Metodi di valutazione del rischio

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Risk Analysis

What is RA about

Analisi Retrospettiva

Data

Analisi Prospettica

Which questions are dealt with

Question 1: We just had an Event, can we continue operate safely?
Question 2: We are staring a new route/system. Are we safe?
Question 3: We are changing contractors. Are we still safe?
Risk Analysis

What are the Methods for RA

Fault Trees
Event Trees
Functional Safety
HRA
Expert Judgement
FMECA
Simulations/field tests

What do Methods aim at

Assess the Probability
Assess the Severity
Risk Analysis

What are the Methodologies for RA

Methodologies: Combination of Methods in a structured way to reach certain objectives. How to evaluate the Risk of Events/Occurrences

ARMS

Bow-Tie
## Risk Analysis

### Risk Assessment for Managing Company Operational Processes (RAMCOP)

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threats</td>
<td>Hazard UOS</td>
<td>Incident sequence description</td>
<td>Existing control</td>
</tr>
<tr>
<td>Threat 1</td>
<td>p_u</td>
<td>Description of UOS and calculation of p_u as a function of p_P</td>
<td>Cons. 1</td>
</tr>
<tr>
<td>Threat 2</td>
<td>p_u</td>
<td>Cons. 2</td>
<td>p_con.2</td>
</tr>
<tr>
<td>Threat 3</td>
<td>p_u</td>
<td>Cons. 3</td>
<td>p_con.3</td>
</tr>
</tbody>
</table>

…….

**Description and probability**

Consequences Prob. without control Barriers Prob. reduction Severity Probab. Risk Type of Barriers Type of barr. Reduction Severity Probab. Risk

Describe actions that are planned for mitigating risk and identify actors involved (“who should do what”). Describe monitoring and auditing activity and means of compliance with assigned actions (“how and what to monitor”).

\[
\text{p_UOS} = f(p_i)
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Grazie per la Vostra attenzione