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Preventing major accidents

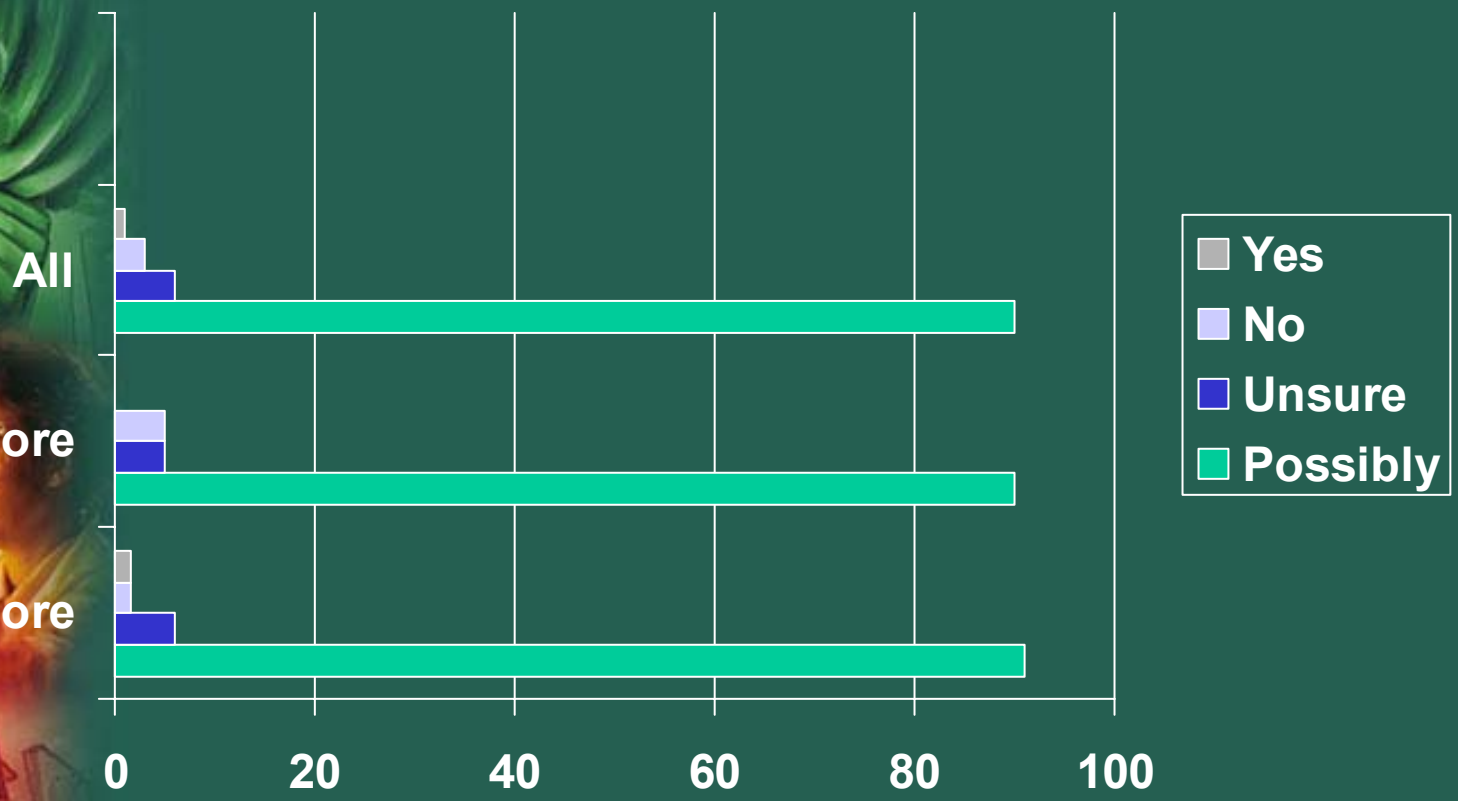
Dr Debbie Lucas
HSE

PRISM seminar, Manchester
19-20 February 2003

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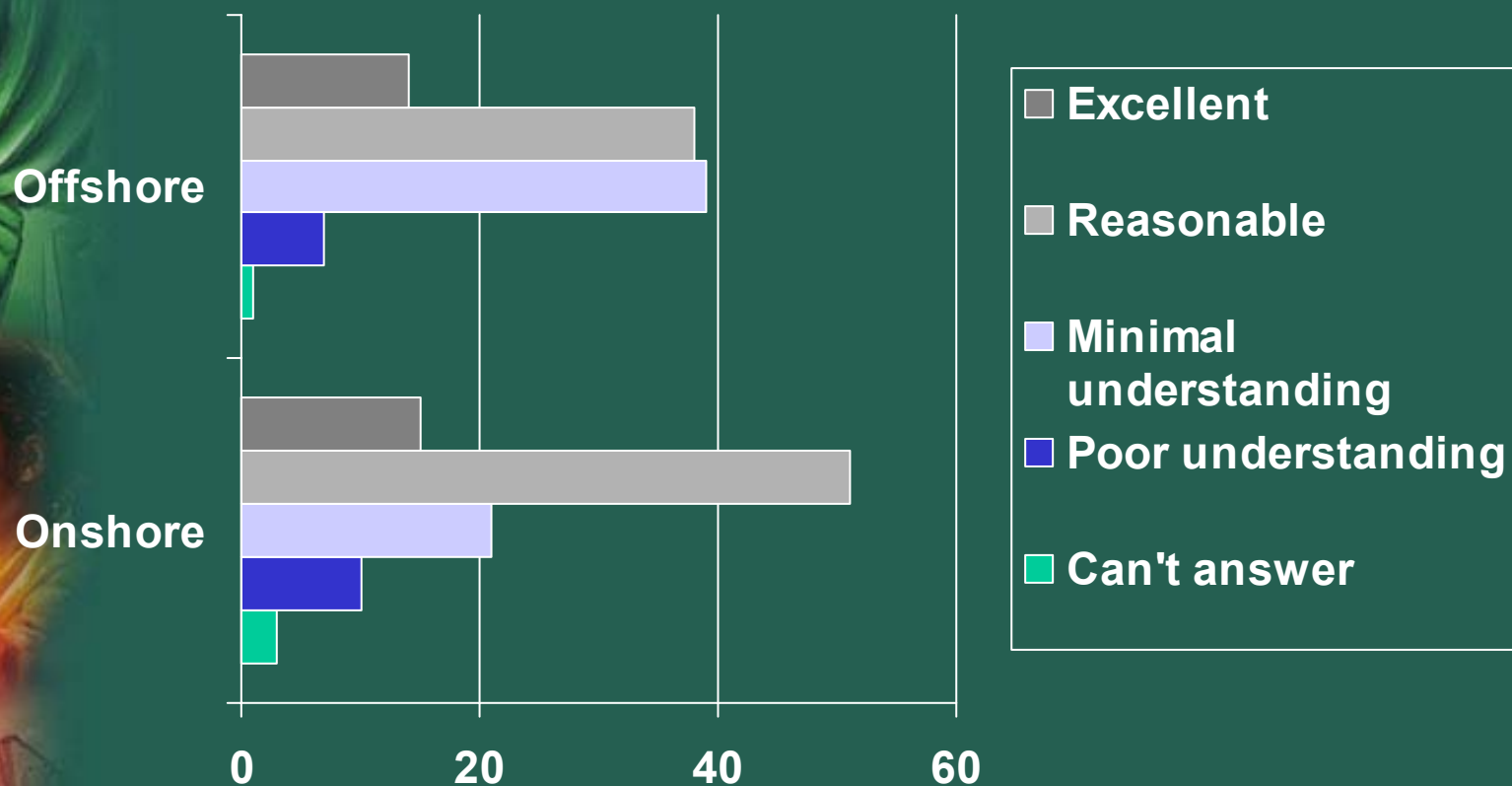


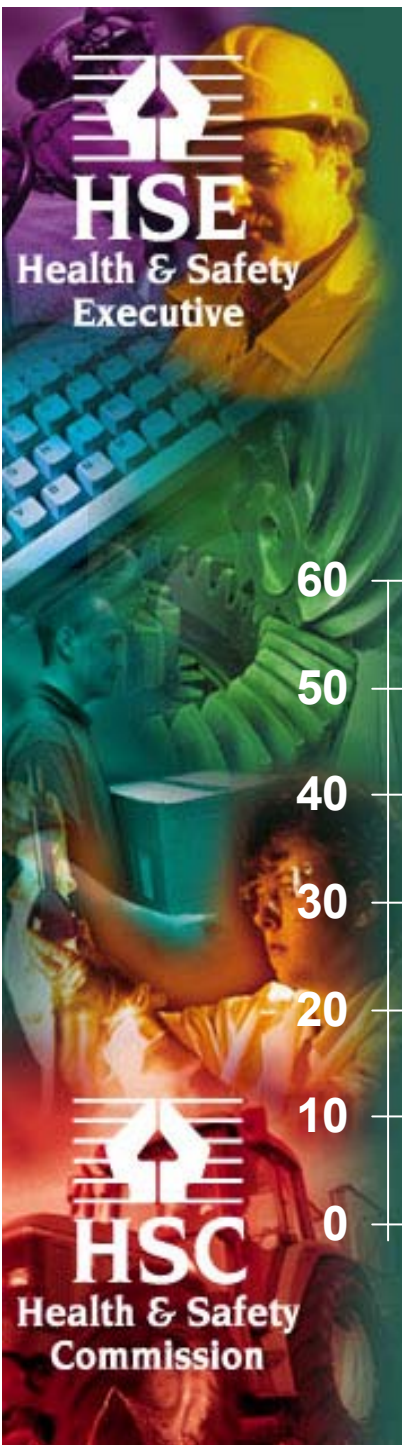
‘Have you heard of term ‘human factors’?’





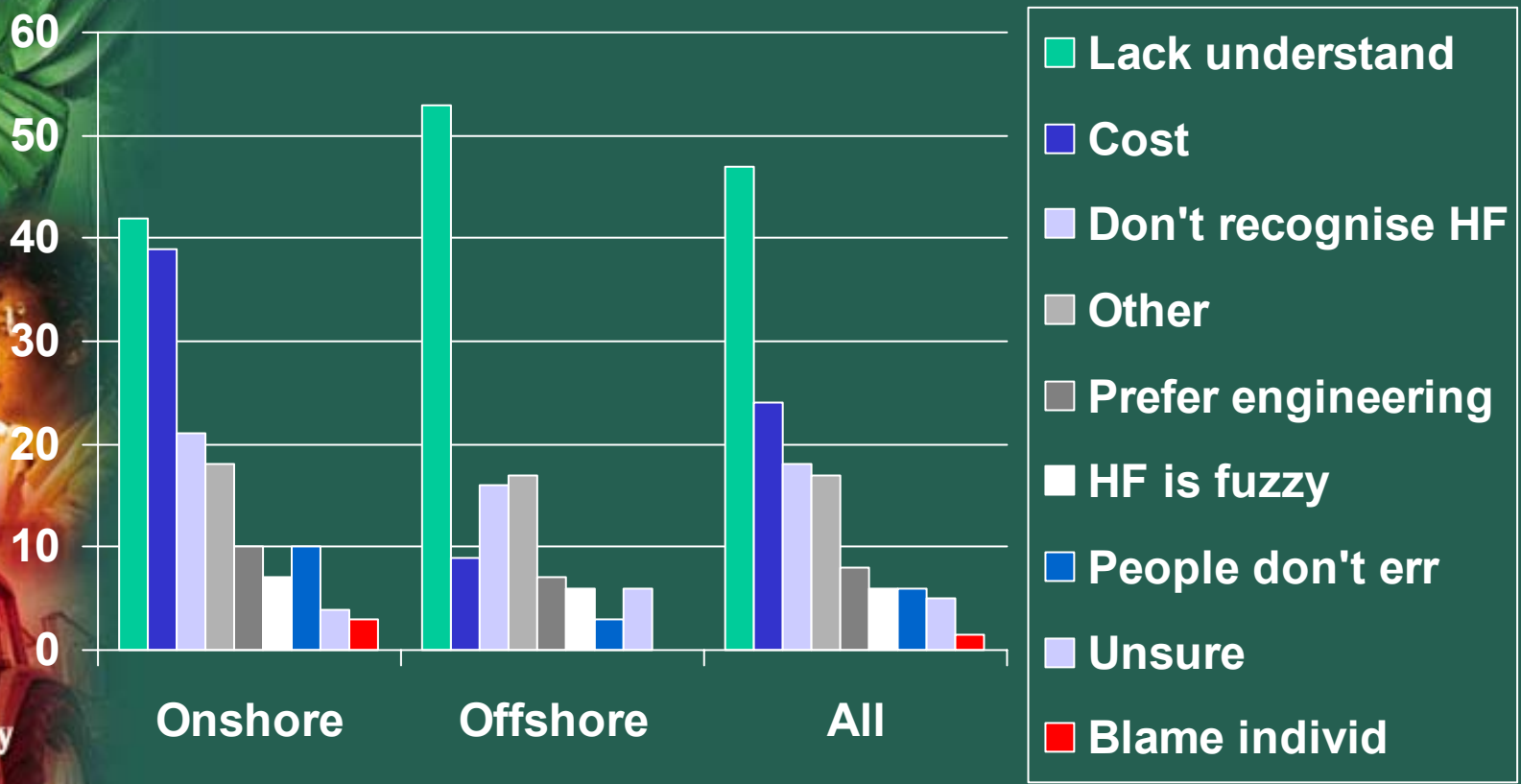
Understanding of 'HF'





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What stops companies from considering HF issues?

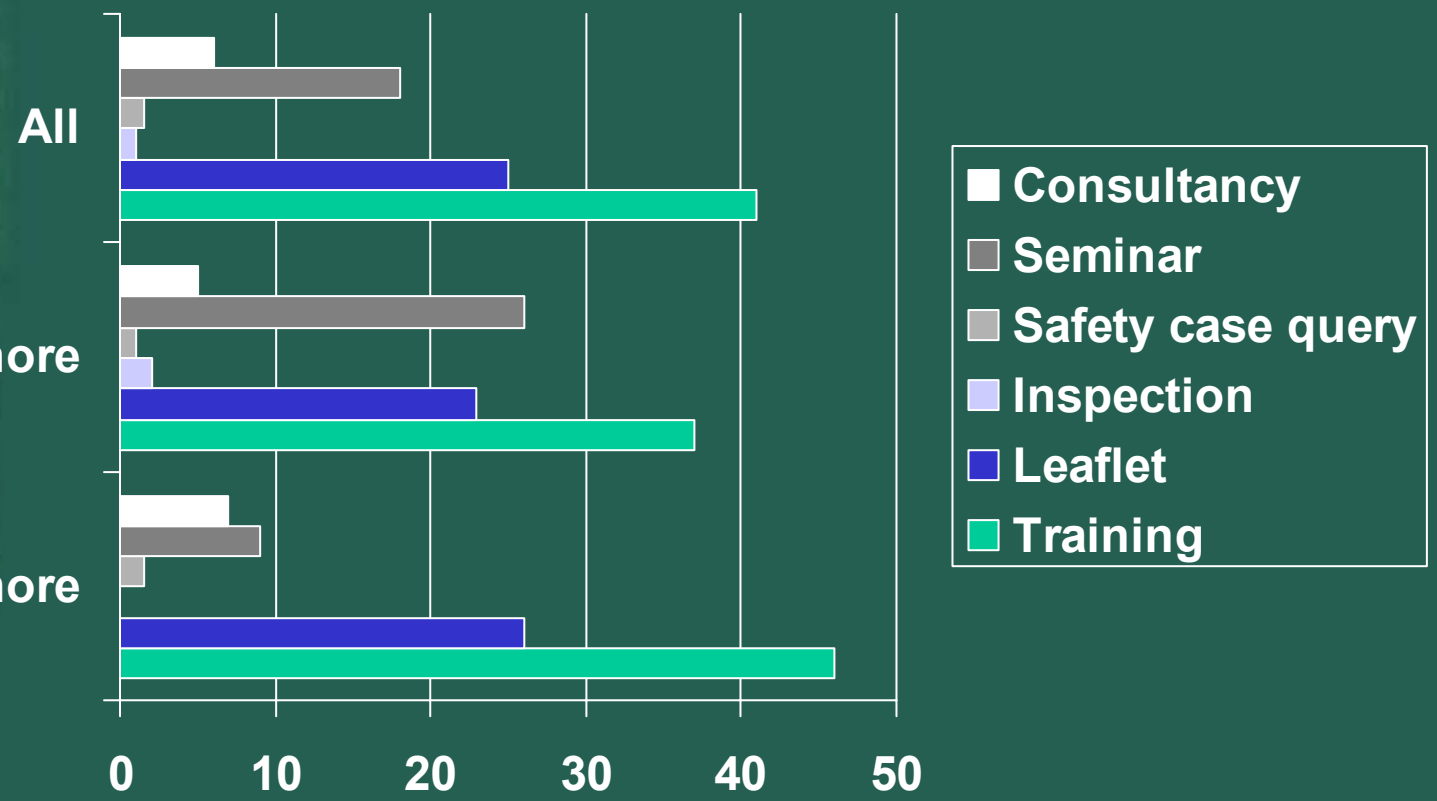


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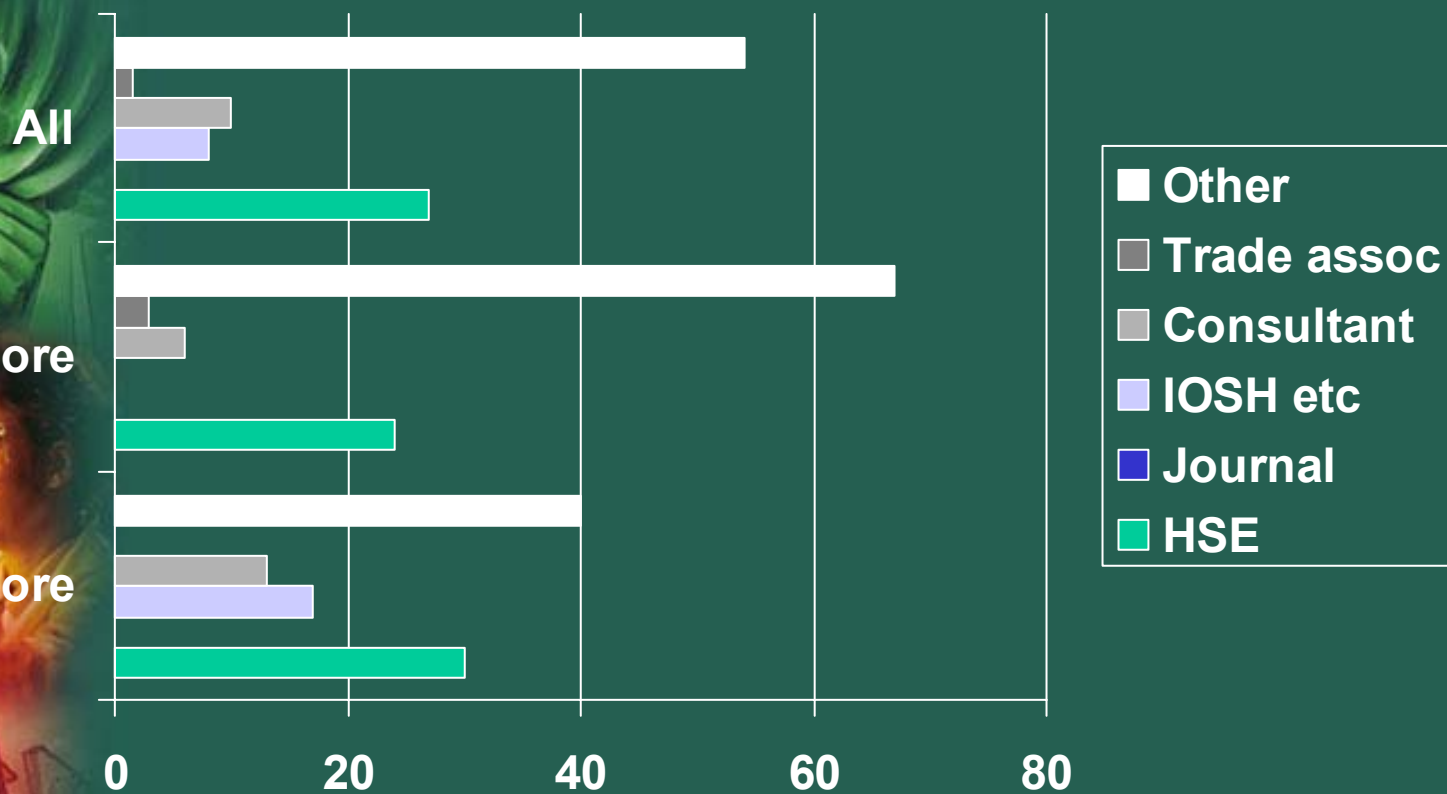
Previous HF info/contact?



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Best source of info on HF?



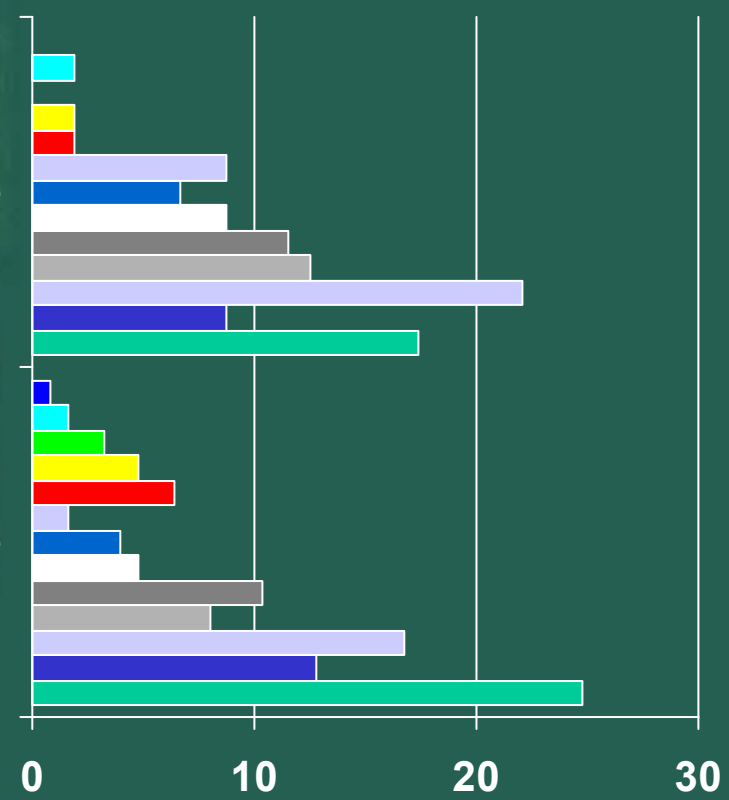


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Prompts to improve HF?

Offshore

Onshore



- Insurance
- Part of SMS
- Productivity
- COMAH
- HSE advice
- Public pressure
- Poor safety
- Concern for staff
- Other
- Costly accident
- HSE action
- Good practice
- Accident



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A recent example

- Deliberate release of substantial amount of flammable substance on major hazard site
- Serious risk with high potential
- Enforcement action taken on site
- Site and HSE investigation of causes

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Site found:

- Poor individual judgement
- Improper use of performance incentives
- Inadequate leadership
- Poor training
- Custom/practice of deliberate release
- Key action to improve 'culture' especially of contractors

Possible candidate for B.Safety??



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HSE found:

- Contractors status poor - 'leper colony'
- long standing maintenance problems
- major change implemented but not monitored
- failure of management systems to detect and rectify long standing custom/practice
- failure of audits to look for bad news

Some major hazard sites

- Response to series of 'near miss/DO' incidents by implementing or relaunching behaviour safety system
- But particular focus on contractors eg tanker drivers
- And focus is LTAs but they hope it will influence major accident safety
- They tend to view B Mod programmes as the key solution to human performance problems
- HSE asks for other relevant actions as well





Not my site.. Are you sure?

- This isn't just about some selected sites
- Sites we visit have some of the most advanced SMS
- Much emphasis on engineering safety but little on human performance affecting major hazards
- Concentration on personal injury indicators not major hazard indicators



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There is no magic bullet for
all types of human failures!!





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Behaviour Safety Programmes

- Aim to improve safety by changing worker behaviour
- increasing use, plugged by consultants.
- BUT only one approach to issue of human factors
- may not deliver as much benefit as hoped for
- can raise awareness on site and allow workforce to openly 'challenge'

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Useful if...

- Need to improve personal safety & definitions of unsafe behaviours are clear
- Any goals set are realistic
- Management are committed
- Trust and ownership of safety is distributed on site
- Workforce participate fully
- Review of programme occurs

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Problems we have seen

- Success varies from no change to some improvements
- seen by workforce as 'just another management initiative'
- Cost and effort are high
- Long term programme needed - programme 'died' and had to be relaunched
- Focus always on visible 'front line' behaviours relating to personal safety

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If you do use B.Mod.

- Talk to other sites
- Be careful about accepting external 'off the shelf' programmes
- Think about tailoring your own in-house system
- Be realistic about time and resources
- Review and evaluate
- Commit to resource issues raised

Slips, trips and other LTAs..





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Versus major incidents and accidents



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“An airline would not make the mistake of measuring air safety by looking at the number of routine injuries occurring to its staff...”

From ‘Lessons from Longford’
– Hopkins