Mitigating safety risk through confidential reporting

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A brief history of CIRAS

• Began as a pilot scheme in Scotland in 1996

• National mandate following Ladbroke Grove in 1999

• Now handles long-standing health and safety issues

• Other systems do near-miss /close call reporting
Why do people come to CIRAS?

75% of CIRAS reports go through internal company channels

Reasons why staff report to CIRAS after using internal channels:

- Inadequate: 57%
- Adequate but not implemented: 21%
- No response: 20%
- Other: 2%

CIRAS Confidential Reporting for Safety
From *Safety-I to Safety-II*

CIRAS is a key driver of *Safety-II*

**Safety-I**

- Reactive approach
- Focuses on things that go wrong
- Emphasis on human error
- Inclination to blame frontline staff

**Safety-II**

- Proactive approach
- Focuses on things that go right
- Emphasis on variability in human performance
- Shared responsibility for system outcomes
‘Deep diving’ for human factors data

- In-depth interviewing enables ‘deep diving’ to extract a wealth of information about:
  - hidden safety issues
  - safety and reporting culture
  - helps identify potential weaknesses in safety defences

- Forms an ‘information bridge’
  - improves communication between frontline staff, and senior management

- What works? What doesn’t work?
# Confidential reporting focuses on the system

<table>
<thead>
<tr>
<th><strong>Human error approach</strong></th>
<th><strong>A ‘systems’ approach</strong></th>
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<tbody>
<tr>
<td>- Errors come from ‘bad apples’</td>
<td>- ‘Bad apples’ are often ‘good apples’ making errors under pressure</td>
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<tr>
<td>- Bad apples are unreliable, not to be trusted</td>
<td>- So-called bad apples can be trusted</td>
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<tr>
<td>- The system and processes are rarely at fault</td>
<td>- The system and processes can be at fault</td>
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<tr>
<td>- Human error is emphasised at the expense of systemic factors</td>
<td>- Human AND systemic factors are given prominence</td>
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<td>- Intolerant of variability in human performance</td>
<td>- Objectively examines variability in human performance</td>
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<td>- Frontline staff shoulder most of the blame</td>
<td>- Safety responsibility is shared evenly between managers and frontline staff</td>
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Expanding knowledge via confidential reporting

- **Open area**: Shared internally and externally
- **Hidden**: Known to organisation, not known to others
- **Blind spot**: Not known to organisation, but known to others
- **Unknown**: Not known to organisation, not known to others
Expanding knowledge via confidential reporting

- Open area
- Blind spot
- Hidden
- Unknown
Countering the ‘Black Swan’ effect

• An unpredicted, catastrophic event which can sweep through a whole industry. For example, the credit crunch of 2008.
• Existing analysis fails to predict it, and is not collecting all the data.
• It can cause ‘meltdown’ severely damaging business, or an entire industry.
• Trust and reputation suffer
Deepwater Horizon

A disaster a confidential reporting system may have averted?
Frontline staff are the early warning system

BP’s Patrick O’Bryan (VP of Gulf drilling operations):

“...the best performing rig that we had in our fleet and in the Gulf of Mexico.”

Crew members:

“The well from hell.”
Switching off safety

Key safety systems intentionally switched off:

• physical alarm system disabled a year before disaster
• crucial safety device to shut down the drill shack if dangerous gas levels were detected was disabled, or ‘bypassed’

The Chief Technician protested to his Supervisor. The response?

"Damn thing been in bypass for five years. Matter of fact, the entire fleet runs them in bypass."
Learning ‘locked away’ in the system...

Transocean failed to communicate lessons from an earlier near-miss in the North Sea to its crew (four months before Deepwater Horizon)

The basic facts of both incidents were the same

An ‘operations advisory’ was sent to some of the fleet in the North Sea. PP presentation also created

They never made it to the Deepwater Horizon crew
From the North Sea to the Gulf of Mexico...

Learning in the system, but not communicated to all parts...

Near-miss lessons
Training
Briefing
Review of procedures

Confidential reporting facilitates knowledge transfer
We need to make a step change in how reports are taken, analysed and resolved.

Our proposal is to move to a ‘defences-based’ model

Dialogue between the reporter and the CIRAS researcher is about:

- protections (processes, procedures, systems, equipment)

What failed and what worked?
Moving to a ‘Defences-based’ model

The goal: everyone involved in an operation will have the same understanding of the hazards and defences and be equally empowered to raise concerns.

- CIRAS would discuss the reporter’s concerns across a generic bow-tie for the activity.
- The bow-tie would be confirmed or developed with the reporter and confirmed with the operator.
- The pathway of the event would be mapped onto the diagram, along with weak and strong defences identified by the event.
Summary of key benefits

Benefits

- Corporate safety net
- Human Factors intelligence
- Identify weaknesses in safety defences
- Prevent 'Black Swans'
- Increase cultural maturity
- Shared learning
Our values

Completely
independent

Entirely
confidential

Helping organisations
become even safer