HUMAN FACTORS

BRIEFING NOTE No. 3

energy INSTITUTE

Organisational change

There are various ways of changing how people work. Examples include downsizing, de-layering, multi-skilling and employee empowerment. Change can arise as a result of company mergers, acquisitions or disposals, and changes can improve or worsen safety. Staffing changes are often associated with increased use of contractors.

Why organisational change?

Companies making organisational changes to solve a specific problem sometimes find other problems with the organisation that they were previously unaware of. Changes to the organisation may also cause problems that had not been considered or adequately addressed when planning the change. Team and organisation building is a large subject and the domain of human resource (HR) specialists or management consultants. However, some of the key issues involved are described in this briefing note. Other issues explored are listed on the back page of this briefing note, along with the some resources that can be used to help address them.

Organisations are constantly changing - is it always a change for the better?

If the answer to any of the following questions is 'No', then you should take action!	Yes	No
1. Are there enough people to carry out everyday work, AND respond to any unusual or emergency situations?		
2. When employees' jobs are changed, do they get suitable training in the new job including emergency roles?		
3. Are there enough people available and qualified to supervise all of the contractors working on site? (Is the organisation an 'intelligent customer' for the contractors' services?)		
4. Are contractors fully integrated with your company but able to maintain contact with their own management?		
5. Does management explain the need for change and consult or involve employees in the change process?		
6. Do systems that worked before the change still work as well as they did afterwards? (For example, supervision or permit systems).		
7. Is there a general opinion that the changes have improved morale (or at least not lowered morale) and have not unsettled employees?		
8. Do managers ask if the changes are working or whether there are any problems? – if there are problems, do they get fixed?		
9. Has the company made changes in a way that employees can easily adapt to and cope with? (Note, although some changes are small, the effect of multiple changes can add up and cause a problem).		
10. Where changes are still in progress, are the plans for these clear to all those affected?		

What should my company do about it?

Change is normal and unavoidable in any industry. Companies should have systems in place for introducing new or modifying existing hardware (plant, tools, materials and machines). They should also have adequate systems for managing changes to the organisation itself.

Organisational change is where management takes steps to:

- Restructure teams, groups or departments.
- Change administrative arrangements (working hours, methods of training, relocation of staff – less centralised services, team leadership, etc.)
- Reduce numbers of staff (downsize), which is often accompanied by
  - Outsourcing (using more contractors).
  - Flexible working or multi-skilling (learning and applying new job skills).
  - Combining jobs (one person takes on the job of several people).
  - Delayering (stripping out layers of management).
  - Empowerment (passing more control and decision making to the shopfloor).

Management responsibility

When a company has decided it needs to change, it should plan the process very carefully: it should predict and prepare for any possible negative effects on safety, health and the environment. A company that sees a need to make changes should make sure that:
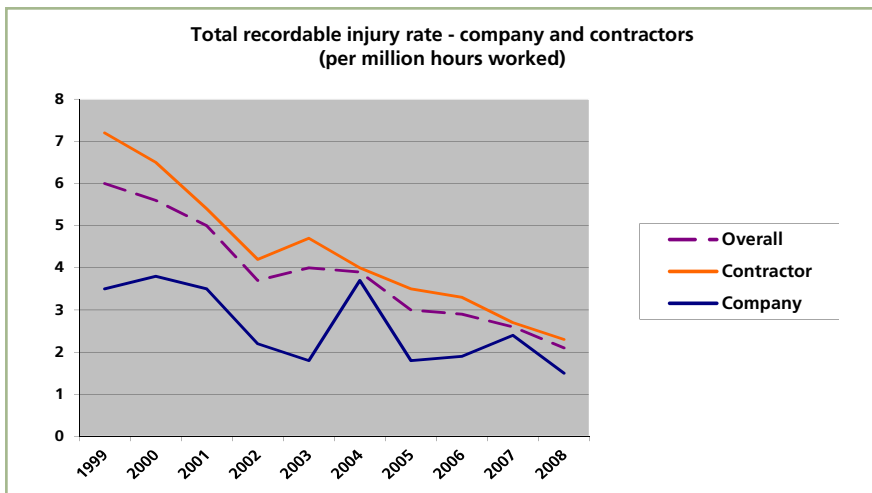
- Changing the organisation is the right thing to do – there is no alternative.
- All potential negative effects on safety (e.g. losing skills from the company, reducing the competency of teams, lowering morale, overloading employees, losing control of contractors) have been considered.
- The changes will not negatively affect how safety critical and other key tasks are carried out: such as start-up, shut-down, major transitions, emergencies, maintenance campaigns, etc.
- There are measures in place to counteract any negative consequences.
- It can manage the transition from the existing to the new arrangements e.g. by establishing 'hold points' (stopping to review progress and if necessary revise the plan).
- Training, procedures or other support systems are provided for the new arrangements.
- Changes can be reversed or modified if necessary.
- Temporary changes do not exceed their planned time span or, if this is unavoidable, communicate this to those affected.
- Everyone affected by the change is consulted and their opinions, concerns and suggestions are considered.
- Once the change has taken place, information is gathered on the success or otherwise of the new arrangements, e.g. by interview/discussion, encouraging operators to keep written records, by visiting and observing work in progress, by carefully examining safety related incidents, etc.
- The change is properly completed, measured and the effects evaluated.
- Written records of the change process are kept and lessons learned are applied to future organisational change.
- Legal requirements are met both during and on completion of the changes.

It has been suggested (e.g. in an article in Occupational Health, Vol.31, No.12, March 2001) that contractors appointed to replace downsized staff are not as well trained as core employees. The graph below provides some evidence for this – contractors have a consistently higher, though decreasing, injury rate compared to company employees (Source: OGP Highlights, June 2010).

Total recordable injury rate - company and contractors (per million hours worked)

Legend: - - - Overall, —— Contractor, —— Company

Measuring performance

Below is a sample of performance indicators that could potentially be used to monitor how effective an organisational change has been, divided into leading indicators (showing that a problem may occur in future) and lagging indicators (showing that there is currently a problem). See Briefing note 17 *Performance indicators* for more information on using performance indicators.

Leading indicators	Lagging indicators
Number or percentage of organisational changes that are risk assessed as part of management of change process.	Number of tasks carried over to next shift.
Number or percentage of management of change requests closed out or signed off versus number remaining live (for period/against targets).	Number of issues arising from failure in management of change process (e.g. delays, impact on operations etc.).
Percentage of adherence to management of change procedures, based on spot checks, audits, etc.	Number of times work stopped because of lack of personnel.
Staff workload assessment (workload assessment is particularly important for safety critical tasks).	Number or percentage of staff off work because of stress.
Maintenance backlog.	Number of identified skills shortages.
	Increase in overtime worked.
	Increased reporting of fatigue.

More information

Other key issues of organisational change, and an indication of where resources can be found about each issue, are given below:

Key issue	Resource
Management, organisation and supervisory structure	Safety management systems (such as HSG 65) HR Consultants
Number of staff available for required roles	Reference 1
Team structures and working arrangements	HR BN 10 *Communications* BN 11 *Task analysis*
Competence of team members	BN 7 *Training* Competence management systems
New procedures for new roles or structures	BN 6 *Safety critical procedures*

Reference

1. Energy Institute (2004), *Safe staffing arrangements - user guide for CRR348/2001 methodology and its extension to automated plant and/or equipment*, http://www.energyinst.org.uk/humanfactors/staffing.

Further reading

- HSE website: http://www.hse.gov.uk/humanfactors/comah/orgchangeinfo.htm.

- HSE (2003), *Organisational change and major accident hazards,* Chemical Information Sheet No. CHIS7, http://www.hse.gov.uk/pubns/chis7.pdf

- Brabazon P and Conlin H (2001), *Assessing the safety of staffing arrangements for process operations in the chemical and allied industries,* (Contract Research Report 348/2001), HSE Books.

- HSE (1994), *The fire at Hickson & Welch Limited. A report of the investigation by the Health and Safety Executive into the fatal fire at Hickson & Welch Limited, Castleford on 21 September 1992.*

- Hopkins A, (2000), *Lessons from Longford: The Esso gas plant explosion*, CCH Australia Ltd.

- Shields, PRH (2002), *The control of organisational change*, in Energy Institute (2002) *Report on workshop on human factors in the petroleum industry*, http://www.energyinst.org/humanfactors.

- CRR123/1996 *Business re-engineering and health and safety management. Volume 1 : Best practice model.*

- CRR124/1996 *Business re-engineering and health and safety management. Volume 2: Literature survey .*

- CRR125/1996 *Business re-engineering and health and safety management. Volume 3: Case studies.*

For background information on this resource pack, please see Briefing note 1 *Introduction*.