LESSONS - LEARNED

WORKING AT HEIGHTS

Zulfiya Samedova – 9 February 2017
Event Description

59-year-old painter/independent contractor (the victim) died of injuries after he fell (~ 8-10’) while working from a metal extension ladder

- **Routine Task:**
  - Touch up painting around the roof beams near the front of the building

- **Problem:**
  - Improper use of equipment, and insufficient assessment and mitigation of risk.

(Actual position of ladder unknown: Drawing depicts hypothetical scenario)
## Event Significance

Is the risk ALARP? **NO**
- Based on evaluation of the task, likelihood could be expected to occur at some time.
- Fatality consequences could be expected.
- Assessed risk is “very high”

Is the risk acceptable? **NO**

<table>
<thead>
<tr>
<th>Expected to occur regularly in normal circumstances</th>
<th>Almost Certain</th>
<th>Medium</th>
<th>High</th>
<th>Very High</th>
<th>Very High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected to occur at some time</td>
<td>Likely</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td><strong>Very High</strong></td>
<td>Very High</td>
</tr>
<tr>
<td>May occur at some time</td>
<td>Possible</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td><strong>Very High</strong></td>
</tr>
<tr>
<td>Not likely to occur in normal circumstances</td>
<td>Unlikely</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Could happen, but probably never will</td>
<td>Rare</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td><strong>Medium</strong></td>
</tr>
</tbody>
</table>
Event Cause(s)

- Routine Task:
  - Lack of proper planning and understanding of the potential hazards
- Unsafe working techniques
  - Improper type of ladder for the job?
  - Ladder was not secured from tipping,
  - Ladder was not long enough to allow for the proper 3’ overhang
  - Worker was not secured from falling by use of a positioning device when working 4-6’ off ground.
  - Possible unsafe working techniques (e.g.: leaning, 2 points of contact, etc.)
  - Lone worker: no buddy system during the task
- Fitness for the job
  - Unsure if age/health contributed to the fall

(Actual position of ladder unknown: Drawing depicts hypothetical scenario)
Event Prevention

Elimination & Substitution:
• Not reasonable given nature of variable work conditions

Engineering:
• Select and use the proper equipment
• Ensure the ladder is secured from tipping

Administrative:
• Lone Worker Program
• Training
• Work Planning
• Assess/mitigate risks (JSA)
• Fitness for the job
• Assurance

PPE:
• Fall Arrest
Lessons Learned

Event Cause(s)
Summary

• Identify Hazard and complete risk assessment, even for a routine task.
• Ensure workforce if properly trained to assess and mitigate risks associated with their work (e.g.: JSA/JHA, SOPs)
• Inspect and maintain the equipment.
• Use the proper equipment correctly for the task
• Use fall prevention methods when working from heights above (4’ / 6’)
• Implement a lone worker program, and assure conformance with it.
Post Event Significance

The worker could still fall off of the ladder, but the engineering controls combined with proper PPE use will reduce the likelihood for the ladder to tip and eliminate the fatality potential, and significantly reduce the severity potential.

- Is the entire risk removed – NO
- Is the risk at As Low As Reasonably Practical (ALARP) - YES

<table>
<thead>
<tr>
<th>Post Event Significance</th>
<th>Slight injury / health effects</th>
<th>Minor injury / health effects</th>
<th>Major injury / health effects</th>
<th>Permanent Total Disability or one fatality</th>
<th>Multiple fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Significant</td>
<td>Minor</td>
<td>Moderate</td>
<td>Major</td>
<td>Severe</td>
<td></td>
</tr>
</tbody>
</table>

- Expected to occur regularly in normal circumstances
  - Almost Certain: Medium, High, Very High
  - Likely: Medium, High
  - Possible: Low, Medium, High
  - Unlikely: Low, Low, Medium
  - Rare: Low, Low, Low, Medium

- Expected to occur at some time
  - Likely: Medium, High
  - Possible: Low, Medium, High
  - Unlikely: Low, Low, Medium
  - Rare: Low, Low, Low, Medium
2017 Topics

- January 2017: Chemical Safety
- February: Working at Heights
- March: **Dropped Objects**
- April: Electrical Safety
- May: Energy Isolations
- June: Layers of protection (design)
- July: Loss of Containment
- August: Fire Safety
- September: Lifting Operations
- October: Permit-to-Work.