

For background information on this series of publications, please see Briefing Note 1 - Introduction

**BEHAVIOUR OBSERVATION:** any formal programme of examining the behaviour of employees with a view to modifying sub-standard behaviours.

**BEHAVIOUR MODIFICATION:** any formal programme of making changes to the way employees carry out tasks to encourage safer and more effective execution of tasks.

# behaviour observation and modification

## What's the problem?

An offshore installations managers' safety survey for the Step Change in Safety Steering Group (reference 5) indicated that they regarded behavioural safety as a key issue for their companies. Other briefing notes (especially those on safety critical procedures, safety culture and violations) raised the problem of people at work failing to observe rules, regulations and approved ways of working by citing cases of negative behaviours. This briefing note describes some issues not covered before, introduces methods for encouraging safe behaviour and gives positive case studies.

## Is unsafe behaviour a problem in your company?

- Do employees/contractors regularly commit 'sub-standard' or unsafe acts, for example:
  - Use unsafe methods
  - Perform hazardous operations without supervision
  - Fail to use or over-ride safety devices or equipment
  - Use damaged equipment
  - Take part in 'horseplay'?
- Do they regularly work in unsafe conditions, for example:
  - With unguarded or poorly guarded machinery
  - Using defective or dangerous tools and equipment
  - In defective facilities (poorly designed or built)
  - Under poor lighting, ventilation or sound insulation

*[See also questions in 'safety critical procedures', 'safety culture' and 'violations' briefing notes]*
- Are unsafe acts or conditions treated as inevitable by shop floor workers or managers?
- Are most safety problems in the company clearly related to operator rather than hardware failures?
- Are there any obvious conditions that encourage unsafe or sub-standard behaviour ('impossible' tasks are set, lack of training, lack of management involvement with the workforce, poor feedback processes, etc)?
- Have behavioural modification techniques been tried already (and failed)?
- Would management or the workforce react badly to colleagues or subordinates observing/commenting on their behaviour?

**If the answer to any of the above is 'yes', then you need to take action!**

## Case studies

1. A company introduced the the 'B-Safe Programme®' to improve safety behaviour. They examined accident records to identify behavioural problem areas, then trained personnel in the observation technique. Observers found that the baseline level of safe behaviour was 48%, i.e. people were at risk from unsafe behaviour for 52% of the time. This improved, in different work areas, to 86% safe on average. Remedial actions are carried out in 71% of cases. Observers also identified numerous unsafe conditions. The site accident rate has reduced by 20%.

Source: [www.bsafec.co.uk/articles/icicase.htm](http://www.bsafec.co.uk/articles/icicase.htm)

2. Management on an offshore platform were concerned about a four-week shutdown during which many new contractors would be working on the platform. Their 'STOP' behavioural safety programme had become somewhat stale, but was re-launched and improved (taking out 'quotes' for observations and enhancing positive performance). Three times the usual number of STOP cards were issued and several safety themes were identified such as the use of unsafe tools. The shutdown was completed without any downturn in safety performance; indeed the number of incidents halved (although this cannot be attributed entirely to the STOP campaign).

Source: [www.rydermarsh.co.uk/hseresearch6.html](http://www.rydermarsh.co.uk/hseresearch6.html)

## What can I do about it?

People behave the way they do because of 'reinforcement' and encouragement. If an operator's behaviour is 'sub-standard' (which does not always mean 'unsafe') this is because his or her training and experience and the culture of the company have shaped that behaviour. The company needs to identify these behaviours and discourage them whilst reinforcing and encouraging safer behaviour by:

i. Asking employees/contractors either face to face, or by giving out a question sheet, about their experiences with sub-

standard behaviours (their own and other people's). You can find useful ideas for questions in references 1, 2 and 3.

ii. Find out especially:

- If sub-standard behaviours and conditions are commonplace
- The likely attitude of the workforce towards behaviour modification schemes
- What underlying reasons people think are responsible for sub-standard behaviours

iii. Draw the information to the attention of company management.

## What should my company do about it?

At the onset management needs to recognise that not every violation or breach of procedure is necessarily dangerous or malicious. Often, the system works against even the most conscientious worker leaving little choice but to break a rule that is unworkable. Those closest to the work can sometimes find more effective and efficient ways of working. Sometimes, these are safer, sometimes not. Good communications between management and workforce are essential to ensure that better practices are adopted and unsafe practices are stopped. The basic parts of a system are: **train observers, gather data, process/discuss data, give feedback, and make any required changes**. The case studies show that a lot of effort may be required in training people and allowing them time out to observe behaviours; but they also show that employees at all levels can (and should) be involved and that there are considerable benefits in using behavioural observation and modification schemes.

## Management responsibility

Management should:

- Be aware of the value of behaviour observation/modification as a modern approach to safety improvement
- Learn from other organisations' experiences
- Understand the basic requirements for introducing a behaviour modification scheme
- Anticipate and be prepared to solve problems that arise
- Apply behaviour modification at all levels, not just the shopfloor
- Understand what motivates/reinforces sub-standard behaviour and how to encourage behavioural change

### Requirements

- The company must be ready for a scheme and have:
  - good engineering controls
  - the cultural maturity to support the new scheme (e.g. high management-workforce trust, communications and 'involvement')
- Need to apply safety management practices of 'plan', 'implement', 'monitor' and 'improve' to the scheme
- The scheme should be applied to management as well as front-line staff
- Need to ensure that human behaviour is the problem rather than technical failures.

### Success factors (lessons from other companies)

- Active participation of workforce and management in the scheme
- Appoint 'champions' to maintain the momentum and take a lead at all levels
- Issue card reminders and checklists of behaviours that need to be observed
- Constantly reinforce and encourage use of the scheme and behavioural change.

### Potential problems.....

- The effort required to run the scheme can be considerable (to hold meetings, conduct follow-up actions, audit and change the scheme, etc)
- Existing communications systems can be overloaded with the volume of information produced (can lead to inaction and discouragement)
- A particular system that worked in one area may not work in another
- It can take a long time to see the benefit (in terms of lower incident rates)
- This system may conflict with other existing programmes
- Employees may dislike the idea of observing others and being observed.

### .....and solutions

- Ensure that sufficient resources are available to handle increased information flow and that scheme participants are allowed enough time
- Select the scheme carefully and be prepared to try different approaches until the right one is found
- Be patient! Inform everyone that measurable results can be a long way off. Highlight all positive outcomes (e.g. increased communications, involvement, solving of small problems)
- Again, select carefully, look for linkages between schemes and any advantages in combining and adapting schemes
- Keep employees informed about all initiatives and possible conflicts and ask for their feedback
- Management must take the lead by including themselves in the 'observed' group and by reassuring participants that the aim is not to assign blame or invoke punishment.

## Useful reference information

1. *Strategies to promote safe behaviour as part of a health and safety management system* HSE Contract Research Report 430/2002 HSE Books (2002) ISBN 0 7176 2352 1.
2. *Look this way - Guidelines and basic principles for the development of safety observation systems in the oil and gas industry* A Step Change in Safety website: [www.stepchangeinsafety.net](http://www.stepchangeinsafety.net)
3. *Changing minds - A practical guide for behavioural change in the oil and gas industry* A Step Change in Safety website: [www.stepchangeinsafety.net](http://www.stepchangeinsafety.net)
4. *Slips, trips and falls from height offshore* HSE Offshore Technology Report OTO 2002/001 HSE Books (2001) ISBN 0 7176 2327 0.
5. *OIM safety survey 2002* A Step Change in Safety website: [www.stepchangeinsafety.net](http://www.stepchangeinsafety.net)
6. *Effective application of behavioral based processes in offshore operations* Spigener, J. Gaupreaux, G. and Amato, F. presented at the *2nd International Workshop on Human Factors in Offshore Operations*, Houston, Texas, April 2002.