Effective shift communication

In your organisation are the procedures for communicating between departments (e.g. operations and maintenance) and within departments well-defined and monitored? What arrangements are there for conveying information between shifts on matters such as maintenance in progress, plant out of service, process abnormalities, permits-to-work, etc? How effective are they? Problems with communication have contributed to accidents and near misses in many workplaces.

Effective communication is important in all organisations when a task and its associated responsibilities are handed over to another person or work team. This can occur at shift changeover, between shift and day workers or between different functions of an organisation within a shift (e.g. operations and maintenance). Although the importance of reliable communication may be recognised, guidance to personnel on how to communicate effectively may be lacking.

What can go wrong?
Unreliable communications can result from a variety of problems including:

- missing information;
- unnecessary information;
- inaccurate information;
- poor or variable quality of information;
- misunderstandings; and
- failing to carry forward information over successive shifts.

High-risk communication situations
Some communication situations are known to be especially liable to problems including:

- during maintenance if the work continues over a shift change;
- during deviations from normal working;
- following an individual’s lengthy absence from work; and
- between experienced and inexperienced staff.

Miscommunications and misunderstandings are most likely to occur when the parties communicating have a different understanding of the current state of the process. More time will be needed to communicate when such differing ‘mental pictures’ exist.

Improving communications
A number of simple steps can improve communications in the workplace:

- carefully specify what key information needs to be communicated;
- aim to cut out the transmission of unnecessary information;
- use aids (such as logs, computer displays) based on the key information needs to help accurate communication;
- aim to repeat the key information using different mediums, e.g. use both written and verbal communication;
- allow sufficient time for communication particularly at shift handover;
- encourage two-way communication with both the giver and recipient of the information taking responsibility for accurate communication;
- encourage the asking of confirmation, clarification and repetition;
- encourage face-to-face communication wherever feasible;
- try to develop the communication skills of all employees; and
- aim to set standards for effective and safe communication.

**Case Study: Enhancing safe communications at shift handover**

A large UK oil refinery stabilises in excess of one million barrels per day of crude oil. A five-shift rota system with a 35-day shift cycle was in operation. Effective shift handover is an important requirement of most shift-working operations. The change-over of tasks and staff can give rise to problems with the transmission or non-communication of critical information. Failures of communication or misunderstanding at shift handover were identified as contributory factors in certain recent industrial accidents, such as the Piper Alpha disaster, and a beach contamination incident at Sellafield.

**Human factors problems**

A project was initiated to address concern about current shift handover practice. While there had not been any specific incidents where failures of communication at shift handover had been a causal or contributory factor, management had noted potential for improvement in this ‘core’ site activity.

The project involved collecting information on current shift handover procedures and practice by focusing on one typical area of the refinery. A structured approach with several data collection methods was used, to examine current policies, procedures, documentation and work behaviour, including:

- shift patterns;
- procedures;
- log books;
- training programmes and materials;
- investigation reports into recent incidents;
- observation of 15 shift operator handovers; and
- interviews with personnel at different levels of the organisation.

The review identified the following areas for improvement:

- Most shift log books were unstructured A4 ruled books. There was a lack of guidance on what information should be included, thus style and content varied between individuals. Log book content was mainly historical, with little content indicating what should or might happen in the future. There was no specific reference to safety issues.
- The existing training programme for new recruits included shift handover, but there was no agreed standard against which to assess the adequacy of the trainees’ knowledge or behaviour.
- None of the handovers observed had all of the behavioural features present which would define an effective and safe shift handover. For example, in 20% of the handovers observed, there was no evidence of collation of information.
or making notes in preparation for handover. Many handovers suffered from
distractions, in the form of other handovers being conducted simultaneously
nearby. Only one of the recipient personnel observed made notes during the
handover.

Finding solutions
The main recommendations from the review were:

- implement a pilot scheme of structured logs in one area of the refinery;
- introduce induction and refresher training on safe communication at shift
  handover; and
- following completion of the pilot project, to introduce structured logs,
  containing mandatory categories (eg safety, maintenance and technical
  problems), and discretionary categories (production and quality, personnel
  matters) site-wide.

Results
Following several weeks in use, a number of improvements resulting from the
introduction of structured logs were noted. More information on maintenance and
technical problems was being recorded, safety issues were being flagged up, and
timings of events were being recorded more consistently. The information in the logs
was also easier to access and read, as operators learnt to look for categories in
certain positions on the page.

The training programme was well-received by both apprentices and experienced
personnel.

During site-wide evaluation of the changes, 70 people were interviewed,
representing 22% of those personnel affected by the project: 76% of those people
interviewed believed that the introduction of structured logs had led to improvements
in how log books were completed; 56% believed that it had led to improvements in
how handovers were conducted. Furthermore, 66% of the staff interviewed during
the survey felt that there had been a need to improve standards of shift handover, as
relevant information had often been lost, missed, or not recorded.

In general, the introduction of structured logs was well received, and helped to
facilitate desired changes in behaviour at shift handover. In particular, involving post-
holders in the process achieved a degree of commitment which may not have
resulted from other methods.

Extracted from UK Health and Safety Executive (HSE) publication HSG48, “Reducing error and
influencing behaviour” (ISBN 978 0 7176 2452 2, Second edition, published 1999), available online at:
http://www.hse.gov.uk/pubns/books/hsg48.htm

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