should have three measurable elements in order to gauge success:

- adequate and appropriate resource provision
- opportunities for two-way communication, and
- regular audit of the extent to which decisions have taken account of workers’ input and issues raised by workers have been followed through.

Further evidence⁴, from consultation with employees, employers and safety representatives, suggests that there are a number of factors inhibiting the greater involvement of workers in health and safety. These include:

- A lack of understanding and awareness of the meaning of health and safety, and the perceived complexity of health and safety legislation and regulations which can be seen as ‘frighteningly complex’.
- Treating health and safety as a matter of ‘common sense’ such that awareness of good health and safety practice can be taken for granted which can prevent individuals taking advice on their own behaviour.
- The culture of organisations and the value attached to involvement in health and safety.

¹ Poxon B, Coupar W, Findlay J, Luckhurst D, Stevens R, Webster J (2007) *Using soft people skills to improve worker involvement in health and safety*, prepared by the Involvement and Participation Association, HSE RR580, <http://www.hse.gov.uk/research/rrpdf/rr580.pdf>

² Shaw N, Turner R (2003) *The Worker Safety Advisers (WSA) pilot*, HSE RR144, www.hse.gov.uk/research/rrhtm/rr144.htm

³ Cameron I, Hare B, Duff R, Maloney B (2006) *An investigation of approaches to worker engagement*, HSE RR516.

⁴ Ecotec (2005) *Obstacles preventing worker involvement in Health and Safety*, Health and Safety Executive Research Report 296.

- Issues in relation to the time and cost incurred through the implementation of good practice.

It is acknowledged that creating a positive culture can require a long-term commitment, but many employers do believe that such a commitment is worth making. Using employer workshops and case studies, work by the Royal Society for the Prevention of Accidents (RoSPA)¹ produced a number of tips for engaging workers, many of which could be implemented within the construction industry. These included:

- Ensure that there is a visible worker involvement culture perpetuated by senior managers.
- Always provide feedback to suggestions that are received.
- Engage personnel at all levels of the organisation.
- Ensure managers are visible, talk to staff and take a small number of staff on regular safety walk arounds.
- Implement a genuine no blame culture.
- Ensure representatives have training on how to be an effective representative.
- Set up joint health and safety committees with a good balance between employee representatives and managers.
- Train managers and staff in soft as well as hard skills.

Much of the evidence around the impact of worker involvement concerns the ‘union effect’ ie the impact of trade union health and safety representatives.

A study of 1998 figures² showed that where there is a union presence the workplace injury rate is 24 per cent lower than where there is no union presence. A 2007 report³ found lower injury rates in workplaces with trade union representation. Another study⁴ in the same year by the then Department of Trade and Industry concluded that safety representatives save society between £181m and £578m each year (based on 2004 figures) as a result of a reduction in lost time from occupational injuries and work-related illnesses of between 286,000 and 616,000 days.

The 2003 evaluation of the ‘Worker Safety Advisors’ pilots⁵ found that over 75 per cent of employers had made changes as a result of the intervention, and almost 70 per cent of workers reported an increase in their awareness of health and safety. These pilots involved trade union appointed ‘Worker Safety Advisors’ carrying out a range of activities from the provision of advice and training to the conduct of risk assessments in non-unionised

¹ Fidderman H and McDonell K (2010) *Worker Involvement in Health and Safety: What Works? Joint Health and Safety Executive and RoSPA publication.*

² *Grazier S (2007) Compensating wage differentials for risk of death in Great Britain: An examination of the trade union and health and safety committee impact, Swansea University.*

³ *Nichols T, Walters D and Tasiran AC (2007) Trade Unions mediation and industrial safety, Journal of Industrial Relations 2007.*

⁴ *DTI (2007) Workplace Representatives: A review of their facilities and facility rime, DTI.*

⁵ *HSE Fit for Work, Fit for Life, Fit for Tomorrow (Fit 3) Surveys- unpublished.*

workplaces. In terms of the impact of worker involvement more broadly, the Fit3 survey¹ concluded that injury levels in workplaces where employees genuinely feel they have a say in health and safety matters are around half those where employees are not given the chance to get involved.

1.6 HEALTH AND SAFETY ISSUES FOR THE CONSTRUCTION SECTOR

The construction sector is a relatively high-risk sector in terms of health and safety. The TUC classifies this sector as one of the most dangerous in the UK, quoting HSE figures that show that in the last 25 years, 2,800 people have been killed on construction sites or as a result of construction activities and many more have been injured or made ill. Annually, as many as 4,000 building workers may die from industrial disease and thousands are injured as a result of construction work. Diseases faced by construction workers include dermatitis, asthma and emphysema. Particular hazards faced by construction workers include:

- exposure to asbestos-containing materials
- musculoskeletal disorders due to manual handling, repetitive tasks or work in confined spaces
- slips, trips and falls
- noise, and
- vibration injuries.

The HSE has carried out a significant amount of research into health and safety issues in the construction sector² and identified common health problems experienced by construction sector workers as:

- back pain;
- skin and breathing problems;
- problems caused by noise or vibration, and
- stress³.

An HSE report in 2006⁴ stated techniques and approaches, used with success elsewhere, to involve workers in the management of occupational health and safety have failed in construction. In December 2008, the Secretary of State for Work and Pensions asked Rita Donaghy to conduct an inquiry into the underlying causes of fatal accidents in construction. In July 2009, Donaghy reported her findings, including a number of recommendations around improving arrangements for worker representation and consultation, and improved leadership in the industry. One of the recommendations of the report was to develop guidance and tools and in May 2011 HSE launched a Leadership and Worker Involvement

¹ *Ibid.*

² <http://www.hse.gov.uk/construction/resources/research.htm>

³ <http://www.hse.gov.uk/research/rrpdf/rr518.pdf>

⁴ <http://www.hse.gov.uk/research/rrpdf/rr516.pdf>

online toolkit specifically for the construction sector with an accompanying research report¹. This research and subsequent guidance focused on the two main aspects of health and safety which HSE have identified as particularly important in ensuring good health and safety within construction small and medium enterprises, namely: leadership and worker involvement (L&WI), both of which this research will explore.

1.7 RESEARCH AIM AND SCOPE

- The aims of this research were to compare the different approaches to the management of health and safety relating to leadership and worker involvement on the Olympic Park. The focus was on collaborative approaches to health and safety and the benefits that can result. Relevant practice plus barriers to, and enablers of, good practice were considered. The research aimed to allow the benefits of a collaborative approach to health and safety, supported by strong leadership, to be understood and promulgated.

The specific scope of the proposed research was to understand to what degree approaches in the management of health and safety with respect to L&WI were:

- Effective or positive – and how these aspects can be replicated or substituted in other contexts.
- Ineffective or negative – and how these aspects can be avoided or eliminated in other contexts.
- Transferable to other sites and industries.

1.7.1 Research objectives

- A more detailed list of research objectives was also set. These were to:
 - a. Identify and understand the range of approaches and initiatives (both positive and negative), examining the potential differences between contractors and contracts, categories of work, venues and intervention types.
 - b. Examine and describe the impact that various approaches/initiatives had on attitudes and behaviours associated with positive health and safety practices and performance.
 - c. Examine leadership initiatives/decisions on the Olympic projects to assess how they encouraged worker involvement, both directly by increasing levels of consultation, and indirectly by helping to create a working environment conducive to increased positive attitudes and behaviours towards health and safety.
 - d. Identify examples and assess the impact that the various approaches/initiatives had on other desired outcomes (eg efficiencies) for the organisations and individuals involved.
 - e. Understand under what circumstances the approaches to the management of health and safety in respect of L&WI were effective or ineffective with the objective of understanding what leadership and worker involvement can (or cannot) achieve in practical terms.

¹ Bell N, Hopkinson J, Bennett V, Webster J (2011) *Development of a Web-based Leadership and Worker Engagement (LWE) Toolkit for small and medium enterprises in construction, Health and Safety Research Report 880*, <http://www.hse.gov.uk/research/rrhtm/rr880.htm>

- f. Understand the role of the regulator in influencing health and safety management (particularly L&WI).

These objectives were used throughout to shape the research.

1.7.2 Research methods

This research involved the collection and analysis of a range of data from those working on, or connected to the Park to provide a view of the leadership and worker involvement activities on the site from a range of perspectives. In summary, the research involved:

1. Desk research involving a review of ODA, client and principal contractor documents on health and safety in order to map out the approaches taken to the management of health and safety in the Olympics Park that incorporate L&WI.
2. Secondary data analysis, using the Health and Safety Laboratory (HSL) Climate Tool, RIDDOR/near-miss records and other ODA survey data/management information, to inform the sampling criteria for selecting venues for case study work.
3. Four case studies of different projects on the Park in order to learn about the effectiveness of different approaches to L&WI in health and safety management, where they work best and how well these are received by those involved. The case studies consisted of interviews or focus groups with a range of managers, supervisors and operatives.
4. A site-level case study which examined the impact of leadership at three levels:
 - high level governance and support (ODA and CLM senior executives)
 - site wide via SHEL T
 - project level via individual project leads.
5. A paper-based survey of 518 workers (including managers, supervisors and operatives) conducted during meal breaks in work canteens on the site.
 - Full details of the project methodology are provided in Appendix 2, and details of project-level case study participants are provided in Appendix 3. An example of a discussion guide used during the case studies is provided in Appendix 4 and a copy of the worker survey instrument in Appendix 5. Appendix 6 provides details of respondents to the worker survey and the results of that survey. Appendix 1 contains an illustrative case study.
 - It is important to note that the approach used in the research means that it is not possible to claim that the views and experiences of those involved fully represent the view of those working on the Park. The approach was designed to produce rich case study examples rather than a comprehensive picture of all activities on the Park. Also, the research team were not able to randomly select participants, and were reliant on the ODA to set up the research on our behalf via designated senior managers. A worker survey was included in an attempt to overcome the problem of selection bias amongst those workers interviewed, and to provide a means of validating (or contradicting) findings from the case studies. Anecdotal evidence from staff conducting the survey suggests a good response rate (an actual response rate is impossible to calculate). However, the survey can only represent the views of the workforce present on the site on the days in which the survey was conducted. The results presented should therefore be seen as offering insights into the practices of a number of contractors on the Park, and as highlighting learning points from their experiences.

- Readers are referred to the outputs of the whole of the learning legacy research programme which, collectively, covers most of the contractors working on the Park during late 2010 and early 2011 as the ODA moved towards handover. This provides a broader overview of contractor activities and views.

1.8 A BRIEF NOTE ON TERMINOLOGY

Throughout the rest of the report, reference is made to ‘workers’ as well as ‘operatives’. A distinction is often made between supervisors and workers (ie between those with supervisory or managerial responsibilities and those without). However, some of the interviewees’ statements may have reflected a wider view of the term ‘workers’ to include all those on site. We have, where possible, made the distinction clear by referring to ‘operatives’ wherever we are referring to a view expressed by or about this group, and to ‘workers’ where it is possible that the phrase was used with a wider meaning.

2 RESULTS

2.1 PARK-WIDE FINDINGS

ODA/CLM leaders set a clear vision for health and safety and put it into action using multiple levers

ODA/CLM leaders collectively established a strong and clear statement of vision and purpose regarding health and safety early in the Olympic build. This clarity of view was rapidly translated into clear priorities for the project. Whilst these priorities were not uniquely focused on health and safety, it formed a strong and central element of the vision and was referred to as being at the forefront of thinking and concern. This suggests that safety issues were fully integrated into wider business objectives. It is also worth noting that the vision incorporated both health *and* safety, and more broadly welfare (there was a commitment to putting in place excellent health and welfare facilities).

The motivations of ODA/CLM leaders for the focus on health, safety and the welfare of workers were manifold. Leaders' previous experience of having worked on projects where fatalities had occurred and the desire not to experience the same thing again was a particularly strong motivation. This reflected an espoused broader moral imperative to keep people safe. In addition to the moral imperative, there was a clear view among leaders that a safe site would also be an efficient one. They spoke about wanting the site to have a particular 'look and feel' ie to look clean and tidy because this would be good for safety and efficiency. There was also a view that a focus on the welfare of staff would provide benefits in terms of an improved employee-relations climate and higher productivity (through, for example, workers not having to go off site to receive decent healthcare and avoidance of industrial relations issues). ODA/CLM leaders also saw the project as an opportunity to raise the bar in the construction industry, and to operate at a level the industry was capable of but seldom reached. Reputational risk and the fact they were under intense scrutiny were acknowledged but not perceived to be key drivers for the approach taken amongst ODA/CLM leaders, although they felt that this may have helped in securing the support and engagement of contractors to the approach taken.

There was a clear understanding amongst ODA/CLM leaders concerning how to turn the vision into action, through a variety of levers and approaches (eg effective supervision, behavioural safety, effective processes and procedures, good communication). Central to this was consultation with Tier 1 contractors to get their buy-in and subsequently the development of a Health, Safety and Environmental (H, S & E) standard which set out ODA's commitments, aspirations and expectations from its supply chain with respect to health and safety (including for example, the requirement to have a behavioural safety programme in place). The standard was considered essential in aligning objectives for all those involved with the Olympic Park.

ODA/CLM leaders were clear at the outset that none of the levers envisaged was sufficient on its own to achieve the outcomes desired. It was a willingness to use all the possible levers available that would help achieve the standards sought. They were also clear that there was nothing new or complex in the approaches used on the Olympic Park, rather there were a range of activities that were carefully followed through. ODA/CLM leaders also expressed an awareness of the potential dangers of relying too much on simply incentivising success or punishing failure, as an over-reliance on either of these could create perverse incentives. This awareness argued for the use of multiple levers.

It is also clear that the ODA/CLM were cognisant of the need to tackle all layers in the leadership and management structure. For example, they talked about working with Tier 1s through SHELТ, organising a conference and workshops (in collaboration with Tier 1s) for Tier 2s and Tier 3s, development and provision of training courses for supervisors, and the strong emphasis on behavioural safety.

ODA/CLM leaders did not reference HSE guidance on managing health and safety or that developed with the Institute of Directors (IOD) on leadership¹ when discussing influences on their approach. A view was expressed by one senior ODA executive that leaders were influenced by lessons from other projects rather than guidance documents. However, this does not necessarily mean that the guidance does not have an influence, rather that its influence on senior leaders may be indirect ie from other senior health and safety directors/managers who would be more familiar with the guidance and who would relay the requirements onto others without directly quoting the guidance itself.

ODA/CLM leaders engaged with the supply chain on health and safety, and put structures in place to support this

There was a clear commitment amongst ODA/CLM leaders to engaging with, and working through contractors. The Safety, Health and Environmental Leadership team (SHELТ) was a clear example of this. ODA/CLM leaders expressed the view that over the course of the project, Tier 1 contractors had begun to operate more collaboratively and a joint, proactive approach to problem solving developed. This contrasted with the initial stages of the project when they felt that contractors would not involve themselves with another contractor's problems or issues. Tier 1 contractors' views of SHELТ were also generally positive. Tier 1 contractors referred to SHELТ as a way of tackling strategic issues, and a forum for discussion. It was acknowledged that newcomers to the Park could sometimes find the approach difficult to understand, at least initially. One of the by-products of SHELТ was to help create an environment where contractors could learn from each other.

Another way in which senior leaders worked with contractors was in setting global standards but allowing a high level of autonomy in how those standards were met. Tier 1 directors referred to having the flexibility to see what worked well and adjust that as necessary. The autonomy in the detail of delivery of health and safety initiatives arose, in part, from a wider recognition that providing contractors with a large degree of autonomy was the best way to make use of their considerable experience and expertise. An example of the autonomy of contractors with regard to worker involvement was the differing approaches taken to behavioural safety. One contractor, for example, used trained actors to dramatise the consequences of accidents.

It was clear that there was a strong and unwavering commitment of the senior team to safety. Alongside an effort to engage and involve contractors, there was an espoused willingness to stop work if standards were not met. In fact, there were several occasions on which work was stopped until ODA/CLM leaders believed that there was clarity over standards and they were satisfied with compliance. Stopping work was acknowledged by senior leaders as a tough stance but powerful in delivering the message that they were serious about health and safety, and in driving changes in behaviour. In addition, senior leaders also maintained close contacts with the most senior leaders in contractor organisations (CEOs and boards) and would use these relationships if they felt those on site were not sufficiently responsive.

¹ *Institute of Directors and Health and Safety Commission (2007) Leading health and safety at work. IOD/HSE.*

ODA/CLM leaders also emphasised the support provided to contractors in helping them understand the standards required, for example through the provision of visual common standards. They also emphasised the importance of reward and recognition of contractors, through, for example, the presentation of awards for good safety to contractors by members of SHEL.T.

Effective monitoring and data collection has enabled the spotting of trends and facilitated corrective action

Alongside the H, S & E standard, there was a commitment to measuring the capabilities of contractors through the use of a balanced H, S & E scorecard. This included scores for contractors on a number of KPIs including:

- compliance with carrying out daily activity briefings
- use of consultation and reward arrangements
- compliance with behavioural safety induction
- presence of initiatives in place to encourage near-miss reporting (see Appendix 7 for more detail).

The self-reporting of contractors on their health and safety performance, and the auditing of this by CLM, provided a clear message to contractors that their performance was monitored and taken seriously. It also enabled ODA/CLM leaders to highlight poor performance with contractors and drive up standards. It was recognised that some contractors initially felt that their systems or performance were good enough, but data could help make the point that this was not the case. The data collected also enabled the identification of problems, analysis of trends and ultimately facilitated discussion of issues and strategic action. There was also indication from some Tier 1 managers that sharing the results of data analysis encouraged a degree of competition amongst contractors.

One example of learning from data, which three separate leaders independently mentioned, was the slight increase in accidents experienced just after Christmas 2009. This trend was subjected to a detailed review. The findings suggested that there was no single or common attribute either of the accidents or of the individuals involved that might explain the increase. The only common element identified was that most of those involved had *not* been on a behavioural safety programme and this led to an enhanced focus on providing such training. In a similar vein, one of the ODA/CLM leader's perceived successes was the course on behavioural safety for supervisors (organised over three half days ie one and a half days in total). This was instigated following an analysis of supervisor competence and the recognition that there was a need to improve the capability and communication skills of this group. The research also involved discussions of other detailed investigations of accident data to try and understand what might be the common elements that could be responded to. Such investigations might uncover a range of actions that could be implemented.

At project/site level, project directors found the information available on health and safety statistics from CLM useful. In addition, the information made available about accidents and incidents, and the discussions involving the contractors concerned about how these had arisen, was felt to be useful.

Through the establishment of a health and safety leadership structure, ODA/CLM leaders ensured that health and safety was incorporated into the main leadership structure

ODA/CLM established a clear health and safety leadership structure (shown previously in Figure 1). This structure ensured that health and safety was not a separate arm of management and facilitated collaborative working at all levels. It also helped establish mechanisms by which information could be cascaded from SHELТ down to the workforce, and upwards from the workforce to SHELТ. There are examples from our interviews of issues being raised by the workforce, reaching SHELТ, and then action being taken by SHELТ and communicated back down to the workforce. An example of this concerned driving on the Park. At a safety committee meeting a traffic marshal had raised the issue of drivers speeding, not wearing seatbelts and using mobile phones whilst driving. This issue was taken to SHELТ and as a result the rules on driving on the Park were reinforced. A penalty system was introduced and a drivers' safety forum established. Any driver caught breaking the rules would be required to attend the forum with a safety representative. The forum involved a road-safety campaign video, statistics and figures on accidents, and discussions around how they would feel if one of their friends were injured or killed in a road accident on the Park.

Effective communication and reinforcement of the importance of health and safety to the supply chain

From the outset, ODA/CLM leaders were clear that a major challenge would be in communicating the importance of health and safety through the supply chain. This was achieved through a multitude of means, including procurement processes (in which contractors would be screened on their health and safety record, systems and processes) and working with contractors before they were due to work on the site to get them up to speed with requirements. Effective communication was also aided by the provision of the common (visual) standards, reward and recognition, the number of meetings and fora with health and safety at the top of the agenda, exploration of the available data and the continued engagement of ODA/CLM leaders through their regular physical presence on the site.

Learning from accidents, incidents and the data facilitated improvements on the Park and a 'fair blame' culture

There appears to have been a real effort amongst ODA/CLM leaders where accidents or incidents occurred to look much more deeply into the potential underlying causes and how similar incidents might be avoided in future. This approach mitigated against a 'knee-jerk' reaction and helped establish a 'fair blame' culture (as opposed to a 'no blame' culture which leaders suggested would imply that under no circumstances is an individual responsible). There were examples of intensive investigation of accidents and incidents and changes in processes, procedures or ways of doing things as a result. There were also examples of this at project level, so this approach appears to have gained some traction outside the Park-wide leadership team.

Accidents were also used as an opportunity to help bring about change in contractor performance. Examples were given of forensic examination of incidents undertaken by ODA/CLM leaders with a senior representative from the contractor involved in a way that was much more detailed than any approach they had previously used.

ODA/CLM leaders put in place the conditions for worker engagement through a concern for the welfare of workers, and a set of standards and actions around (two-way) communication, behavioural safety training and reward and recognition

ODA/CLM leaders emphasised the importance of good welfare to provide the conditions for positive worker involvement. In their view, for workers to become proactively involved (in health and safety and more widely), there needed to be a clear quid pro quo. ODA/CLM leaders spoke about providing good welfare facilities but also about taking steps to ensure that the vast majority of people on the Olympic Park were directly employed with decent terms and conditions. They talked about a memorandum of understanding with the unions outlining an aspiration to have such a workforce, and about auditing the employment practices right down the supply chain.

The HS&E standard outlined ODA expectations of the supply chain and incorporated requirements for effective two-way communication, behavioural safety and reward and recognition. Effective monitoring of actions taken at project level in each of these areas, and a willingness to work both collaboratively with Tier 1 contractors and to take action where necessary (for example, in developing a behavioural practice course for supervisors), helped engender a culture where workers felt comfortable raising health and safety issues.

2.2 PROJECT-LEVEL FINDINGS

The importance of safety over production appears to have been effectively communicated throughout the chain of command and been actively supported by senior management

Interviewees at project level, regardless of role or seniority, were of the general opinion that safety was more important than production on their project, and that work could be stopped if safety was considered at risk. Examples were given of work being stopped by senior managers and by operatives. Instances of the former may well have helped ‘set the tone’ on projects.

“The two [safety versus production] don’t get mentioned together, I think is the way to describe it and explain it. We might be under the greatest amount of programme pressure, however that is for the senior management team to absorb that, and that doesn’t go really beyond that level, in terms of it feeling like pressure. So safety is put ahead of programme pressure.

It’s difficult to try and explain it, because it’s not an issue, so I can’t describe it, because it’s not what happens here. There’s a job to do. Everybody wants to get on with that job, but that will never be at the cost of safety. If there are shortcuts because of perceived production pressure, we have to understand where that’s come from and why, because it certainly isn’t what is promoted through the project safety leadership team and the senior management team.” (Health and Safety Manager)

“I think you’re encouraged, if you’ve got a problem, speak to your supervisor, manager, member of the safety team.” (Operative)

“Health and safety is high priority and you can take (an issue) to the supervisors, management ... and nothing goes against you sort of thing.” (Operative)

It was noted by operatives and managers that there were still some supervisors who put pressure on to get the job done, and there were still occasions where a manager had witnessed an operative behaving unsafely and a supervisor watching them. However, these

were felt to be pockets of bad practice rather than the norm. One health and safety manager felt that although the health and safety message was fairly consistent down the managerial chain, they believed that if it were to fall down anywhere it would be at supervisory level. They acknowledged that this was despite the management system being in place to put safety ahead of programme pressure, and communications and behavioural safety training constantly re-emphasising the importance of safety over production. However, most supervisors were felt to encourage safe working, and one union representative noted that they felt this was different to other sites. This appears to be supported by the worker survey. Sixty-five per cent of operatives agreed with the statement that ‘supervisors on this site are committed to health and safety’.

It was acknowledged across a number of projects that workers came to the site with a diversity of experiences and expectations, and it could take time for new workers coming onto site to adjust to new rules, procedures and the culture on site. In one of the case studies, this issue was addressed by placing new workers in established teams.

Interviewees were in general agreement that Tier 1 directors played an active role in driving the focus on safety through their participation in inductions, briefings, meetings of worker (operative) representatives, their visibility on site and willingness to engage on health and safety issues. For example, interviewees mentioned the attendance of Tier 1 project directors at meetings of worker (operative) representatives conveying the message that health and safety was taken seriously. It was felt at project level that senior management commitment and involvement was absolutely essential to secure the buy-in of operatives.

One question that was repeatedly raised in interviews was how the tension between a high commitment to safety and the need to deliver a project on time was handled. And this, in an environment, where there were rules and procedures viewed as being more stringent than usual. There are suggestions in the interviews that the availability of additional resources when needed may be one answer (ie a willingness to get and pay for extra bodies on site and work longer hours if necessary). There were also suggestions of improved planning, partly perhaps as a result of an awareness of the extra steps that needed to be taken prior to commencing work and the high level of apparent communication and collaboration on site.

The general impression of a positive health and safety culture is supported by the responses of operatives to the worker survey. Eighty-two per cent of operatives disagreed with the statement, ‘health and safety does not seem to be important on this project. Equally, 71 per cent of operatives agreed with the statement that ‘my boss would like me to stop work, rather than put my health and safety at risk’.

A collaborative approach to health and safety appears to have been fostered at project level

Mirroring the collaborative approach to health and safety at the level of SHEL, at project level there is also evidence of a collaborative approach to health and safety being taken. One Tier 2 manager mentioned how clients usually perceived health and safety as the contractors’ problem, and if any issues were raised, the suspicion from the client was that they, the contractor, were trying to delay things. On the project he was involved in, the Tier 2 manager felt that the Tier 1 was keen to be involved in health and safety issues and to encourage a genuine two-way dialogue. The project leadership team (comprised of the Tier 1 director/senior managers and senior representatives from each of the Tier 2s) he attended was more engaging than the usual minuted meeting. It involved new information, lessons learnt from around the Park, and possibly the discussion of an accident/incident and how this could be avoided in future. Again, the presence of a Tier 1 director at these meetings was viewed as making sure the Tier 2s took the approach to health and safety seriously.

Along similar lines, at least two projects we visited talked about a team approach, rather than a loose collection of contractors. The number of meetings and high level of communication on the projects appears to have supported this.

A high level of communication on site, supporting structures, and multiple methods of communication all appear to have delivered an effective cascade of information and provided opportunities for a dialogue on health and safety

It is clear from the case studies conducted that there was a high level of communication on the Olympic Park, and at project level. This communication took a number of forms (pictorial, written or face-to-face) and was communicated via a number of channels (through daily activity briefings, toolbox talks, stand down briefings, posters etc.). There existed a supporting structure of activities and meetings to facilitate the communication of health and safety information (eg SHELTs, PLTs, supervisor meetings, meetings of worker representatives, inductions, etc.). The content of the communication also varied. For example, the information communicated could be purely about health and safety (eg a toolbox talk), or it could be more about project progress and the work ahead, with health and safety information incorporated. Much, if not all, of the face-to-face communication, whether one-on-one or otherwise, also offered the opportunity for feedback and challenge.

One health and safety manager felt the health and safety information cascade had proved very effective, and both operatives and managers remarked on the high level of communication on the Park (and projects). Face-to-face communication was felt to have had more impact than other forms, although multiple methods were felt to reinforce the messages. This former point is supported by evidence from the worker survey. When asked what the three most useful methods were for receiving health and safety information, both operatives and supervisors felt that inductions, toolbox talks and daily activity briefings were the most useful. Several case study participants felt that there could be 'poster blindness' (ie not taking the message of posters in because of over exposure to poster communication). Others, however, felt that the constant refreshing of posters on the Olympic Park was useful in reinforcing important messages. Operatives were felt to respond well to information on the progress of the project and next steps for the work (this is one of the key elements of a 'dialogue culture'¹, a culture identified by previous research as the most important factor in an organisation's ability to develop and deploy the soft skills needed for effective employee involvement in health and safety). Both operatives and supervisors mentioned personal testimonies as having an impact (for example, on at least two of the projects we visited, workers had either attended a talk by or watched a video/DVD of someone explaining how they had lost a loved one or been injured due to a workplace accident).

The importance of health and safety is emphasised to workers new to the Olympic Park through a comprehensive induction process. New workers undergo a Park-wide induction, a project induction, and in at least one case study, a specific work-area induction. The inductions were a vehicle for communicating some of the key messages around challenging other workers' practices and the importance emphasised of not 'walking on by' if any unsafe practice was observed. On at least one project, the induction includes a slot from a senior manager, and managers talked about using induction to get across the 'why' of what they are doing, not just the rules and the need to comply with them.

¹ HSE (2007) *Using soft people skills to improve worker involvement in health and safety*, HSE Research Report 580, HSE.

Reinforcing the importance of health and safety was not only achieved via the use of various channels and forms of communication, but also by the timing of communications. For example, it was a Park-wide requirement to conduct stand down briefings. These refresh workers' health and safety awareness after time away from work such as Christmas/New Year and Easter. One Tier 1 contractor also conducted briefings whenever there was a fatality in the wider organisation. In this case, a minute's silence was held and then the details of the accident considered and relevant learning points taken from it. Another contractor talked about conducting a stand down whenever there was a fatality in the UK construction industry. These types of communication were felt to be impactful by workers. The value of visual or pictorial communications were also emphasised by a number of interviewees as useful in getting the message across.

The high level of communication on the Park, and the effectiveness of the information cascade, was supported by evidence from the survey of workers. The (vast) majority of survey respondents reported receiving information on all aspects of health and safety that we asked about (see Appendix 5 for details of the survey questionnaire). This was the case for both survey respondents in general, and for specific groups of respondent eg operatives.

Daily activity briefings (DABs) were recognised as a key element of the information cascade, but their effectiveness was viewed as dependent on supervisor competence

At project level, DABs were recognised as a key way in which any new procedures or standards were communicated via the supervisors to the operatives. They were also used to discuss the work to be carried out, the method to be used, and any health and safety implications associated with the work. DABs offered a way in which workers could raise any issues with the proposed method statement and risk assessment. The briefing was talked about as an opportunity to reassess the work environment, and any risks associated with it, before starting work. It was also intended to help establish and maintain a two-way communication between operatives and supervisors.

The daily briefings were felt by management to be a very effective way of communicating health and safety messages to the workforce, although there was a view from both managers and operatives that it depended to an extent on the quality of the supervisor. At least one Tier 1 mentioned that they had graded all their sub-contractors on areas such as the quality of their briefings, the feedback received from the briefings, and the quality of their supervisors to lead the workforce and communicate. There was a suggestion from the ODA/CLM leaders that this practice may have been instigated by them and may have happened more widely across the Park (ie there was a point in the evolution of the project where ODA/CLM leaders identified supervisor competence as an issue and this then led to both an analysis of the situation and action in the form of the supervisor behavioural training course becoming mandatory). One health and safety manager mentioned that what really worked was having competent supervisors who could deliver a message. Another mentioned how they felt that the quality of briefings had improved over the duration of the project.

“Even the guys have started to open up a lot more, and they're more engaging. The supervisor's briefings have a lot more detailed information in them now, whereas 2008, it was like tumbleweed. The blokes used to sit in a lot of forums. There was no engagement, there was none of that, and now, where we are now is brilliant. The feedback isn't bad. I've actually been on quite a lot of the briefings and watched the guys engage, and I'm well impressed, to tell the truth.” (Tier 1 Health and Safety Manager)

Generally, the daily briefings were felt by supervisors to be a positive way of coordinating work and improving communication. They felt that the most effective way of communicating health and safety issues was through verbal rather than written communication. Where written communication was used, perhaps in conjunction with verbal communication, there was evidence on at least one project of attempting to limit the information provided to that which was relevant. For example, on one project, managers talked about providing only the one or two pages of the method statement that was relevant to the operative's task. They acknowledged that verbal communication could be an issue on site where some of the workforce did not speak English as their first language. In these cases, supervisors reported efforts to have someone present who could act as an interpreter/translator.

Operatives were generally positive about DABs but echoed the thoughts of managers in that its usefulness depended on the attitude and approach of the supervisor. Some supervisors were reported as not conducting a verbal briefing. It is not clear whether this was a current problem at the time of the case study or was a retrospective account of a problem that had been resolved.

Workers report feeling comfortable raising issues or stopping work, and there were a number of routes through which issues could be raised

The general impression from the case studies was that both operatives and supervisors felt comfortable raising health and safety issues, and in taking the decision to stop work if necessary. It was mentioned in one focus group with operatives that supervisors would 'back you up' if you felt it was important to stop work. This was supported by results from the worker survey suggesting that over 90 per cent of all respondents (compared with 83 per cent of operatives) reported feeling comfortable in raising health and safety issues. There were specific examples of operatives stopping work, and being rewarded for it, provided in the case studies.

What is clear from the case studies is that there were multiple opportunities and ways for workers to raise issues. For example, they could raise issues through a near-miss or observation card (this could be done anonymously), an operative representative (in at least one project, identifiable on site through the wearing of a high visibility jacket), daily activity briefings, stop for safety briefings, etc. There were examples given in the case studies of operatives raising health and safety issues.

Case study participants felt that operatives could be reluctant to raise issues, in particular concerning fellow workers as this could be considered 'snitching'. The option of submitting a report of a near miss anonymously was felt to be a positive way of overcoming reluctance to raise issues. On one project, the perceived lack of engagement from operatives was addressed through additional training in how to spot a health and safety hazard. It was felt by the project director that this had given the operatives the confidence to spot a hazard and feel comfortable reporting it.

When operatives did raise issues, it was reported that these were often about welfare or the conduct of work itself. However, it was acknowledged by one Tier 2 manager that improvements to the latter often also improved health and safety.

Near miss-reporting cards can be a useful way of gathering intelligence and spotting problems, but there can be reluctance to use the system and it requires effective feedback on actions taken for it to work

All case study projects had a system of near-miss reporting. In each case, workers could submit a card detailing a near miss in several locations around the site. ODA/CLM leaders stated that there had been under reporting of near misses and that action had been taken at some stage through the leadership teams to draw out best practice in both reporting and the setting of targets. It is not clear from the interviews with ODA/CLM leaders what the identified best practice was, although there are indications about what worked from case study participants at project level.

As mentioned previously, case study participants emphasised that the fact that cards could be submitted anonymously was an important way of encouraging use of the system. Senior managers also felt that explaining the ‘why’ of the system was also important in overcoming any reluctance to report issues. Incentives were also used to encourage near-miss reporting across the case study projects. However, it was suggested that this approach could affect the quality of near-miss reports.

There was a clear understanding from managers of the importance of giving feedback to issues raised (through near-miss reporting or more generally) or suggestions made by workers. This was felt to be key to engaging the workforce and founded on a widespread belief that if workers felt that nothing would be done if they raised an issue, they would stop raising them. Conversely, a sense of empowerment could be achieved if workers learnt that through their actions things could be changed. However, there were mixed views on the extent to which providing feedback on issues raised had been achieved. Some felt that there was generally a good response to issues raised, others felt that feedback was patchy. This was not attributable to hierarchical position, for example, it was not the case that operatives felt that they didn’t receive adequate feedback but supervisors or managers did.

Several managers acknowledged the challenges in providing feedback in a clear and accessible way. The most common form of communication was via notice boards in the canteen, although it became increasingly difficult to communicate the large number of near misses and actions taken without the presentation becoming cluttered or difficult to read. In one case, a rolling presentation on the canteen TV was used. Where possible, individual staff who had raised issues would be informed of the action taken, although this was clearly not possible where a problem had been raised anonymously. In addition, actions taken would be communicated via daily activity briefings and one health and safety manager reported using before and after photos to communicate action taken following the reporting of trip hazards.

On at least two of the projects, managers felt that the near-miss reporting had been a success and mentioned how the number of near miss reports had either increased substantially over time or represented a high number when looked at in terms of the duration of the project as a whole. Evidence from the survey of workers suggests that around 39 per cent of all respondents had reported a near miss (31 per cent of operatives), and of those respondents who had reported a near miss, the vast majority (87 per cent) were satisfied with how it had been dealt with.

Operative safety meetings were useful in engaging the workforce, especially when chaired by a project director or senior manager, but their usefulness depended on the ability of those involved to contribute effectively

All case study projects had a monthly meeting attended by an operative from each of the suppliers on the project. Meetings were often chaired by the Tier 1 project director or a

senior manager on the project, and in one case by a foreman. In some cases, the meetings were preceded by a walk around of the site. Operatives were referred to as volunteering to participate in the meetings, or in other cases as having been sent by their supplier (it is not clear in these cases whether they were volunteers or were chosen in some way). If there was a union representative on the project, they were also involved (they were also involved in inspecting the site as part of their role, but not in the conduct of accident investigations although they did receive the relevant reports).

In one case study, the union representative had voiced a concern about the level of engagement with health and safety of some of the operatives attending the meeting. Specifically, there was a perception that the supplier would choose whoever was available rather than perhaps an operative with an interest in safety. In this case, senior project leaders had made an effort via the Tier 2's to improve the situation. According to the union representative, this had been successful. On other case study projects, managers mentioned that some Tier 2 operative representatives were quite vocal in meetings and others less so. Whilst on some projects, managers talked about seeing the same 'hardcore' of faces at the meeting, there was also acknowledged to be changes in who attended the meetings. The lack of continuity could be a problem but it may also have had benefits in exposing a wider group of operatives to the importance given to safety on the project (by attending a meeting possibly chaired by the Tier 1 project director or senior manager).

Managers talked about operative meetings as an opportunity for issues to be raised, and as a mechanism for finding solutions and ways to improve health and safety on the Park. One manager reported that the safety meeting had identified some key problems, although he did not specify what these were. One Tier 1 director reported that operatives from the safety meeting had drafted a mobile phone-use policy with the support of management, and this was now in place. On a separate project, a manager reported that an operative had designed the pedestrian walkway signs. Examples were also provided of issues raised at a safety committee meeting reaching SHELТ and from there, leading to a number of actions on the Park.

There did not appear to be any specific training on how to be a representative on any of the case study projects. However, some of those involved as representatives on specific projects may have received training on identifying hazards.

It is not clear why a formal union safety committee arrangement was not adopted, although the worker survey suggests that only 18 per cent of the workforce were trade union members. In addition, in the two case studies where it was possible to talk with a union representative, they were the only trade union representative on the project.

Evidence from the worker survey suggests that the majority of workers felt consulted on most aspects of health and safety. For example, 74 per cent of operatives felt consulted on risk assessments relating to their own work, and 57 per cent felt consulted on how health and safety is managed.

Despite this, there were examples provided by the operatives where they had been consulted but in their opinion the issue had not been resolved satisfactorily. The two examples reported were both cases where operative views were in conflict with Park rules and procedures. For example, a common complaint in the operative focus groups was around the wearing of gloves and glasses (this was a requirement on the Olympic Park) and they referred to having problems carrying out certain tasks while wearing gloves and/or glasses. It was clear that efforts had been made on the projects to consult operatives and offer a choice of gloves and glasses, but this did not appear a satisfactory resolution from their perspective.

Rewarding and recognising good performance considered by managers as key to engaging workers

A commonly expressed view amongst senior managers and supervisors was the importance of rewarding and recognising staff, in part as a way of avoiding the impression that managers were solely finding fault and also to reinforce a culture that workers were valued. Celebrating good performance was also a way of maintaining the high profile of safety on the projects, and the Park more widely. It was emphasised that rewards did not need to be of high monetary value. The two incentives or rewards most commonly referred to were breakfast vouchers and branded badges or other items. It was acknowledged that the uniqueness of the project helped in terms of making workers feel valued.

“Reward and recognition, without a doubt. It’s got to be. If you don’t recognise them and don’t reward them, and it doesn’t have to be a car, it can be a free breakfast voucher. If you don’t do that and all you ever do is tell them negatives, negatives, negatives, they just look at you and go, yes, right. I can never please him so why should I bother?” (Tier 1 Project Director)

Awards were mentioned not just for individuals but also for contractors. For example, on one project there was a monthly award for a supplier, an individual worker and an award for the best observation (ie near miss) card submitted. On at least one project, there was also a scheme by which workers rather than senior management could nominate a colleague for carrying out a piece of work in a safe manner.

Behavioural-based safety orientation helped make safety personal to workers

Projects usually delivered a behavioural safety training course over two to three hours on a rolling basis to capture all new starters shortly after their induction. The sessions were delivered by managers, supervisors or trade union representatives from either Tier 1 or their suppliers rather than external companies. The sessions were described as quite informal and aimed at opening up a two-way dialogue with workers about safety, including their personal experiences of accidents. Managers from one case study project talked about using shorter, refresher courses on behavioural safety to reinforce the messages during the course of the project.

Approaches to behavioural safety orientation varied across the projects we visited, although the emphasis and main messages were the same. They focused on making safety personal and encouraged a dialogue with workers about their experiences of accidents and incidents, and asked them to think how their loved ones would be affected if they were involved in an accident. The training also promoted the message ‘look after your fellow worker and they will look after you’. As examples, managers mentioned using personal testimonies (live or via DVD) from those who had lost a loved one in an accident and staging performances of accidents or incidents by trained actors. This latter example was felt by the relevant project director to work well in engaging the workforce and had initially been promoted by the ODA. Both operatives and supervisors described personal testimonies as making an impact on them.

“The IIF is [Incident and Injury Free – a behavioural safety orientation] very good as well. I think 90 per cent of the guys that go through IIF are fully engaged with it. You get some very good feedback in the room. You get some good two-way communication going and most people get involved.” (Tier 1 Health and Safety Manager)

“But it does hit home, especially when you hear from someone that’s been there [lost someone in an accident at work], it really does. That day in particular, I know the girl myself, but that day particularly you wouldn’t hear a pin drop, felt so sorry for her.” (Operative 1)

“It [the behavioural safety training] makes you think.” (Operative 2)

Efforts were also made on at least one project to encourage operatives to challenge their colleagues by instigating a system by which groups of trained operatives observed and assessed a work area within their project that was not their own for health and safety issues, with the permission of those working in the area. These Sight Safety Performance System (SSPS) observations involved operatives using a tick sheet of around 30–40 questions to assess a work area. The findings were then fed back to the operatives working in the area at that time. Results from observations were analysed to see if any trends were apparent and whether any wider action needed to be taken, eg information provided through DABs or toolbox talks. The project director felt that the quality of observations tended to depend on the quality of the observer, and reported that efforts were made to both continually review the process and train the observers through regular monthly meetings. The project director noted that this had been in place in their organisation for some time and it was generally accepted as usual practice. In a similar vein, on one project it was reported that supervisors carried out a weekly Management Safety Report (MSR). This would involve pairing with another supervisor and inspecting an area they did not work in, looking for issues and good practice. This practice was felt by the supervisors involved to ‘keep them on their toes’.

When asked about behavioural safety, case study participants tended to focus on this type of training and did not talk about wider behavioural safety interventions focused on observing behaviour, collecting data and providing positive or negative reinforcement. However, it is clear that this wider behavioural safety approach was evident across the Park (and projects).

At project level, there was evidence of a commitment to learning from accidents and incidents, and a ‘fair blame’ culture

The general impression from the case studies conducted was that the accident/incident investigation process was fair, and there was a real effort made to learn the underlying causes of an accident or an incident. This view was expressed by trade union representatives and supervisors. Interviewees were able to give examples of investigations leading to changes in practice. It was also clear that if a worker was found to be repeatedly negligent they could be removed from site. However, it was also clear that efforts would normally be made to re-educate the worker first.

2.3 BENEFITS OF THE APPROACH TAKEN

The general impression from survey respondents was that the Olympic Park was a good and safe place to work. The vast majority (78 per cent) of respondents to the worker survey felt that the working conditions on their Olympic Park project were better than other projects not on the Olympic Park that they had worked on (the comparative figure for operatives alone was 81 per cent). Similarly, the vast majority of survey respondents (75 per cent) felt safer on their Olympic Park project when compared to other projects not on the Olympic Park they had worked on (the comparative figure for operatives alone was 78 per cent). There is also some evidence from the worker survey that working on the Olympic Park improved workers’ awareness of health and safety (79 per cent of all survey respondents reported an improvement in their awareness of health and safety), and also changed the way they personally looked after their health and safety at work (78 per cent of survey respondents).

Managers expressed the view that the approach taken had improved productivity and efficiency.

“I'm sure we're reaping the benefits there, because there's no downtime, there's no time spent on lengthy investigations or areas of site that are closed down, or things that can't happen because of poor safety performance or accidents or incidents. I'm sure we're probably saving money on the whole rework aspect. Quality right first time.” (Tier 1 Health and Safety Manager).

In addition, a perceived benefit of the approach taken was improved collaboration and communication between the people involved on the project, whether between operatives and supervisors, or between Tier 1s and their suppliers. A further perceived benefit was in smaller contractors seeing and experiencing the benefits of doing things differently and therefore potentially shifting their future approach.

Whilst interviewees acknowledged the difficulty in quantifying the benefits of the approach taken to worker involvement, they did mention that feedback from staff and results from the safety climate survey were useful indicators. Analysis conducted by the Health and Safety Laboratory (HSL) of the available safety climate survey data does show improvements over time across the vast majority of climate factors for the two of our case study companies for which data is available, although this is based on relatively low volumes of data.

2.4 HOW TRANSFERABLE IS THE APPROACH TAKEN TO LEADERSHIP AND WORKER INVOLVEMENT IN HEALTH AND SAFETY TO OTHER CONSTRUCTION PROJECTS AND OTHER INDUSTRIES?

The Olympic Park is unique in a number of ways, both in terms of the size and complexity of the project, the characteristics of the site itself, the resources available, its profile and kudos, etc. There are, however, direct reports from representatives of both Tier 1 and Tier 2 organisations about taking learning from the Park to their own organisations. Examples included:

- A Tier 1 contractor incorporating project leadership teams into future projects.
- A Tier 2 contractor's health and safety manager being incorporated into the organisation's head office to look at how learning could be transferred from the Olympic Park into their organisation.
- A Tier 2 manager explained how his organisation had run their own behavioural safety programme on the site and had been recognised as an exemplar of a medium-sized company. The programme is now being rolled out across the organisation's other sites.
- A Tier 1 contractor reported the rolling out of their behavioural-based safety training throughout their organisation in the UK and America.
- In addition, case study participants mentioned Tier 1s who had done things differently on this project compared to any others they had worked on, and were now intending to roll out the approach to the rest of their organisation.
- One of the CLM leaders had been charged with capturing learning for wider dissemination throughout his organisation.

In addition, there are likely to be wider legacies in terms of the upskilling of a section of the construction workforce, and the raising of expectations, particularly amongst the younger workforce, about what a good site should look like.

Case study participants recognised that the commercial environment was increasingly an enabling factor when considering the legacy of health and safety on the Olympic Park. For example, it was said that contractors are increasingly expected to have a behavioural-based training system in place.

Case study participants recognised that costs, culture and a lower level of monitoring could be barriers to the transfer of practices to other construction sites. However, a number of case study participants also recognised that a number of the practices and methods adopted were not complex and didn't necessarily involve a high cost. Rather, they required a belief in their value and a willingness to carry them out. For example, near-miss reporting systems are scalable but require a commitment to provide feedback either on the action taken or the reasons for inaction.

APPENDIX 1 ILLUSTRATIVE CASE STUDY

BACKGROUND

The ODA is the public body responsible for developing and building the new venues and infrastructure for the London 2012 Olympic and Paralympic Games and their use after 2012. One of the key responsibilities of the ODA was building the Olympic Park, where many of the events and activities in 2012 will take place.

The Olympic Park area had previously been characterised by largely industrial land which was fragmented, polluted and divided by waterways, overhead pylons, roads and railways. Major ground clearance works were therefore required before the site could be developed.

The construction phase involved creating major venues for use during and after the events of 2012 (eg Aquatics Centre, Olympic Stadium), as well as the landscaping of new parklands and extensive infrastructure development.

ODA was a 'thin' construction client and appointed CLM Delivery Partner Ltd to undertake much of the work on its behalf. CLM (an organisation drawing staff from CH2M Hill, Laing O'Rourke and Mace) was the delivery partner appointed by the ODA to manage the construction programme for venues and infrastructure in the Park. CLM was responsible to ODA for ensuring that the construction work was delivered on time, to budget and to the specified quality. CLM was also appointed as principal contractor for certain areas of the Park. The work was organised via primary contractors who took overall responsibility for their individual projects (eg the building of the Aquatics Centre). These were called Tier 1 contractors. Their sub-contractors Tier 2s and their sub-contractors Tier 3s etc.

THE CHALLENGE

The core vision for the project included it setting a new benchmark in construction. On such a large project with multiple Tier 1 contractors, and each of those with multiple sub-contractors, a key challenge was helping others understand the rationale for safety and encouraging them to engage with it proactively; in other words, encouraging ownership of health and safety throughout the supply chain.

Project leaders recognised that safe systems and processes were not enough, and there was a need to foster leadership on health and safety through all levels of the project.

Key elements of the approach taken included engaging with the supply chain, high levels of (formal and informal) communication, behavioural-based safety and monitoring of worker views.

LEADERSHIP

Project leaders engaged with Tier 1 contractors through the Safety, Health and Environment Leadership Team (SHELT). SHELT tackled strategic issues across the Park and encouraged a collaborative approach to problem solving. Park-wide initiatives originating from SHELT included a behavioural safety practice course for supervisors and common visual standards.

A monthly health and safety forum attended by senior managers from each of the projects was used to share learning across the Park and to review any accidents, near misses or incidents that had occurred.

Each Tier 1 contractor set up and operated a Project Leadership Team (PLT) chaired by a Tier 1 senior manager and attended by Tier 2 senior managers. These provided a useful forum for health and safety issues and statistics to be discussed, and for key lessons to be identified from any incidents. They were also a vehicle whereby initiatives from SHELТ were passed down to project level. PLTs enabled a collaborative approach to problem solving at the project level.

Through the mandatory behavioural safety practice course initiated via SHELТ, an emphasis was placed on developing supervisors' soft skills, including their ability to develop an open, two-way dialogue with the workforce. Individual Tier 1 contractors supplemented this with additional training for supervisors on leadership. As well as a focus on leadership, all supervisors on the Park need to be SSSTS (Site Supervisor Safety Training Scheme) qualified. Individual Tier 1 contractors have gone beyond this requirement with all supervisors on particular projects needing to be qualified to SMSTS (Site Management Safety Training Scheme) level.

The commitment of both project leaders and Tier 1 senior managers to health and safety was reinforced through their regular presence on site. Engagement tours happened regularly on site and involved senior managers touring the site and asking for feedback from workers on any issues or concerns. If unsafe behaviour was spotted, this was dealt with directly by asking open questions and encouraging the worker to think about their actions.

"The way you can talk to management here, and the way they act on a problem, I think is different [to other large contractors]." (Operative)

"It's just nice being backed up, I suppose, so if you actually say you don't think it's safe, you know that your supervisor's going to back you to the hilt, really." (Operative).

BEHAVIOURAL-BASED SAFETY

All new starters on the Park received both a Park induction and an induction for their specific project. The Park induction was the first point at which new starters were introduced to the culture on site and messages such as 'not walking on by' and challenging unsafe behaviour were promoted.

Induction to individual projects focused on the work being done and often included a slot for senior managers to promote messages on safety. All new starters attended a behavioural-based safety orientation as part of their induction. The purpose of this was to make safety personal to workers, and to promote key messages such as 'if you look after your colleagues, they will look after you'. The session typically lasted three to four hours and was designed to open a dialogue with workers about safety, their relationship with it, and how they can make a difference. Individual projects included DVDs of personal testimonies from those who have experienced injury through accidents at work or lost loved ones. Individual projects have trained supervisors and operatives to deliver this training. Some projects have used dramatisations of accidents by trained actors, followed by questions from an audience of workers about why the characters took the decisions they did, in order to engage workers with health and safety.

Individual projects have engaged workers in health and safety by operating a system of site observations. Groups of trained workers inspect a work area and observe the work being done with the agreement of those present. The observers encourage feedback and help to solve problems. Observers are selected, and include operatives and sub-contractors.

COMMUNICATION

Pre-task briefings were delivered by supervisors to their teams on a daily basis before starting work. These daily activity briefings (DABs) provided an opportunity to assess the key safety risks associated with the day's work and to engage the workforce in understanding and managing risk. They provided an opportunity for workers to highlight any issues or concerns. Individual projects have provided training to the workforce in identifying hazards to help encourage involvement in health and safety issues. Other projects provided scaled-down method statements in a 'Blue Pack' to workers with only the tasks relevant to their work included.

Employee involvement at project level was encouraged through monthly safety circles or meetings. Worker representatives from each of the Tier 2 contractors attended them. Workers could raise issues with their supervisors or management directly, or via their representative at the safety circle. The meetings were also used as a general forum for the discussion of health and safety issues, where the question – 'where is the next accident going to come from?' could be asked. On individual projects, worker representatives were given high visibility jackets so that they could be easily identified on site by workers. Where there was a union representative on the project, they also attended the safety circles or meetings.

All projects had a card-based system for the reporting of near misses. Cards could be submitted anonymously and dropped in 'post-boxes' at a number of locations across the site. An emphasis was placed on feeding back on the action taken in response to near misses reported or, if no action was taken, the reasons behind the decisions,. Individual projects provided feedback using:

- spreadsheets displayed in the site canteen
- a rolling loop on the TV in the site canteen
- before and after photos, and
- where possible, feedback to the individual who raised the near miss.

Regular briefings were held in site canteens at key times during the year (eg after holiday periods) to update workers on progress with the project, review any accidents and think about the risks with upcoming work. Briefings were delivered by Tier 1 senior managers and were designed to refocus minds back on the work. Individual projects used briefings whenever there was a fatality in their organisation, or more broadly in the construction industry. This was sometimes accompanied by a minute's silence and again was designed to focus workers' minds on the potential consequences of unsafe behaviour.

"Health and safety is high priority and you can take [an issue] to the supervisors, management... and nothing goes against you sort of thing." (Operative)

REWARD AND RECOGNITION

Individual contractors received awards from members of SHEL T at the monthly health and safety forum. Awards have been given out for training, health and safety performance, and improvement in occupational health. Individual projects ran their own reward and recognition schemes, providing small incentives such as breakfast vouchers and limited edition badges to workers who were seen to be working safety, who reported significant near misses or who stopped work due to unsafe conditions. On some projects, individual workers were nominated by their colleagues. There was also recognition of sub-contractors by Tier 1s

for safe practice or for reaching certain milestones, such as one million man-hours worked without an accident.

FEEDBACK

Data was collected on the health and safety climate through a regular survey. In addition, Tier 1 contractors also completed a behavioural maturity matrix on more than one occasion. This was used to assess where an organisation was in terms of its behaviours and culture with regard to safety at a number of levels, from the leadership, through to the management and supervisors and to the workforce, and to plan action to improve the situation.

BENEFITS

Leadership and worker engagement on the project has helped bring about many benefits to the project including:

- an AFR of 0.17
- twenty-two periods of one million man-hours worked without a RIDDOR-reportable injury accident
- recognition of ODA commitment to health and safety by the British Safety Council
- improvements in near-miss reporting on individual projects
- superior 'all accidents rating' amongst some individual Tier 1 contractors compared with their own organisation's other operating units in the UK
- a reported downward trend on lost time incidents, total injury accidents and RIDDORs over the duration of individual projects
- improvements in safety climate over time.

APPENDIX 2 DETAILED METHODOLOGY

DATA REVIEW AND SELECTION OF CASE STUDIES

The project was allocated five projects taking place on the Olympic Park to involve in the research as case studies. The allocation was made as part of the wider Learning Legacy research programme. The first task of the research was therefore to use a variety of data sources to ensure that the sites allocated to the research covered the sufficient diversity of approach and health and safety outcomes necessary.

Data was made available to the research team which outlined, for each project:

- the AFR
- the number of near misses
- the number of reported incidents in the previous reporting period
- the climate tool factor scores on: engagement in health and safety, accident and near-miss reporting, organisational commitment to safety, health and safety trust, and training.

Following a review of this data it was determined that the allocated projects would allow sufficient variation in approach, as far as it was possible to tell, to represent a useful sample for the research.

CASE STUDIES

The main element of the research was case studies carried out on individual projects or work packages. The aim of the case studies was to understand more fully the approach taken to incorporating L&WI in health and safety management on each project, examine views on how well these had worked in practice and to consider the perceived impact of the various initiatives on engagement levels and health and safety performance.

There were two types of case study:

- Project-level case studies which were organised through ODA and Principal Contractors.
- A site-level case study of senior management within ODA and CLM.

Project-level case studies

In order to understand how communication travels across complex and lengthy supply chains, it was important to include operatives and supervisors in the research as well as managerial level staff.

The precise number of staff involved in each case study varied depending on the size of the site, the profile of the workers involved and the availability of key staff on the day of the visit(s). The template for case study visits (ie the intended sample) is provided in Table A1.1. Further details of participants are provided in Appendix 3. The purpose of including all these groups was to form a 360 degree view of how the site operated from all interested parties.

Table A1.1 Template for case study work

<i>People required</i>	<i>Engagement required</i>
Tier 1 Project Director	1.5 hour interview
Tier 1 Project Manager	1.5 hour interview
CLM Project Manager	1.5 hour interview
H&S Manager	1.5 hour interview
6 Operatives	1 hour focus group
6 Supervisory personnel	1 hour focus group
1 or 2 trade union representatives (or worker representatives if site is not unionised)	1 hour interview x 2
2 Tier 2 managers	1 hour interview x 2

Research with these groups was carried out using individual interviews carried out face to face on the site. Focus groups were typically used with operatives and supervisors/foremen, and allowed a range of workers to come together to discuss issues, thus achieving a wider view.

The interviews were semi-structured and informed by a discussion guide (an example of the discussion guide used with the Health and Safety Manager is provided in Appendix 4. This is the most detailed guide and covers the majority of questions used in the other guides). Questions were asked to Tier 1 staff about health and safety leadership and management on site (and specific initiatives aimed at L&WI), the drivers to this approach, and how they believe it impacted on health and safety culture and performance. Supervisory staff at lower tiers were asked for their views on the communication channels and the impact of any initiatives. Workers were also asked for their views on health and safety practices on site, and how well they had been consulted on health and safety issues.

Although the research team were allocated five case study projects, in practice it was only possible to speak to representatives of four of these. The fifth project declined to participate, leaving insufficient time to find a replacement.

Site-level case study

In addition to the project-level case studies, a ‘site-level’ case study was also conducted. This involved interviews with senior members of the ODA and CLM. A total of seven interviews were conducted. The site-level case study also involved a researcher attending a SHELТ meeting, and the analysis of a range of secondary documents such as the SHELТ minutes, policy documents and communications.

Analysis of interview data

All interviews and focus groups were recorded using digital audio equipment, following permission from the participants. The recordings were transcribed. Using these transcriptions, the findings for each project/site were compiled into a detailed project write-up. Analysis was then undertaken using a series of internal workshops which explored:

- the L&WI initiatives in place on each site/project visited

- the drivers of the approach taken
- the views and experiences of each of the different types of interviewee with respect to these initiatives, what worked well/not so well, barriers and enablers
- the perceived benefits of the approach taken and the transferability of any initiatives to other sites.

Themes were identified in these workshops and used, in addition to write-ups of each project, to inform the final report.

WORKER SURVEY

In order to gain access to a wide range of workers, and to allow workers not involved (or selected by management to participate) in the case studies to contribute to the research, a worker survey was conducted. Surveys were handed out to workers in three different works' canteens. The survey involved a short six-page paper-based survey which asked workers a series of simple questions about the use of L&WI initiatives on site. The canteens selected involved two projects that participated in the research as project-level case studies plus one other. The survey represented a way of collecting data that presented no burden on contractors and little on workers as the surveys were administered during regular meal breaks.

The site visits were conducted in March 2011 visiting the following projects:

- Logistics (which resulted in 180 completed forms)
- Aquatics Centre (which resulted in 194 completed forms)
- Bam Nuttal (which resulted in 144 completed forms).

The interviewing/questionnaire completion was conducted between approximately 9.30am and 2pm each day, with workers using each canteen being offered the opportunity to complete the form. Workers were selected entirely at random as they used the canteen, with researchers moving around the canteen explaining the survey and what was required of participants. Their aim was to ask everyone present to complete a form. As forms were completed researchers handed out £2 lottery scratch cards as a thank you for participating.

It was therefore not possible to determine a precise response rate, but the estimates of researchers handing out the surveys was that around 90 per cent of those present in the canteen completed the survey on any given day. In one canteen (Bam Nuttal), as numbers were small, it was more or less a census of all users that day. In the Aquatics canteen, which was larger, the proportion of workers offered the opportunity to complete the survey would have been slightly lower due to the logistics of getting round the entire canteen and offering the survey.

There was no discernible difference in response rates to completing the form, apart from the observation that people who sat on their own in a canteen were more likely to be reluctant than those in groups. It is possible also, again from observation, that smokers who did not enter the canteen might have been less likely to have had the opportunity to complete the form as it was not always easy for researchers to leave the canteen.

In some cases workers were helped to complete the form if their eyesight or English was weak. This was not offered as a matter of course, only if an individual requested it.

APPENDIX 3 PROJECT-LEVEL CASE STUDY PARTICIPANTS

Table A3.1 Details of case study participants in each of the project-level case studies

<i>Case study</i>	<i>Role</i>	
Aquatics Centre	Tier 1 Project Director	-
	Tier 1 Project Manager	1
	Tier 1 H&S Manager	1
	Tier 2 Manager	2
	Operative Forum	5
	Supervisory personnel	6
	Trade union representative	1
	CLM Project Manager	1
	No. of participants	17
Olympic Stadium	Tier 1 Project Director	1
	Tier 1 Project Manager	1
	Tier 1 H&S Manager	1
	CLM Project Manager	1
	Tier 2 Manager	1
	Operative Forum	4
	Supervisory personnel	4
	Trade union rep	1
No. of participants	14	
Logistics	Tier 1 Project Director	1
	Tier 1 project Manager	1
	Tier 1 H&S Manager	1
	Tier 2 Manager	1
	No. of participants	4
Skanska	Tier 1 Project Director	1
	Tier 1 Project Manager	1
	Tier 1 H & S Manager	1
	Operative Forum	6
	Supervisory Personnel	2
	CLM Project Manager	1
	No. of participants	12
Total	All participants in project-level case studies	47

APPENDIX 4 EXAMPLE CASE STUDY DISCUSSION GUIDES

Discussion Guide: Tier 1 Health and Safety Manager

Briefing for interviewee

- Thank you for agreeing to be interviewed.
- Introduce self and IES: IES is an independent, not-for-profit research and consultancy organisation. The evaluation is funded by HSE and ODA, but we are an independent evaluator so they are able to speak freely.
- Purpose of evaluation – what we’re doing on site – looking at leadership and management, and levels of worker involvement/engagement on the site. This project has been selected as a case study so we’re doing more interviewing to find out about their experiences of working on site and, where relevant, their contact with the CLM/ODA team/services.
- Check availability of interviewee (ie how long they have for discussion), but stress that this interview should last no longer than an hour and a half. Assure interviewee that no-one from HSE or ODA will have access to the detailed interview notes or tapes at any time. Any material we use from this interview will be quoted anonymously in the final report. The purpose of the study is *not* to judge individuals and there are no right or wrong answers. If necessary state that any specific concerns they have about confidentiality can be taken account of, they can also, at any point, speak ‘off the record’ and we won’t use this material in the reports.
- Ask for agreement to tape the interview as this saves time in having to take notes and enables thorough analysis. If meet with objections, take notes instead – ensure interviewee is comfortable with tape recording (ie informed consent is given), rather than assuming this will be the case. Explain that access to the tape recordings will be limited to the core research only, and following completion of the project these will be destroyed.
- Any questions at this stage before we begin?

Background, role and organisation of work

What is your job title and how would you describe your role to someone?

- Determine main responsibilities*
- Length of time in construction*
- Length of time as a health and safety manager*

Could you give me a brief overview of your involvement with this project?

- When did you start working here and when will you finish?*
- At what stage did you get involved in the project (ie were they involved from the start or did they come on board for a particular phase/process)?*

Please give me an overview of the company you work for?

- Number of employees?*

- Number of projects in UK/abroad annually?*

What are the main construction activities on this project and how is work organised?

- Main processes and equipment*
- Number of workforce involved at each stage and their skills*
- Overall structure (ie project team structure, including number and type of sub-contractors)*

What are the main H & S risks you have managed on this site?

- What preventative work/control measures have you used?*

Probe for particular risks posed by working on this project.

Organisation of health and safety on the project

How is responsibility for health and safety organised on this project ie who has responsibility for what?

How are role holders encouraged to take health and safety seriously ie appraisals, training etc?

Health and safety culture and leadership

What is the official line on the importance of safety versus production on this project?

- Is this message consistent through the supervisory chain?*
- Is this message consistent across tier 2 contractors working on the project?*

What is your role in/how are you involved in:

- safety tours/inspections*
- project leadership team*
- monthly health and safety forums*
- health and safety committees/meetings with representatives from the workforce*
- site walk arounds*
- SHELT*

For each of the above, probe on:

- the composition of the group*
- frequency*
- what they involve, their purpose (for the health and safety meetings with representatives from the workforce, the scope of the meeting is also important)*
- how well it is perceived to work (not work) and why?*

- *how it has improved worker engagement/health and safety behaviours/practices (ask them to provide examples if possible)*

How do you encourage safe working on the project?

Probe for how they encourage safe working amongst:

- *tier 2 contractors*
- *line managers*
- *supervisors*
- *workers*

eg, acting as a role model by wearing personal protective equipment (PPE), challenging unsafe working, encouraging open and honest dialogue with the workforce, reinforcing positive behaviours, etc.

- *Probe for what they think the best methods are for encouraging safe working? And why?*

Worker engagement and representation

How are workers involved in health and safety on the project?

Probe for:

- *health and safety committees/forums*
- *daily activity briefings (DABs)*
- *behavioural safety programmes*
- *project stand downs (eg time out or stop for safety)*
- *reward and recognition programmes*
- *near-miss reporting*

For each of the above, probe on:

- *What and who they involve?*
- *How well they are perceived to work/not work and why?*
- *benefit in terms of involving workers, improving health and safety attitudes/behaviours/practices (ask them to provide examples if possible)*

How are any issues raised by workers or their representatives dealt with and feedback provided?

Ask for examples.

How receptive do you think management on this project is to suggestions from the workforce on health and safety?

Probe for any differences between levels of management. Ask for examples.

How would you characterise worker involvement on this project?

What are the worker representation arrangements on this project?

- How many representatives are there and how are they selected? How is this decided? (eg work groups or areas of work). Note: we are talking about both non-unionised and elected reps.*
- Are reps union appointed? If yes, probe on arrangements (eg which union, how long they've had health and safety reps, the role of the rep). If not, probe on alternative arrangements.*
- What priority is attached to worker and employee representatives training on H&S?*
- What functions do the reps have? How do the unionisation arrangements affect how the reps operate? Do unionised reps have the same or different roles to non-unionised?*
- Are these arrangements different from what's in place in the company on other projects? If so, how and why?*

(If not already covered above.) How does broader worker consultation take place on this site? What arrangements are in place? *Explore both formal and informal mechanisms (eg committees versus informal talks), for example:*

- individual consultation mechanisms*
- selection of representatives (how many, how decided?)*
- use of structured forums*
- joint consultation of union and non-union reps*
- how are the needs of workers considered in consultation options (eg literacy, language, shift patterns)?*

What key topics and risks are covered by the consultation process?

What works best and why? How do they know?

Communication of health and safety information

What information on health and safety do you receive from SHELTT?

Probe for:

- how this is used?*
- how useful it is?*
- how effective is it in encouraging safe working/worker involvement in health and safety? Ask for examples*

Do you receive any other information on health and safety from either ODA or CLM? If so, what?

Probe for:

- how this is used*
- how useful it is*

- *how effective is it in encouraging safe working/worker involvement in health and safety? Ask for examples*

What induction do new staff receive on health and safety?

Probe for whether this is different to other projects they have worked on and why. Probe for how effective this is in encouraging worker involvement, and encouraging safe working.

Drivers of approach

Who has influenced the approach you have taken on leadership and worker involvement in respect of health and safety?

Probe for influence of?

- *the ODA*
- *CLM*
- *the HSE*
- *their own organisation*

Where appropriate, ask how they have influenced their approach?

Impact, benefits and transferability

Thinking about the things we have discussed, are there things that you think have worked particularly well? And why?

Thinking about the things we have discussed, are there things that you think have worked less well? And why?

Overall, how do you know whether the approach you have taken to leadership and worker involvement in health and safety is working (if that is the case)?

This could include accident and incident rates, performance according to behavioural safety matrix, scores on the climate survey, number of near-miss reports etc.

Thinking about the things we have discussed, what do you think the benefits of the approach taken to leadership and worker involvement in health and safety on the project have been?

- This could include improved skills and knowledge, improved working relations between supervisors and operatives, greater efficiency (taking time to get things right first time), greater productivity, reduced accidents and incidents etc., improved health and safety attitudes and behaviour/practices.

What aspects of the approach taken to leadership and worker involvement in health and safety do you think could work on other projects eg could DABs work on other projects? And why?

Are there any aspects of the approach that you have taken to leadership and worker involvement in health and safety that would work less well on other projects? And why?

Is your organisation taking any initiatives or practices with respect to leadership and worker involvement in health and safety from this project and using them on other projects?

Overview

What, in your experience, specifically helps the development of a good safety culture and how do you go about building one?

- How important is leadership?
- How important is worker involvement?

What do you feel are the most effective ways of promoting effective H&S leadership? How are they demonstrated on this project?

What do you feel are the most effective ways of promoting true worker involvement in H&S? How are these demonstrated on this project?

Allow opportunity to add any final comments/thoughts.

Thank and close.

APPENDIX 5 WORKER SURVEY INSTRUMENT

HEALTH AND SAFETY ON THE OLYMPIC PARK?

CONFIDENTIAL TO EMPLOYMENT RESEARCH AND INSTITUTE FOR EMPLOYMENT STUDIES

We want to find out what you think about health and safety on the Olympic Park.

This is not an exam. There are no right or wrong answers. Please answer these questions as honestly as you can. It shouldn't take you very long to do (approximately 5-10 minutes).

We are doing this to try and improve conditions for people working in construction. We won't share your answers with anyone else.

When you have finished please give the questionnaire to the researcher.

WE'RE REALLY GRATEFUL FOR YOUR HELP. AS A THANK YOU YOU CAN PICK UP YOUR FREE LOTTERY SCRATCH CARD WHEN YOU HAND IN YOUR QUESTIONNAIRE.

PLEASE TURN OVER TO START

About you

Q1 How old are you? Years: _____

Q2 How long have you been working on the Olympic Park? Years: _____
Months: _____

Q3 Are you a supervisor, foreman or someone who supervises the work of others? Yes 1
No 2

Q4 Are you a manager? Yes 1
No 2

Q5 Are you working on site for...? (please tick one option only) A Tier one/principal contractor..... 1
A sub-contractor 2
Don't know..... 3

Q6 Are you...? (please tick one only) An employee 1
An agency worker 2
Self-employed..... 3

Q7 Are you a member of a trade union? Yes 1
No 2

Q8 Have you come to work in the UK in the last five years? Yes 1
No 2

Q9 Do you work in the construction industry? Yes (**go to Q10**)..... 1
No (**go to Q11**)..... 2

Q10 How long have you been working in construction? Years: _____
Months: _____

Q11 Which Olympic project are you currently working on? (please tick one option only)

- | | | |
|--|--|---|
| Enabling works North project. <input type="checkbox"/> 1 | Carpenters Lock bridge <input type="checkbox"/> 10 | Aquatics..... <input type="checkbox"/> 19 |
| Enabling works South project <input type="checkbox"/> 2 | Utilities: Deep sewer <input type="checkbox"/> 11 | Basketball..... <input type="checkbox"/> 20 |
| Landscaping North project..... <input type="checkbox"/> 3 | Utilities: Networks..... <input type="checkbox"/> 12 | IBC/MPC (media centre)..... <input type="checkbox"/> 21 |
| Landscaping South project <input type="checkbox"/> 4 | Energy centre <input type="checkbox"/> 13 | Waterpolo..... <input type="checkbox"/> 22 |
| Greenway <input type="checkbox"/> 5 | Primary substation <input type="checkbox"/> 14 | Eton Manor..... <input type="checkbox"/> 23 |
| North Loop Road <input type="checkbox"/> 6 | Logistics <input type="checkbox"/> 15 | Athletes' Village <input type="checkbox"/> 24 |
| South Loop Road..... <input type="checkbox"/> 7 | Stadium..... <input type="checkbox"/> 16 | Other (please specify) <input type="checkbox"/> 25 |
| | | |
| Rail bridge/stadium bridge <input type="checkbox"/> 8 | Velopark <input type="checkbox"/> 17 | |
| Wetland bridge..... <input type="checkbox"/> 9 | Handball <input type="checkbox"/> 18 | |

Q12 How long have you been working on this project?

Years: _____

Months: _____

Please answer the following questions about the current Olympic project you are working on.

Your involvement in health and safety issues

Q13 Do you have an employee/union representative on the project? Yes (go to Q14)..... 1
No (go to Q16)..... 2
Not sure (go to Q16)..... 3

Q14 Do you know who your employee/union rep. is on the project? Yes 1
No 2
Not sure..... 3

Q15 Have you ever gone to your employee/union rep. with a health and safety issue? Yes 1
No 2
Not sure..... 3

Q16 Do you get information on...? (please tick all that apply)

- a. Changes to the law on health and safety
- b. Changes to your company's policy on health and safety
- c. Changes to health and safety practice on the work you are doing
- d. Information on health and safety risks/hazards with the work you are doing
- e. Information on incidents and near misses on the project
- f. Information on health and safety performance on the project (e.g. number of accidents)
- g. Outcomes of safety audits/inspections on the project

Q17 How do you find out about health and safety issues on the project? (please tick all that apply)

- a. Health and safety inductions
- b. Daily activity briefings (DABS)
- c. Toolbox talks
- d. Training sessions on health and safety
- e. Stand-down briefings (e.g. take time for safety)
- f. Notice boards
- g. Handbooks
- h. Bulletins/news sheets
- i. Data sheets/written instructions.....
- j. Face-to-face contact with your immediate boss (this could be a charge hand, foreman, supervisor or manager)
- k. Informally through contact with colleagues
- l. Electronically to PC/PDA/mobile phone.....

Q18 Which of the above sources of information do you find most useful? (please enter up to three letters from A to L from Q15 above)

Most useful: Second most useful: Third most useful:

Q19 What arrangements are available on the project for you to get involved in health and safety? (please tick all that apply)

- a. Through your employee/union reps.....
- b. Through day to day contact with your immediate boss (this could be a charge hand, supervisor or manager)
- c. Staff suggestion schemes (e.g. suggestion boxes).....
- d. Meetings
- e. Safety tours/inspections

Q20 How do you personally get involved in health and safety decisions on the project you are working on? (please tick all that apply)

- a. Through your employee/union reps.....
- b. Through day to day contact with your immediate boss (this could be a charge hand, supervisor or manager)
- c. Staff suggestion schemes (e.g. suggestion boxes).....
- d. Meetings
- e. Safety tours/inspections

Q21 Are you ever consulted (i.e asked for your views and opinions) on the following...? (please tick one option only on each line)

		Yes	No	Not sure
a. Health and safety policies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
b. How health and safety is managed	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
c. General risk assessments	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
d. Risk assessments relating to your work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
e. The likely risks in your work and precautions you should take	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
f. The precautions that should be taken when an incident or accident happens	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
g. The likely risks of future plans for new procedures, ways of working, equipment or materials	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
h. Your health and wellbeing	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
i. First-aid procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
j. The action that's taken when there is a near miss	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
k. The planning of health and safety training	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
l. Other? Please state:	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
.....				

Q22 How regularly do you discuss health and safety issues with your immediate boss (e.g charge hand, foreman, supervisor or manager) on the project? (please tick one option only)

- All the time..... 1
- Sometimes 2
- Not very often 3
- Never 4

Q23 How involved do you feel in health and safety decisions on the project? (please tick one option only)

- Very involved 1
- Quite involved 2
- Not very involved 3
- Never 4

Q24 How comfortable would you feel raising a health and safety issue on the project? (please tick one option only)

Very comfortable 1 A little uncomfortable 3
 Quite comfortable 2 Very uncomfortable 4

Your experiences on the project

Q25 Whilst working on the project have you...? (please tick one option only on each line)

	Yes	No	Not sure
a. Had an accident or injury at work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. Seen a colleague have an accident or injury at work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
c. Had a health problem caused or made worse by work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
d. Made suggestions about how to improve health and safety on the site	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
e. Experienced a near miss	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
f. Reported a near miss (go to Q26)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

Q26 If you reported a near miss, were you satisfied with how this was dealt with? Yes..... 1

No..... 2

Q27 Since working on the project has...? (please tick one option only on each line)

	Improved a lot	Improved a little	Stayed the same	Got worse	Got much worse
a. Your awareness of health and safety issues	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. The way in which you look after your health and safety at work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

What you think about health and safety on the project

Q28 Is this the first construction project you have worked on? Yes (go to Q30)..... 1

No (go to Q27)..... 2

Q29 How would you rate this project compared to projects not on the Olympic Park that you have worked on...? (please tick one option only on each line)

	Much better	A little better	About the same	Worse	Don't know
a. How involved you are in health and safety decisions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Managers' commitment to health and safety	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. How managers respond to suggestions made about health and safety	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. How clear the health and safety information provided is	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. The opportunity to raise health and safety issues	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. How managers respond to health and safety concerns that are raised	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. The visibility of managers on site (i.e how often you see managers on site)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. How regularly you get information about health and safety	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

- i. How near misses are dealt with 1 2 3 4 5
- j. The availability of personal protective equipment (e.g. gloves, masks) 1 2 3 4 5

Q30 How would you rate the working conditions on this project compared to projects not on the Olympic Park that you have worked on?

- Much better..... 1 Worse 4
- A bit better..... 2 A lot worse..... 5
- About the same..... 3

Q31 How safe do you feel on this project compared with other projects not on the Olympic Park that you have worked on?

- Much safer..... 1 Not as safe..... 4
- A bit safer..... 2 Much less safe..... 5
- Just as safe..... 3

Q32 Are there any risks that you think could be better managed on the project that you are working on? (please state what risks)

Q33 On the project, how much do you agree with the following things...? (please tick only one box on each line)

- | | Strongly disagree | disagree | Neither agree not disagree | Agree | Strongly agree |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| a. My boss would like me to stop work, rather than put my health and safety at risk | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| b. I get enough information about health and safety to be able to work safely | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| c. Meeting deadlines is more important than health and safety | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| d. Health and safety does not seem to be important on this project | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| e. I sometimes feel pressured to work unsafely | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| f. I would feel comfortable raising a health and safety concern with colleagues | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| g. Supervisors on this site are committed to health and safety | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| h. I can talk to my boss about health and safety | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| i. My opinion matters on this project | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| j. I understand why we are asked to do things in a certain way | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

Thank you for your time. Don't forget to pick up your free lottery scratch card.

Appendix 6 Worker survey results

Profile

Table A2.1 Age of workers

	<i>Frequency (N)</i>	<i>%</i>
Under 25	83	16.4
26 to 35	159	31.4
36 to 45	134	26.4
46 to 55	94	18.5
56 or over	37	7.3
Total	507	100
Missing	11	
Total	518	100

Source: IES survey of workers on the Olympic Park, 2011

Table A2.2 Length of time working on the Olympic Park

	<i>Frequency (N)</i>	<i>%</i>
Less than a year	132	26.1
1 year	147	29.1
2 years	111	21.9
3 years	76	15.0
4 years	31	6.1
5 years	6	1.2
6 years or more	3	0.6
Total	506	100
Missing	12	
Total	518	

Source: IES survey of workers on the Olympic Park, 2011

Table A2.3 Whether a worker, manager or supervisor

	<i>Frequency (N)</i>	<i>%</i>
Manager	34	6.7
Supervisor and manager	43	8.4
Supervisor	97	19.0
Worker	336	65.9
Total	510	100
Missing	8	
Total	518	

Source: IES survey of workers on the Olympic Park, 2011

Table A2.4 Who respondent was working on site for

	<i>Frequency (N)</i>	<i>%</i>
A Tier 1/Principal contractor	179	35.9
A sub-contractor	288	57.8
Don't know	31	6.2
Total	498	100
Missing	20	
Total	518	

Source: IES survey of workers on the Olympic Park, 2011

Table A2.5 Respondent's working arrangements

	<i>Frequency (N)</i>	<i>%</i>
An employee	357	70.3
An agency worker	80	15.7
Self-employed	71	14.0
Total	508	100
Missing	10	
Total	518	

Source: IES survey of workers on the Olympic Park, 2011

Table A2.6 Whether respondent is a member of a trade union

	<i>Frequency (N)</i>	<i>%</i>
Yes	93	18.3
No	415	81.7
Total	508	100
Missing	10	
Total	518	

Source: IES survey of workers on the Olympic Park, 2011

Table A2.7 Whether respondent came to the UK in the last 5 years

	<i>Frequency (N)</i>	<i>%</i>
Yes	117	23.4
No	384	76.6
Total	501	100
Missing	17	
Total	518	

Source: IES survey of workers on the Olympic Park, 2011

Table A2.8 Whether respondent works in the construction industry

	<i>Frequency</i>	<i>%</i>
Yes	432	88.7
No	55	11.3
Total	487	100
Missing	31	
Total	518	

Source: IES survey of workers on the Olympic Park, 2011

Table A2.9 Projects worked on

<i>Project</i>	<i>N</i>	<i>%</i>
Enabling	41	8.4
Landscaping	34	7.0
SBH*	66	13.5
Utilities	24	4.9
Energy	6	1.2
Venues	244	50.0
Athlete village	1	0.2
Other	21	4.3
Multiple projects	51	10.5
Total	488	100
Missing	30	
Total	518	

* *SBH – structures, bridges, highways*

- Table A2.9 shows that half of the survey respondents (50.0 per cent) were employed on one of the venues with the second highest proportion of respondents being employed on structures, bridges and highways. Over 10 per cent of the respondents stated that they worked on more than one project across the Olympic Park.
- With respect to the projects the research team visited as case studies, there were 43 workers from Logistics, 177 workers from the Aquatics Centre, 4 workers from Skanska and 5 workers from the Olympic Stadium who responded to the survey.
- When identifying their role, 34 respondents identified themselves as managers but as not having supervisory responsibilities; 43 as having both supervisory and managerial responsibilities; 97 as having supervisory responsibilities; and 336 as having neither managerial nor supervisory responsibilities. When comparing responses we have looked at three groups: those identifying themselves as managers (some of these respondents also identified themselves as having supervisory responsibilities); those identifying themselves as having supervisory responsibilities (some of these respondents also identified themselves as having managerial responsibilities); and operatives (ie those without managerial or supervisory responsibilities). Caution is needed when interpreting the results for both managers and supervisors due to small sample sizes (there were less than 100 managers, and also less than 100 supervisors). It was not possible, for the most part, to compare responses within these groups by principal or sub-contractor due to small cell sizes.

INVOLVEMENT AND COMMUNICATION OF HEALTH AND SAFETY ISSUES

Table A2.10 Types of health and safety information received by survey respondents

<i>Do you get information on ...</i>	<i>N</i>	<i>% of cases</i>
Information on health and safety risks/hazards with work being done	412	85.1
Information on incidents and near misses on the project	390	80.6
Information on changes to health and safety practice on the work done	378	78.1
Information on changes to company's policy on health and safety	370	76.4
Information on health and safety performance on the project	357	73.8
Information on changes to the law on health and safety	336	69.4
Information on outcomes of safety audits/inspections on the project	301	62.2
Total	2,544	

Note: the table adds to more than 100% as people could provide more than one response.

Source: IES Survey of workers on the Olympic Park 2011

- Table A2.10 shows that the vast majority of survey respondents received information on key aspects of health and safety, including ‘information on the health and safety risks/hazards with work being done’, and ‘information on changes to health and safety practice on the work done’. More than half of respondents received information on all the aspects of health and safety that we asked about.
- When looking at operatives in isolation, the (vast) majority of respondents reported receiving information on all aspects of health and safety. Eight-five per cent reported receiving ‘information on health and safety risks/hazards with the work being done’. Fifty-seven per cent reported receiving ‘information on the outcomes of safety audits and inspections’.
- The vast majority of those with supervisory responsibilities reporting receiving information on all items of health and safety listed in Table A2.10. The lowest joint percentage recorded was 72 per cent for ‘information on the outcomes of safety audits/inspections’ and ‘information on changes to the law on health and safety’.
- The vast majority of those with managerial responsibilities also reported receiving information on all items of health and safety listed in Table A2.10. The lowest percentage recorded was 72 per cent on ‘information on the outcomes of safety audits/inspections’.

Table A2.11 How survey respondents reported finding out about health and safety issues

<i>Method</i>	<i>N</i>	<i>% of cases</i>
Health and safety inductions	428	84.4
Toolbox talks	405	79.9
Notice boards	367	72.4
Daily activity briefings	326	64.3
Face-to-face contact with immediate boss	312	61.5
Training sessions on health and safety	303	59.8
Informally through contact with colleagues	267	52.7
Stand down briefings	242	47.7
Bulletins/news sheets	232	45.8
Handbooks	209	41.2
Data sheets/written instructions	200	39.4
Electronically to PC/PDA/mobile phone	119	23.5
Total	3,410	

Note: the table adds to more than 100 per cent as people could provide more than one response.

Source: IES Survey of workers on the Olympic Park 2011

- The most common method for survey respondents to receive information on health and safety issues about their project is via health and safety inductions (84.4 per cent).
- The least common methods were electronically to PC/PDA/mobile phone (23.5 per cent) or data sheets/written instructions (39.4 per cent).
- Operatives and supervisors considered health and safety inductions, toolbox talks and DABS as the three most useful methods of providing health and safety information.
- Managers also agreed that health and safety inductions were useful for providing health and safety information but also considered training sessions on health and safety as well as face-to-face contact with their immediate boss in their top three methods.

Table A2.12 Aspects of health and safety which survey respondents reported being consulted on

<i>Consulted on</i>	<i>Yes (%)</i>	<i>No (%)</i>	<i>Base total (N)</i>	<i>Not sure (N)</i>	<i>Missing (N)</i>	<i>Total (N)</i>
Likely risks and precautions to take	81.3	18.7	433	28	57	518
Risks assessments relating to own work	79.4	20.6	441	19	58	518
Precautions to take if incident occurs	78.0	22.0	423	29	66	518
Personal health and wellbeing	76.5	23.5	434	21	63	518
General risk assessments	75.2	24.8	439	27	52	518
Action taken when there is a near miss	72.1	27.9	420	30	68	518
Likely risks of future plans for new procedures	69.7	30.3	400	49	69	518
How health and safety is managed	64.9	35.1	427	25	66	518
First aid procedures	64.5	35.5	431	24	63	518
Health and safety policies	62.2	37.8	447	29	42	518
Planning of health and safety training	55.9	44.1	410	33	75	518
Other	75.0	25.0	4	0	514	518

Source: IES Survey of workers on the Olympic Park 2011

- The vast majority of survey respondents felt consulted on most aspects of health and safety. A greater percentage of survey respondents report feeling consulted on issues to do with their own work compared with how health and safety is managed more generally.
- When looking at operatives in isolation (ie not managers or supervisors), the majority of operatives felt consulted on all aspects of health and safety (with the exception of planning of health and safety training, 48 per cent). Seventy-four per cent felt consulted on risk assessments relating to their own work, 70 per cent on their personal health and wellbeing, and 64 per cent felt consulted on the action taken when there was a near miss. Fifty-seven per cent felt consulted on how health and safety is managed.
- When looking at those with supervisory responsibilities, the (vast) majority felt consulted on all aspects of health and safety. A higher percentage of supervisors than operatives felt consulted on most aspects of health and safety. For example, 82 per cent felt consulted on risk assessments relating to their own work, 78 per cent on their personal health and wellbeing, and 75 per cent on action to be taken when there is a near miss. Sixty-seven per cent felt consulted on how health and safety is managed and 57 per cent on the planning of health and safety training.
- When looking at those with managerial responsibilities, again the percentage of respondents reporting being consulted on health and safety issues was generally above 70 per cent. Exceptions to this were in the case of consultation on health and safety policies (61 per cent), planning of health and safety training (56 per cent), and first aid procedures (53 per cent).

Table A2.13 How regularly survey respondents discuss health and safety issues with immediate boss

<i>Response</i>	<i>N</i>	<i>%</i>
All the time	234	47.7
Sometimes	193	39.3
Not very often	43	8.8
Never	21	4.3
Total	491	100
Missing	27	
Total	518	

Source: IES Survey of workers on the Olympic Park 2011

- Eighty-one per cent of operatives (compared with 87 per cent of all respondents) reported regularly discussing health and safety issues with their immediate boss.

Table A2.14 How involved survey respondents felt in health and safety decisions on the project

<i>Response</i>	<i>N</i>	<i>%</i>
Very involved	171	35.0
Quite involved	168	34.4
Not very involved	121	24.7
Never	29	5.9
Total	489	100
Missing	29	
Total	518	

Source: IES Survey of workers on the Olympic Park 2011

- A lower percentage of operatives (59 per cent compared to 69 per cent of all respondents), although still a majority, reported feeling involved in health and safety decisions on their project.

Table A2.15 How comfortable workers feel in raising health and safety issues on the project

<i>Response</i>	<i>N</i>	<i>%</i>
Very comfortable	313	65.5
Quite comfortable	125	26.2
A little uncomfortable	31	6.5
Very uncomfortable	9	1.9
Total	478	100
Missing	40	
Total	518	

Source: IES Worker Survey 2011

- 83 per cent of operatives (compared with 92 per cent of all respondents) reported feeling comfortable raising health and safety issues.

EXPERIENCES ON THE PROJECT

Table A2.16 Survey respondents' experiences on the project

<i>Whilst working on the project have you ...</i>	<i>Yes (%)</i>	<i>No (%)</i>	<i>Total (N)</i>
Made a suggestion on how to improve health and safety on site	54.6	45.4	452
Reported a near miss	39.3	60.7	445
Experienced a near miss	37.6	62.4	468
Seen a colleague have an accident or injury	17.0	83.0	465
Had an accident or injury	9.5	90.5	483
Had a health problem caused or made worse by work	6.8	93.2	454

Source: IES Worker Survey 2011

- Table A2.16 shows that over half of survey respondents (54.6 per cent) had made suggestions on how to improve health and safety on their site, and nearly 40 per cent (39.3 per cent) had reported a near miss.
- Looking at operatives in isolation, a slightly lower percentage than was the case for all survey respondents had reported a near miss (31 per cent) or made a suggestion about how to improve health and safety (45 per cent). A slightly higher percentage than was the case for all survey respondents had experienced an accident or injury (12 per cent).
- Of those operatives who said they had reported a near miss, 87 per cent reported being satisfied with how this was dealt with (caution is needed here as the base size is less than 100). The comparable figure for all survey respondents who had reported a near miss was 89 per cent.

Table A2.17 Since working on the project has your awareness of health and safety issues improved?

<i>Response</i>	<i>N</i>	<i>%</i>
Improved a lot	266	55.4
Improved a little	112	23.3
Stayed the same	101	21.0
Got much worse	1	0.2
Total	480	100
Missing	38	
Total	518	

Source: IES Worker Survey 2011

- Table A2.17 shows that 79 per cent of all survey respondents felt their awareness of health and safety issues had improved since their involvement on the Park. This was the case for 79 per cent of operatives and 75 per cent of those with supervisory responsibilities.

Table A2.18 Since working on project way in which workers personally look after their health and safety at work ...

<i>Response</i>	<i>N</i>	<i>Valid Percent</i>
Improved a lot	240	51.9
Improved a little	121	26.2
Stayed the same	101	21.9
Total	462	100
Missing	56	
Total	518	

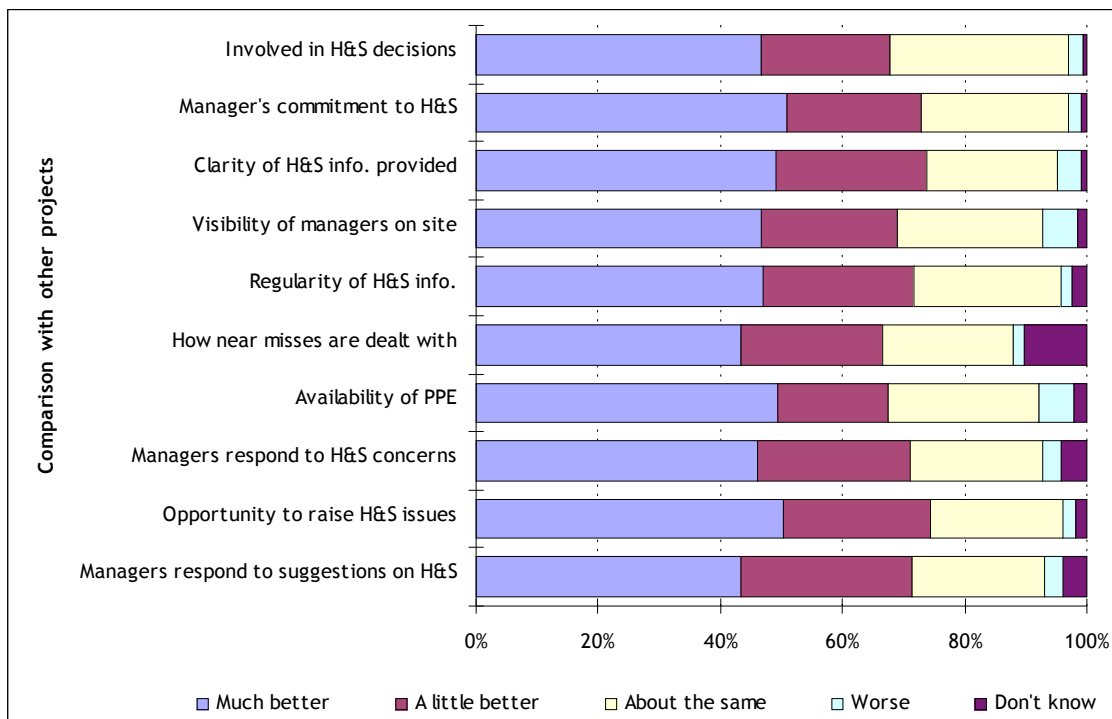
Source: IES Worker Survey 2011

- Tables A2.18 shows that the vast majority (78 per cent) of survey respondents felt the way in which they personally looked after their own health and safety had improved either 'a lot' or 'a little' since they started working on the project they were involved in. Considering operatives in isolation, the figure was 80 per cent, and for those with supervisory responsibilities it was 75 per cent.

HEALTH AND SAFETY ON THE PROJECT COMPARED WITH PROJECTS OUTSIDE THE OLYMPIC PARK

- A total of 80 per cent of survey respondents (N=375) had worked on projects not connected with the Olympic Park

Figure A2.0.1 Comparison of various aspects of health and safety on the project, to other projects not on the Olympic Park



Source: IES Worker Survey 2011

- Figure A2.1 shows that the majority of survey respondents, who had previously worked on projects not on the Olympic Park, felt that in all aspects of health and safety their (Olympic Park) project was better. This was the case for operatives, supervisors and managers.

Table A2.19 Working conditions on project compared to other projects not on the Olympic Park

<i>Response</i>	<i>N</i>	<i>%</i>
Much better	203	55.3
A bit better	84	22.9
About the same	58	15.8
Worse	17	4.6
A lot worse	5	1.4
Total	367	100

Source: IES Worker Survey 2011

- Table A2.19 shows that the vast majority (78 per cent) of survey respondents felt working conditions on their project were much or a little better than working conditions they had experienced on other projects not on the Olympic Park. The comparative figure for operatives in isolation was 81 per cent, and for those with supervisory responsibilities it was 74 per cent.

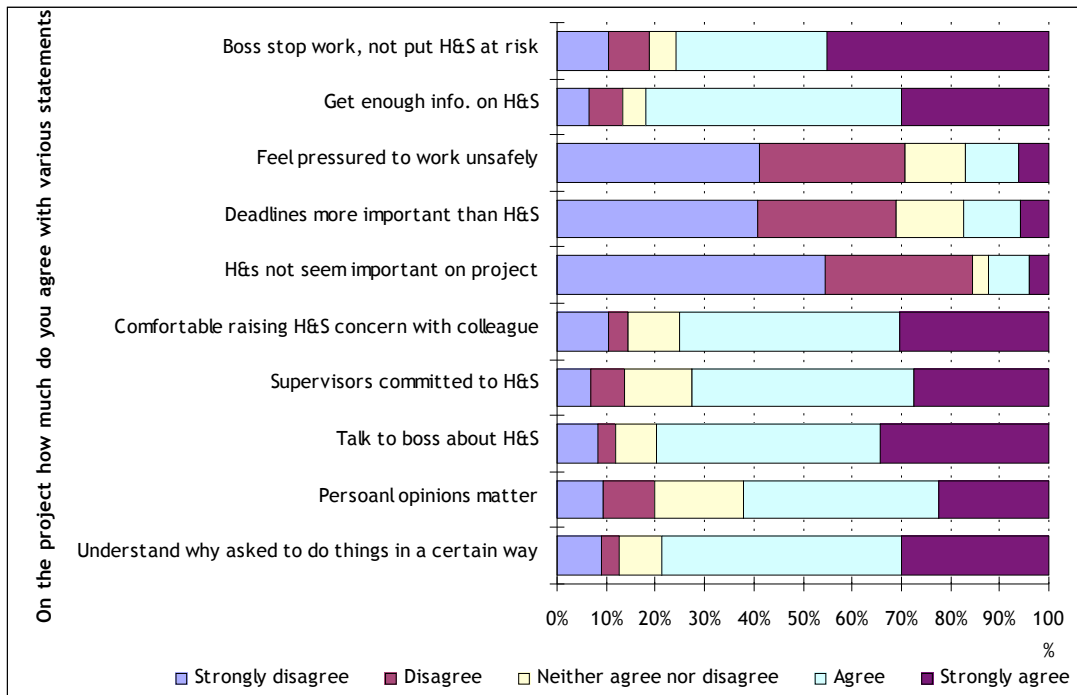
Table A2.20 Feelings of safety on project compared to other projects not on the Olympic Park

<i>Response</i>	<i>N</i>	<i>%</i>
Much safer	191	52.3
A bit safer	82	22.5
Just as safe	85	23.3
Not as safe	7	1.9
Total	365	100

Source: IES Worker Survey 2011

- Tables A2.20 shows that the vast majority (75 per cent) of survey respondents viewed their project on the Olympic Park as safer than other projects not on the Olympic Park that they had worked on before. Seventy-eight per cent of operatives felt that the project they worked on was safer than other projects not on the Olympic Park that they had worked on. The equivalent figure for those with supervisory responsibilities was 71 per cent.
- Survey respondents were asked if they felt any risks could be better managed on the project they worked on. Suggestions included the use of phones while out on site by all employees but especially bus drivers; speeding vehicles, ensuring clear access of the walkways and; better management of health and safety whilst working at height.
- Figure A2.2 shows that survey respondents are very positive about their experiences on the Olympic Park. The majority of them feel that their health and safety is looked after and is of importance on the project.
- Considering the responses of operatives in isolation: 69 per cent agreed with the statement that ‘Supervisors on this site are committed to health and safety’; 69 per cent agreed with the statement that ‘I would feel comfortable raising a health and safety concern with colleagues’; 71 per cent agreed with the statement that ‘My boss would like me to stop work, rather than put my health and safety at risk’; 65 per cent disagreed with the statement that ‘I sometimes feel pressured to work unsafely’; 65 per cent disagreed with the statement that ‘Meeting deadlines is more important than health and safety’; and 79 per cent agreed with the statement that ‘I get enough information about health and safety to be able to work safely’.

Figure A2.2 On the project how much do you agree with the following statements ...



Source: IES Worker Survey 2011

APPENDIX 7 HS&E SCORECARD

Health, Safety & Environmental – Project Scorecards														
Note: Reports will be audited by the HSE Assurance Team or delegated auditors. Evidence must be provided and available to validate all scores Workforce: denotes all members of the workforce, both Direct and Subcontract														
	Compliance						Standards	Behaviour & Culture					Infringement Notices	Total Score
KPI	Compliance with Project Health, Safety & Environmental 'Programme', Schedule or Control Record for current activities	Compliance with Competency/Training Matrix that meets ODA H&S Standards and project requirements	Toolbox Talks (TBTs)	Scheduled formal inspections and reports by Directors, Project Managers and HS & E professionals allocated or visiting the project.	Consultation & rewards arrangements	Accident/incident investigation & prevention of recurrence	Health, Safety & Environment Standards	Behaviour Culture Programme	Project Leader Workforce Engagement Tour	Daily Activity Briefings (DABs)	Workforce Engagement	Near Miss reporting	Endorsement for breach of Health, Safety & Environmental responsibilities	Total
Maximum potential score	15	10	5	5	5	5	10	10	10	10	5	5		95
Measurement	Project monthly H, S&E 'Programme', schedule or control record for current activities. actively used and displayed = 5 points. Checklists fully used/reviewed and communicated = 5 points. All actions closed out in allocated time = 5 points	All personnel on site to be considered against mandatory items only. 100% compliance = 10 points then sliding scale to 50% = 5 points	Each member of the workforce to receive a minimum of one toolbox talk per week. 100% compliance = 5 points, then a sliding scale.	Tours undertaken entered into online database 2.5 points & fully closed out = 2.5 points	Active Safety Committee in place & chaired by the project leader = 2 points. Operatives Safety Recognition/Rewards Scheme operational = 3 points	All Accident/incident investigations recorded on online database within 24 hours = 2 points. Preventative measures to ensure no further re-occurrence in place, signed off by project manager = 3 points	HS & E Standards achieved on site, 1 photo example of exemplar work location or record of creative solution used on site to improve HS&E submitted to CLM Assurance team = 10 points	Workforce to receive Behavioural Culture Introduction Briefing within 3 weeks of starting. 100% compliance = 10 points, then a sliding scale to 90% compliance = 0 points.	2 No. 2 hour minimum engagement tours/month = 5 points. 4 No./ month = 10 points	All Supervisors to carry out a daily activity briefing 100% compliance = 10 points, then sliding scale	Percentage of total workforce actively engaged in scheduled Workforce Workplace HS& E Assessments, 100% = 5 points, then sliding scale.	Initiatives are in place to actively encourage near miss reporting = 2 points. Near misses are being actively reported, reviewed by Project Manager and entered on online databasempact = 3 points	Penalty Deductions Minus 10 points for each activity stopped during a Director or Advisor Visit Minus 25 points for any formal intervention by an external agency that requires formal written close out	



Source: CLM delivery partner, November 2006

Leadership and worker involvement on the Olympic Park

This research considers leadership and worker involvement practice across selected projects on the London 2012 Olympic Park.

The aim was to understand the degree to which the various approaches impacted positively or negatively on worker involvement in health and safety matters, and identify what could potentially be transferable both to other construction projects and to industry more widely.

More specifically, this research project sought to explore in more detail the range of initiatives and approaches used, for example behavioural safety training and daily activity briefings (DABs), assessing their impact on worker involvement, attitudes and behaviours and other desired outcomes.

The research explored these issues through a review of documents, analysis of existing data, four in-depth case studies of projects within the Olympic Park, interviews with senior leaders from the Olympic Delivery Authority (ODA) and CLM (a delivery partner appointed by ODA to manage the construction programme), and an indicative survey of worker (including managers, supervisors and operatives) views.

The context for the research is a strong public commitment to safety from the ODA resulting in a remarkably good safety record that was recognised in the form of a five star award for safety from the British Safety Council.

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