

SMACNA SAFETY DEPARTMENT UPDATE

*Partners in Progress
Las Vegas, Nevada*

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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)



SMACNA

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 (D) 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

"I saw the crane crashing, splitting in half. Everybody was running, running; it was devastating."

— Greta Welkhammer,
accident witness

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."



BY JASON DECROW — ASSOCIATED PRESS

Street near Second Avenue in Manhattan.

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

<u>Frequent / Severe</u>	<u>Frequent / Non Severe</u>
<u>Non Frequent / Severe</u>	<u>Non Frequent / Non Severe</u>



Top Ten List of Safety and Health Issues

Severity vs Frequency

<u>Frequent / Severe</u>	<u>Frequent / Non Severe</u>
Falls Electrocutions	Cuts Eye Injuries
<u>Non Frequent / Severe</u>	<u>Non Frequent / Non Severe</u>
Asbestos Exposure	Sprained Ankle



Industry Issues – Injuries

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

Cuts

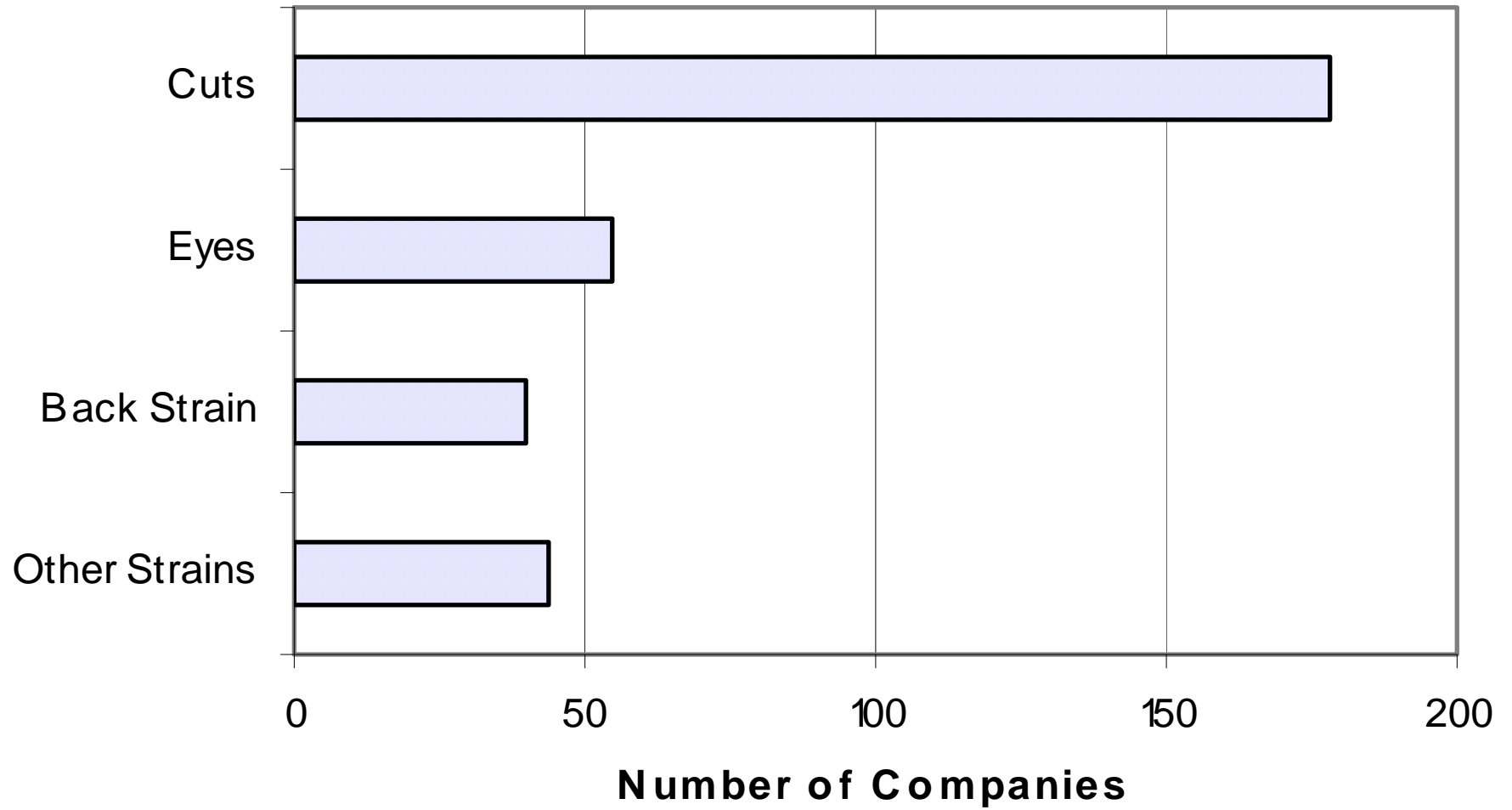
Sprains and Strains

Eye Injuries

Falls



Most Common Injuries



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?

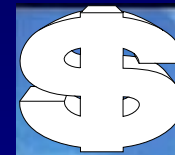
Is one injury a failure of your program?

Better to set a *culture* of zero injury with
improvement as a goal.

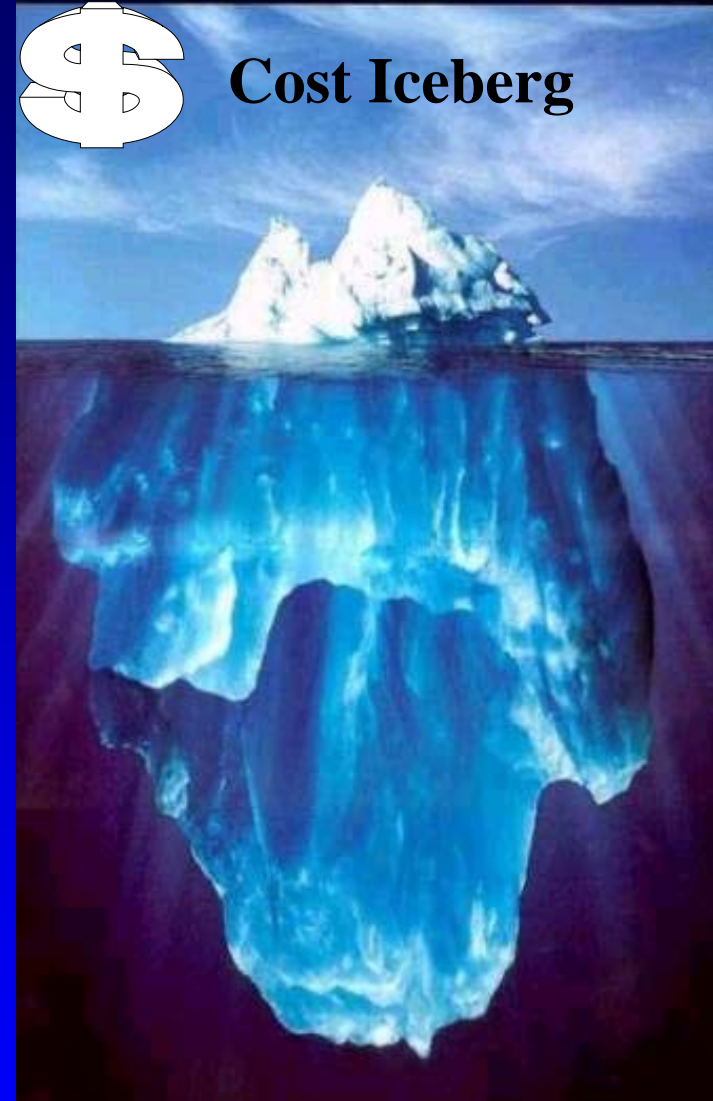
If you reach zero injury...awesome!



Hidden Costs Exceed Costs for a Safety Culture



Cost Iceberg



Safety Culture >>>

Injuries / Illnesses >>>

Welfare of Workers >>>

Property Damage >>>

Lost Productivity >>>

Citations / Fines >>>

Increased WC \$ >>>

Lost Contracts >>>

Bad Publicity >>>



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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