

All meetings must have a written agenda that is circulated prior to the meeting. Attendees must strictly follow the agenda. Topics not on the agenda must be deferred until the next meeting. An attendee shall be assigned to record and distribute the minutes of each meeting. The minutes shall include a record of who attended the meeting.



Joint HSE & Workforce Development Committees Meeting 3 February 2014

Location: Texas Ballroom, Omni Houston Hotel Westside, 13210 Katy Freeway,
Houston, TX 77079

MINUTES

13:00 – 13:10	<p>Welcome & IADC Antitrust Policy <i>Paul Breaux, Director—Onshore HSE, IADC</i></p> <p>Facility Orientation / Safety Briefing <i>Omni Hotel staff</i></p> <p>Presentation to Leadership <i>Joe Hurt (Vice President—Onshore Division) and Brenda Kelly (Senior Director—Program Development)</i></p> <ul style="list-style-type: none"> • Tony Johnson was awarded a plaque in recognition for his years of exemplary service as Chair of the HSE Committee. • Victor Fleming awarded an IADC shirt for his service as the current Chair of the Workforce Development Committee. • Pamela Wakefield was awarded an IADC shirt, but she was not present.
13:10 – 13:15	<p>Welcome from Committee Chairmen <i>Victor Fleming (Rowan – Workforce Development Committee Chairman) and Kurt Bailey (Patterson UTI – HSE Committee Chairman)</i></p> <p>Kurt Bailey introduced the new HSE Vice Chair—Jennifer Guidry (Hercules).</p> <p>Mr. Kurt asked the operators, service providers, drilling contractors, training providers, and IADC staff members to raise their hands to see who was represented in the meeting.</p>
13:15 – 14:15	<p>“Improving Worker Safety through Employment Testing: Research and Legal Considerations” <i>Dennis Luce (Saxon Services) and Fred Oswald (Rice University)</i></p> <p><u>Summary:</u> Rig worker safety is established, in part, through multiple efforts, such as effective training, good team culture, and proper management and organizational climate. Effective employment testing can help identify rig workers who are more likely to succeed, thus improving worker safety even further. Saxon Drilling has recently collected data on job incumbents involving tests of their current knowledge (mechanical reasoning) and attitudes</p>

toward safety (risk avoidance, safety responsibility), along with supervisor ratings of employee performance and safety. The presentation described these assessment tools, data collection/analysis, the literature on worker safety and testing, the process of the validation study, and the legal implications of incorporating safety-oriented testing into personnel selection systems and practice.

Dennis Luce introduced Dr. Fred Oswald, Chair of the Psychology Department at Rice, with whom he has worked to study pre-employment testing and conduct a pilot test.

Testing is often applied upon hiring and promotion of employees. Testing can help to determine basic skills, job skills, aptitude, and personality attributes. Mr. Luce is not as interested in personality testing as he is in other types of testing. Dr. Oswald asserts that there is some value in personality testing and that it is part of the bigger picture.

Mr. Luce briefly reviewed advantages and disadvantages of testing. For instance, a person's training and experience may be more valid than test results. Also, a person may answer the way he or she thinks they should rather than honestly. Sometimes, testing can lead to unintended consequences, such as hiring all of the exact same personality and experience types rather than having a variety.

They looked at the Mechanical Reasoning (MR) test and at the Employee Safety Inventory (ESI). They found a vendor from Canada who provided a wide variety of tests. Mr. Luce provided some sample questions from the Mechanical Reasoning test to illustrate that educational experience is not as necessary as practical experience on these types of tests. They discussed the fact that there are times we screen for potential and other times we test for previous experience and, therefore, existing skills.

There is wide literature regarding cognitive ability. These tests can be refined for our purposes to make them more relevant for us.

The Employee Safety Inventory helps to identify a potential employee's sense of safety control, risk avoidance, and stress tolerance. Mr. Luce provided some sample questions. People don't always tell the truth completely, but they do leave clues to the truth in their answers. The tests also ask the questions in a variety of ways in an effort to get closer to an accurate representation of a person. Some people do try to "cheat the test," but they are not always successful. The tests can also score how likely the person was to have tried to cheat the test or had answered questions randomly. The test presented also comes with interview questions.

Mr. Luce and Dr. Oswald have researched safety culture and its effect on employees.

They collected data on voluntary employees who held certain rig positions at a rig startup in Alaska. These employees had already been through a rigorous screening process before they were hired. Their rig managers rated the employees' performance confidentially. These evaluations were compared with the test results, but none of the participants, including rig managers, knew the test scores. They also collected safety information on these employees. Each was rated on a 4-point scale. They had sections on performance, safety, and core values.

Dr. Oswald provided an overview of findings on the MR and ESI testing, which took place over several months. The results showed that the employees, in general, had very high mechanical reasoning. The ESI scores were highly correlated and had high reliability. The rig manager ratings need more research and a bigger sample size because they only had two raters and their rating varied. However, the ratings highly correlated with the test scores.

A committee member asked about the turnover rate, but that was not a factor during the short testing period. Another committee member asked whether the employees were given

feedback on their results.

This testing is still in a very early stage. They can see how the data can be used, for instance, to see correlations with turnover rate.

Recommendations from their study included:

- Collect data on a larger sample of employees.
- Supervisors need to be trained on how to rate employees with a mindset toward safety. Then, their mindset needs to be calibrated periodically.
- Collect data on applicants rather than current employees.
- Collect “new outcome data.”

Qualities for Selection Measures:

- Validity
- Reliability
- Predictability

Mr. Luce cautioned attendees that if a company is using testing as the only means of determining a potential employee’s qualifications, legal concerns arise. It is important to use testing as a component of qualifications, with test results examined in context of all other qualifications/considerations. Special consideration should be given to:

- Use Uniform Guidelines on Employee Selection Procedures (EEOC).
- Ensure that it withstands legal scrutiny (e.g., don’t use it as the sole reason for hiring).
- Study the validity.
- Be aware of potential for false positives/negatives.

Questions:

Integrity testing: Have they used this kind of testing? Answer: Unsure which test is referred to specifically but appears to be a personality test that addresses risk-taking. Dr. Oswald explained that these kinds of tests address ethics and behaviors.

Regarding the positive/negative effects, can that lead to less diversity in the workforce? We do not want to lose diversity (e.g., gender and other protected groups). Protected groups sometimes have different scores on these tests, and we need to ensure that we take a broad view of what qualities we want to identify (a variety of talents and tendencies).

Cognitive styles can help to develop high-performing teams. What do Mr. Luce and Dr. Oswald think about using the Myers Briggs test to identify team members? First, we need to document what the safe teams are doing to identify what qualities we are seeking. The Myers Briggs test is not that reliable. Email Dr. Oswald at foswald@rice.edu for more information about this.

What are your plans for the future of this project? They did not find “predictive validity” in this pilot phase. Additional testing needs to be done with more samples. However, the tests can still be used while the local validation studies are accomplished. They may extend use of these instruments to a larger workforce to collect more data. They probably will not use the ESI outside of the US because it is culturally biased.

Dr. Oswald has been working with the College Board and the Navy, for instance, to link HR

practices with organizational outcomes.

Using Visuals to Promote Knowledge Transfers

Michael Markey, Transocean

Summary: Due to language and education differences across operating areas, global organizations often struggle to achieve the necessary communication transfer to workers. In the high hazard offshore drilling industry, effective communication can lead to improvements in reliability, performance, and safety. Visuals are an important tool in creating adequate communications.

Real case examples on how Transocean used visual elements to address gaps in worker skills and knowledge were presented. One of the examples shown was that of a graphic to explain hydrostatic pressure. The “visual storytelling” has proven to be a desired method of delivery and directly supports implementing our management system requirements. Mr. Markey discussed the strategy used to determine what graphics and scenarios to create and the resulting production that ensued.

Text alone is not always effective. Mr. Markey provided an example of a Saver Sub. They looked at what they could do to communicate to the crews in a way that would inspire them to implement the information. Mr. Markey’s team helps the SMEs to communicate this information. They also use outside vendors to help to produce the visuals, but you have to have in writing that the visuals belong to your company, not to the vendor. Do not underestimate the amount of work required when working with vendors.

14:15–
14:45

Mr. Markey discussed strategies for accomplishing a variety of goals (e.g., problem solving, recall and recognition of hazards, procedures, and concepts). His example showed a “storytelling” scenario, which was a drawing of a scene involving an impact zone. Mr. Markey’s team created laminated sheets to communicate hazards through storytelling graphics. The graphics reinforce safety and are a tool for people who are not professional trainers but who address safety issues onsite at a rig. They also created a video to illustrate the “line of fire” concept. The video shows several employees who are in the line of fire in different ways. The video is designed to promote discussion about identifying risks.

Part of the problem is changing the safety culture. It is difficult to get people to do what they should do and have been told to do.

Mr. Markey presented some graphics designed to reinforce procedures, in this case preventing the employee from dropping tubulars. They use color to represent employees with different responsibilities.

He presented an example of illustrating difficult concepts, such as areas in which pipe can get stuck during the drilling process.

In creating these kinds of visuals, they start simply by creating sketches and storyboards of their ideas. To avoid having to spend money redoing the graphics, ensure that you give the vendor everything they need to accurately depict what you intend.

Mr. Markey said certain resources can be very valuable in doing the job correctly:

- Information Graphics by Robert L. Harris
- Envisioning Information by Edward R. Tufte

These books explain why certain graphics are used to depict the different concepts and

	<p>processes.</p> <p>They also use multimedia through Adobe Acrobat. Acrobat worked better than the other products they tried to consistently play videos embedded within the graphics. The material always shows where in their management system they address each issue (e.g., a flowchart from Transocean’s Well Control Handbook).</p> <p>Discussion about “stock imagery”: These kinds of graphics don’t represent individual companies, so it’s best to create your own stock imagery. Mr. Markey and his team developed their own stock imagery that can be reused to ensure consistency and to save time.</p> <p>Email him at michael.markey@deepwater.com for more information.</p> <p><u>Questions:</u></p> <p>What kind of feedback have you been getting from the users? If the user finds value in it, they will want more of it, and we have had people asking for new graphics. Our biggest problem is that we cannot produce them quickly enough. It is hard to get all of the people available when needed for input and feedback.</p> <p>Who was your SME for the “gas in riser” graphics? They will discuss this after the meeting. The Gas-in-Riser workgroup needs some SMEs to participate.</p> <p>How much user testing is done to test the effectiveness of the graphics? It depends. Some of the graphics are required to go out as is from management; however, we do want to get the buy in from the people using the material. Mr. Markey’s team spends a great deal of time with the SMEs to ensure that the material is right and can be used at the rig site. Some of the pieces used for traditional training are tested quite a bit.</p> <p>Does Transocean perform a needs assessment before creating graphics? Not for every project. They do investigate root causes, and many graphics come out of those analyses. The graphics tend to be based on Transocean and industry incidents.</p>
<p>14:45 – 15:00</p>	<p>BREAK</p>
<p>15:00 – 15:30</p>	<p>Path Forward—Industry Partners Working Collaboratively to Achieve a Safe Work Environment <i>Alexis Vitone, BP</i></p> <p>Ms. Vitone was unable to attend because of emergency work issues.</p>
<p>15:30 – 16:30</p>	<p>A Peek into New IADC Safety and Workforce Development Initiatives</p> <p><u>KSA Project</u> <i>Brooke Polk, Competence & Learning Development Specialist</i></p> <p>The Knowledge, Skills, and Ability (KSA) project is IADC’s answer to the need for globally accepted competency standards.</p> <p>Job roles are expanding. New technologies are constantly developed. Drilling environments are getting more challenging. By working together as an industry to develop and maintain KSA competencies, IADC is addressing challenges such as these and ensure the competence of our workforce.</p> <p>Knowledge, Skills, and Ability competencies list the recommended capabilities that rig-based personnel must possess to safely and consistently fulfill their job roles. These competencies provide a means by which a worker can accurately and definitively demonstrate his or her</p>

capabilities.

Six groups have finished. Several new groups have been added: Crane-Rigger, Company Man, and Well Servicing. The Technical Maintenance and Marine Operations are continuing to meet. Ms. Polk needs more Drilling Contractors to be involved. See Ms. Polk if you want to join one of these groups or if you know someone who does.

The database is currently being tested and will be vetted by the legal team soon, before it is released to the public. In the next phase, we will need more volunteers to help develop test questions.

WADI Project

The Workforce Attraction & Development Initiative (WADI) is a collaborative effort among IADC, colleges on a national level, and other training providers to deliver career development pathways based on the KSAs identified by the industry.

The WADI project addresses the industry's urgent need for:

- Pre-trained/pre-qualified entry-level new-hire candidates
- Personal development trajectories and career guidance for new-hires

WADI has expanded nationwide and is now even going international. The colleges and industry representatives are developing screening requirements, baseline curriculum, and career pathways. The colleges are also working on recruiting. SMEs from industry are helping to develop the curriculum by providing information about the new hire's need to know in order to get hired. They will then begin helping with positional training. Employees/ers can do a gap analysis to identify additional needs for training. IADC will accredit the colleges / training providers. The accreditation will be mapped back to the KSAs. The students will have to pass the assessment piece, provided by IADC. The credentials will be tied to different phases of this project.

Mark Denkowski commented on the human factors aspect of this training and how WADI will help to address these issues. How do we get employees to take the behaviors they learn in training onto the rig?

For these initiatives to work, we need the industry to buy in. Industry representatives need to be involved in developing these programs and then need to hire the graduates of these programs.

Attraction is also a big part of this. We will be planning "career fairs" to educate people on the industry. These fairs will bring together companies in the industry and potential candidates for employment, giving them a chance to get out in front of potential employers and market themselves. The drilling contractors don't typically participate in this effort as much, and we need for them to do so.

Ms. Polk explained that the contractors who are involved are challenging their HR people to get involved, too. Without the backing of HR, this initiative won't work very well.

The next meeting will be scheduled in late February. Let Ms. Polk know if you want to be invited to this meeting. Her email: brooke.polk@iadc.org.

HUET Accreditation

Patty Tydings, Competence & Workforce Development Specialist

Patty Tydings presented on behalf of Brenda Kelly. Ms. Tydings provided information on the

HUET rollout and available documents. Email her (patty.tydings@iadc.org) or Gerardo Barrera (gerardo.barrera@iadc.org), or email huet@iadc.org for more information or for an application for accreditation.

The new HUET program officially rolled out on 20 December 2013 when the HUET Handbook of Accreditation and other necessary documents were uploaded on IADC's HUET initiative page and an article announcing the rollout was published in Drill Bits.

EU & Other Safety Initiatives

Mike DuBose, Vice President—International Development—Europe & Asia

Mr. DuBose gave an overview of the International Development (ID) team members, including their geographical distribution and coverage areas. In addition, he:

- Explained the role of Taf Powell regarding the work of ID.
- Introduced the ID model, how the Regional Reps work on both the local level and interaction with HQ in Houston.
- Gave a brief example of the types of work agenda items the ID team is covering including, EU Safety Case Directive, UK HMRC UKCS tax proposals, Indonesian Nationalization/Cabotage laws, International Work issues (Visas, etc.).

President Colville has traveled around the world to find out people's perceptions about IADC. He discovered that many people thought IADC is too US-focused. Therefore, Mr. DuBose and Bob Warren are now representing the international community. The International Development Team comprises 10 people who represent the different regions. Mr. DuBose introduced the team. Mr. Warren explained that many of the needs in the different areas are similar, but the activity may vary. Some of these regions have active IADC chapters.

Mr. Warren and Mr. DuBose find out what is happening in the different regions, and they "agitate the comfortable" and "comfort the agitated," as a pastor once said, according to Mr. DuBose. They must understand the local issues to know how to help the members in those regions. They described the ID team as the 'eyes and ears' for IADC and as crucial to identifying and conveying members' needs to headquarters.

Examples of activities the ID team has been engaged in recently include:

- EU Safety Case Directive, where all member states will apply safety case to all offshore member states. The directive is to be fully implemented in 2 years. The IADC HSE Guidelines can satisfy "safety-case" requirements, but they are not regulated and do not have to be approved by a regulator. In areas where there is not a regulator or regulations, IADC's regional reps can help to close the gap.
- An EU Safety Case Directive (EUSCD) workshop to take place at O&G UK and IADC has been invited (27 Feb 2014).
- UK HMRC (Her Majesty's Revenue and Customs)—UK Customs and Safety Tax proposal, where the team rallied members and gained an audience with regulatory leaders to explain the impact of the Tax on our business. The ID team is currently investing a huge effort to ensure that the regulations that come out of this have taken our concerns into account and are appropriate
- Indonesia Nationalization/Cabotage Laws, which required re-flagging of drilling vessels when going into Indonesian waters. The team was successful in gaining a reprieve from

the law until December 2015. ID and IADC members must be prepared for the next phase of discussions

- International work issues, including PPE, visas, and many other issues, often in locations that do not have regulatory requirements

Taf Powell recently joined IADC from Aberdeen. He is now representing the industry in regulatory matters worldwide. He recently attended the International Regulatory Forum.

IADC has been able to present the case for the industry on these issues.

Questions:

Safety cases have become more popular. They are not a regulatory requirement here, but they are good practice.

Are the UK regulators taking the new API Standards into consideration? Yes. The individuals developing the regulations are relying on SMEs who know the API Standards and can incorporate them.

The EUSCD will take 2 years to fully develop. All of the relevant organizations are involved in the development.

Paul Breaux discussed the efforts of the US Onshore Team and how they operate. They have divided the US into thirds to ensure that each region has a person focused on that area to answer questions and address issues. If any members know of an issue that IADC needs to get in front of, please contact Mr. Breaux (paul.breaux@iadc.org), Rhett Winter (rhett.winter@iadc.org), or Joe Hurt (joe.hurt@iadc.org).

Regulatory Affairs

Bill Mr. Tanner, Vice President—Government & Regulatory Affairs

Mr. Tanner discussed legislative (U. S. federal and state) and regulatory issues. He mentioned that the Republicans need to capture six seats in order to have control of the Senate. There is some speculation that this could happen. If that does happen, it will help to drive the political discussion. From a policy perspective, we expect to see continued gridlock in Congress until after the election. We are not likely to see any wholesale tax reforms going through.

Most of the activity is in the regulatory arena. The president is using executive orders to implement regulation. Therefore, much of Mr. Tanner's time in Washington will involve these regulatory issues. The name of the game is knowing the regulators before we need them. Although Mr. Tanner has only had this position for about 8 weeks, he has had an opportunity to meet with many of these regulators, and they seem to have a great deal of respect for IADC. In order to address the kind of issues we expect from executive ordered regulations, our relationships with regulators will be crucial.

Mr. Tanner met with several bankers about the future of the O&G industry. The finance people are relatively confident about 2014. Key observations and topics of interest were as follows:

- The skills gap, which is a concern just because they are aware of it
- Companies recalibrating their CAPEX.
- The uncertainty of the pricing environment for oil.
- Mergers and acquisitions—they have a keen eye to the potential for additional

	<p>industry consolidation.</p> <ul style="list-style-type: none"> • Recognition of the deeper, positive industry safety culture post-Macondo. (The changes to our safety culture are being noticed outside of our industry.) <p>All of these issues are linked to policy issues, such as those involving climate change (a clear priority of the president, who will be implementing carbon taxes). Regulators are beginning to understand that the natural gas revolution is real in the US. Access to new bases in the Atlantic and other places are going to be addressed and tracked by Mr. Tanner and his team.</p> <p>Mr. Tanner wants to start a constituent contact day for the industry to meet up with their representatives. That will help to establish IADC and its members as a group with which these politicians will want to work.</p> <p>Questions:</p> <p>Analysts are looking at HSE. Is there any effort to educate them about it? Not right now, but that is “fertile field,” an area where we could make a mark. At Shell, Mr. Tanner studied the types of questions the analysts were asking. That is an area where we could shape the dialogue.</p> <p>Email Mr. Tanner at bill.tanner@iadc.org if you have questions or comments.</p>
<p>16:30 – 17:00</p>	<p>Open Discussions & Future Meeting Topics</p> <p>Anyone with an idea for future meeting topics should contact their committee chair or IADC staff liaison, as follows:</p> <ul style="list-style-type: none"> • WDC Chair: Victor Fleming, Rowan; IADC staff liaison: Brenda Kelly • HSE Chair: Kurt Bailey, Patterson UTI; IADC staff liaison: Paul Breaux <p>HSE&T Conference takes place the 2 days following this meeting.</p> <p>Next meeting date for WDC is 9 April 2014 from 1 to 4:30.</p> <p>Next meeting date for HSE is 10 April 2014 from 8 to 12:30.</p>
<p>17:00</p>	<p>Adjournment</p>

Attendance:

Name		Company Name
H. Gene	Wilson	Aberdeen Drilling School
Nicken	Sheth	Atkins
Chris	Parker	Atkins
John	Auth	Auth-Entics
Anthony	Zacniewski	Bandera Drilling
Carolina	Rubiano	BP America
Tim	Gibson	Diamond Offshore Drilling

Travis	Warden	Diamond Offshore Drilling
Ed	Ramsay	Drilling Systems
Joseph	O'Connell	Engineering & Coputer Simulations
Dicky	Jackson	Falck Alford
Nick	Marie	Falck Alford
Andy	Erwin	Falck Alford
Nolan	Habegger	GE Oil & Gas
Mike	Seymour	Harris Caprock
Alan	Deer	Helmerich & Payne
Brock	Fisher	Helmerich & Payne
Jennifer	Guidry	Hercules Offshore
Paul	Doggett	Hess Corporation
John	Hoopingarner	Hoopingarner Oilfield Consulting
Cecil	Brewer	Houston Community College
Dan	Slattery	Hyperion Safety Services
Paul	Breaux	IADC
Joe	Hurt	IADC
Brenda	Kelly	IADC
Elfriede	Neidert	IADC
Alan	Spackman	IADC
Patty	Tydings	IADC
Bill	Tanner	IADC
Mark	Dekowski	IADC
Rhett	Winter	IADC
Brooke	Polk	IADC
Mike	DuBose	IADC
Bob	Warren	IADC
Aaron	Mueller	Independence Contract Drilling
Kris	Wilson	Intertek
Larry	Schmermund	Intertek
Tamara	Franks	Intertek
Ruchir	Shah	Learn to Drill
Christopher	Plaeger	Moxie Media
Mark	Tritz	Moxie Media
Del	Forbes	Noble Drilling Services, Inc
Erin	Ring	Noble Drilling Services, Inc
Duncan	Bonner	NSL America

Suzanne	Munro	NSL America
Diana	Smith	NuPhysicia
Benjamin	Nsude	Pacific Drilling
David	Robinson	Parker Drilling
Sarah	Paredones	Parker Drilling
Kurt	Bailey	Patterson UTI
Jessica	Selvidge	Petrofac Training Services
Jenni	Lewis	Petrofac Training Services
Scott	Randall	Plus Alpha Risk
Ryan	D'Aunoy	Precision Drilling
Christian	Lavallee	Precision Drilling
Fred	Oswald	Rice University
Victor	Fleming	Rowan Companies
Clint	Honeycutt Sr	Safety Connection
Janice	Honeycutt	Safety Connection
Dennis	Luce	Saxon Energy Services
Neil	Forrest	Shelf Drilling
Cale	Coelho	Sidewinder Drilling
Ted	Bland	Stonegate Production
Seth	Lindstrom	TH Hill Associates
Justin	Fountain	The Mosaic Company
Tony	Johnson	Transocean
Marcelo	Azeredo	Transocean
Mike	Markey	Transocean
Barry	Cooper	Well Control School
David	Shaw	Winshaw