Risk profiling and risk management systems
Over 2.5 billion children have been immunised

Immunisation Costs 50p

24th October 2019
World Polio day
Our journey today

- Our objective
- Risk in the news
- Risk profiling
  - What is it?
  - What is the benefit?
  - How do you do it?
  - Examples
- Risk management systems
  - Key elements
  - Standards
  - Practicalities
• Consider the concept and practicality of risk profiling

• Examine the key elements for a successful H&S&E management system

How many of you have applied risk profiling in your Business?

How many have linked it to the H&S&E management system?

How many of your boards consider the risk profile quarterly?

How many of you use OSHAS 18001? How many of you use BS ISO 45001?
Steel firm where two engineers died in explosion fined £1.8m
Risk 'could and should' have been foreseen
Judge Bidder said a step-by-step written procedure should have been put together and given to employees.
“If the job had been properly risk-assessed I am sure the accident would not have occurred,” said the judge.
He added: “The risk of explosion could and should have been recognised.”
Charitable trust fined after member of public injured
“This incident could have easily been prevented if a site-specific risk assessment and method statement had been used”

Company prosecuted after employee injured using ripsaw
An investigation by the Health and Safety executive (HSE) found that no risk assessment for the machine had been carried out to identify the controls to reduce the risk of kick back of timber.

BP Exploration Operating Company Limited fined after an oil leak
They failed to identify and assess the hazards and risks arising from the under-taking of a non-routine job, namely the task of draining water from a drain valve on a surge relief line.

Company fined after trainee worker’s finger severed
An investigation by the Health and Safety Executive (HSE) found there were no risk assessments or method statements for the machinery in the joinery workshop.

Farm fined after employee died following fall from a ladder
An investigation by the Health and Safety Executive (HSE) found there was no suitable and sufficient risk assessment or safe system of work in place for this operation. It was possible for the task to be carried in other ways and avoid working from a ladder.

HSE press releases - 11th September to 7th October 2019
Boards of Directors

What do they do?

Challenging role to consider the tasks below-

- Drive the business forward whilst keeping it under prudent control
- Be sensitive to pressures from short term issues but take account of longer term trends
- Stand back from day to day issues and retain an objective long term view
- Be knowledgeable about local issues but be aware of the potential or actual wider term issues
- Be knowledgeable about the workings of the company
- Focus on the commercial needs of the Business while acting responsibly towards employees, business partners and society as a whole

Source. Standards for the Board IoD
UK Corporate Governance code 2018

• Part 4 Principle O

• The board should establish procedures to manage risk, oversee the internal control framework, and determine the nature and extent of the principal risks the company is willing to take in order to achieve its long-term strategic objectives.
Risk profiling – what is it?

- Most relevant source for us is HSG 65
- Part of the ‘Doing’ of PDCA
- It explores: -
  - Nature and level of the threats faced by an organization
  - Likelihood of adverse effects occurring
  - Level of disruption and costs associated with each type of risk
  - Effectiveness of the controls in place
- Risk at the organizational level
Risk profiling – what is it?

- Each organization will have its own risk profile
- Not just for safety and health and environment (SHE)
- Tangible
- Less tangible
- Immediate effect or long lasting (eg Health)

- Sometimes referred to as ERM – Enterprise Risk Management
Risk profiling – the benefit

- Understanding your risks and exposures
- Evaluation of control measures
- Action to reduce risk of event and improve
- Key element in the CI process

- Goes to satisfy and demonstrate good governance
Standards

• As always there are standards that can be deployed in this area.
    • Pretty scary read as it covers not just SHE issues
  – ISO 45001:2018
    • See in particular
      – PDCA
      – Part 4 – Context of the organization
      – Part 5 – Leadership
      – Part 6.1 – Actions to address risks and opportunities

• Quote - Risk Based Thinking (RBT) is a central tenet of ISO 45001.
  RBT requires the Management Team to continually assess the issues that affect OH&S aspects of an organization and ensure that appropriate targets, resources and controls are in place.
Framework Principles

All responsible
Integrated across the organization

Context
Articulate commitment
Roles responsibilities
Resources
Comms & consultation

Plan – inc time and resources
Decision making locations
Risk management arrangements clear
Engagement
Integrate into the everyday

Leadership and Commitment
Integration
Improvement
Design
Evaluation
Implementation

Effectiveness
Measurement
Effectiveness
Performance
Plans

Value Creation and Protection
Continual Improvement
Integrated
Structure and Comprehensive
Best Available Information
Customized
Dynamic
Inclusive

BS ISO 31001
Figure 1 — Principles, framework
Clarity on the objective – Ensuring effective risk management processes including SHE
Risk profiling – how do you do it?

• Do you get that feeling when you read standards that they are great at principles but low on practical application?
• Risk identification
• Risk assessment
  – Define the risk
  – Understand the consequences
  – Evaluate the likelihood
  – Check how the organization eliminates, mitigates, controls or reacts to the risk
  – Test and evaluate the control measures
  – Decide where you want to improve
<table>
<thead>
<tr>
<th>Risk Types</th>
<th>New Risk Suggestions</th>
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</thead>
<tbody>
<tr>
<td>Compliance</td>
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<td>Critical Documentation</td>
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<td>Financial</td>
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<td>Health and Safety</td>
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<td>Internal - Training Purposes</td>
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<td>Operational / Business</td>
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<td>Reporting</td>
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<td>Strategic</td>
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<td>Supplier Risk Assessment</td>
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</table>

**Hint!**

Organise your risk categories into business areas and request risk suggestions in the same area to engage your entire business.
## Oil and Gas risk universe

### Strategic
- Access & Renewal
- Prices and Markets
- Climate change & Carbon pricing
- Socio-political
- Competition
- Liquidity, Financial capacity and exposure
- Reputation & Brand

### Operational
- H, S & E
- Security
- Investment efficiency
- Planning & Perf Mgt
- Reserves management
- Project Delivery
- Joint Ventures
- Drilling & Production
- Transportation
- Product quality
- Digital Infrastructure
- BCP/DR & Crisis Mgt
- People and Capability
- Treasury and Trading

### Compliance and Control
- Regulatory
- Ethical Misconduct and Non compliance
- Liabilities and provisions
- Reporting

Source: Annual reports for Talisman, Shell, BP
Something simpler?

• ABC manufacturing
  – Concentrate on HSE
  – Organisational hazards?
  – Consequences
  – Likelihood – No debate!
  – So what next
1. Generate draft risk register with Senior management team. Complete risk register up to and including current controls and mitigation.

2. Reflect on output and amend as needed.

3. Senior team decide if risks adequately controlled? Decide on action options.
   - Treat - decide on additional controls/mitigation
   - Tolerate - Accept the level of risk
   - Transfer - pass on the risk to an outside organisation
   - Terminate - stop the activity

4. Complete the register.


4a. Update register with latest data on improvement activities.

5. Senior management team review improvement activities regularly. Agree confirmed improvements. Agree migration of risks to Mitigated risk category (if score 5 or less).

5a. Amend controlled risk scores to reflect confirmed approved controls.

6. Annual review.
<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Rating</th>
<th>Criteria</th>
<th>Probability</th>
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<tbody>
<tr>
<td>Almost certain</td>
<td>5</td>
<td>It is expected to happen. Will certainly happen this fiscal year or during the three year period of the Plan.</td>
<td>80% to 100% or once a year or more frequently</td>
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<tr>
<td>Likely</td>
<td>4</td>
<td>We expect it to happen. It would be surprising if this did not happen.</td>
<td>61% to 79% or once every 3 yrs</td>
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<tr>
<td>Possible</td>
<td>3</td>
<td>Just as likely to happen as not. We don’t expect it to happen, but there is a chance.</td>
<td>40% to 60% or once every 5 yrs</td>
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<tr>
<td>Unlikely</td>
<td>2</td>
<td>Not anticipated. We won’t worry about it happening.</td>
<td>11% to 39% or once every 15 yrs</td>
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<tr>
<td>Almost certain not to happen</td>
<td>1</td>
<td>It would be surprising if this happened. There would have to be a combination of unlikely events for it to happen.</td>
<td>0 to 10% or once every 25 yrs</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Consequence</th>
<th>Rating</th>
<th>Criteria / Examples</th>
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<tbody>
<tr>
<td>Catastrophic</td>
<td>5</td>
<td>- Major problem from which there is no recovery.</td>
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<td>- Significant damage to ministry credibility or integrity.</td>
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<td>- Complete loss of ability to deliver a critical program.</td>
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<td>Major</td>
<td>4</td>
<td>- Event that requires a major realignment of how service is delivered.</td>
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<td>- Significant event which has a long recovery period.</td>
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<td>- Failure to deliver a major political commitment.</td>
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<td>Moderate</td>
<td>3</td>
<td>- Recovery from the event requires cooperation across departments.</td>
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<td>- May generate media attention.</td>
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<td>Minor</td>
<td>2</td>
<td>- Can be dealt with at a department level but requires Executive notification.</td>
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<td>- Delay in funding or change in funding criteria.</td>
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<td>- Stakeholder or client would take note.</td>
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<td>Insignificant</td>
<td>1</td>
<td>- Can be dealt with internally at the branch level.</td>
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<td>- No escalation of the issue required.</td>
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<td>- No or manageable stakeholder or client interest.</td>
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<td>Risk No</td>
<td>Description of risk</td>
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<td>Health and safety</td>
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Risk management systems – key elements

- ISO 45001: 2018
  - Organisation context
  - Leadership
  - Planning
  - Support
  - Organisation
  - Performance evaluation
  - Improvement
Some examples of system structures

Large organisations but pick and choose that which applies to you
Achieving Operating Excellence
Through Operational Discipline

Management Leadership and Commitment

- Auditing
- Process Safety Information
- Process Hazards Analysis
- Operating Procedures and Safe Practices
- Management of Technology Change
- Quality Assurance

- Emergency Planning and Response
- Management of Personnel Change
- Incident Investigation
- Contractors
- Training and Performance
- Management of “Subtle Changes”

- Mechanical Integrity
- Prestart-Up Safety Reviews
The OHS Management Standards are arranged within the Plan-Do-Check-Act framework.

**Plan**
- 1 Leadership and Accountability
- 2 Legal Compliance
- 3 Risk Management

**Do**
- 4 Fit for Work
- 5 Training and Competency
- 6 Engagement, Consultation and Communication
- 7 Document Controls and Records Management
- 8 Materials and Contractor Management
- 9 Project Management
- 10 Process, Plant and Equipment Integrity
- 11 Emergency Preparedness and Response

**Check**
- 12 Incident Management
- 13 Preventive and Corrective Action
- 14 Measurement and Verification

**Act**
- 14 Measurement and Verification
Policy objective

Planning

Implementation and operation

Checking and assurance

Audit and review

1. Leadership and accountability
2. Competent people
3. Hazard identification
4. Compliance assurance
5. Health and safety planning
6. Risk management
7. Asset management
8. Management of change
9. Managing contractors
10. Operational control
11. Communication
12. Emergency preparedness
13. Learning from events
14. Measuring performance
15. Audit and review
Practical issues

• Engage your organization
• Integrate with key parts of the process
• Build around risk and its management
• Keep it simple and minimise bureaucracy
• Independent assessment and advice
  – When you are ready
• Excellence the enemy of improvement?
  – Say what you do
  – Is it good enough?
  – Plan the improvement and its deployment
Conclusion

• Risk profiling
  – Simple and important to provide your organization focus on what matters
  – Four Ts

• Risk management systems
  – Turn it on its head
    • Do you really want to be accused of systemic failures?
  – There is a clear expectation that you will be systematic in your control
  – Consider options but make it fit your organisation
Steve Pearce

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