

National Occupational Safety and Health Committee
European H&S Week 14th 18th October 2002
(Draft) 'Alert' on

'Safety under Stress'



Background

The theme of this year's 'European H&S Week' –14th to 18th October- is 'stress at work'. HSE have also produced an action pack for the week accessible on the web at <http://www.hse.gov.uk/euroweek/index.htm>. This builds on HSE's campaign on stress (visit 'Working on Stress' <http://www.hse.gov.uk/campaigns/stress/main.htm>).. As part of this they have developed guidance 'Work Related Stress: a Short Guide', (downloadable as a pdf from <http://www.hse.gov.uk/pubns/indg281.pdf>).

Stress and safety

Although the suggested agenda for H&S week is quite wide, covering violence and bullying at work as well as stress arising from occupational factors, little focus has been achieved so far on the question of stress and accidents. As its contribution to the 'week' RoSPA has decided to publish a draft 'Alert' on stress and safety (see below) to:

- remind all people at work about the relationship between stress (both occupational and non-occupational) and its potential impact on human reliability;
- raise awareness of the relationship between stress and rising accident rates;
- address stress prevention and coping strategies for those undertaking safety significant work/decision making; and also
- to enhance understanding of the impact of accidents on mental health and the need for effective rehabilitation.

The draft 'Alert' takes the form of a set of key principles with signposts to further information and advice (see below).

Stress and accident liability

Traditionally stress has been linked more to ill-health effects rather than safety concerns in the workplace. On the other hand, whether originating within the workplace or outside, it is clear that high levels of stress are likely to be associated with an increase in the frequency of errors (whether slips, mistakes or violations) and that these turn can increase accident risks. In turn, accidents can also lead to post-traumatic stress disorder in those directly affected by them.

Research on stress and psychological problems reveals how delicate the work/life balance has become yet arguably insufficient attention is paid to stress when undertaking risk assessments, even for highly safety significant work. The link between stress, error frequency and accident liability is likely to be complex. Individuals differ in their reactions to stressors – some may respond with an increase in risk-taking behaviour, others may be more likely to experience sub-optimal performance in terms of information processing.

Gaps in existing guidance

The relationship between stress, error and accidents is not as well explored in safety literature as is the relationship between stress and ill-health in literature relating to occupational health. Neither is it well addressed in most current guidance on ‘human factors’. Factors affecting ‘human reliability’ in HSE’s guidance (*Reducing Error and Influencing Behaviour* - HSG48) mainly emphasise fatigue and shift work (even though they may not always be related to stress). Stress and its effects of performance is acknowledged in the guidance but discussion is limited to job design improvements. There is no supporting research or statistics on the links between stress and accidents and this gap must be redressed if HSE revises its guidance, *Work Related Stress, a short guide* which currently omits any mention of safety and accidents (only ‘poor performance’ is briefly listed). The HSE leaflet *Tackling work-related stress, a guide for employees* also fails to highlight the increased likelihood of errors and accidents as a consequence of stress – it only refers to ill-health problems such as back pain and heart disease.

Earlier HSE guidance on stress pointed to an increased accident rate as a possible sign of dysfunctional levels of stress in organisations. There is much anecdotal evidence, for example, about the impact on accident rates due to announcements about redundancy or other threats to job security as well the possible impact of generalised societal threats (terrorism, war etc). More guidance is needed however to focus on the possible safety implications of an increased incidence of different forms of error in employees experiencing life stressing events such as bereavement, divorce, childbirth, moving home etc or involvement in violent and mentally traumatic events. In RoSPA’s view, guidance is needed to help stakeholders understand the links for example, between particular types of accident (or ‘near miss’) and various kinds of stress linked errors.

Review of research

There has been some research and some literature reviews at an international level on stress and accidents. RoSPA’s review of the current literature is contained in Annex 1.

RoSPA is pressing for a more rigorous search across all fields of safety literature (particularly to examine any studies in sectors where high levels of operator reliability are considered essential e.g. air, marine, nuclear, major hazards safety etc). It is particularly important to assess the impact of stress not only on operator performance but on the effectiveness of safety significant decision making by managers, many of whose errors can lead to latent failures (i.e. lie dormant until other precipitating factors arise).

Literature review (and possibly further research) are also required to help develop a more robust understanding of the relationship between stress and fatigue and the way in which these two distinct forms of impairment can interact to increase the chances of employees making errors and having accidents. For example, fatigue may be associated with an increase in 'slips of action' or 'lapses of memory', whereas in addition to these types of error, stress may lead to a greater tendency to commit 'situational' and 'exceptional' violations (see HSG48 for definitions).

Proposed approach

While a more robust evidence base is clearly desirable, the clear priority, in RoSPA's view, is to begin to raise awareness within organisations of the issues involved by alerting managers, safety professionals and safety representatives to a number of key principles

For example, does the organisation:

1. identify jobs where high levels of human reliability are fundamental to safety?
2. in consultation with employee representatives, review risk assessments in such cases to determine whether additional measures are necessary to cope with potential safety performance impairments due to stress (whether occupational or non-occupational) in origin?
3. provide training to managers and safety representatives dealing not only with identification, assessment and management of occupational stress and stressors, but how to tackle the safety impact of non-occupational stress in key staff?
4. investigate particular accidents and analyse accident trends from a human factors perspective to determine whether stress has played any significant part in their causation and to learn (and act on) lessons that may be available?
5. build consideration of stress into 'human factors reliability assessment', for example when designing technology and systems as well as specific jobs and key work procedures?
6. provide re-assurances to staff experiencing stress that any adjustments to their work for safety reasons will not lead to unfair discrimination?

7. have arrangements to support and counsel and rehabilitate staff who have suffered mental trauma as a result of accident involvement, whether as a casualty or a witness?

RoSPA recognises that it is impossible to develop a set of rules on stress and safety which are likely to be both easily understandable and relevant to a wide variety of circumstances. The key challenge is to help stakeholders to achieve proportional and humane responses to safety issues associated with stress (for example, ensuring confidentiality and making job adjustments rather than simply replacing stressed employees whose recovery may in fact depend on remaining at work carrying out their normal duties). The following 'Alert' is designed to raise awareness by challenging health and safety professionals, managers and safety representatives to think carefully about stress as a safety as well as a health issue.

Draft 'RoSPA Alert'

'Safety under Stress'

- 1) In the UK as many as one in five people are suffering from high levels of work-related stress. Over half a million workers take time off work annually as a result of experiencing stress.
- 2) High levels of stress (whether caused by work or arising from other life stressing events such as bereavement, divorce or money worries) can lead not only to ill health but can adversely affect concentration, information processing and the consistency of decision making.
- 3) Workers experiencing high levels of stress may be more liable to commit errors in their work (whether slips, mistakes or violations) which in turn can lead to accidents.
- 4) When monitoring for signs of stress, all health and safety professionals, managers and safety representatives should review accident and 'near miss' trends in their organisations to see whether these are associated with such signs.
- 5) They should also consider the possible contribution of stress (both occupational and non-occupational) when investigating the causes of individual incidents.
- 6) They should seek to identify jobs, particularly those associated with high consequence risks, where high levels of human reliability are fundamental to safety.
- 7) In consultation with safety representatives, they should review risk assessments in such cases to determine whether additional measures are necessary to cope with any potential safety performance impairments due to stress (whether occupational or non-occupational) in origin.

- 8) **Workers undertaking safety critical work should be a special focus for stress prevention and support.**
- 9) **Consideration of stress as a performance impairment factor should always be taken into account when designing safety critical technology and systems as well as specific jobs and key work procedures.**
- 10) **Appropriate job adaptations to support stressed workers undertaking safety critical work should always be considered as an option before simply replacing them (even temporarily), recognising that their recovery may be assisted by remaining at work carrying out their normal duties.**
- 11) **Training programmes for managers and safety representatives on how to deal with stress should not only address the identification, assessment and management of occupational stress and stressors, but how to tackle the safety impact of non-occupational stress in key staff.**
- 12) **Line managers and safety representatives need to develop attitudes and skills which will enable them to recognise the signs of stress and deal sympathetically with those affected.**
- 13) **Staff experiencing stress need re-assurance that any adjustments to their work for safety reasons will not lead to unfair discrimination.**
- 14) **Similarly, organisations need to have arrangements in place to counsel support, and rehabilitate staff who have suffered mental trauma as a result of accident involvement, whether as a casualty or a witness.**

Useful sources of information:

Accessible at <http://www.hse.gov.uk/pubns/stresspk.htm>

- Work related stress: a short guide pdf
- Work-related stress - myths and facts: fact sheet 1
- Work-related stress - some of the causes: fact sheet 2
- Work-related stress - the consequences: fact sheet 3
- Work-related stress - findings of recent research: fact sheet 4
- Work-related stress - the future: fact sheet 5
- Tackling work-related stress - a guide for employees pdf

Other HSE publications

(available from HSE books HSE Books, PO Box 1999, Sudbury, Suffolk, United Kingdom CO10 2WA or visit <http://www.hsebooks.co.uk/about.html>.)

- Tackling work-related stress: a guide to improving employee health and well being HSG218
- Managing work-related stress: a guide for managers and teachers in schools.
- Mental well being in the workplace: A resource pack for management training and development
- Reducing error and influencing behaviour HSG48

Conclusion

Comments are sought the value and content of the proposed 'Alert' which will be publicised via a RoSPA Press Release on 14th October.

Roger Bibbings, Occupational Safety Adviser
Dr Lieu Nguyen, Project Manager

27th September 2002

Annex 1

To follow by email...