



# **CDMCS Safety Update**

## **2014 USACE National Dredging Meeting**

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**Dredging Contractors of America**



## Our Mission

To improve safety standards and best practices for the dredging and marine construction industry.

## Our Goals

- Promote a culture of safety at all levels within an organization
- Collaborate to resolve industry-wide safety issues
- Apply lessons learned from injury/illness incidents
- Enhance marine safety training
- Foster the development of safety management systems



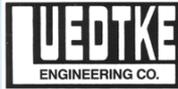
## Membership

Open to all Industry contractors, labor unions, Federal agencies, safety professionals and trade associations.

## Current Members ~ 19 contractors



US Army Corps  
of Engineers





## CDMCS Members Partner on Safety

- Coordinate with USACE on Revisions to the Safety Manual
- Resolve Industry-Wide Safety, Health & Environmental Issues
- Monitor Regulatory Rulemakings & Coordinate Public Comments
- Create Safety Initiatives & Awareness Campaigns based on Industry Accident/Injury Trending Data



## USACE Participation Grows with Webinar!!

Baltimore  
Philadelphia  
New York  
Norfolk  
New England  
Mobile  
Jacksonville  
St. Paul

Huntington  
Louisville  
Little Rock  
Los Angeles  
Detroit  
Chicago  
Buffalo  
Huntsville Engineering Center

10+ Districts Linking in for Each Meeting - Thank You!



## Towing Vessel Inspections (USCG)

*Final Rule Expected November 2014*

- Purpose = to promote safer work practices and reduce casualties on towing vessels by setting a variety of operational and machinery-related standards
- Safety compliance can be achieved by either adopting an audited safety mgmt system or undergoing annual CG inspections
- Dredging industry supports the 2 options for compliance - greater flexibility
- Proposed Rule retains exemptions for 1. towboats < 26ft. and 2. workboats intermittently moving equipment exclusively within a dredging or construction worksite - however, this may go away in future as CG staggers implementation



## Pre-Rulemakings by OSHA

### Preventing Backover Injuries and Fatalities - *August 2014, Initiate SBREFA*

- Purpose = to reduce struck by and caught between injuries and make backing operations safer by using cameras, proximity detection systems, spotters, internal traffic control plans, etc.

### Injury and Illness Prevention Program (I2P2) - *delayed*

- Purpose = to protect employee safety and health by mandating an OSHA-designated and developed safety mgmt system for all workplaces

## Proposed Rulemakings by OSHA

### Maintaining Accurate Injury/Illness Recordable Records - *August 2014*

- Purpose = to clarify to the employer that it is an ongoing obligation

### Exposure to Crystalline Silica - *Post hearing comment period ends July 2014, final rule late 2014, if at all*

- Purpose = to prevent silicosis and save lives by establishing new PEL of 50  $\mu\text{g}/\text{m}^3$ , increasing respiratory protection with dust controls & respirators, exposure monitoring, medical surveillance/exams, worker training, limiting access to at-risk areas



## Final Rulemakings by OSHA

### **Injury & Illness Recording & Reporting Requirements - *June 2014***

- Purpose = to facilitate timely investigation of incidents & quick mitigation of hazards
- Current reporting rule - 8 hrs. - fatalities, 8 hrs. - in-patient hospitalizations of 3 or more employees
- Proposed reporting rule - 8 hrs. - fatalities, 8 hrs. - all in-patient hospitalizations , 24 hrs. - all amputations

### **Confined Spaces in Construction - *August 2014***

- Purpose = to protect construction workers operating in confined spaces
- Extends to the construction industry regulations that currently cover the general industry

### **Slips, Trips and Fall Prevention - *October 2014***

- Purpose = to protect employees by updating an outdated proposed rule from 1990 with new technologies and current industry methods

### **Improve Tracking of Workplace Injuries and Illnesses - *March 2015***

- Purpose = to improve recordkeeping and prevent injuries/illnesses through continuous real-time (rather than once/yr.) collection of injury/illness data in a modern, electronic format



## Crane Operator Certification Issue & Proposed Rule Update

- OSHA granted 4 year phase-in for crane operator certification; USACE did not
- Existing accredited certification companies are geared toward land-based crane operators, not marine; their timed exams are inappropriate for operators of floating cranes
- 2 Options for Industry to Certify/Qualify Crane Operators: 1) Use an accredited crane testing organization (NCCCO, NCCER, CIC, IUOE) or 2) Use a 3<sup>rd</sup> party or in-house Qualified Person (until Nov 14, 2014, at which time a certified auditor that is not an employee of the company must be used), as long as the employer training program is audited. Note: if a lack of certified auditors persists past Nov 14, contractors will be allowed to continue using in-house Qualified Persons.
- IUOE urged OSHA on Nov 28, 2012 to correct their “capacity and type” language of the Final Rule; separate certifications for higher capacities of the same crane type was never the intent.
- In February OSHA published an NPRM proposing to extend the deadlines for operator certification and employer duty to ensure operator competency from Nov 2014 to Nov 2017. If not completed by Nov 2014, the Nov 2014 deadline will hold. In this case the only way for OSHA to delay the deadline is to issue a “temporary stay of enforcement”. Final rule on the extension is TBD.
- DOL public hearing last May - still disagreement over “capacity and type”; but most agree the employer responsibility should never go away.



## Underwater Pipelines in the Dredging Footprint

- Pipeline/cable crossings & ownership data in contracts and permits are often inaccurate → creating hazards for crews, vessels, environment, local communities; increasing project costs
- Contractor cannot hold utility company responsible for economic damages (project delay and labor/material downtime) resulting from faulty markings or a lack thereof (*Excavation Tech. v. Columbia Gas of PA, 2009*)
- USACE has elevated this issue, is pushing better coordination between navigation and regulatory on new lines, and is encouraging districts to use their survey boat magnetometers to locate them.
- USACE Regulatory will require utility companies to upload their as-built data into new storage tool called PLOVER (Pipeline Location and Observation Verification Enterprise Repository). USACE contracting will retrieve the data and overlay it into project plans and specs, viewable for industry. Pipeline location data provided by industry will be uploaded into PLOVER as well so that future contracts are updated. Still in R&D phase in New Orleans. Will roll out first in Mobile and New Orleans. Full implementation about one year. Section 408 statute problem needs to be resolved before this moves forward.



## Site Safety & Health Officer Requirements on USACE Jobsites

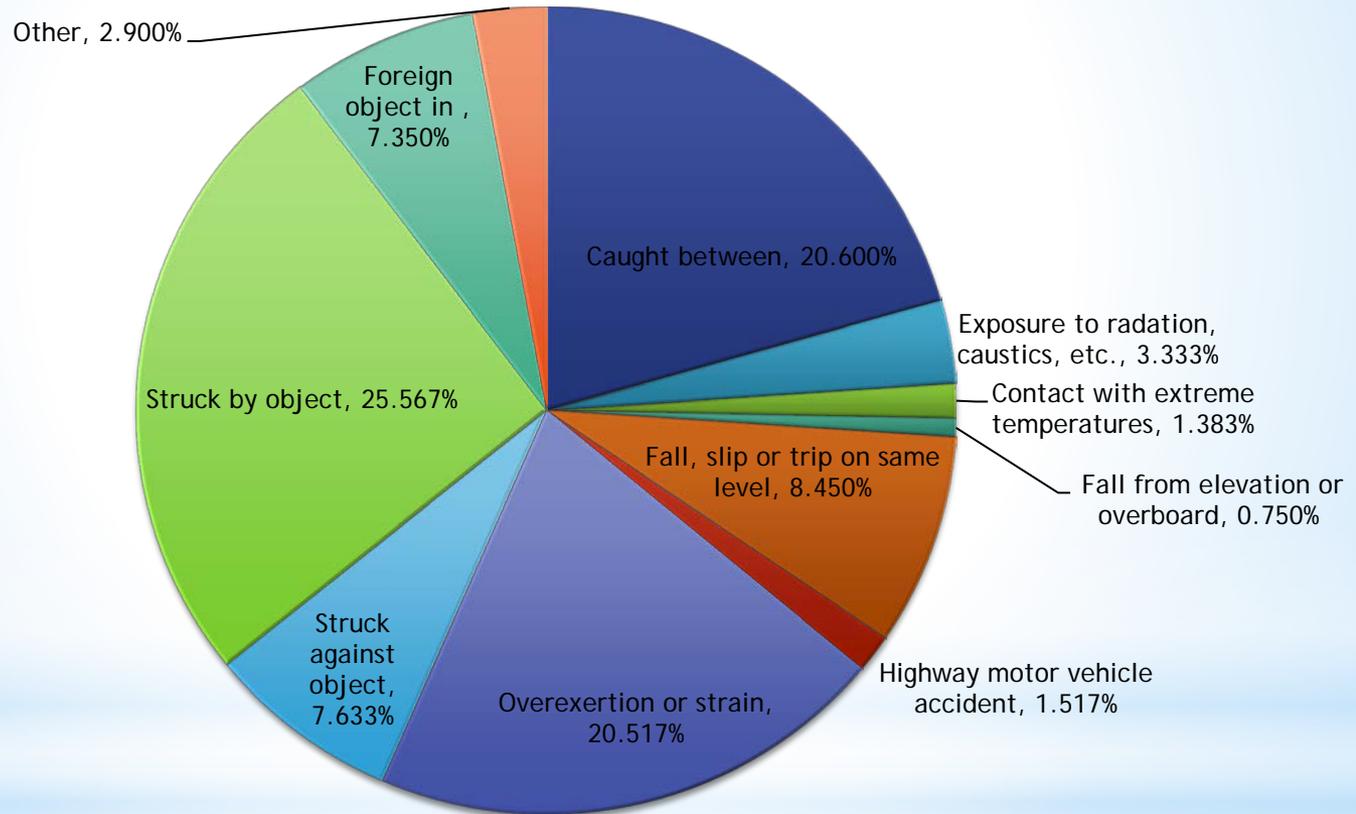
- Variable interpretations and enforcement of language in 2008 EM385-1-1 by USACE Districts created confusion regarding duties, experience, training, etc.
- USACE and Industry revised contract language for dredging jobs
- Effective in UFGS, Guidance sent to the Districts
- What are the new requirements?
  - SSHO for one shift, Alternate SSHO with collateral duties covers other shifts
  - SSHO can be a collateral duty aboard hopper dredges and on dredges with a workforce crew of 8 or less/shift
  - 1 SSHO per project site, unless specified differently in advance by District
  - Experience requirement lowered from 5 to 3 yrs. continuous, its definition expanded
  - Designated Rep. required at all remote work locations > 45 min. from SSHO location
- Revised EM-385-1-1 Safety Manual will provide reference these new requirements in UFGS.
- Concerns remain though. The dialogue must continue.



## Swimming to Perform Coastal Surveys

- Prohibited on all USACE project sites per EM385-1-1
- Yet, swimming had become a practice by both industry and the Corps
- Was a method for extending the topographic survey without jeopardizing crews aboard survey boats
- December 2011 - USACE decided to grant waivers to industry when following interim swimming guidance
- March 2012 - After review and industry feedback, USACE decided to continue prohibiting swimming in the interest of safety; industry should pursue technological solutions and/or coordinate other options with the Division Chiefs
- January 2014- Two industry survey boats capsized while performing survey operations in the surf along the NJ coast; Corps agreed to reconsider the ban on swimming.
- New Draft Language in Corps Safety Manual reads as follows: "Swimming and/or diving shall be prohibited for all personnel, except certified divers in the performance of their duties, unless necessary to prevent injury or loss of life."

# Industry Incident Data - 2014 Q2



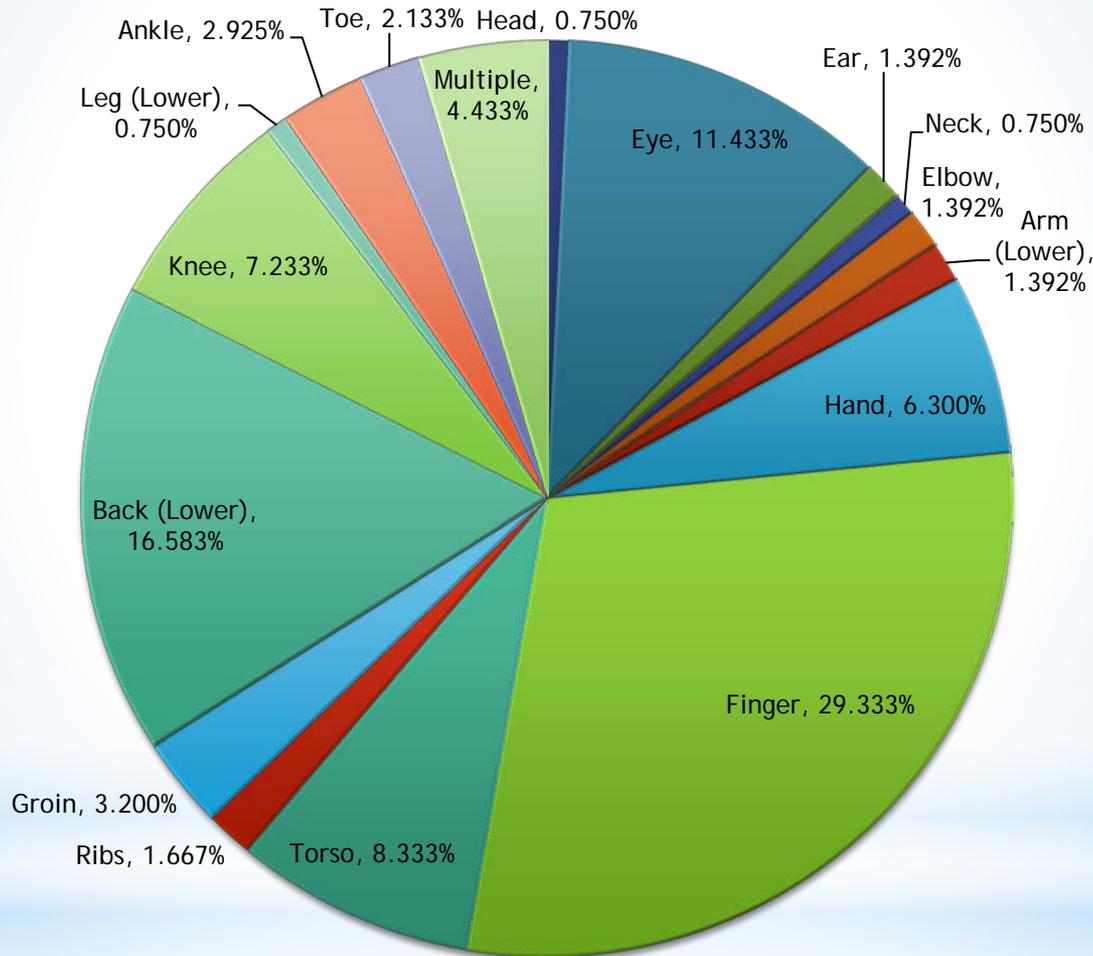
## Top Three Events

Struck by - 26%

Caught Between - 21%

Overexertion/Strain - 21%

# Industry Incident Data - 2014 Q2



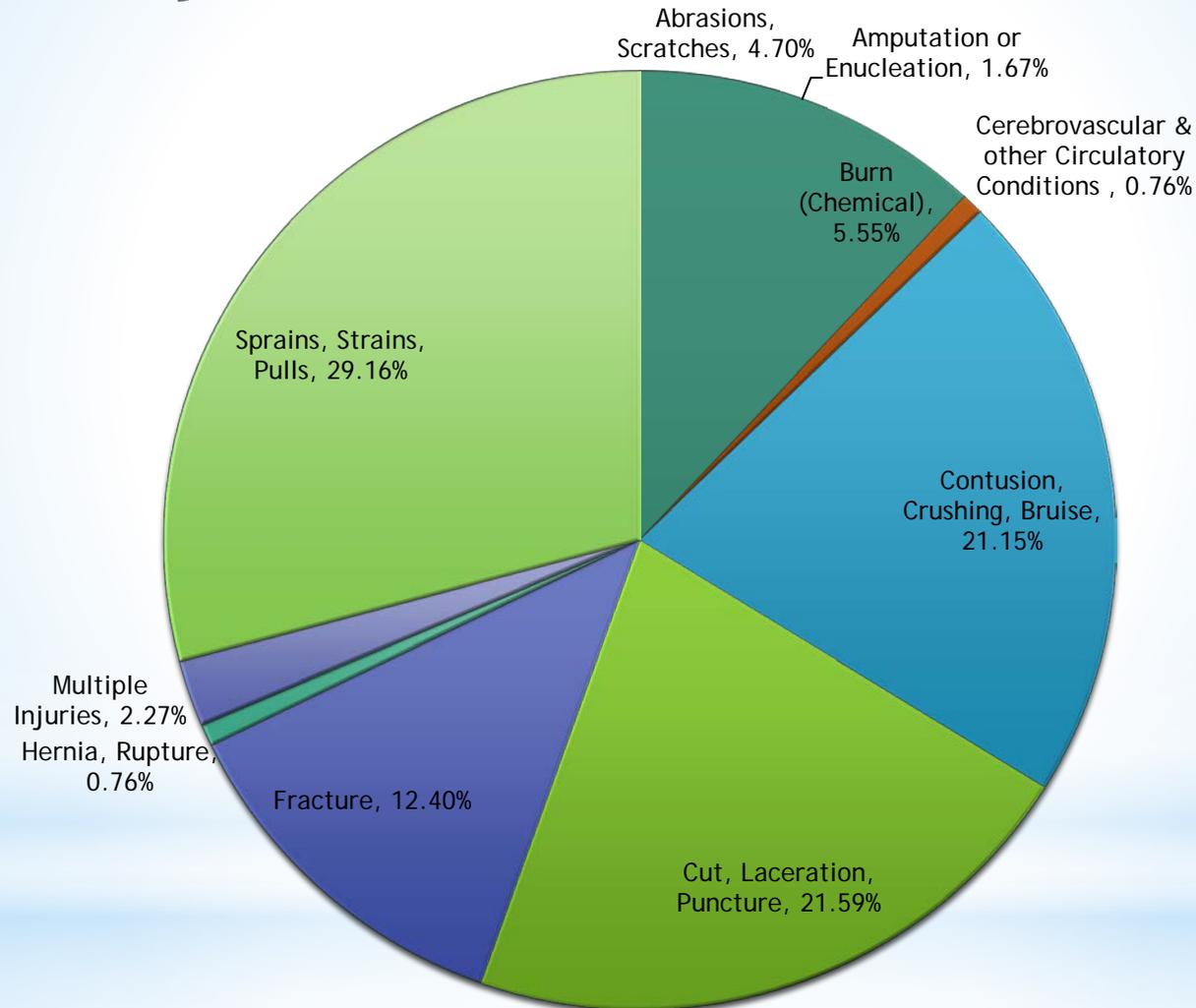
## Top Three Body Parts Being Injured

Hand + Fingers - 29%

Lower Back - 17%

Eyes - 11%

# Industry Incident Data - 2014 Q2



## Top Three Types of Injuries

Sprains, Strains, Pulls - 29%

Cut, Laceration, Puncture - 22%

Contusion, Crushing, Bruise - 21%

# Online Member Resources

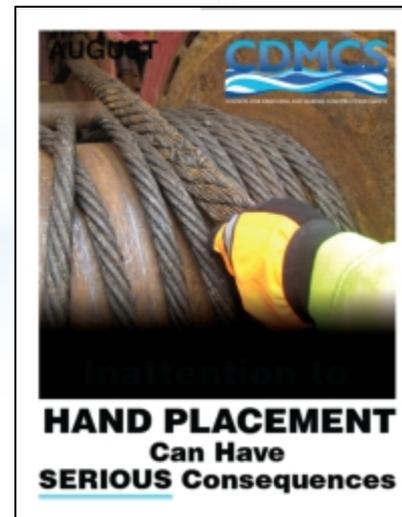
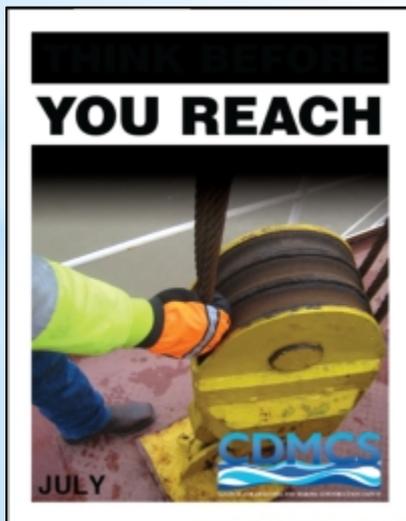
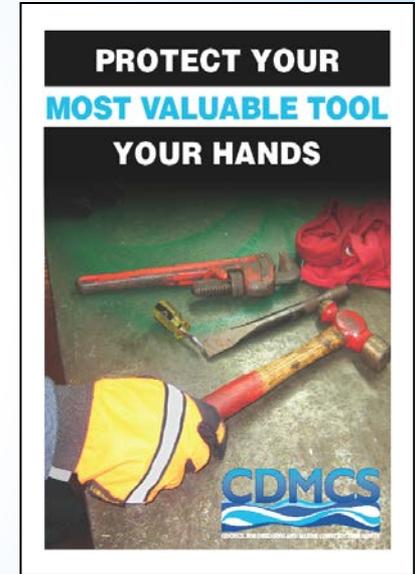
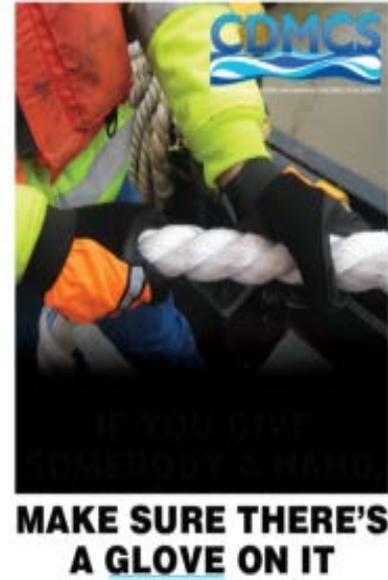
Safety Alerts

Safety Posters

Toolbox Topics

Safety Training Presentations

# Safety Posters



# Safety Toolbox Topics

Dehydration

Hand Injury

Line Handling

Pneumatic Tool

Portable Grinder

Shore Pipe Warning Signs

Synthetic Web Slings

Driving at Night

Hidden Openings

Ladder Safety

Cold Water

# Safety Toolbox Topics



## Safety – It's in your hands

According to the U. S. Centers for Disease Control and Prevention (CDC), there are over 1,100,000 visits to the emergency department by workers in the United States for hand related injuries. There are also more than 110,000 days-away-from-work are estimated from hand and finger lacerations. This injury figure is second only to back strain and sprain injuries according to the U.S. Bureau of Labor Statistics (BLS).

### Root Causes of Hand Injuries

The use of hand and power tools are the most common cause of workplace hand injuries. Any tool can be hazardous when used improperly or not maintained appropriately. Hands can also get pinched when caught between or struck against heavy machinery, equipment or materials, especially when a hazard goes unnoticed. Hand injuries also result from contact with harsh chemicals, including solvents, acids, cleaning solutions and flammable liquids. Repetitive motion injuries occur when a worker repeats tasks or makes rapid hand movements for long periods of time.

### Other factors include:

- Inattention or lack of focus.
- Inadequate assessment of risk.
- Applying force incorrectly.
- Using the wrong tool for the job
- Rushing and taking shortcuts.
- Contact with heat or cold
- Mishandling sharp objects & tools

### Preventing Hand Injuries

Here are some recommendations for preventing hand injuries:

- Wear the correct gloves when working with chemicals, rough surfaces, sharp objects, wire ropes, and other materials that might cause hand injuries. Keep the gloves clean and in good condition, and replace them if they are worn out or damaged.
- Never wear gloves, jewelry or loose clothing when working with moving machine parts.
- When wearing gloves, be sure they fit properly and are rated for the specific task you are performing.
- Be alert to potential hand hazards before an accident can happen.
- Be alert to unguarded pinch points.
- Take the time to get the correct tool for the job.
- Before you use a machine that has a guard on it, such as a portable grinder, make sure the guard is in place and the machine is working properly
- Watch what you grab. How do you know for sure it isn't red hot?
- Never insert your finger into a flange to see if it is aligned. Use a proper alignment tool (spud wrench or tapered end of a pry bar).
- Don't push trash down into a trash can with your hands-someone else may have thrown in broken glass, sharp metal pieces, or a solvent-soaked rag or towel.

### Ask yourself these questions:

- Is there anything nearby that could pinch my fingers or hand?
- Can I cut myself on anything?
- What if the knife or tool slips?
- Is there anything I can strike my hand against?
- Do I have the right gloves to do the task?
- Have I included hand hazards in the JSA?



## Warning the Public to "Stay Back" from Shore Pipe



Potentially dangerous situations such as this, are just too common.

There is a potential hazard to the general public on beach renourishment projects that is often observed around shore pipe located outside an active work area. Some beachgoers don't recognize the hazard and set up beach chairs within several feet of the pipe and some actually sitting on the pipe as sand is being pumped ashore. Although contractors routinely cordon off our 1000-1500 foot of beach that makes up the active work zone, the shore pipe leading to that work zone is often left open to the public. If our shore pipe were to rupture, a pedestrian would be exposed to a slurry of material traveling upwards of 20 feet per second at pressures ranging from 100 to 200 PSI. This would be the equivalent of stepping in front of a sand blasting operation. Any significant ruptures could easily injure nearby pedestrians.

The solution is simple: Warn the public to stay clear of our shore pipe with signage and verbally when warning signs are not heeded.

### Step 1.)

The first line of defense is to stencil pipe to warn pedestrians of the dangers of active pipelines. A recommended practice is to establish a standard procedure of having both sides of the pipe marked within 50 feet of either side of the cross-over ramp, and have no more than a 100 foot gap between signage.

### Step 2.)

The second line of defense is regular patrols of the pipeline by the shore crew. During daylight hours, routine inspections of the pipeline need to include verbal warnings to pedestrians seen on or near the pipeline.



Hopefully, through education and persistence, workers can keep the public safely away from the dangers inherent in beach renourishment operations.

# Safety Training Presentations

Caught in the Line of Fire  
Confined Space Entry  
Electrocution  
Fall Protection  
Firefighting  
Hand & Finger Injury Prevention  
Hand & Power Tool Safety  
Hazard Communication  
Lifting Equipment  
Material Handling  
Stairways & Ladders  
Man Overboard  
Safer Line Handling  
Personal Protective Equipment



## How Can I Get Involved?

- Submit a request for membership at [www.cdmcs.org](http://www.cdmcs.org) or contact me directly at [michaelgerhardt@dredgingcontractors.org](mailto:michaelgerhardt@dredgingcontractors.org)
- \$500 annual dues - grants full access to the online safety posters, toolbox topics, training aids/videos & professional networking opportunities
- Attend our quarterly meetings in DC and around the country.
- Next meeting is September 10<sup>th</sup> at AGC's office in Arlington, VA

**Safety is Non-Negotiable.**