CASE STUDIES

HEALTH AND SAFETY INFORMATION FOR RELEVANT PEOPLE - THE BUBBLES

1. Case metadata

- ***Country of origin:***

United Kingdom

- ***Year of publication by agency:***

2009

- ***Sector:***

42.11 Construction of roads and motorways (NACE rev2.0)

- ***Keywords:***

24361C	Good Practice
24401C	Case studies
19641D	Risk assessment
19801D	Safety communication
18241E	Construction safety
20341D	Worker participation
09641D	Printed material
25041C	Innovations

2. Organisations involved

Ringway Jacobs Ltd.

3. Description of the case

3.1. Introduction

Safety and health at work depends largely on workers. Their behaviour and commitment to rules needs the understanding of the risks and the ways to control them. It is essential to provide the safety and health information in a way that is easy to comprehend. Even besides proper identification of risks and appropriate control measures bad risk communication can ruin the entire system. This makes risk communication an integral part of the risk assessment process.

In the construction sector there are many workers with lower education or coming from abroad. They may not understand instructions otherwise properly worded. Nor would they be willing to read large texts. Safety and health rules should be tailored to their needs.

Ringway Jacobs Ltd. provides integrated highway infrastructure services throughout England and Wales. This company inherited an overwhelming safety and health information dossier. This compilation of risk assessments, COSHH assessments, policies and procedures for all tasks for the different activities of 150 A5 pages raised the question of usability and time-efficiency. It seemed to be dubious that there was no better way.

3.2. Aims

The intention was to make health and safety issues more manageable, simplifying risk communication and to improve its efficacy. The company won a contract and wanted to be certified to 18001 OHSAS in order to give the client assurance of Ringway Jacobs management of health and safety.

3.3. What was done, and how?

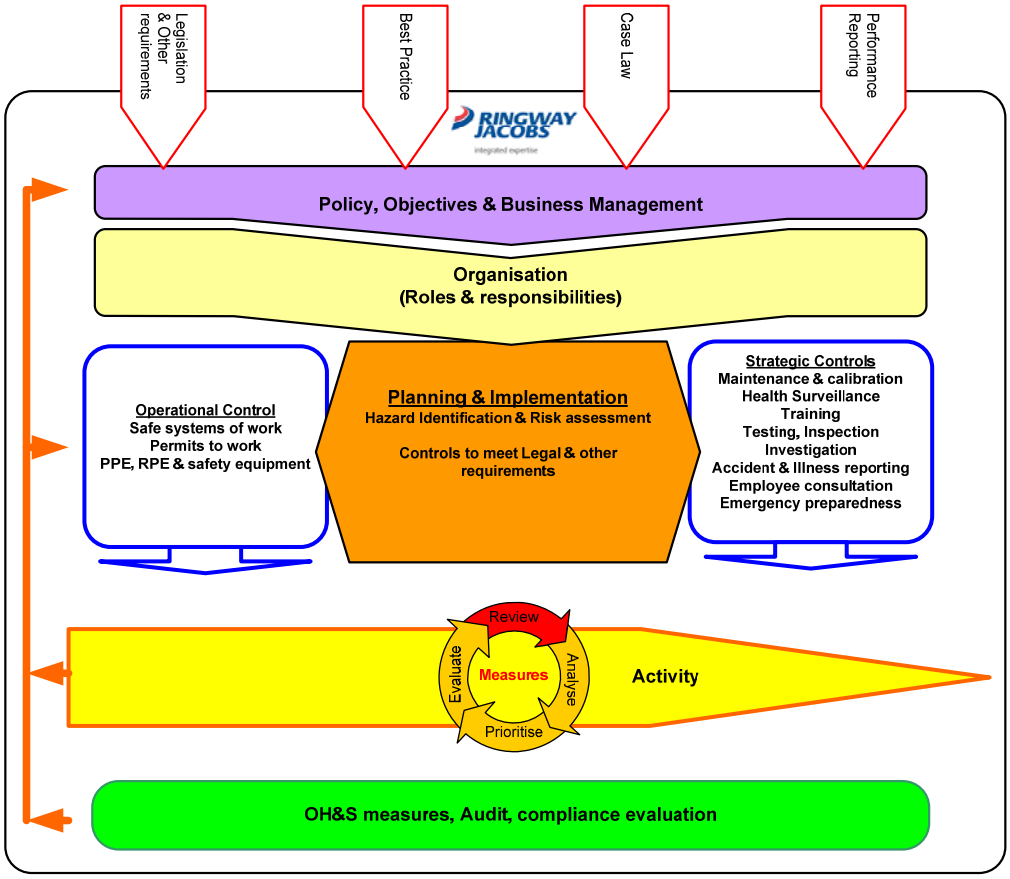
The primary message was taken from the Construction Design and Management regulation:

“Any paperwork produced should help in risk assessment and communication. Paperwork that adds little to management of risk is a waste of effort and can be a dangerous distraction from the real business of risk assessment and management.”

The company completely revised the health and safety system. Taken into consideration human behaviour they decided to replace commonly used huge paper documentation addressing every topic because that would prove practically unreadable. Focus shifted from tasks to humans instead. People in the same working group share the same job environment which enables the identification of typical risks. These groups ranged from the operational workforce to office staff and depot operatives, including: paving operatives, carriageway repair operatives, site inspectors, winter service operative and incident response unit operatives.

Hazard identification and risk assessment was carried out looking at the individuals and their activities. The risk assessment was developed by interviewing the relevant groups, discussing the significant hazards and existing controls through facilitated meetings and workshops. The hazard identification and risk assessments were all recorded on one single spreadsheet table, instead of the traditional separate text documents. This reduced paperwork and was flexible in filtering and categorising (see figure 1).

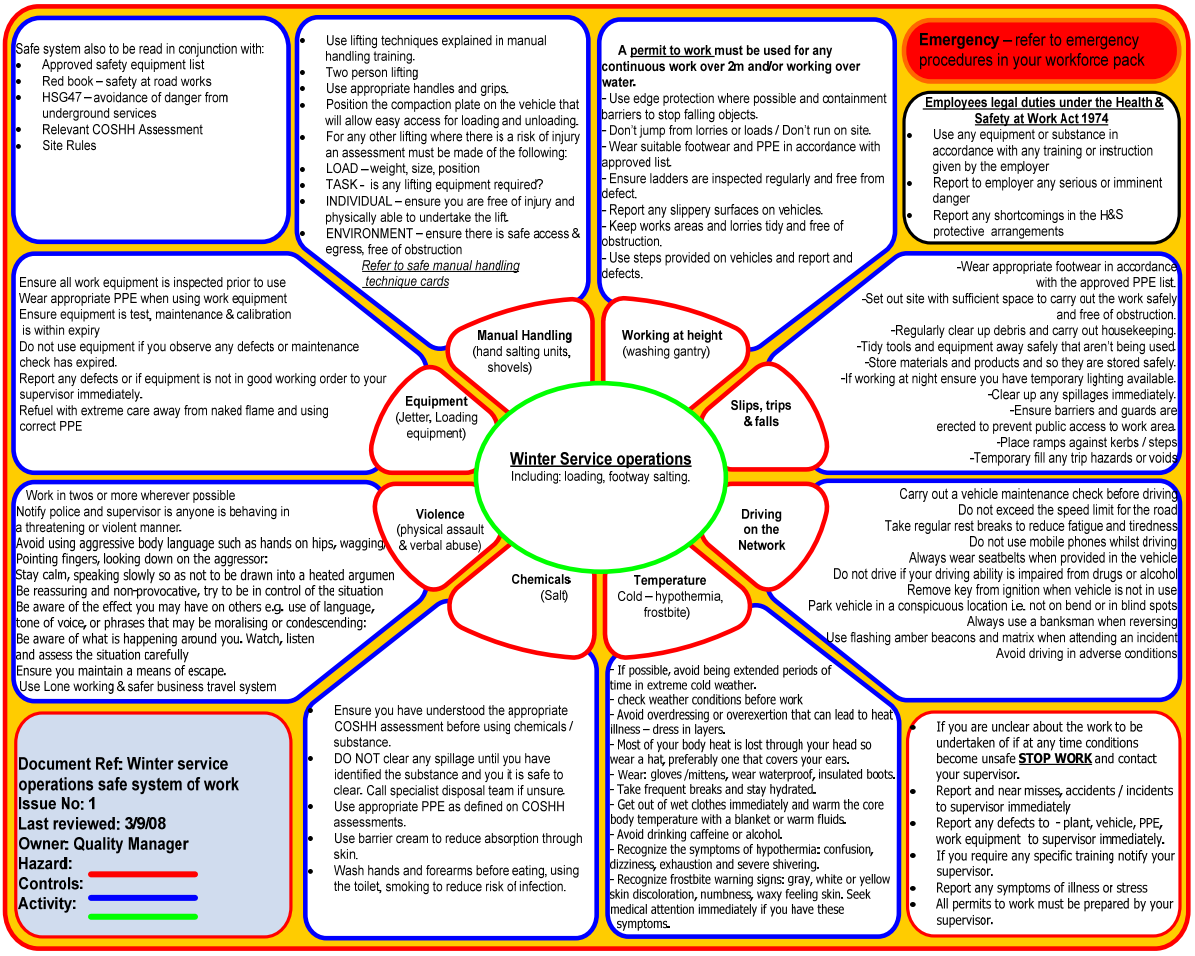
Figure 1: The safe system of work or Bubbles (operational control) in relation to the overall safety management system



Source: Andy Kavanagh, Ringway Jacobs Ltd, 2009

The mind map method made the data gathering process easy during the hazard identification process. The name 'Bubbles' came from sheets looking like bubbles gathered (see figure 2). This approach proved very easy to use. It also was very readable and presented the information in a format that was clear and focused on the significant hazard and controls. The format satisfied the Construction Design and Management guiding principal: it reduced paperwork dramatically, and was easy to interpret.

Figure 2. Winter service operations 'Bubble'



Source: Andy Kavanagh, Ringway Jacobs Ltd, 2009

The main problem /issue was the change in mindset from other professionals. Traditionally health and safety professionals have developed volumes of documentation and paperwork to give to the end users which may well be comprehensive and robust however in reality the end user (e.g. road workers etc.) struggle to absorbing volumes of information and filter the absolutely essential information and subsequently ignore the majority of it. They have overcome this issue by involving the people who are ultimately the customers from the health and safety team and giving them the right information in a format that was intuitive and easy to navigate. It is not easy convincing health and safety professionals that overloading operatives or end users with information does not improve safety and that too much information is actually worse even if it is comprehensive.

Due to the unconventional approach they wanted to be sure of the law conformity and the acceptance of workers of the system. IOSH have found the system “excellent and is particularly good for presenting the concept for people whose 1st language was not English”. There was a welcome from the workers' side as well.

After some modifications the system was put into practice and is operational from August, 2008 (see figure 3).

Figure 3. Morning briefing with the use of the 'Bubbles'

Source: Andy Kavanagh, Ringway Jacobs Ltd, 2009

At present there are 12 sets (or themes) of bubbles (table 1) and others are in the development phase. The Bubbles are easier to maintain than a manual.

Table 1. Themes of 'Bubbles'

Emergency
Environmental protection
Paving operation
Site visits
Carriageway repair operation
Signs and post crew
Winter service
Traffic management
Structures maintenance
Drainage maintenance
Incident support unit
Depot operations

Source: Andy Kavanagh, Ringway Jacobs Ltd, 2009

3.4. What was achieved?

The method broke new ground in the risk assessment and risk communication culture of the company and proved to be a successful method. Achievements are:

- Simplified, flexible risk communication that is accepted by workers. Through this the message is reaching them.
- The awareness of the operatives has clearly improved concerning hazards and controls. They are now using the bubbles for briefing each other in the morning before they go to work, that was purely a workers' initiative.
- The system won the Institute for Highways and Transportation Award 2009 for health and safety at work.
- No work accident were reported since 10 months after the introduction.

3.5. Success factors

The method is user friendly and tackles information overload. The process grounded on end user consultation thus workers were involved. It helped in risk identification and also the communication and the acceptance of the system. The focus was set on significant risks and hazards that reduced the amount of information that is not critical. This helped the understanding of the main message and enhanced the comprehensibility of the safety instructions.

The consultant Institution of Occupational Safety and Health was satisfied and emphasized that the method makes risk assessment more accessible to workers, in a way which is positive for diverse workforces, particularly those whose literacy in English is poor.

3.6. Further information

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3.7. Transferability

The method can be transferred to sectors where simple and straight information of workers is a need. The method is easily adaptable across sector boundaries and national boundaries.

4. References, resources:

Information provided by the company in the framework of the Good Practice Award Competition 2008/2009.