CONCRETE MANUFACTURING

A tip of the hat and a great big thanks to J. Todd Brown from Central City, KY for this months info.

Concrete Manufacturing

1. More than 250,000 people work in concrete manufacturing.
2. Over 10 percent of those workers - 28,000 - experienced a job-related injury or illness and 42 died in just one year.
3. Potential hazards for workers in concrete manufacturing:
   A. Eye, skin and respiratory tract irritation from exposure to cement dust;
   B. Inadequate safety guards on equipment;
   C. Inadequate lockout/tagout systems on machinery;
   D. Overexertion and awkward postures;
   E. Slips, trips and falls; and
   F. Chemical burns from wet concrete.

Hazard: Exposure to cement dust can irritate eyes, nose, throat and the upper respiratory system. Skin contact may result in moderate irritation to thickening/cracking of skin to severe skin damage from chemical burns. Silica exposure can lead to lung injuries including silicosis and lung cancer.

Solutions:
1. Rinse eyes with water if they come into contact with cement dust and consult a physician.
2. Use soap and water to wash off dust to avoid skin damage.
3. Wear a P-, N- or R-95 respirator to minimize inhalation of cement dust.
4. Eat and drink only in dust-free areas to avoid ingesting cement dust.

Concrete Solutions

Falling Objects

1. Maintain conveyor belt systems to avoid jamming and use care in clearing jams.
2. Ensure that guards are in place to protect workers using mixers, block makers, cubers and metalworking machinery such as rebar benders, cutters and cage rollers.
3. Establish and follow effective lockout/tagout procedures when servicing equipment.
4. Be sure appropriate guards are in place on power tools before using them.

Falling Objects

Hazard: Workers may be hit by falling objects from conveyor belt systems, elevators or concrete block stacking equipment.

Solutions:
1. Avoid working beneath cuber elevators, conveyor belts and stacker/destacker machinery.
2. Stack and store materials properly to limit the risk of falling objects.
3. Wear eye protection when chipping and cleaning forms, products or mixers.

Poor Ergononics

Hazard: Improper lifting, awkward postures and repetitive motions can lead to sprains, strains and other musculoskeletal disorders.

Solutions:
1. Use handtrucks or forklifts when possible.
2. Lift properly and get a coworker to help if a product is too heavy.
3. Avoid twisting while carrying a load. Shift your feet and take small steps in the direction you want to turn.
4. Keep floors clear to avoid slipping and tripping hazards.
5. Avoid working in awkward postures.

For What It Is Worth! First Time to The Big City

A boy and his father & mother from a very rural section of the world were visiting a mall in a large city for the first time. They were amazed by almost everything they saw, but especially by two shiny silver walls that moved apart and back together again by themselves.

The lad asked, “What is this, father?”
The father (having never seen an elevator) responded, “I have no idea what it is.”
While the boy and his father were watching wide-eyed, an old lady in a wheelchair rolled up to the moving walls and pressed a button. The walls opened and the lady rolled between them into a small room. The walls closed and the boy and his father watched as small circles lit up above the walls.

The walls opened up again and a beautiful young woman stepped out.

The father looked at his son anxiously and said, “Go get your mother.”

Continued on page 2 . . . .
Safety is never an accident: it is always the result of high intention, sincere effort, intelligent direction and skillful execution! It represents the wise choice of many alternatives!!

"We're Proud of Our Work"

The source of the information this month is:
Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov
This information applies to all types of operations and I will continue with the information next month.

Concrete Manufacturing, continued

<table>
<thead>
<tr>
<th>Confined Spaces</th>
<th>Worker Safety Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hazard:</strong> Mixers and ready-mix trucks have confined spaces that pose safety risks for workers.</td>
<td><strong>General Precautions</strong></td>
</tr>
<tr>
<td><strong>Solutions:</strong></td>
<td>1. Be sure you understand how to perform all your tasks and how to use tools and equipment safely.</td>
</tr>
<tr>
<td>1. Follow established procedures for confined space entry and work to assure safety.</td>
<td>2. Follow confined space procedures when cleaning and working in mixer drums, hoppers, tanks and other places with potentially serious mechanical hazards, such as blades or sloping sides which may entrap employees, or atmospheric hazards, such as oxygen deficiency.</td>
</tr>
<tr>
<td>2. Guard against heat stress when cleaning truck mixer drums.</td>
<td>3. Wear appropriate personal protective equipment to avoid being injured by flying or falling objects.</td>
</tr>
<tr>
<td>3. Wear appropriate protective equipment to avoid silica exposure when removing concrete residues from inside truck mixer drums.</td>
<td><strong>Vehicle Safety</strong></td>
</tr>
</tbody>
</table>

| **Vehicles** | 1. Be sure that trucks and other vehicles are in good working order, including audible back-up warning signals, before operating them. |
| **Hazard:** Poorly maintained or improperly handled vehicles can lead to crushing injuries at the plant site or other injuries for truck drivers. | 2. Avoid overloading hoists, cranes and forklifts. |
| **Solutions:** | 3. Make sure back-up alarms on all vehicles are functioning. |
| 1. Make sure back-up alarms on all vehicles are functioning. | **Machine Safety** |
| 2. Avoid overloading cranes and hoists. | 1. Use lockout/tagout procedures to de-energize conveyors and other machinery before attempting to free any jams. |
| 3. Use care with the load out chute on concrete mixers to avoid injuries to hands and fingers. | 2. Secure chutes and hatches to reduce injuries from swinging parts. |
| 4. Beware of hot surfaces on equipment and truck components. | 3. Make sure guards are in place to protect you from moving parts of machinery and tools before you operate the equipment. |
| 5. Guard eyes against splashes of aggregate materials during loading and unloading. | **Overhead Hazards** |
| 6. Use hearing protection if needed to guard against excessive noise exposure during cement loading/unloading and while using pneumatic chippers inside truck mixer drums. | 1. Be sure that form work, casting and stressing operations are adequately braced and chocked to avoid sudden release of materials. |

| **Other Hazards** | 2. Make certain that rigging is in place to protect against falling objects and materials during hoisting and stacking procedures. |
| 1. Welding operations can lead to flash burns. | 3. Do not walk or work under overhead loads. |
| 2. Makeshift ladders, platforms and stairs with improper or no guardrails make falls more likely. | |
| 3. Workers can also be injured by falling concrete forms if the forms are improperly chocked, braced or cribbed. | |

Happy St. Paddy's Day!