FIELD LEVEL HAZARD ASSESSMENTS

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LEDCOR GROUP OF COMPANIES
WE BUILD AND SERVICE COMMUNICATION NETWORKS FOR CUSTOMERS ACROSS NORTH AMERICA
LEDCOR TECHNICAL SERVICES

OUR FOOTPRINT

SERVICING NETWORKS

BUILDING NETWORKS
LEARNING OBJECTIVES

1. Distinguish a Field Level Hazard Assessment (FLHA) from basic hazard assessment processes

2. Learn about the key features of a FLHA

3. Discuss three values of the FLHA process
## HAZARD ASSESSMENT

### BASIC HAZARD ASSESSMENT (JHA/JSA) vs. FIELD LEVEL HAZARD ASSESSMENT

- Basic hazard assessments are limited in the value they present
- Field Level Hazard Assessments empower field employees and are:
  - site and task specific
  - real time
  - cogitative tool

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>JHA</th>
<th>FLHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creates hazard awareness</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Training &amp; communication tool</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Hazard &amp; control inventory</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Develops practices and procedures</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Pre-job planning</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Site and environment specific</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Real time</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Captures new &amp; changing hazards/risks</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Task specific job planning</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Encourages active risk assessment</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Empowers field employees</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>“Last chance” hazard assessment</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Makes procedures site specific</td>
<td>NO</td>
<td>YES</td>
</tr>
</tbody>
</table>
RISK & HAZARD ASSESSMENTS IN LEDCOR

1. Project/Contract Risk Assessment
   - 100,000 ft. view risk assessment of the entire project or contract.
   - Considers all risks from project bidding to project completion. Completed by Project Managers.

2. Job Hazard Assessment (JHA)
   - 10,000 ft. view assessment specific to a worksite or segment of a project.
   - Completed by the most senior site supervisor.
   - Required for larger, higher risk, and more complex worksites.

3. Field Level Hazard Assessment (FLHA)
   - 1,000 ft. view assessment at the location of a specific task.
   - Completed by a work crew at the worksite prior to the start of the task. Updated as new hazards are introduced or change in the work plan.
FLHA

- Executed by each crew or individual technician
- Completed at start of task
- Updated throughout task execution
- Crew or Tech’s work plan
- Supervisor / manager review and feedback
FIELD LEVEL HAZARD ASSESSMENT (FLHA)
THE VALUE OF FLHAs

• Value 1: Process to assess risk in the work environment in real time.

• Value 2: Cogitative process to address complacency

• Value 3: Integrated Work Planning
MANAGING RISK

Where do FLHAs fit in?

• Risk Assessment †  FLHA †
• Risk Perception † ? †
• Risk Tolerance † ? †

To maximize effectiveness FLHAs require:
– supporting processes that address risk perception and tolerance
– strong organizational culture both favorable to safety and integrated with safety.

Reduce at-risk behavior
ASSESSING HAZARDS

- Stop and think process
- Real time assessment of hazards at the job site and the required controls
- Continuous process
ASSESSING HAZARDS

Train employees on Field Level Hazard Assessments

Communicate generic risks associated with work

Communicate job hazards

Employees execute process

Monitor employees in the field

Review and provide feedback

Create an awareness of risks and hazards

Active hazard assessment
Empower employees
Problem solve
Habituation

Reinforcement + Recognition
Continuous Improvement
Internalization
Habituation
ASSESSING HAZARDS

• Site specific
• Real time
• Last chance
• Empowers employees
• Positively influences at-risk behaviors
VALUE #2
THE COGITATIVE PROCESS
THE COGITATIVE PROCESS

• Three simplified components to thinking:
  – Working memory
  – Long-term memory
  – Gatekeeper function
Long-Term Memory

Gatekeeper

Working Memory

Long-Term Memory
Long-Term Memory

- Transfers information back and fourth between the working memory and long-term memory

Gatekeeper

- Retains about 7 bits of information
- 30 sec. cycle
- Critical information only
- Lives in the now
- Easily distracted

Working Memory

- Holds all information not being processed by the working memory
- Includes knowledge gained through experiences

Long-Term Memory
THE COGITATIVE PROCESS

• To be efficient the human brain will over time filter out:
  – Low probability risks
  – Risks that over time have not resulted in loss
  – Low risk perception
  – Any risk when individual’s risk tolerance is too high

• We naturally fall complacent through habituation and a conscious or unconscious sense of security

• Human brain is designed to fall into auto-pilot mode for routine activities
THE COGITATIVE PROCESS

• When an employee is executing a FLHA:
  1. Senses detect hazards
  2. Gatekeeper associated hazards with experience and knowledge
  3. Gatekeeper brings it forward to the working memory.

– When important information is written down we are more likely to completely pull information from the back of the mind to the front.
  • Less distracted
  • More focused.
THE COGITATIVE PROCESS

- Eliminates / reduces complacency
- Creates active thinkers
- Trains the mind – habituation
- Task-hazard-control association
- Breaks down bad habits
VALUE #3
JOB PLANNING
JOB PLANNING

• Holistic approach to job planning
• Three cogs of successful field execution

• Safety
• Quality
• Productivity
JOB PLANNING

STEP 1

• What am I doing?
• How am I going to get it done?
STEP 2

- What hazards are associated with each step
- Look/walk around
  - What could:
    - Hurt people
    - Damage equipment/property
    - Stop work
    - Result in litigation
**STEP 3**

- What needs to be done to mitigate all hazards/risks to a safe and acceptable level?

### THINK SAFETY — WORK SAFELY

#### STEP 1. BREAK THE TASK DOWN INTO STEPS

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Load and verify equipment, materials, tools</td>
</tr>
<tr>
<td>2.</td>
<td>Drive to work site</td>
</tr>
<tr>
<td>3.</td>
<td>Work site staging / site set up</td>
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<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
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<td>7.</td>
<td></td>
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<tr>
<td>8.</td>
<td></td>
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<tr>
<td>9.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Site clean up, demobilization, and drive home / to office (review and update steps 1-3)</td>
</tr>
</tbody>
</table>

**What Steps Might Change?**

**STEPS CHANGED? UPDATE THIS JOB PLAN**

#### STEP 2. NEXT TO EACH STEP WRITE DOWN THE APPLICABLE HAZARDS

**What Hazards Might Change?**

**HAZARDS CHANGED? UPDATE THIS JOB PLAN**

#### STEP 3. NEXT TO EACH HAZARD WRITE DOWN HOW IT WILL BE CONTROLLED

**What Controls Might Change?**

**CONTROLS CHANGED? UPDATE THIS JOB PLAN**
JOB PLANNING

STEP 4

• Pre task process checklist:
  – Document review
  – Inspections
  – Permits
  – Rescue plans

<table>
<thead>
<tr>
<th>STEP 4: PRE TASK CHECKLIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete this checklist prior to starting the task.</td>
</tr>
<tr>
<td>1. Reviewed the Project/Contract Risk Assessment?</td>
</tr>
<tr>
<td>2. All PPE to perform the task available?</td>
</tr>
<tr>
<td>3. Tools, equipment, and vehicles been inspected prior to use?</td>
</tr>
<tr>
<td>4. Do all personnel involved in this task have the required training?</td>
</tr>
<tr>
<td>5. Are lock-out requirements in place?</td>
</tr>
<tr>
<td>6. Is a job specific Emergency Response Plan in place?</td>
</tr>
<tr>
<td>7. Have all required permits been completed? (e.g. municipal, ground disturbance, confined space, hot work, environmental, etc.)</td>
</tr>
<tr>
<td>8. Is there a rescue plan in place (e.g. confined space, working at heights)?</td>
</tr>
</tbody>
</table>
JOB PLANNING

STEP 5

• Start Work
• Update the job plan when steps, hazards, and/or controls are:
  – Changed / modified
  – Introduced
• All new persons on the job site must sign off on the FLHA before entry
STEP 6

- Post Task Checklist:
  - Work site clean up
  - Signage, barriers
  - Inspections
  - Security

STEP 6: POST TASK CHECKLIST

Complete this checklist after the task has been completed.

1. Was the work area cleaned up at the end of the job/shift?
2. Are all safety controls/overnight work zone signage in place?
3. Have tools and equipment been inspected?
4. Has the site been secured?

Y  N  NA
JOB PLANNING

- Include in tech training
- Everyone on the same page
- Hazard communication process
- Further integrates safety into operations
- Creates a “Safe Production” mindset
- Disassociates the process from being “safety” paperwork
Thank You.

Questions?