

HSE – philosophy, strategy and management



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Dreaming



Being Me



Being Professional



Transformation

only risks and opportunities



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Clear HSE Goals

some hard facts end 20th century

Total employment (labour force) in USA?	~ 139 million
Total employment (labour force) in China?	~ 708 million
Global occupational fatalities end 20th?	~ 350,000
Global occupational accidents (3 days+)?	~ 260 million
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Occupational fatalities end 20th EU/USA?	~ 9,000/7,000
Estimated cost of all accidents end 20th USA?	~ 174 billion
Estimated cost of fatalities end 20th USA?	~ 4 billion
Cost benefit ratio (money for safety)?	~ 1 : 8

“ no harm to people ”

“ no job so important ... can't
be safely ”

What do I do
differently next
Monday to make it?



- Use existing practices and information
- Good for the drilling supervisor position
- Address the root-cause of accidents
- Change from reactive to pro-active
- Strategy supported by theory and data

- Take practice over theory
- Create deep enthusiasm for it



Geodynamics Limited's Brisbane office

change what you manage, don't manage change



rules: procedures, guidelines, instructions, etc

deviation from good practice may be violation

- deliberate - the well intended violations

- unintentional (slips, lapse and mistakes)

violations - deviating, bending, breaking rules

~~violations - breaching the last line of defence~~

Chernobyl - illustrating the importance:

there are 7 human actions causing the accident

5 were deliberate deviations from instructions



research results about violation behavior:

- 23 % of workforce are guardians of standards
- 30 % of workforce are naturally opportunistic
- 77 % have already or will violate rules with time

the management of a healthy balance is the key as both guardians and creative initiatives are needed in business



most people believe that individual characteristics are the main reason for violating rules (intentional rule breaking), remedied by the right people selection, proper training and some personal incentives.

~~facts are that the reasons lie predominantly outside the operational individuals, it is poor planning, failure to improve procedures and the existence of opportunities~~

aiming for perfect execution is eliminating violation opportunities: the power of the technical limit in HSE



here's the point

foundation of SMS is that people follow the rules
rules are the final barriers for a safe operations
most accidents are caused by deliberate rule-breaking
these violations are the direct cause or main contributor
but most violations are well intended to get the job done

manage safety pro-actively by preventing violations

- prevent need for rules (hardware, design, contracts, etc)
- remove violation-opportunities with better rules and planning
- manage expected habits of people not their operational intent



Improvement of procedures is a good start, but field study has shown that a perception of procedure-quality is a poor predictor of procedural problems

routine violations - poor procedures

situational violations - procedures cover situation poorly

exceptional violations - no procedures

extra exception: persisting to follow incorrect rules

rules typically change by accidents - an incomplete view



manage safety pro-actively by changing rules

Ask yourself:

- do subordinates know and understand the rules?
- do we need all the rules (procedures, instructions etc)?
- are there situations where rules are impossible to apply?
- does the operation 'encourage' rule-breaking?
- is it possible to have a rule for every operation?
- what alternatives are there to rules?

as soon as rules are agreed, test them: 77% of people are likely to break them; why? what to do? when, who?



manage safety pro-actively through people

Behavioral focus on people will yield high results
Does the team have the right mix of HSE-people?

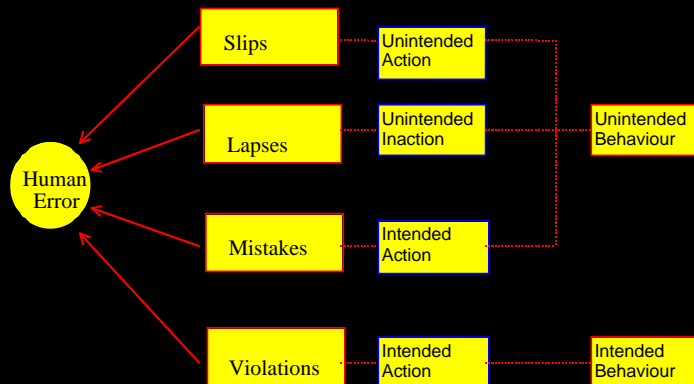
What do people expect they will have to do?

- Do people feel they are expected to break the rules?
- Do people feel they are powerful to ignore the rules?
- Do people see obvious opportunities to do things better?
- Do people feel they have enough time for the job-at-hand?

Supervise and punish is not effective enough
Detection and supervision give marginal return

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