Safety and health at work is everyone’s concern. It’s good for you. It’s good for business.

Workshop 4.
Refinement of Risk Assessment with focus on Human Factors

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But, what is Human Factors???

The UK Health and Safety Executive defines human factors (HSG48) as: “environmental, organizational and job factors, human and individual characteristics which influence behaviour at work in a way which can affect health and safety.

This includes the jobs people do, the Individuals doing the jobs, and how They are organized and managed.”
Refine Risk Assessment processes

- Implement extra Controls & Not replying ONLY on Human Performance

Understanding Human Behaviour

- Implement different solutions, focus on fixing the system & processes, rather than on fixing the people
Key Actions and Areas of Focus:

Refine Risk Assessment processes
Implement extra Controls / Defenses & NOT rely ONLY on Human Performance

- Refine Task Hazard Risk Assessment (Job Safety Analysis / FMEA)
- Start with site accident history; critical hazard on site etc.
- Identify current controls/defenses
- Identify extra control/defense according to control hierarchy and NOT rely ONLY on Human Performances
Tripod-BETA

Incident Investigation and Analysis

Hazard → Controls

Hazard → Event → Target

Hazard → Defences → Target
Understanding Human Behaviour

Undesired Behaviour

Intentional Behaviour (Violations)
Routine, Situational, Exceptional, Personal gain/malicious

- Rare / Infrequent
- Need Peer Group Pressure
- Visible Leadership & Explicit commitment (disciplinary)

Unintentional Behaviour (Mistakes/Errors)

Human Information Processing
Key Actions and Areas of Focus:

Understanding Human Behaviour

Implement different solutions, focus on fixing the system & processes, rather than on fixing the people

Perception
- Communication,
- Warning signs (Visual/Audible)
- Labels, Colors

Memory
- Risk Awareness (share Inc/Acc),
- Communication on Lessons Learned,
- Inductions/Training,
- Warning signs (Visual/Audible),
- Labels, Colors

Decision
- SOP, Procedure, Manual

Action
- Engineering / Technical, Poka yoke (fool proof)

Make it easy to do thing right & difficult to do it wrong
Keys Performance Influencing / Shaping Factors:

• Time & Job pressures
• Multiple tasks
• ‘Lean’ structure
• Communication
• Inadequate training
• Complex rules & procedures
## ADDITIONAL Control Measures

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<tr>
<th>Elimination / Substitution</th>
<th>Personal Protective Equipment</th>
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<th>Information/Instruction/Training</th>
<th>Managerial Controls</th>
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<th>Physical Controls</th>
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### Revised Risk Assessment

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<th>Hazards</th>
<th>Likelihood</th>
<th>Severity</th>
<th>Risk Rating</th>
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- **Likelihood**: Probable, Occasional, Remote, Catastrophic, Critical, Serious, Marginal, Negligible
- **Severity**: 3 (High), 2 (Medium), 1 (Low)

- **Review Date:**
- **Authorised By:**
- **Approved By:**
Thank you for your attention!

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