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Safety Culture-The Olympic Way

Improving construction health, safety and environmental culture at Imperial

- What is Safety Culture?
- Why is Safety Culture Important?
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What is Safety Culture?

"The safety culture of an organisation is the product of individual and group values, attitudes, perceptions, competences and patterns of behaviour that determine the commitment to and the style and proficiency of, an organisation's health and safety management"

Source-"Successful Health & Safety Management" (HSG65) produced by the Health and Safety Executive.

"Organisations with a positive safety culture are characterised by communications founded on mutual trust, by shared perceptions of the importance of safety and by confidence in the efficacy of preventive measures"

Source-"Successful Health & Safety Management" (HSG65) produced by the Health and Safety Executive.

Or, you could just say

"This is how we do things around here!"

Why is safety culture important?

- To promote a healthy and safe working environment.
- To promote positive attitudes and behaviour at work and home.
- To promote the organisation’s policy and commitment to zero harm to people and the environment.

Reasons for implementing Safety Management Systems?

- Moral obligations
- Legal, including environmental obligations
- Business considerations

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UK Accident Statistics (Construction) 2012-13

- 39 Fatalities
- 3133 over 7 day Reportable accidents (2013)
- 5000 over 3 day accidents (2012-13)
- 74,000 cases of ill health on the books
- 31,000 new cases of ill health reported for this period
- 3700 cancer cases arising each year as a result of past exposure
- 4500 deaths each year from asbestos related diseases (all industries)

NB: 40% of all cancer cases ascribed to construction activity

UK Statistics - Overview

Construction employees represent 5% of UK workforce, but account for 27% of all fatalities and10% of all major injuries.

- 1.4 million working days were lost in the UK in 2012.
- 818,000 days lost were due to ill-health
- 584,000 days lost were due to workplace injuries.

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The Business Case for Safety Culture Improvements

"The Costs of Accidents at Work" (HSG96)

5 case studies undertaken in 1990/91 in the following locations:-

- Construction Site
- Creamery
- Transport Company
- Oil Platform
- Hospital

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Construction Case Study - Conditions

The Construction Case Study Site chosen was a Supermarket.

- Contractor was a major UK building and civil engineering company
- Contract value (1991) £8m
- Labour provided by 29 subcontractors
- Period of survey-18 weeks

The Survey team were embedded with contractor's staff.

The definition of "accident" was agreed with the contractor.

£5 cost threshold was agreed to trigger accident investigation

Accidents investigated were considered "preventable" by contractor's staff.

Total costs per accident was agreed with the contractor's staff.

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Construction Case Study - Outcomes

During the 18 week period, a total of 3626 preventable accidents were investigated.

56 Minor accidents and 3570 property damage accidents were recorded.

Direct financial losses amounted to £87,507 and Opportunity costs, mainly wages paid during periods of no production, amounted to £157,568.

The total avoidable losses amounted to £245,075.

Extrapolating costs over the contract period, it was estimated that the potential for loss would amount to £700,000.

8.5% of the tender price

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Construction Case Study - Results

Using an Accident Iceberg the report showed that the ratio between "insured costs" and uninsured costs, was 1 to 11.

This clearly indicates that unrecoverable losses due to preventable accidents, is 11 times the insured costs.

Construction Case Study - Insurance Costs

- Employers Liability
- Public/Third Party Liability
- Contractors all risks

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Construction Case Study - Uninsured Costs

- Product and material damage
- Plant and building damage
- Tool and equipment damage
- Legal costs and fines
- Expenditure on emergency supplies
- Clearing site
- Production delays
- Overtime working and temporary labour
- Investigation time
- Supervisor’s time diverted
- Clerical effort

Health and Safety is Good Business

“ Prevention is not only better, but cheaper than cure.
There is no necessary conflict between humanitarian and commercial considerations.
Profits and safety are not in competition.
On the contrary, safety at work is good business.”

Quote from Basil Butler, Managing Director, British Petroleum

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How Do We Achieve an Improved Safety Culture?

HSG65 recommends the adoption of the 4 C's, when organising for health and safety. These four general principles apply to:

Control - methods used within the organisation

Cooperation - between individuals, groups and safety representatives

Communications - throughout the organisation and other stake holders

Competence - applies to all involved in making the business successful.

The principles outlined in the 4 C's can be applied to any organisational structure and we would like to suggest that these principles could be applied and expressed, through the HSE's research report RR942.

HSE

Health and Safety
Executive

Safety culture on the Olympic Park

Prepared by the **Health and Safety Laboratory**
for the Health and Safety Executive 2012

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Safety Culture on the Olympic Park (RR942)

Key messages from this document

The Olympic Development Authority (ODA) and its delivery partner CLM Delivery Partner Limited (CLM) played a key role in the development of a positive safety culture.

They communicated their expectations clearly from the outset, requiring all Tier 1 contractors (Principal Contractors) to subscribe to the same Health, Safety and Environmental standard, with regular reporting by Tier 1 Chief Executives to the ODA Board on HS&E performance.

Olympic Park Development - Background Information

- The original Park area was largely industrial land, polluted and divided by waterways, overhead pylons, roads and railways.
- 200 buildings were demolished and 90% of the materials reused on the site.
- 52 electricity pylons were removed.
- Contaminated soil was cleaned and reused, using innovative techniques such as soil washing and bio-remediation.
- 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 were treated.
- 5km of riverbanks refurbished.

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Olympic Park Development - Statistics

- 62 million man hours worked
- 12,000 staff and operatives employed at peak of activity
- 22 periods of 1million hours worked without a Reportable.
- Zero fatalities
- Accident Frequency Rate=0.17 (Half industry average)

Source-"Safety Culture on the Olympic Park" (RR942)

How was this success achieved?

ODA set common standards for all Tier 1 (Principal) Contractors

These included:

- Introduction of a Behavioural Safety Management System
- Training for Supervisors
- Focus on leadership and worker engagement
- Worker consultation and involvement in site safety management
- Worker involvement in accident/incident investigations
- A commitment to “near miss” reporting, investigation and action.

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How was cultural improvement measured?

1. Safety Performance Measures
   - Injury Incidents
   - Reportable Accidents and
   - Near Miss Reporting

2. Using the HSE's Safety Climate Tool (SCT), improvements to organisations were measured using the following eight criteria
   1) Organisational commitment
   2) Health and safety oriented behaviours
   3) Health and safety trust
   4) Usability of procedures
   5) Engagement in health and safety
   6) Peer group attitude
   7) Resources for health and safety
   8) Accident and near miss reporting

Developing an effective safety culture

- The strategic role of the ODA across the Park, with safety being set as a priority theme and integrated into the companies from the outset, through the adoption of common standards and requirements.

- The clarity throughout the supply chain of the organisational standards and requirements, including the desire for cultural alignment with these common standards.

- The empowerment of Tier 1 contractors to develop their own processes and systems to deliver the ODA's objectives. The ODA focused on engaging contractors, enabling them to develop their own good practice and drive their own performance.

- Recognition of the prestige of working on the Olympic Park and striving for excellence in all activities, including health and safety.

- The scale of the project and the length of the construction phase meant that there was sufficient time for initiatives to become embedded and could be tailored to ensure their efficacy and success.

- Belief by workers in the genuine commitment within organisations, as the message was consistent and reiterated across the Park.

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The Way Forward :

Safety, Health and Environmental Leadership Team (SHELT)

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Safety, Health and Environmental Leadership Team

- Formed from volunteers from this meeting.
- Agree inaugural meeting date.
- Consider an outline strategy, for the group
- Strategy - must be agreed by all participating organisations.
- Strategy - must be measurable and establish benchmarking criteria and KPIs. Safety Climate Tool criteria, or other KPIs.
- Timescale for action should be agreed.

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Practical issues that could be considered for early implementation by the SHELT

- Behavioural safety management
- Quality of site personnel
- Reward systems for good safety performance
- Reporting of accidents and incidents
- Reporting of near misses, including a feedback loop
- Safety inspection monitoring regimes
- Approach to site house-keeping
- Peer Reviews-Director level site tours
- Environmental management-noise, dust, vibration and the management of chemicals on site, including paints and adhesives.

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And Finally :

"Safety is, without doubt, the most crucial investment we can make. And the question is not what it costs us, but what it saves"

Robert E McKee, Chairman and MD, Conoco (UK) Ltd

"We saved £0.75m on insurance premiums through improving our systematic management of health and safety"

Birse Group plc

Quotes courtesy of "The costs of Accidents at Work" (HSG96)