

**NCSE MEETING MINUTES  
HOTEL PALOMAR  
WASHINGTON, DC  
APRIL 6-7, 2011**

**DRAFT**

The chairman, Andy Peters, convened the spring 2011 meeting of the National Construction Safety Executives at 8:00 AM on Wednesday, April 6, 2011. Andy initiated the meeting with an explanation of emergency evacuation procedures. Andy welcomed the guests, including Jim Dixon of Jacobs, Jack Toellner from Exxon Mobil and Richard Wright from the Corps of Engineers. After further introductions of all members, Andy reviewed the purpose of NCSE.

Members attending were:

Peters, Andy, Chairperson	Parsons	andy.peters@parsons.com
O'Dea, Tony, Vice Chair	Gilbane Building Company	todea@gilbaneco.com
Tim Palmer, Treasurer	TIC Holdings	tdpalmer@ticus.com
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Yancey, Wilson	Quanta Services	wyancey@quantaservices.com

## Charlie Darnell Roundtable – What’s Working?

### Parsons Leadership System

Andy introduced the first agenda item, the Charlie Darnell Roundtable, which is intended to introduce others to our companies’ best practices. Andy started it off with leadership and his quest for HSE leadership improvements in Parsons. They use the DuPont survey which measures various parameters including leadership to determine relative cultural strength. Their score is improving. Besides leadership, another measure is of participation in the safety process. Andy explained that the survey also measures Demonstrated Management Commitment which is one of the Zero Incident Techniques. One of the sample measurements of this element is participation in incident investigation. Granite uses a matrix to measure supervisory activities over time and collects feedback to determine a portion of their bonus. Skanska has a system based on DBO2 that measures activities.

The Parsons Safety Leadership System is designed to encourage senior leaders to engage employees in a brief discussion about safety and to make any pertinent observations of the working environment in the office or project. The CEO of Parsons insisted that it be as simply constructed as possible. They use their I-Pad or Blackberry to access the checklist. It is believed that the DuPont survey scores will be increased by involving the leadership to a greater extent.

Jack Toellner explained that Exxon Mobil trains their management to ask pertinent questions. Tony O’Dea said that they built in questions that forced their management to interface with workers. Kevin and Robert discussed the effectiveness of their company systems and Brad identified the progress that has been made in URS by implementing a system to monitor leadership involvement in HSE.

Kevin stated that there is still a tendency to rely on lagging indicators. However, they have had great success in issuing flash reports on serious incidents. Members discussed their method of transmitting immediate incident information to their projects.

### Cell Phone Policy Survey

Don Hurley reported on the results of his member survey which indicated that two member companies had a total ban on cell phone use, while 12 had a partial ban or restrictions such as only using hand-free devices. Two companies had no policy prohibiting the use of cell phones.

### Company Vehicle Safety Training and Procedures

Some member companies require defensive drivers’ training before assigning a vehicle and others require it periodically. Smith Systems, Alert Driving and Zurich have training programs that members are using. Don Hurley said that Alert Driving got poor reviews. Members indicated that personal use is not approved.

### Scaffolding

Chris Handley discussed scaffolding issues and AWP training problems. Chris is seeking a speaker for a conference in Las Vegas. The speaker is requested to cover what contractors require of scaffold erectors.

### Recordkeeping

After Zachry sustained a recordkeeping citation last year, they corrected their data and found that their recordable rates went up 12% and lost time rates were increased 16%. Now with current recordkeeping practices in place, Zachry is defending accurate recordkeeping determinations from clients who do not want to report those legitimate cases. Carl is using Jim Lastowka for his determinations that are contentious with clients. Zachry accepted about one-half of the cases as legitimate. Warren added that many recordkeeping determinations can go one way or another and the recent emphasis on OSHA recordkeeping has fizzled because OSHA can't find the evidence to support their suspicions.

### NCCCO Written Crane Exam

Tony O'Dea reported that many safety professionals have taken the NCCCO exam to learn more about cranes but have not planned to take the practical exam. Bob added that there is a new qualification entitled "Lift Director" and that the test will be developed soon. Bob thought that some of our members might be able to help develop that program. Bob also stated that they may need to develop a program for digger derricks. Bill Jackson said that we may need to be ready to comply with a rule that will require certified crane operators for forklifts with hooks to lift material.

### NIOSH/CDC Update

Christine Branche and Matt Gillen presented an update on the NIOSH construction program.

Christine showed graphs indicating the construction remains a hazardous industry. She emphasized the importance of using research to establish new and better practices that protect workers. They have 15 strategic goals for construction research.

Construction hazards can be prevented through the use of Building Information Modeling (BIM) and NIOSH is determining how it is being used in our companies. Research at the University of Florida showed that less than one-half of respondents were valued as a tool to prevent incidents. However, other research in Europe indicated that 4D-BIM can result in improved occupational safety. Christine stated that NCSE members can share case studies. She suggested that NCSE could co-host workshops on BIM and safety.

Christine said that green jobs may not have been designed as the safest. For example, six workers died in the construction of facilities in Las Vegas that involved LEED Gold buildings. Prevention Through Design is important. The Australian government investigated design-related issues and found that 37% were found to have been partially caused by design. In the U.S., design was found to effect inherent risk.

Chris Barden was asked to explain his company's involvement with BIM and the application to safety. He stated that they are pushing some of the same goals that Christine has identified. Kevin continued with an explanation of Bechtel's use of BIM and the associated tools that link to a master schedule. He has dedicated safety resources that link into the teams that use BIM during design. Kevin said that they are only doing this in the more sophisticated business lines but are building it into the budget on hard money jobs. Tony O'Dea emphasized their ability to use BIM to enhance pre-fabrication of materials to reduce hot work and fall exposures on jobs.

Christine clarified that PtD was fully supported by NIOSH. Tony O'Dea indicated that NIOSH support is needed to overcome the resistance by architects and engineers to PtD.

Brad stated that constructability is more critical than PtD as it involves more disciplines. The Corps of Engineers integrates both to ensure construction safety. Andy said that CURT could initiate more support for PtD by architects and engineers.

## **Lessons Learned – Deepwater Horizon & Fukushima Daiichi Nuclear Plant Disasters**

Joe Bader of the Defense Nuclear Facilities Safety Board (DNFSB) talked about the board. It has five members and was established by congress as an oversight group. Each member sits until replaced. Primarily, the function is to review waste handling and facilities. He likened their function to NTSB.

He related his past experiences and one of particular interest was the lack of client management involvement with early nuclear facilities. He also related some of the causal factors that were identified over the years and lack of nuclear experience and inadequate emphasis on quality programs were highlighted.

Joe showed that there are 20 major DOE projects with 10 under construction now at estimated costs of \$36.5 billion. Much has changed over the years. Clearly there are improved design and construction technologies and standards. Joe said that there is a better understanding of materials and a better educated, although less experienced workforce now.

During design, several issues arose. Among them were insufficient DOE design oversight, post-seismic and structural design deficiencies, inadequate identification of process-specific hazards and the use of immature technology. Construction issues involved rebar installation and concrete placement problems, shortages of welders, poor design drawings and a shortage of qualified field inspectors.

Some of the owner factors are inadequate federal project management staffs, lack of experience and training at all levels, inadequate quality management and communications between groups, a changing regulatory environment and insufficient regulations.

Joe's group is also looking at the Deepwater Horizon accident to gain lessons learned. One of the conclusions was that there was a corporate culture of production-based decision making. Further, the regulatory agency was in a position to promote development and enforce standards. Joe thinks that it is important to assess leading indicators that will predict a process incident. He likes leading indicators such as availability of process spares.

Joe thinks that it is too early to assess the Fukushima incident. However, his board is focusing on emergency management plans. He completed his talk with a discussion of what was needed in the future to assure nuclear safety and the need to require strong and committed project leaders who are experienced, qualified and dedicated.

## **Best Practice Presentation – Hand Protection**

Dave Bray from McDermott shared the McDermott hand injury prevention program that was established in the Middle East (Dubai) on a project with 3,000 workers. Managers from across the company were appointed to the hand injury management committee. Part of the process of identifying the issues was to do an analysis of injuries that occurred from 2004-2009.

Each month, a team developed materials and presented safety topics that addressed a different theme. For example if a team was to address rotating equipment, the team specified activities to support the prevention of hand injuries. Competition between the teams was fierce.

Once the program proved to be successful in the Middle East, it was spread to the entire company. Dave showed a video that explained the program with explanations from the team members.

## **Deepwater Horizon Discussion**

Jack Toellner discussed the time pressures that existed during the BP Horizon drilling effort and resulting blowout. A presidential commission was established to investigate. A task force of API and petroleum industry representatives met to develop a process to ensure no more blowouts would occur.

Jack stated that audit teams would be formed to survey drilling operations to check for compliance.

During a question and answer session, Andy asked about office safety. Jack replied that it is taken just as seriously as project safety and gave an example of an ergonomics evaluation that is done by the individual using a checklist. He also explained that off-the-job safety is taken very seriously and gave several examples.

## **OSHA Update**

Jim Maddux, Directorate of Construction updated the group on statistics, standards, enforcement, guidance, ACCSH, and emerging issues. He stated that certainly construction fatalities are fewer, but the economy has slowed construction and not as many workers are in the industry. We should not have a false sense of sudden improvement, although other rates are falling.

There is a Request for Information on backing operations and for reinforcing and post-tensioned steel construction. OSHA is starting to investigate the application of new standards in these areas. Jim discussed the various technology that could help prevent backing injuries.

The Injury and Illness Prevention Program was added to the spring 2010 regulatory agenda and meetings with stakeholders have been held in several areas of the country. Jim explained that there is emphasis on multi-employer worksites where contractors are working side-by-side with owner employees.

OSHA is reviewing VPP programs including SHARP consultation programs and state regulations regarding VPP-type programs

Jim told us about the progress to revise the crystalline silica rule. Currently, it is at OMB. There is a NIOSH estimate that there are 130 fatalities per year due to silica exposure. Other than water, there are several filtering devices under development to collect the dust and keep it out of the breathing zone. The PEL is based on an obsolete sampling method and it is believed that current silica exposure limits may not adequately protect workers. Jim advised us to get ready and make the changes needed to protect our workers.

Final rules that effect both general industry and construction include addition of an MSD column to the OSHA 300 Log, a globally harmonized hazard communication program, standard for electrical power generation and transmission and the Standards Improvement Project.

The confined space rule may be published in November 2011. Changes in cranes and derricks will be made to underground construction and demolition. Although not pertinent to this group, an enforcement program for residential fall protection will begin on June 16, 2011.

The Severe Violator Enforcement Program (SVEP) concentrates resources on inspecting employers who have demonstrated indifference to their OSHA Act obligations. This replaces OSHA's Enhanced

Enforcement Program. Of the 118 SVEP cases, 74 or 63% are in construction. Seven of the 74 SVEP construction cases are fatalities. OSHA has intentionally limited the number of SVEP participants because it would be too difficult to inspect them with the resources they have.

New directives include cranes and derricks, highway work zones, PPE and a revised construction chapter of the FOM. There were many new guidance products such as nail guns and updated trenching guidance that OSHA is working on.

New members of the ACCSH committee are being solicited at this time. The next meeting is this spring.

Emerging issues include cocooning which is mandated in Europe and New York City. It is an advantage in cold weather, but makes the work areas warmer in the summer. Design safety is also being emphasized. Jim thinks that we need to go to the engineering and architecture schools to emphasize its importance. Another emerging issue is spray-in insulation composed of MDI which causes respiratory problems. An airline respirator is required and does not cure for about two weeks during which it off-gasses isocyanates.

### **Panel Discussion – Client/Third Party Contractor Safety Pre-qualification Perspectives**

Representatives from ISNetWorld and Jack Toellner of Exxon Mobil participated as panel members to give NCSE members a perspective of the mechanisms used to collect data for contractor pre-qualifications.

Jack stated that they had already weeded out the weaker contractors so incident rates were not a huge factor. ISNetWorld representatives stated that they had 31,000 contractors in their data base. He emphasized that owner-clients specified the data collected and the points of emphasis. Richard said that they do not go into the field to verify scores. Our members had numerous questions about multiple qualifications with the same client when the data in ISNetWorld was already updated and on file.

**The meeting was ended for the day at 5:15 PM by the chairperson, Andy Peters.**

The group enjoyed our happy hour and dinner at James Hoban's.

**Andy re-convened the meeting at 8:00 AM on Thursday, April 7**

### **Hiring and Training Interns for Successful Careers**

Andy Peters discussed the importance of establishing relationships with certain schools that have accredited safety programs for the purpose of assisting the schools, students and securing top quality

interns. Andy emphasized that companies should select universities that fit their geographic footprint and to achieve optimum success, provide scholarships and support for the university.

Andy stated that when possible, place the intern with the most experienced and best suited safety professional. Additionally, we need to give interns important duties that will support the company's mission, but provide optimum value for the student as well. Brad said that we need to outline the student's responsibilities in a work plan and then provide the obligatory reports to the student and the university. Rich stressed that it is vital that the intern be placed with a safety professional that is truly interested in mentoring and willing to spend the time motivating the intern.

### **Presentation to Warren Davis, Past Chairperson**

Andy presented a recognition award to Warren as a valuable emeritus member of the group.

### **Jim Dixon Presentation**

Prospective new member Jim Dixon presented his background and perspective on safety as a possible new member representative from Jacobs.

### **NAVFAC Safety Expectations and Best Practices**

Navy Captain Cliff Maurer talked about NAVFAC value for safety and the importance of having a dedicated contracting organization. Cliff stated that merely complying with the safety rules and procedures is not enough; a top-notch culture is necessary.

Cliff added that safety is now a stand-alone source selection factor in the U.S. That has not been implemented overseas as yet. NAVFAC is active with AGC and construction industry organizations.

They believe that safety is certainly a leading indicator for other performance factors. Putting the effort into safety leads to or accompanies higher quality and effective cost controls in most companies.

Subcontractors are the challenge, not the prime contractors. NAVFAC Southeast is doing a pilot program to evaluate subcontractor performance in their source selection as well as for the prime contractor. He believes we need to do a better job of selecting the safest subcontractors. They use the "Best Value" concept to select contractors. A strong emphasis is on reporting and investigating incidents and that parameter is monitored by NAVFAC.

The NAVFAC Activity Hazard Analysis (AHA) is developed but sometimes it is not followed. NAVFAC does self assessment and oversight audits with IG audits on a three year cycle. Considerable emphasis is placed on leadership engagement. Cliff stated that anytime a high level of leadership involvement is evident, results follow.

Cliff reviewed several recent NAVFAC fatal incidents and the lessons that were learned.

Tony asked what they look for when screening contractors that they have never worked with before and Cliff responded that EMR and incident rates are factors. A rate under 1.0 is expected for prime contractors and 1.2 for subcontractors is desired. Safety is a go-no-go for the rest of the parameters.

### **International SOS Assistance – Assessing and Mitigating Global Medical Risks**

Dr Myles Druckman, MD and Larry Head presented their perspective on protecting workers who travel or work overseas. Pre-existing risks are the leading cause of death for international travelers. Infectious disease is also a cause.

SOS has 9,000 employees and about a third are medical related. Much of their business involves doing location assessments to determine risks, such as malaria and hospital location. Risk of evacuation is 25 times higher in a high risk country. Age is a factor; there is a four times higher risk of evacuation for employees over 55 years of age. He pointed out that one in five of all expats is over 60.

Screening for overseas candidates is sometimes conducted to make sure they do not have excess risk. The cost of evacuating a person from overseas can cost \$1,000,000 when all factors are considered. Wellness programs have been instituted to improve physical status of overseas candidates. Typically, SOS finds 20% of overseas candidates need medical screening before assignment. To initiate the process, SOS recommends an initial questionnaire that could lead to a medical exam.

To implement screening, a form of a corporate medical team is needed. SOS also provides corporate return-to-work assistance for expats. They monitor their progress from the outset until they return to work.

Infectious disease is on the rise on construction projects because of the number of workers from different countries that are involved. Risk communication is important to ensure that everyone knows the situations yet the publicity does not get out of control.

Radiation exposure and crush injuries from the quake in Japan were discussed. Myles stated that there will be more emphasis by many companies on preparing their employees for evacuations after the situations in Libya, Egypt and Japan.

Planning for medical considerations on a project should start early with the investigation of risks. The proximity of medical care, camp hygiene, regulatory compliance and pre-deployment and site medical exams must be planned. A site health review is needed. Many times, looking a pictures of facilities can indicate the status and need for planning or alternative facilities or manning. SOS members can access such information for planning.

Development of a medical emergency response plan is essential after the investigation of available medical resources is conducted. SOS screens medical providers in foreign countries before making referrals.

### **Leading Indicator Survey Results**

Janie Gittleman of CPWR asked the group to provide a rating of important leading indicators in construction. We completed the survey per Janie's instructions and will await the results.

### **Business Meeting**

#### **New Member Approvals**

Jim Dixon was unanimously approved as a new member from Jacobs.

### Member Changes and New Member Nominations

Steve Cloutier and P.D. Frey have requested honorary membership and that was unanimously approved.

Members from Bechtel, Granite and Kinetics are no longer the top safety leader in their companies but would like to be converted to honorary status. That was unanimously approved.

Andy stated that there are four openings. Darryl Hill will most likely fill one of the positions. Weeks Marine, Walsh and Mortensen will be discussed at the Austin meeting in September for possible presentations by new members at the Charleston meeting in April, 2012. Since the charter allows no more than four prospective members at any single meeting, new presentations at Austin will be from Darryl Hill and the Bechtel, Granite and Kinetics replacements.

### International NCSE

There was considerable discussion about establishing an international NCSE group. Further discussion is planned for the fall 2011 meeting in Austin. Persons who are interested should network with other members to identify in-country staff. In McDermott, Guy McLear is a point of contact.

### Next Meetings

Suggested topics for discussion at the next meeting included the following:

- CII upcoming research, especially Steve Trickle's research and tool for leading indicators
- MSHA
- CURT to discuss options to ISNetWorld et al data collection burdens
- Specific Topic for OSHA's Construction Safety Directorate
- University of Texas safety expectations.
- Invite MedSafe for after meeting get together.

As a reminder to all members, it is important that you make your reservations at the designated meeting hotel. Considerable costs could be incurred if we fail to make our contracted room nights.

Several locations were nominated for the fall 2012 meeting but Napa, CA was selected. The Silverado Resort was suggested as a venue and will be pursued. Details will be provided soon.

**Andy dismissed the meeting at 4:45 PM.**

We will see you in Austin, Texas for the fall 2011 NCSE meeting on September 27-28, 2011.

You have until August 29<sup>th</sup> to secure your reservations directly with the Driskill Hotel. Don't wait until then, as the room block may fill up and you may not be able to stay in the conference hotel, and most likely will pay a higher rate at nearby hotels. **Call the Driskill hotel directly at 1-800-252-9367 or 512-474-5911 to make your reservations and make sure you get the reduced rate of \$209 per night, Queen or King. August 29<sup>th</sup> is the deadline. When making your reservations, it is essential that you use the The Group Code of 20E3BD when requesting the reservation.**

The hotel website is <http://www.driskillhotel.com/>.

Let's shoot for full attendance.

Remember to refer to the NCSE website for copies of the numerous presentations from the recent meeting.

Respectfully,

Andy Peters, Chairperson  
Tony O'Dea, Vice Chair  
Rich Baldwin, Secretary