Risk Assessment & Working at Heights

Awareness Session

Presented by: Loay M. Al Noor
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1. Objectives of Risk Assessment.
2. What is Risk?
4. Hierarchy of Control.
5. Working at Heights.
Objectives of Risk Assessment:

The overall objectives of having risk assessment is to ensure that no one suffers harm as a result of workplace activities.

The ultimate goal is to prevent or reduce the probability of accidents occurrence. Such accidents have the following impacts for a particular company:

- Moral impacts.
- Financial & production loss.
- Legal claims.
- Bad reputation.
What is Risk?

Risk is the probability of harm to occur. The degree of risk depends on the probability of harm happening and the severity of the outcomes.

Elements to Consider in Risk:

- Hazard.
- Harm or impact.
- Probability.
- Severity.
- Control measures and precautions.
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Cable Position</th>
<th>Risk Magnitude (Probability X Severity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripping over cable and falling.</td>
<td>Fastened to wall.</td>
<td>Zero</td>
</tr>
<tr>
<td></td>
<td>Trailing around edge of room.</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Trailing across the floor.</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Trailing across head of stairs.</td>
<td>High</td>
</tr>
</tbody>
</table>
Steps of Risk Assessment

Risk assessment is evaluation process of probability of harm/damage to occur, its severity, and careful examination on people, asset, and vicinity. To conduct this evaluation process, the following steps should be followed:

1. Identify the hazard.
2. Decide who might be harmed, and how.
3. Evaluate the risks arising from the hazards and decide whether existing measures are adequate or more to be done.
Cont’d Steps of Risk Assessment

4. Records the findings.

5. Review and revise the risk assessment regularly.
Example of Risk Rating Matrix

<table>
<thead>
<tr>
<th>PROBABILITY</th>
<th>Insignificant (1)</th>
<th>Minor (2)</th>
<th>Moderate (3)</th>
<th>Major (4)</th>
<th>Catastrophic (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare (1)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Possible (2)</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Likely (3)</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Often (4)</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Frequent/Almost Certain (5)</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>
## Cont’d Risk Rating Matrix

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 – 25</td>
<td>Absolutely Unacceptably High. Activity or industry should not proceed in current form</td>
</tr>
<tr>
<td>8 – 12</td>
<td>Unacceptably High. Activity or industry should be modified to include remedial planning and action and be subject to detailed risk assessment</td>
</tr>
<tr>
<td>4 – 6</td>
<td>Acceptable but must be managed at “As Low As Reasonably Practicable” (ALARP). Activity or industry can operate subject to management and / or modification</td>
</tr>
<tr>
<td>1 – 3</td>
<td>Acceptable without required further action. No action required unless escalation of risk is possible</td>
</tr>
</tbody>
</table>
Residual Risk:

It is the risk remains once the control measures have been put in place.

The residual risk must be at an acceptable or tolerable level (ALARP).
Hierarchy of Control:

1. Elimination
2. Reduction or Substitution
3. Isolation
4. Other Controls
5. Personal Protection Equipment
6. Discipline
## Example of Risk Assessment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hazard</th>
<th>Harm or Damage</th>
<th>Probability (P)</th>
<th>Severity (S)</th>
<th>Risk Rating (PXS)</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of scaffolding &amp; platforms (cradles).</td>
<td>Working at height which may lead to fall, falling objects or collapse of the scaffold or platform.</td>
<td>Body injury, fractures, or fatality. Asset damage.</td>
<td>4</td>
<td>5</td>
<td>20</td>
<td>Scaffolding/platforms to be erected as per applicable standards. Manual handling as per procedure. Continuous supervision on the job. Scaff-tag system to be adopted. Provide adequate warning signs. Scaffolding/platforms to be inspected by certified inspectors prior of usage. Toolbox talks before job starts.</td>
</tr>
</tbody>
</table>
5 Working at Heights:

One of the major hazards in construction is that a large part of the work is done at heights and there is an ever-present risk of falling. This is the main cause of major injuries and fatal accidents in construction & building sector.

Working at height may involve working at the following structures:

- Scaffolds.
- Elevated platforms.
- Elevated walkways/gangways.
- Roofs.
- Ladders.
Are they scaffolds or what?
Absolutely improper & unsafe elevated walkways
Lack of edges protection
Zero safety measures
Control Measures for Working at Heights

Working at Heights Video
Further Information

www.adm.gov.ae/hse
Abu Dhabi Municipality Website

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ADM HSE Division E-mail Address
Thank you