Roofing Safety
and
Roofing OSHA Update

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Program Overview

• A Risk Management Approach to Safety
• A Look at a Complete Safety Program
• Safety Issues
• Health Issues
• OSHA Update
  – Citations and Penalties
• Q & A
A Risk Management Primer
**Risk Management**

- **What is Risk Management?**
  - Dr. E.J. Leverett of U of Georgia says it’s the “pre-loss planning for post-loss delivery”.
  - It seeks to plan in advance for losses in order to protect the assets and financial viability of the company.
  - And to minimize the cost of the risk, should it occur.

*IRMI Construction Risk Management Vol.1 1996 – Slides 3-10*
The Risk Management Process

**Step 1:** Risk Identification

**Step 2:** Risk Analysis

**Step 3:** Designing the Risk Management Strategy

**Step 4:** Implementation

**Step 5:** Review

T.R. Shanahan, CAE
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# Roofing BLS Data

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
<th>2007</th>
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</thead>
<tbody>
<tr>
<td>Fatalities</td>
<td>76</td>
<td>71</td>
<td>95</td>
</tr>
<tr>
<td>From Falls</td>
<td>54</td>
<td>55</td>
<td>74</td>
</tr>
<tr>
<td>From Exposures</td>
<td>5</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>From Transportation</td>
<td>9</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Non-fatals</td>
<td>9,700</td>
<td>10,300</td>
<td>10,800</td>
</tr>
</tbody>
</table>
**The Risk Matrix**

**Loss Frequency**

<table>
<thead>
<tr>
<th>Loss Severity</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Retain</td>
<td>Retain and implement loss prevention measures</td>
</tr>
<tr>
<td>High</td>
<td>Transfer and implement loss reduction measures</td>
<td>Avoidance</td>
</tr>
</tbody>
</table>
### Risk Management

<table>
<thead>
<tr>
<th>Step 1: Risk Identification</th>
<th>Step 1: Safety Hazard Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2: Risk Analysis</td>
<td>Step 2: Safety Hazard Analysis</td>
</tr>
<tr>
<td>Step 3: Designing the Risk Management Strategy</td>
<td>Step 3: Designing the Safety Strategy</td>
</tr>
<tr>
<td>Step 4: Implementation</td>
<td>Step 4: Safety Implementation</td>
</tr>
<tr>
<td>Step 5: Review</td>
<td>Step 5: Safety Review</td>
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### Risk Management Approach To Safety

<table>
<thead>
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<td>Step 4: Safety Implementation</td>
</tr>
<tr>
<td>Step 5: Review</td>
<td>Step 5: Safety Review</td>
</tr>
</tbody>
</table>
Designing the Safety Strategy
Safety Policies and Procedures:
Part 1a: Hierarchy of Controls

Higher & Lower Order of Controls

• **Elimination** of the hazard
• **Substitution** of less hazardous materials, processes
• **Engineering controls** like equipment modification or guards
• **Warnings** of the nature and extent of the hazard
• **Administrative controls** like job rotation
• **PPE**, personal protective equipment

Step 3:
Safety Program: The Umbrella Approach
ON-THE-JOB (OTJ)

INFORMAL

FORMAL

POLICIES & PROCEDURES

MANAGEMENT COMMITMENT

Annual Safety meeting
New ee orientation
Semi-annual meeting

Safety-specific training
Mfr-sponsored
Video/on-line programs

Tool box talks
Weekly inspections
Safety audit
Mentoring

In line with Mission?
Budget
Goals (ins.stats/job checklists)

Owner + Sr. Mgmt + Jr. Mgmt + Field + 2
6 mo. rotation

Safety Director as Facilitator ONLY
Safety Committee

• Comprised of all levels in organization, as a minimum:
  – Owner
  – Senior Management
  – Middle Management (superintendent and/or foreman)
  – Field worker
• Chair rotates
• Participants rotate on a 6 month staggered basis, for example
• Performs accident investigation, follow up and follow through
• Safety Director to act as facilitator
Safety Director Role

• Not *solely* responsible for safety

• Facilitates
  – Keeps current chair on task
    • Assists with agenda development, follow through on action items, budget maintenance, minute taker/distributor, accident investigation reporting
  – Creates budget draft
  – Training coordinator
    • Speakers, demonstrations, etc.
    • Trainer, possibly
Where do you start – or – Where do you start over?
In line with Mission? Budget Goals (ins.stats/job checklists)

Annual Safety meeting New ee orientation Semi-annual meeting

Safety-specific training Mfr-sponsored Video/on-line programs

Tool box talks Weekly inspections Safety audit Mentoring

Management Commitment

Policies & Procedures

Formal

Informal

On-the-Job (OTJ)

Safety Committee

Owner + Sr. Mgmt + Jr. Mgmt + Field + 2

6 mo. rotation

Safety Director as Facilitator ONLY
What is a safety program ultimately supposed to do?

Identify, teach and reinforce desired behaviors
Why should you care?

• Well, all the, hopefully, obvious reasons...
  – Accidents impact on lives, livelihoods, productivity, morale...
  – Cost/profitability
  – Legal issues
  – And OSHA???
OSHA Update

• Safety and Health Program Standard
  – I2P2
• Increased Penalties and Enforcement
• “Green” Exposures
  – PV
  – Vegetative
Safety Program Standard—IIPP

• No current requirement for written program (but, respiratory protection plans, haz comm program, emergency action plan, fall protection plans must be written)

• Proposed regulatory text in early 2011?

• New OSHA web page on IIPP
  http://www.osha.gov/dsg/topics/safetyhealth/index.html

• Existing standards
  – California, other state plans
  – ANSI Z10
I2P2 Program components

• Any proposal is expected to contain the following elements:

  – Hazard identification
  – Hazard control
  – Training and education
  – Management leadership
  – Employee participation
  – Program evaluation and update
  – Multi-employer aspects
Green Exposures

• ACCSH has a work group dedicated to ‘green’ and their eyes are set on roofing as part of that effort
  – Falls
  – Electrocutions
  – Other new trades on roofs
Other OSHA Safety Issues

– Cranes
  – NRCA Special Report
  – NRCA compliance assistance

– Ergonomics
  – Repetitive Stress Injuries
    – MSD box being added to OSHA logs

– Noise

– Fall protection
  • Regulations
  • OSHA emphasis programs
  • NRCA compliance assistance
  • Residential issue—won’t cover here, but please call…
Low-slope Fall Protection

• Trigger height = 6’ or greater
• Options
  – PFAs
  – Guardrails
  – Safety nets
  – Warning lines
  – Safety Monitors
  – All of some of above depending on situation
Walking backwards...

• Regulations a good fit for Spray Foam applications

• What are the challenges?
  – Tripping
  – Monitoring
    • Hearing the monitor
  – Others?
Health Issues

- Lead
- Silica
- HAZCOM
- Fumes
  - Asphalt – won’t cover here, but please call...
  - Solvents and Adhesives— “
    - MDI
      » Respiratory standard requirements
- Permissible Exposure Limits
  - 100’s to be reviewed/added??
Lead

- OSHA and EPA regulations
- EPA lead renovation, repair and painting rules (4/22/10) Maximum fines $37,500
- Residential & child-occupied facilities (pre-1978)
- Firm certification; certified renovators; work practices; state/federal jurisdictional issue; penalties
- New rulemaking seeks to apply RRP to public and commercial buildings
- OSHA lead regulation presumes exposure during certain job tasks
States administering own lead RRP rules

- Alabama
- Iowa
- Kansas
- Massachusetts
- Mississippi
- North Carolina
- Oregon
- Rhode Island
- Utah
- Washington
- Wisconsin
Links to EPA resources

• Search for training providers by Zip code: http://cfpub.epa.gov/flpp/searchrrp_training.htm
• Company certification application (Form 8500): http://www.epa.gov/lead/pubs/firmapp.pdf
• “Renovate Right” brochure for customers: http://www.epa.gov/lead/pubs/renovaterightbrochure.pdf
• EPA Sample Recordkeeping Checklist http://www.epa.gov/lead/pubs/samplechecklist.pdf
OSHA Lead Regulation

• Employer must initially determine if lead level is at or above action level of 30 micrograms (PEL is 50 micro/g)

• An exposure of 10X the PEL is presumed when lead paint or coatings are present and the worker is
  – Manually demolishing structure
  – Manually scraping, sanding, power cleaning (dust) or heat gun applications

Until an exposure assessment is done
  – Respirators
  – PPE
  – Change areas
  – Hand washing facilities
  – Training
Silica

- A new, OSHA proposed rule on silica is expected soon
- Current construction rule contains an obsolete exposure-level test protocol
- New rule likely will set PEL at a fraction of current gen. industry level of 10 milligrams/cubic meter air
- Industry groups asked for construction-specific rule
New OSHA rule may be out in 2011

Effective date not certain/2-year phase-in?

Aligns OSHA rules with GHS

MSDSs will be in a set format and be termed Safety Data Sheets (SDSs)

Product labeling will be simpler and contain more pictographs

Training burden for roofing contractors
OSHA
Penalty and Enforcement Update
Penalties and Enforcement

- Serious-Likely to cause death or serious injury
- Other than serious
- Willful-intentional disregard or plain indifference
- Criminal willful (death; $250K/$500K/6months jail)
- Repeat-substantially similar condition or hazard ($70K max)
  - 5 years of final order; 2X/5X/10X the original GBP
  - state plan citation no basis for federal
- *De minimis*
- Regulatory
<table>
<thead>
<tr>
<th>Severity/Probability</th>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Greater</td>
<td>$5,000 or $7,000</td>
<td>$7,000</td>
</tr>
<tr>
<td>Medium/Greater</td>
<td>$3,500</td>
<td>$6,000</td>
</tr>
<tr>
<td>Low/Greater</td>
<td>$2,500</td>
<td>$5,000</td>
</tr>
<tr>
<td>High/Lesser</td>
<td>$2,500</td>
<td>$5,000</td>
</tr>
<tr>
<td>Medium/Lesser</td>
<td>$2,000</td>
<td>$4,000</td>
</tr>
<tr>
<td>Low/Lesser</td>
<td>$1,500</td>
<td>$3,000</td>
</tr>
<tr>
<td>Size</td>
<td>Old Reduction</td>
<td>New Reduction</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1 - 25</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>26 - 100</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>101 - 250</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>251 or more</td>
<td>None</td>
<td>None</td>
</tr>
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New History Policy Only

<table>
<thead>
<tr>
<th>History Adjustment Description</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company has had no OSHA history in past 5 yrs from final order date.</td>
<td>No Reduction Given</td>
</tr>
<tr>
<td>Company has been inspected in the past 5 yrs and was issued Serious citations, but not HG.</td>
<td>No Reduction Given</td>
</tr>
<tr>
<td>Company has been inspected in the past 5 yrs and was issued OTS citations only.</td>
<td>10% Reduction</td>
</tr>
<tr>
<td>Company has been inspected in the past 5 yrs and was found to be in-compliance.</td>
<td>10% Reduction</td>
</tr>
<tr>
<td>Company has been inspected in the past 5 yrs and was issued HG Serious, Willful, Repeat and/or FTA citations.</td>
<td>10% Increase</td>
</tr>
</tbody>
</table>
Repeat Violations

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed if a final order citation in the previous 3 yrs</td>
<td>Proposed if a final order citation in the previous 5 yrs</td>
</tr>
</tbody>
</table>
Application of Penalty Adjustment Factors

• Current: All penalty reduction factors summed and multiplied by the Gravity-Based Penalty (GBP)

• New: Penalty adjustment factors will be applied serially to the GBP (e.g., 10%, then 40%, etc. instead of 50%)
  – Example follows
Sample Moderate Gravity Comparison: Summed vs. Serial

<table>
<thead>
<tr>
<th>Sample Data</th>
<th>Summed (old)</th>
<th>Serially*</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Lesser</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>History (10%)</td>
<td></td>
<td>$4,500 -10%</td>
</tr>
<tr>
<td>Good Faith (15%)</td>
<td></td>
<td>$3,825 – 15%</td>
</tr>
<tr>
<td>Quick Fix (15%)</td>
<td></td>
<td>$3,251 – 15%</td>
</tr>
<tr>
<td>Size (30%)</td>
<td>10% + 15% + 15% + 30% = 70%</td>
<td>$2,275 - 30%</td>
</tr>
<tr>
<td>Result</td>
<td>$1,500</td>
<td>$2,275</td>
</tr>
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</table>
Penalty Adjustment at the Informal Conference

• Area Directors only have authority to reduce penalty by 30%
  – Beyond 30% requires Regional Administrator approval

• An additional 20% reduction can be offered to small employers, if employer agrees to retain an outside safety and health consultant
Who gets cited under OSHA’s Multi-Employer Worksite Policy

• Creating
  – Employer who caused the hazard
• Exposing
  – Employer whose employees were exposed to the hazard
• Correcting
  – Employer who was responsible for correcting the hazard
• Controlling
  – Employer with general supervisory authority over the worksite with the power to correct violations directly or indirectly
The Unforeseeable Employee Misconduct Defense

Must show:

—That you have established work rules to prevent the violation;

—That the rules were adequately communicated to employees;

—That the employer took steps to discover infractions; and

—That you effectively enforced rules when infractions were discovered.
The Unforeseeable Employee Misconduct Defense

• Does your safety manual address the hazards encountered on a daily basis in both Spanish and English?

• Weekly training and toolbox talks in Spanish and English – DOCUMENT
  • Documentation should include topics covered and attendees

• Self-inspections and job site audits – DOCUMENT
  • Management or agents should inspect job site at least daily
  • Identify hazards and abatement measures implemented
  • Periodic inspections by others

• Disciplinary measures are implemented – DOCUMENT
  • Have a written disciplinary policy and ensure employees know they are subject to discipline for safety violations
Wrap up and Questions...

• NRCA Catalogue
Thank you!