



Volume 1 Issue 2

Spring 2006

**BRANCH CHAIR'S MESSAGE – LAURA COMSTOCK**



**Oil & Gas Administrator  
Laura Comstock**

Welcome to the 31 new members that have joined us since our last issue. I hope that you find this newsletter to be a valuable tool, and I encourage all members of the Oil & Gas Branch to share information with us. I hope that each of

you will take the time to forward us an interesting article that you have come across or a report or paper that you have developed so that we can all benefit from it. If you have items that you would like to share, please e-mail me at [lcomstock@scana.com](mailto:lcomstock@scana.com), and we will include them in future issues of the newsletter.

I would also like to welcome our two new Advisory Committee members, Lamar Hutchinson and Fahad Al-Qattar. Lamar has also graciously agreed to be the Executive Secretary of the Branch. Since the last newsletter, your Advisory Committee has worked to promote the Branch, meet the needs of its members, contribute to the newsletter and do their paid jobs as well!

The Advisory Committee held a conference call in January, which marked the first time that the team had been together since the Professional Development Conference (PDC) last June. During the call, the team achieved the following objectives:

- Completed and updated the strategic plan.
- Boyce Bourque, our Membership Chair, provided membership information and growth projections for the Branch.
- The committee decided to develop a survey to send to the entire Oil & Gas membership so that we can ensure that we are meeting the needs of the group.
- Reviewed and refined the Growth Plan. This year, we plan to complete the Oil & Gas Branch website, coordinate a technical audio conference call,

enhance the newsletter and distribute a promotional flier for the Branch.

If you have not yet seen it, please visit the ASSE website and check out the Oil & Gas Branch website under Practice Specialties—it looks great! The promotional flier is included as the last page in this newsletter. Feel free to print it and use it as you discuss the Oil & Gas Branch with others.

If you have not yet made plans to attend the PDC in Seattle in June, I really hope you do so. Not only is the PDC a great opportunity to advance your professional skills and stay abreast of changes in the safety industry, it is also a great opportunity to network.

The Oil & Gas Branch meeting will be held on Sunday, June 11, 2006 at 6:00 p.m. in the conference hotel. All members are invited and encouraged to attend. I hope to see you there!

**In This Issue:**

Hurricane-Damaged Platforms .....	2
“Y” Lanyards on Harnesses .....	3
Logo Shirts Available .....	3
Mark Striking Wrench .....	3
Battery Basics .....	4
Opportunity Knocks.....	5
Safety Alert.....	6
Exploring the Impact of Health and Wellness on Employee Safety .....	6
Oil & Gas Branch Promotional Flier .....	8

## Hurricane-Damaged Platforms

By David Paganie

Some of the platforms that Hurricanes Katrina and Rita destroyed are creating potential obstacles for operators and mariners in the Gulf of Mexico. So far, the U.S. Mineral Management Service has collected locations for 115 of the platforms.

During the end of 2005, there were three separate incidents of vessels striking submerged platforms. One of the vessels flipped over and one sunk, while all incidents resulted in potential pollution events.

The vessel that capsized was the double-hulled tank barge DHL 152 owned by K-Sea Transportation of New York. According to the U.S. Coast Guard (USCG), the barge struck debris from a submerged platform in West Cameron block 229 while en route from Houston, Texas to Tampa, Florida.



**December 2, 2005.** The double-hulled barge DBL 152 (owned by K-Sea) shown upside down. The barge had approximately five million gallons of heavy fuel oil onboard before it struck a damaged submerged platform and sank during Hurricane Rita. Crews continue to empty oil out of the barge and to retrieve spill oil.

U.S. Coast Guard Photograph

When the barge collided with the platform, it gouged a 35-foot x 6-foot hole in its starboard bow, puncturing both hulls and damaging one of the cargo tanks, which contained 300,000 gallons of oil. As a result, the vessel capsized, and oil leaked from the barge's breached cargo tanks. The barge was positioned approximately 29 miles south of Calcasieu Pass, Louisiana and 100 miles east of Galveston, Texas.

A second vessel involved in a collision was the M/V L'Arpenteur operated by Fugro GeoServices, Inc. According to the USCG, while the vessel searched for a sunken rig, it struck a submerged platform in 140 feet of water and sank. At last report, the vessel was resting on a 12-inch non-flow pipeline.

According to the MMS, a third vessel, the American Salvor owned by Crowley Marine Services, Inc., collided with a hurricane-destroyed platform in South March Island block 166. The MMS added that the vessel safely returned to port.

Source: *Offshore Online*, January 2006

**According to Safety Alert No. 233 from the U.S. Department of the Interior Mineral Management Service (MMS), Gulf of Mexico OCS Region, 112 platforms were destroyed by hurricane-force winds and waves. The platforms have become potential obstructions to offshore operators and mariners in the Gulf of Mexico. The MMS is maintaining a list of these platforms and their locations on their website:**

**[www.gomr.mms.gov](http://www.gomr.mms.gov)**

## “Y” Lanyards on Harnesses

When using a harness “Y” lanyard, both lanyards must be attached to the anchor point, or the second lanyard must hang free. The second lanyard must not be attached to the user’s harness or to their belt or clothing, as this could limit the extension of the energy absorber in the event of a fall. If a person sustains a fall using only one of the lanyards with the other attached to the harness/belt/etc., excessive forces will be applied to both the user and to the system, which could lead to equipment failure with potentially fatal consequences. Workers must know how to use lanyards properly, and supervisors need to enforce all safety precautions. Know and understand the manufacturer’s instructions for safe use.

Source: *Safety Focus*, January 18, 2006

---

## Logo Shirts Available

We are placing an order for Oil & Gas Branch logo shirts. They are charcoal and black polo shirts with the new Oil & Gas Branch logo on the front. We need to place our order soon in order to get them in time for the PDC in Seattle. If you would like one, please send a check for **\$40 by May 1, 2006 to Mike Bradshaw at Danos & Curole, PO Box 1460, Larose, LA 70373.** When you send your check, let Mike know your size and whether you would like your shirt mailed or if you would like to pick it up at the PDC. The Oil & Gas Branch meeting will be held on Sunday, June 11, 2006 at 6:00 p.m. The exact location will be announced. All members are encouraged to attend the meeting.



## Mark Striking Wrench

Grand Isle Shipyard (GIS) has produced a new hammer wrench that has all of the basic features of a regular hammer wrench but includes a pre-fitted slot in which a ratchet-type “breaker bar” can be inserted. This wrench keeps hands away from the point of impact. The wrench, which is not yet in production, will be crafted by Industrial Welding Supply and will use a common “breaker bar.”



# Battery Basics

By Mark D. Hansen

Batteries are everywhere in the oil and gas industry. Large industrial batteries power forklifts. Large stationary batteries provide standby power in the event of an electrical service interruption for petrochemical plants. Unlike many other power sources, batteries produce power without noise or odor. They perform so quietly that it is easy to overlook them and to forget some of the simple safety measures that need to be employed.

All power sources (gasoline, propane, fluid hydraulic, electricity, storage battery or steam) represent potential safety and health hazards to those who operate them. The major risk with any power source is the sudden and unanticipated release of power outside the intended power flow path. Exposure to the chemicals contained in power systems should also be regarded as a potential hazard.

Large batteries are electrochemical power-generating devices. Most batteries in use today are lead acid batteries. Dilute sulfuric acid is the common electrolyte. These batteries represent both electrical and chemical exposure hazards to those who service and operate them.

## Battery Fires and Explosions

Batteries can explode and catch fire. While this is not common, neither should it be regarded as rare or completely beyond possibility. There are steps that can dramatically reduce these risks.

The most obvious of these would be the elimination of combustion-causing and combustion-supporting hazards on or around the batteries. Open flames or sparks can cause an explosion if the hydrogen level around the batteries exceeds the lower explosive limit of hydrogen gas. That limit is 4%, and it can be measured with a gas monitoring instrument. Hydrogen buildup, if it were to occur, is most likely in the final stages of recharging, when some battery gassing occurs.

## Electric Shock

The risk of electric shock or even electrocution must be recognized. Both AC and DC voltages are present in voltages that are hazardous. Avoid the use of conductive tools by using only tested and certified insulated service tools. Metal finger rings and other jewelry should not be worn.

## Electrolyte Exposure

Exposure to battery electrolyte, usually sulfuric acid, must be avoided. Sulfuric acid is an aggressive, corrosive chemical. Avoid breathing an acid mist or

having it come into contact with eyes or skin. It is an extreme irritant that can do permanent damage.

Splash-proof goggles and full-face shields with chemically resistant aprons, gloves and boots are the best defense. Exposure is most likely when batteries are moved into or out of the battery stands or when they are being re-watered. The Occupational Safety and Health Administration (OSHA) requires that an eyewash station and shower with a 15-minute capacity be located within ten seconds of the battery area. If acid is splashed into the eyes or on the skin, there is no time to search for an eyewash and shower.

## Procedures Help

The battery area is often overlooked in a facility-wide effort to improve safety. Here are some steps to take:

1. Train employees in the safe operation of batteries and chargers. Most are well-trained in other aspects of their work such as driving the forklift. Too often, there is little training on this closely related topic.
2. Establish procedures and monitor for compliance. Post them on the wall if necessary. Be sure to have material safety data (MSDSs) in the area for the batteries, acid and all chemical cleaners and neutralizers that may be used there. Also, post safety signs appropriate to a battery and charger area.

## Battery Construction

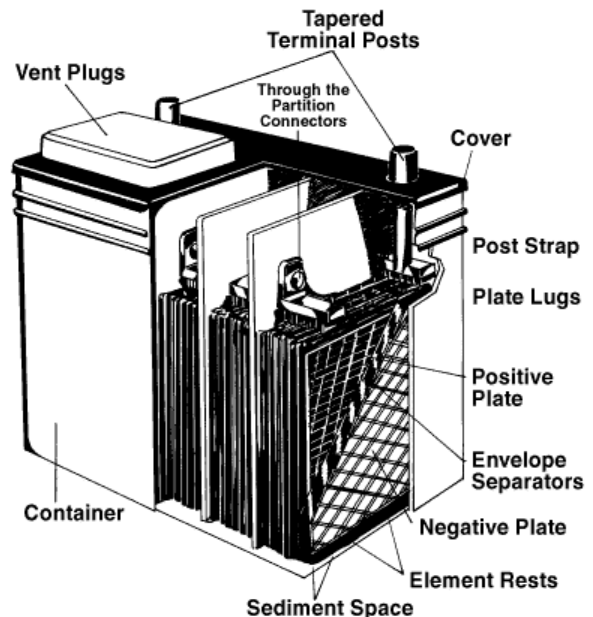


Figure 1. Cutaway of storage battery.

Large batteries and the chargers that support them need not present ongoing safety and health concerns. When batteries are operated in a manner that keeps the operators safe and healthy, the batteries also perform better and last longer.

---

## Opportunity Knocks

**POSITION:** General Manager, HSE

**NEXT POSITION:** Plant Manager (Refinery or Petrochemical Plant)

**LOCATION:** Texas

**SALARY:** \$150k-\$200k

**BENEFITS:** Full Benefits Package

**CONTACT:** E-mail resumes in Microsoft Word format only to [ChrisM@er-inc.com](mailto:ChrisM@er-inc.com) or call Chris McAuliffe at (800) 435-0685.

A premier petrochemical company is seeking a petrochemical executive to provide Health, Safety and Environmental (HSE) leadership for a significant manufacturing division from the company's central manufacturing support organization. The candidate will be responsible for establishing HSE strategies and frameworks that ensure that manufacturing facilities are using best practices as they relate to achieving world-class HSE results and are also implementing sustainable development programs.

The petrochemical manufacturing business segments are considerable in size and operate both in the United States and overseas. This leadership position will require the candidate to successfully develop comprehensive and sustainable global HSE strategies.

### Requirements:

Candidates who will compete well for this role will:

- Be experienced petrochemical manufacturing professionals with ten years of experience or more in operations in a chemical plant or refinery. This is mandatory.
- Have had important development experience in HSE roles and have delivered improved HSE results in an operating environment.
- Have held corporate-level roles spanning several manufacturing sites (global scope would be ideal).
- Must possess the skills and ability to assume a senior leadership position in petrochemical complex after this assignment.
- Be truly extroverted and enjoy engaging all levels of management, including executive leaders, on vital issues.
- Ideally have the following characteristics in their management style:
  - Sets high personal goals for him or herself, others and the organizations they lead.
  - Meets all deadlines.
  - Requires minimal follow-up.

- Keeps his or her supervisor aware of issue or potential issues.
- Strives to be an expert in his or her field of responsibility.
- Have the ability to lead teams and to influence internal stakeholders to achieve improved performance in the midst of significant organizational change.
- Have a proven track record for successfully working with external stakeholders, including government officials and concerned community forums.

### Responsibilities:

The central manufacturing support organization has the overall responsibility of supporting the executive management team in achieving best-in-class results in all facets of manufacturing. Key success factors are establishing a clear overall direction and focused priorities as well as developing and implementing common processes across the manufacturing division for HSE.

### Accountabilities:

Leading a team of approximately ten professionals, the GM HSE will:

- Develop a HSE strategy and framework for manufacturing that is aligned with broader corporate standards.
- Establish a framework to successfully fulfill the HSE strategy that considers best practice approaches, policies and standards, management systems, assurance methods, networks and tools.
- Establishing best practice HSE methodologies and ensuring the implementation of these methodologies as they relate to individual employee, work teams and organization work policies, practices and behaviors.
- Work closely with other manufacturing facilities to ensure that an appropriate HSE control framework, including policies, assurance review methodologies, reporting requirements and standards and improvement initiatives.
- Build and maintain close and effective relationships within the manufacturing division and HSE stakeholders outside manufacturing.



## Safety Alert

### Floor Hand Crushed During a Through-Rotary, Man-Riding Operation

On a drilling rig, a floor hand was lowered through the rotary to conduct operations on the bell nipple fill lines. Simultaneously and independently, the derrickman began to free the BOP by removing bolts. After the derrickman loosened winch connections during his separately assigned task, the BOP stack shifted, pinching the floor hand and causing a serious crushing injury.

An MMS investigation concluded that multiple operational errors contributed to the accident. The MMS recommends the following:

- To avoid pinch points during man-riding work on the BOP stack, consider lifting from the Texas deck rather than lowering through the rotary.
- Explicit review of company procedure should be conducted and followed whenever a man-riding operation is used, especially through the rotary.
- Consider halting all secondary operations when a man-riding operation is in progress.
- Ensure that no work starts before the signed cold work permit and work instructions are received.
- Conduct a fully attended and written JSA meeting and ensure complete coordination whenever a man-riding operation is conducted.

Source: U.S. Department of the Interior Minerals Management Service, Gulf or Mexico OCS Region, [www.gomr.mms.gov](http://www.gomr.mms.gov).

## Exploring the Impact of Health and Wellness on Employee Safety

By Laura Comstock, MS, MBA, CSP, CUSA

Marked safety improvement as a result of new or improved equipment, policies and procedures has been exhausted. The remainder of the change, the subtle change, is must come in the form of culture change. The safety profession has recognized the need to shift culture, but culture seems to be such a nebulous concept to wrap your engineering hands around. Capturing the essence of culture requires you to look beyond the obvious behaviors. Safety engineers see a straight line. Here is a hazard, here is a mitigation, worker enjoys the benefit of the mitigative measure,

worker goes home safe. When there is deterrence from this straight line, the safety engineering side of us wants to blame the worker because the solution has been provided.

Exploring the concept of culture should allow you to look at the behavior differently. Webster defines culture as the predominating attitudes and behaviors that characterize the functioning of a group or organization. That alone is hard to grasp because it is so encompassing.

### Components of Culture—Attitude

These definitions actually support the actions we take. We have heard managers, safety professionals and even employees themselves tell us how attitude is such a key contributor to accidents. Our parents attempted to adjust our attitude through discipline. Sometimes that appeared to work, and other times, it merely exacerbated the situation. Can discipline in fact adjust an attitude? Let's go back to Webster. Webster says that attitude is:

- A position of the body or manner of carrying oneself
- A state of mind or a feeling; disposition
- An arrogant or hostile state of mind or disposition

So, it is possible that discipline can change the position of the body or the manner of carrying oneself. The question is: Can discipline change a state of mind or a feeling? Perhaps when we are told to change our attitude, we change the outward appearance of attitude but attitude is an emotion based and not readily adjusted by logic or the fear of discipline.

*...extremely obese men are 53% more likely to experience an injury than their normal weight counterparts, and extremely obese women are 83% more like to experience an injury.*

So logic, argument and discipline cannot change an attitude. Only feeling can change an attitude. This concept leaves the safety professional feeling totally inept. Can the way you feel affect your attitude? How do you feel or how is your attitude if you have not slept well, or if you knee aches when it rains or if you cannot button your pants? How do you feel or how is your attitude if you can still outrun your son, you look better than most of your class at the reunion or if everyone else gets tired before you do?

Are these the only things that affect attitude? Absolutely not! Your attitude can be affected by feelings of stress, relationships and a plethora of other variables. Now let's look at behaviors.

### Components of Culture—Behaviors

What is a behavior? A behavior is an action or reaction in response to external or internal stimuli. This definition suggests that a person's behavior can be driven by external factors such as procedures, equipment and expectations. This definition also suggests that a person's behavior can be driven by internal stimuli such as attitude and emotion. Traditional safety measures address procedures, equipment and expectations. But this discussion of behaviors just brought us back to attitude.

If we assume that every accident is preceded by an unsafe act or behavior, then we just need to address whatever it is that caused the behavior. We can assume that some of the behaviors occur due to a lack of procedures, inappropriate equipment or unstated expectations, and we are familiar with how to address these needs. The remainder of the behaviors previously identified as "operator inattention," "not following procedures" or "employee action or inaction." This is where we as a profession are falling short.

What caused that person to try to jump across the excavation instead of walking around it when they know the rules? If they felt better or had more energy, do you think they may have walked around? What caused that driver not to do an over-the-shoulder check before changing lanes? If the driver were more limber or 50 pounds lighter, do you think it would have been easier to check? How many improper safety behaviors are due to behaviors that are driven by simple health and wellness issues? I propose that unsafe behaviors that are not due to procedures, equipment or expectations are due to attitudes.

### Impact of Wellness on Attitudes and Behaviors

Although wellness is not a subsection of culture, wellness certainly influences culture. Companies in general and safety departments in particular are not good at encouraging wellness. How many of us have had a safety celebration that involves pizza or BBQ? Why are safety professionals famous for showing up to meetings with donuts? We continually promote the wrong culture with our reward structures. So whose job is wellness?

### The Assumption of Wellness as a Safety Activity

I propose that health and wellness are major contributors and factors in employee safety. An employee's general health and wellness impact the employee's productivity and safety in many ways. And at a different level, an employee's health and wellness affect attitude, behavior and culture.

Why do we have to include health and wellness in the safety field? Because the health and wellness of our employees have an increasingly significant impact on the safety of employees. Most of the workforce is both

aging and overweight. We know that both of these critical issues impact safety in significant ways. The American Journal of Preventative Medicine reports that extremely obese men are 53% more likely to experience an injury than their normal weight counterparts, and extremely obese women are 83% more likely to experience an injury. And to what are these injuries attributed? You guessed it, overexertion and falls. What is the most common theme of injuries on your OSHA 300 log? Overexertion and falls.

How many shortcuts would be avoided if an employee had more energy? How many strains and sprains could be avoided if employees worked out regularly? How many falls could be prevented if employees were in better physical condition? How many back injuries or strains could be avoided if employees had flat stomachs rather than beer guts? Why are medical costs spiraling out of control? Because our society is not only aging but fat! Fat leads to very expensive health issues. Health issues lead to worker limitations.

How have the types of injuries changed over time? Employers have gone from reporting amputations, falls, suffocations, poisonings and other traumas to reporting sprains and strains and back injuries. Do we have more back injuries because we are lifting more? No! We have more back injuries because we are older and in worse shape!

What might the benefits be if the safety professionals across the country engaged in employee health and wellness? Financial, to be sure. Not only would there be reduced cost of injury, but employer health care costs are likely to be affected as well. The majority of health care costs that employers incur are related to employees with chronic health problems. High blood pressure and diabetes are two high-cost issues that can in most cases be managed or minimized through health and fitness. Just as the problems with poor health trickle over into the workplace, so would the benefits associated with good health. Fewer strains and sprains, less frequent falls and perhaps less frequent circumvention of safety procedures.

What about productivity? If general health impacts an employee's attitudes and behaviors, is there a possibility that good health might positively impact attitudes and behaviors to the extent that productivity and morale in the workplace is improved? That remains to be seen.

***Do you have an article  
that you would like to submit?  
Contact Laura Comstock at  
[lcomstock@scana.com](mailto:lcomstock@scana.com) or at  
(803) 217-2199.***

# Is this your world?



## ASSE Oil & Gas Branch

### Would you like to....

- Contact other safety leaders in the industry?
- Access industry-specific safety information?
- Expand your industry contacts?
- Become more involved with like-minded professionals?
- Tell your boss what others are *really* doing?
- Publish your success stories and lessons learned?
- Benchmark with similar companies?
- Receive relevant information to help you do your job better, including:
  - updates on regulations and legislation?
  - example programs and other tools?
  - strategies that others use successfully?
  - responses to common issues and questions?

*We're providing a global professional forum to advance the issues affecting SH&E professionals in the Oil & Gas Industry through networking opportunities, technical resources and a common national voice on issues.*



### For more information, contact:

Laura Comstock, Branch Chair  
(803) 217-2199

[lcomstock@scana.com](mailto:lcomstock@scana.com)

Mike Bradshaw, Vice Chair  
(985) 693-8574

[mbradshaw@danos.com](mailto:mbradshaw@danos.com)

Oil & Gas Branch Website

[http://www.asse.org/froilgas\\_frameset.php](http://www.asse.org/froilgas_frameset.php)

The Oil & Gas Branch is sponsored by the Transportation Practice Specialty