

HSE culture is another step to reach zero incidents

SAFETY IS AN important part of doing business in any industry. Offshore drillers have extensive safety training programs in place in efforts to eliminate accidents. Most programs provide the expected results, but they must always be evolving and continually developing.

One important aspect of safety is that training is effective to a point and then, although a safety record could be considered outstanding, reaches a plateau or perhaps even begin to see the number of incidents begin increasing. As a result, numerous companies are implementing programs to instill an HSE culture among their employees.

Following are what four companies, three drilling contractors and an operator, are doing to instill an HSE culture among their workers, why the programs are so important.

SHELL INTERNATIONAL E&P

“You can talk about systems and procedures and you can have all of that in place,” said **John Quast**, HSE Manager for EP Wells for **Shell**, “but if people don’t follow them or don’t believe in them or have a supervisor that is not behaving as an HSE leader, then you don’t have a good HSE culture.”

Mr Quast added that accidents and incidents would continue to occur due to a poor HSE culture despite the fact that a company has good safety procedures and standards in place.

Shell’s HSE culture program is called the Hearts and Minds Program, a trademarked name for the initiative that started a few years ago. As in other companies, the Hearts and Minds (H&M) program was developed when the company realized that despite all of its HSE systems and procedures being in place, further HSE improvements were still required to achieve the next level of aspired performance, namely zero incidents.

“We went through some thorough research in close cooperation with the Leiden, Manchester and Aberdeen universities, in which several methods have been developed to understand and change HSE culture,” Mr Quast said. “And we try to get to the hearts and minds of people, for example, why doesn’t someone wear a seat belt when it could save his life.”

One of the ways to learn that answer is to talk with people and try to understand why they take shortcuts.

“Sometimes they take shortcuts because they see their boss doing that, or because the procedure is impractical or because they are not aware of the procedure,” Mr Quast explained.

Shell propagates the use of unsafe act observation and intervention techniques such as DuPont STOP (Safety Training Observation Program) as one of the H&M tools at its facilities. This technique (or a variant) is used on many of the rigs in the industry. “The degree of usage of an unsafe act observation and intervention technique and the way it is being used can be

indicative of how well an HSE culture is imbedded,” Mr Quast explained.

If it is only used for pointing out wrong doings at a worksite or with the work force, it could have a negative effect. However, Mr Quast points out, if the HSE culture is well embedded then intervention techniques will also reinforce good HSE behavior and improve upon poor HSE practices by providing an opportunity to discuss any HSE situations with the work force as it happens.

Additionally, in Shell’s US Gulf of Mexico operations, programs like STOP and several other activities are measured and tracked in an effort to understand the value added by these activities, termed as Proactive Effort. Proactive Effort is defined as discretionary upstream activities performed to plan and execute safe and environmentally sound operations. This measure includes activities such as STOP and other safety observation processes, Job Safety Analysis (JSA), near miss reporting, safety meetings and committee actions, etc. Measurement over time clearly indicates an inverse correlation between high Proactive Effort and lower Total Recordable

Case Frequency (TRCF). The measure of Proactive Effort has matured into a key and reliable leading indicator of workforce HSE culture in Shell’s GOM operations.

Shell has as an HSE policy that requires all Shell companies to have a systematic approach to HSE management and requires that its contractors manage HSE in line with this policy. Mr Quast explained. “We expect our contractors to manage HSE the same way as ourselves,” he said. “That means if a contractor works for us they will have to accept our policy.”

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John Quast, Shell

Before engaging contractors, Shell assesses the contractor’s HSE management system to ensure alignment. For example, Mr Quast said, Shell likes to know whether there is an HSE program with the contractor that addresses the HSE culture (hearts and minds) of the contractor’s employees. If not, then Shell will try and work with the contractor to see what can be developed within the contractor’s organization to embed an effective HSE culture.

“Shell very much likes to work with the contractor’s HSE management system (HSEMS) to build on any scope for improvement originating from the contractor HSEMS” Mr Quast said.

The company found that some offshore drilling contractors already have programs to build an HSE culture, particularly the larger international companies. Mr Quast found that very encouraging because it enhances the opportunity for such a drilling contractor to obtain a contract with Shell.

“In some cases we will work with local drilling contractors (land rig operations), which might not have a fully matured HSEMS. However, in those situations we will jointly set up a program fully focused on maturing the HSEMS of the local drilling contractor in line with the Shells HSE policy.”

Shell will work with contractors under different “modes”. Mode 2 allows the contractor to operate under its own safety management system. Mode 1 is implemented when the contractor HSEMS does not meet the terms of Shell’s expectations. In that case, the contractor workforce will be managed under the Shell HSEMS and “There are many variations between the two,” Mr Quast said.

Winning the hearts and minds of employees depends upon the area and environment in which Shell is working. Winning the hearts and minds of personnel in the North Sea is different than in Kazakhstan, for example. But the same principles are used as humans have the same psychological make-up. The H&M workshops all focus on the participants developing solutions for the problems, which will therefore fit in the culture of the participant. But regardless of the environment, leadership is the key.

“It begins with the appropriate HSE leadership,” Mr Quast said, “having the right person onsite who is the team leader. He has to understand what it means for him to be an HSE leader.”

On drilling rigs, these individuals are typically toolpushers, rig managers, crane operators or Offshore Installation Managers Mr Quast said, who will work with the Shell company representative to form a team.

“I believe if you have the right team then you have already won half the battle in terms of getting the right HSE culture on the rig.”

“It could be a person’s way of doing things rather than just following a manual,” Mr Quast continued, “but it is important that good HSE leadership onsite is recognised as a critical success factor for achieving good HSE performance.”

“Once you have a very good team onsite, that understand each other and speak the same language, you have good ingredients for creating a good HSE culture and excellent HSE performance,” Mr Quast concluded.

SMEDVIG OFFSHORE

“We have had our safety plan, policies and programs in place and have more or less always reached our goals even as ambitious they have been,” said **Harald Bratthammar**, Q&HSE Manager for **Smedvig Offshore**.

However, the company experienced two fatal accidents in 2002 that demonstrated that, although the company’s safety program was headed in the right direction, it had not quite gone far enough. That’s when the company initiated a major change process to improve the HSE culture in the company. This HSE culture change process was launched under the internal name “A Step Change in HSE Performance”.

According to Mr Bratthammar, the way to improve the HSE culture was to reinforce leadership, vision and values, its management system and discipline in a just culture,

An important step to make the company’s HSE culture more effective was to acknowledge that the situation at the time was not as good as it should have been.

“The first step in this process was to initiate a acknowledge-

ment phase,” Mr Bratthammar said. “We spend a lot of time getting that message to all of our employees. For rig crews that haven’t had an accident for many years or maybe never had an accident, it may be difficult for them to realize that tomorrow it could be them.”

To determine the root cause of the accidents, Smedvig organized two independent groups to investigate and examine the accidents and other incidents. The groups included Smedvig staff with broad backgrounds from offshore operations as well as onshore based safety experts. Smedvig also solicited and received feedback from its customers.

The two groups worked independently but in parallel of each other and came to the same conclusion regarding the cause of the accidents and incidents.

There are four key areas that Smedvig need to improve on and embed its HSE culture says **Kenneth Strömmand**, Smedvig’s HSE Step Change Manager. : The first was leadership. The company implemented personal safety contracts with onshore and offshore managers stating specific behavior that they were to focus upon. The managers’ administrative workload would be mapped to free supervisory time. This is an ongoing process but has already resulted in some significant improvements. Managers’ leadership capabilities and development will also be assessed. Leadership training will be conducted, which embraces an ongoing program with approximately 500 employees completing initial training as of 2003. Focus will be on the understanding of a “just” culture. This concept has been adopted and is to be implemented soon. Additionally, safety culture measurements will be performed by auditing grass root safety activities led by and followed up by line management.

The second area of the process is improvement of hazard recognition skills which will be carried out by training and follow-up coaching.

Smedvig has employed an outside firm to train about 15 of its employees in techniques to identify risks, and those employees now train other Smedvig personnel in risk identification. In addition a system for more active use of safety alerts in day-to-day operations is being developed.

The third key area focused on procedures, rules and regulations. Smedvig aimed to improve the content of its safety critical procedures and to verify its employees’ knowledge of those procedures. The content of safety critical procedures was improved with the use of offshore experience. Additionally, knowledge verification programs and written tests for safety critical procedures were developed and implemented and accountability has been emphasized by the knowledge verification program. Also, clarification of valid options is ongoing if a particular procedure is unable to be complied with.

“We identified the most safety critical and important procedures, and we are assuring that everybody is competent in those procedures and that we can verify that competency,” Mr Bratthammar said.

To that end, he said, a set of questions has been developed in order to measure and verify knowledge and competency of the procedures.

The fourth key area is auditing results of the safety activities, which is led by line management, and followed up in order to measure safety culture. A comprehensive management audit schedule was established and is being implemented.

Audits, management visits offshore and a review of personal safety contracts provides the company's main method of measuring the effect of its safety culture program and actions.

Two independent companies conduct measurements of the safety culture aboard Smedvig's rigs.

In addition to the four key areas of its HSE culture, the company is also focused on five values that relate those areas: safety, responsible, inspirational, loyal and proactive.

As a result of the company's program to instill an HSE culture, its safety record has improved and its accident incident rate has declined, and HSE goals for 2003 have been achieved. For most of the parameters this represents a 50 % reduction compared to 2002..

"We are evaluating various ways of measuring and steering the development of the safety culture," said Mr Stromland,

"Measuring the resulting output parameters such a decline in LTIs is the historical way of determining a safety program's effectiveness," Mr Stromland continued, "but we now see the need to focus more on the input parameters in the processes that deal with getting the HSE right. The

key input parameters that we need to measure are the four key focus areas listed above under the HSE Step-Change umbrella and their degree of focus and effectiveness in the organization."

ODFJELL DRILLING

Although **Odfjell Drilling** had implemented its best safety rules and training, there were still accidents occurring on its rigs. As a result, the company began its HSE culture training last October.

"We changed the focus and looked at the people and why they didn't use the equipment correctly," said **Hilde Forland**, Odfjell's Project Manager for its HSE culture program Values in Practice.

The contractor wasted no time in implementing its Values in Practice HSE culture program. By mid-December 2003, six of the two-day seminars had been conducted for about 150 employees. A total of approximately 420 of the contractor's employees will go through the first seminars, including rig hands and onshore personnel, including office staff. Everyone on the rig from the Toolpusher to the Crane Operator is required to attend the seminar as are all of the onshore support staff from managers to the company CEO, who opens every seminar.

The program is currently only conducted in Norway but it is expected to be companywide soon.

The initial seminar focuses on the manager as a role model with respect to effective communication and the effect of that communication on the employees around them.

"We are trying to include our leaders to be more aware of their personnel responsibilities and that they are role models," Ms Forland said, "because very often they don't have time to think about that due to economical and time pressures."

"Accidents happen due to lack of time or doing something too fast," she added.

Each seminar is conducted by internal coaches who have been taught by external organizational psychologists. At the end of each two-day seminar the participants complete a personal development target with 4-5 goals related to safety and the company safety culture. They are also required to inform their supervisors and colleagues about their safety action plan.

The coaches follow up with each participant after the seminar. Their supervisor also follows up on the individual's action plan.

A refresher course currently under development will be taken by the participants 12-18 months following the initial seminar.

Part of the company's safety vision and company philosophy is "zero mindset" in relation to the accident rate.

"We analyze our injuries and we usually find that inattention, lack of concentration or the wrong use of equipment is the likely cause," Ms Forland noted.

Zero mindset is also discussed during the Values in Practice seminar.

Ms Forland says that employees have been very positive about the program, finding it interesting and relevant to their jobs in the offshore industry. She also notes that a key positive aspect is the participation, including that of Odfjell's CEO.

There will always be some employees that don't buy into a particular program, and buying into an HSE culture is no exception. However, Ms Forland said, if we can reach most of the people then others will take after the program. She notes that it is too early to see real results from the program since it is so new.

Still, she said, the company has a good combination of seminar participants, and the seminars provide good opportunities for employees to exchange experiences.

GLOBAL S AN TAFE

GlobalSantaFe had reached a flat spot in its safety performance and believed it had gone as far as it could with the conventional means of instilling a safety culture on its rigs. The company began looking for something new.

Dave Kerr, GlobalSantaFe's regional QHEST Manager, is responsible for operations in Europe, Canada and the Caspian. "We were making progress but it was too slow and it was

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Dave Kerr, GlobalSantaFe

not having the effect on our safety performance that we really wanted," he said.

That was in 1998 when behavioral safety was coming into vogue.

"There were a number of different products on the market," he said, "and we opted for one of those initially. We believed that behavioral safety had the potential to take us to the next level of performance"

The product was tried successfully on one of the contractor's North Sea rigs. It was successful, he noted, because it was owned by the workforce and fully supported by senior management.

"Historically we would develop programs in house and roll it out to the people on the rigs and expect them to buy into it," Mr Kerr said. "Because of that, it was doomed to fail."

Following the program's success, the company decided to develop its own behavior-based program designed especially for the company.

A process was developed under the guidance of **Rick McClaine**, Vice President of Safety, Training and Environmental Affairs and dubbed FOCUS (Field Observation Continuously Upgrading Safety), which was presented to the crews at a three-day training seminar. The basic FOCUS principles are observation, contact with people, recognizing and encouraging positive performance and helping people identify areas of improvement for themselves. FOCUS is now in its third version, and every rig in the company's 90 plus unit fleet is operating on at least the first iteration.

"FOCUS has been very successful," Mr Kerr explained, "but we can't just sit by, we have to refresh it and keep it current."

Key to GlobalSantaFe's HSE culture program, like other similar programs, is commitment from the very top of the organization. Mr Kerr explains that the time was right for senior management to show that belief in safety is a key value for the company. He noted that **Marion Woolie**, the company's Senior Vice President of Operations and IADC's 2004 Chairman, set the example at the top.

"He insisted that all managers attend FOCUS and he didn't mean just a guest appearance but for the full three days of the course," Mr Kerr said. "And it's not only managers and rig crew attending FOCUS, every company employee is required to attend."

During the FOCUS course, it is demonstrated that safety is one of several core values that are treated equally. It is never said during FOCUS that safety is the highest priority but what is emphasized is that if safety comes into conflict with any of the other values, according to Mr Kerr, safety must come first at that point.

FOCUS II, also a three-day course, emphasizes working as a team and refreshes the basic behavioral principles from FOCUS I. FOCUS III maintains its emphasis on behavior but also includes risk management as a core feature.

A result of FOCUS and complementary processes such as Advanced Safety Auditing Time Out For Safety, and Risk Man-

agement, is a measurable reduction in lost time incidents (LTI) during 2002. As the program continues, the LTI rate in the region during the 12 months from October 2002 to September 2003 falls significantly, with no LTIs during eight of those months and only one LTI during the other four months.

"The FOCUS process was a major component in developing a unified safety culture after the merger between Global Marine and Santa Fe which took place in November 2001," Mr Kerr explained. "We had a tried and tested model that was well received in the new company and it was only a matter of time before the benefits became widespread."

The key to any HSE culture program is total commitment from all levels of management both onshore and offshore. "If you don't have management commitment," he said, "the program is going to fail, it's as simple as that. If you think you can just take a product and it is going to be the answer to your health and safety problems, you are extremely naïve and will waste a lot of time and money."

"If you want to shape a culture," Mr Kerr continued, "then you have to realize that it's about people. Regulations, procedures and guidelines do not shape cultures, but rather it is about visible leadership, setting examples, and behaving in a manner that is consistent with the culture you want at the company."

"Those are the things that result in the step change in safety performance that you are looking for." ■