SMACNA
SAFETY DEPARTMENT
UPDATE

Partners in Progress
Las Vegas, Nevada

Michael McCullion, CSP, ARM
Director, Safety and Health
mmccullion@smacna.org
Partners in Progress
Safety Roundtable

- Overview of SMACNA Safety Department

- Mike’s Top Ten List of Issues in the Sheetmetal Industry

- Overview of SMACNA Products and Services
SMACNA
Safety and Health Director

- Over 25 Years of Experience
- Certified Safety Professional (CSP)
- Associate in Risk Management (ARM)
- Former OSHA Compliance Officer with VA
  (conducted numerous construction inspections and several fatality investigations)
Safety and Health Department

- Report to Tom Soles, Executive Director of Market Sector Councils

- Safety = physical hazards such as fall protection and machine guarding
  (short term, acute, obvious injuries)

- Health = hazards such as chemical exposures, noise, ergonomics
  (long term, chronic, "hidden" illnesses)

- Risk Management = Workers compensation, loss control, etc.
SMACNA
Safety and Health Department

- Research Safety and Health Topics

- Involved in OSHA Rulemaking Process
  (i.e., Hexavalent Chromium, Confined Spaces in Construction)

- Coordinate Safety Survey / Award Program

- Develop Safety Program Management and Training Products including Supervisor Training Course
SMACNA
Safety and Health Department

- Coordinate Efforts with SMOHIT
- Assist Individual Members with Issues
- Work Closely with the Small Business Admin.
- Serve on Consensus Standard Committees such as ANSI B.11 (Machines and Machine Guarding) and ANSI B.10 (Construction)
OSHA / SMACNA Alliance
SMACNA signed Alliance on August 16, 2004
- Completed in August 2007

Specific to issues on motor vehicle safety, fall protection and personal protective equipment with emphasis on cuts and eye injuries.

Work cooperatively to address these issues in the SM / HVAC industry such as the Fall Protection Task Force
Top Ten List of Safety and Health Issues

#1 - Image of Construction

Management Consultant Presentation
("….hard work, extreme weather, dirty, unsafe")

Need to change the image if we want to improve the system (especially safety and health)
Four Construction Workers Die in N.Y. Crane Collapse
Condo Project Equipment Crushes Neighboring Townhouse

By Robin Shulman
Washington Post Staff Writer

NEW YORK, March 15 — Four construction workers were killed Saturday afternoon when a towering crane toppled onto a Manhattan apartment building, in what Mayor Michael R. Bloomberg (I) called one of the city's worst construction accidents ever.

Fourteen other people were injured. Rescuers used listening devices, heat-detection gear and specially trained dogs to search for anyone else possibly trapped in the rubble, Bloomberg said.

The crane, reaching 19 stories tall, collapsed during construction of a 43-story building on 51st Street, splitting into pieces shortly after 2 p.m., officials said. The top section of the crane crushed a four-story townhouse when it fell, said Jim Long, a New York City Fire Department spokesman.

The accident occurred in Midtown Manhattan, and more than half a dozen buildings near the site were evacuated. The American Red Cross set up a shelter nearby.

About 300 firefighters and 150 police officers worked Saturday evening at the site of the collapse to figure out how best to remove the crane and debris.

“They are working in a dangerous situation, and we want to make sure that nothing else happens,” Bloomberg said at a news conference near the crushed building.

Construction workers at the scene held each other and wept. The collapse occurred during a procedure known as “jumping the crane” — allowing the crane to raise itself, city officials said.

“I saw the crane crashing, splitting in half,” witness Greta Welkhammer told one local television station. She said she had been riding her bicycle nearby when the crane hit the building, and that she saw the townhouse “falling like a house of cards.”

“Everybody was running, running; it was devastating,” she said.

The city had cited the construction of the 43-story condominium building for 13 violations — five of them still open — Manhattan Borough President Scott Stringer said. The violations include one, from February 2007, for failing to have a site-wide safety inspector.

“Over the last year, this is becoming standard in my borough,” Stringer said. “I think we have a real issue here.”

Neighbors had also called in complaints, including on March 4, when a caller warned that the crane did not appear to be braced properly. A subsequent inspection suggested that the builder was complying with construction guidelines, aides from Stringer’s office said.

Officials said they were at the site for an inspection on Friday and wrote no violations.

“Sadly, construction is a dangerous thing,” Bloomberg said. “We don’t know why this happened. We will do an investigation. We will find out.”
Top Ten List of Safety and Health Issues

#2 – Unsafe vs Hazardous

Construction work includes *hazards* such as working from heights, equipment and tools, use of chemicals, noisy areas, etc.

But...it is not *unsafe* unless the employer and employees allow it to be.
Top Ten List of Safety and Health Issues

#3 – Basic Safety Plan

Management Leadership & Employee Involvement
Worksite Analysis
Hazard Prevention and Control
Safety Training
Industry Issues – Injuries

Hierarchy of Abatement of Hazards

1. Engineering Controls
   “Physical changes to the work setting”

2. Personal Protective Equipment (PPE)
   Hardhats, Goggles, Respirators, Gloves, etc.

3. Administrative Controls
   “3 P’s” - Programs, Policies, Procedures
Industry Issues – Injuries

Abatement of Hazards

Example… Noise

Engineering Control =
Enclose Source
Type of PPE =
Ear Plugs
Administrative Control =
Limit Access
Top Ten List of Safety and Health Issues

#4 - Accident Investigation (including “near misses”)

Best way to learn about your safety and health program successes and failures.

Look at all possible causes.

Don’t ignore near hits … someone could have been hurt or killed
Top Ten List of Safety and Health Issues

#5 – Go Beyond Toolbox Talks

It is important to take training to a higher level and include:

- hands-on training,
- formal (classroom) training,
- “emergency drills” and
- issue-specific training (as needed).
Top Ten List of Safety and Health Issues

#6 – Prioritize Your Efforts

Everyone is busy.
Must make time for safety and health.
Ways to prioritize your safety and health efforts…

- Look at your OSHA Log / WC Records
- Most Frequently Cited OSHA Standards
- SMACNA Safety Survey (cuts and eye injuries)
- Frequent vs Severe (need to address FALLS)
# Top Ten List of Safety and Health Issues

## Severity vs Frequency

<table>
<thead>
<tr>
<th>Frequent / Severe</th>
<th>Frequent / Non Severe</th>
</tr>
</thead>
<tbody>
<tr>
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### Top Ten List of Safety and Health Issues

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<td>Eye Injuries</td>
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<tr>
<td>Asbestos Exposure</td>
<td>Sprained Ankle</td>
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</table>

- Sprained Ankle
- Asbestos Exposure
Industry Issues – Injuries

What are the most frequent injuries in the sheet metal and HVAC industry?

- Cuts
- Sprains and Strains
- Eye Injuries
- Falls
Most Common Injuries

- Cuts: 170
- Eyes: 50
- Back Strain: 40
- Other Strains: 40

Number of Companies
Industry Issues – Injuries

What are the most serious types of injuries in the sheet metal and HVAC industry?

- Electrical
- “Struck-by”
- “Caught in”
- Falls
Top Ten List of Safety and Health Issues

#7 – Recognize the Difference in General Industry (shops) and Construction

It is important that your safety program treat these two differently…
Industry Issues – Injuries

Why should we be concerned about the work environment?

The hazards are different for each workplace and …

The hazards dictate the injuries…!
Industry Issues – Injuries

How do safety hazards differ…and why?

“Fixed” Locations vs Always Changing (dynamic) Locations

Predictable vs Unpredictable

Types of Machinery and Equipment

Stable, Same Workers vs Numerous Contractors
Industry Top 10 Most Frequently Cited OSHA Standards
Construction – Sheet Metal and HVAC Contractors

- Fall Protection
- Scaffolding
- Hazard Communication
- Electrical
- Asbestos
- Stairways and Ladders
- Eye and Face Protection
- Fire Protection
- Excavations
- General Duty Clause
Industry Top 10 Most Frequently Cited OSHA Standards

General Industry – Sheet Metal Fabricators

- Machine Guarding
- Lockout/Tagout
- Mechanical Power Presses
- Hazard Communication
- Electrical
- Abrasive Wheel
- Respiratory Protection
- Powered Industrial Trucks
- Oxy-Fuel Gas Welding and Cutting
- Personal Protective Equipment (PPE)
Top Ten List of Safety and Health Issues

#8 – Don’t Forget Illnesses (health)

“Hidden Issues”

Noise, Chemical Exposure, Musculoskeletal Disorders, etc.

No immediate affects
Top Ten List of Safety and Health Issues

#9 – Throw Away Your Written Safety Program
(not really)

But first…fold your safety and health procedures into your Operations Manual.
Top Ten List of Safety and Health Issues

#10 – Zero Injury *Culture* (not goal)

If you don’t reach your goal of zero injuries… have you failed?
Is one injury a failure of your program?

Better to set a *culture* of zero injury with *improvement* as a goal.
If you reach zero injury…awesome!
Hidden Costs Exceed Costs for a Safety Culture

Safety Culture

Injuries / Illnesses
Welfare of Workers
Property Damage
Lost Productivity
Citations / Fines
Increased WC $
Lost Contracts
Bad Publicity

Cost Iceberg
Communication is the Key

Training

- SMACNA and SMOHIT Training Products
- Cooperative Agreement between SMACNA and SMOHIT
- Most SMACNA safety manuals are available for free from the SMACNA website (PDF version)
- SAMPLES ...LIST
Available Resources

- Fleet Safety Tip Cards
  - Laminated information cards to remind employees about safe driving habits
  - Construction and Service Vehicles

- Heat Stress Tip Cards
Available Resources

• Construction Safety Checklist

• Personal Protective Equipment Pamphlet
Available Resources

New for 2008…Policies and Procedures CD

Will include:

- written company policies
- model written programs
- training aids
Available Resources

- **Supervisor Training Courses** for Safety and Health Issues
  
  Half or Full Day Course
  Key Safety and Health Topics in the SM Industry

Contact Chapter Executive
Available Resources

- **Safety Listserve** – email circuit with member safety reps
  - Safety Directors from SMACNA Member Firms
  - Must Have “Members Only” Access to SMACNA Website
Available Resources

SMOHIT Products (Charles)

- Available at No Cost to contractors through SMACNA
Safety and Health Webpage

- Safety and Health Publications
- Safety Focus Newsletter
- Safety Bulletins
- Safety List Serve
- SMACNA Safety Statistics Profile
- SMACNA/OSHA Alliance
Safety and Health Webpage

- OSHA's Revised Record Keeping Rule Online Course
- OSHA Proposed Standard Comment Letters
  Confined Spaces in Construction
  Employer Payment of Personal Protective Equipment
  Hexchrome Standard
- Links to Safety and Health Information
SMACNA Safety Awards

- Safety Statistics Evaluation and Awards Program
- Annual Tool SMACNA Uses to Obtain Valuable Information to Provide Feedback to Members
- Surveys Due May 16, 2008
- Members Can Submit On-Line…increased use (www.smacna.org/)
Any Questions?

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Michael McCullion, CSP, ARM
Director, Safety and Health
mmccullion@smacna.org