The Northern Area Gas Producing Department considers potential scenarios beyond current safety mitigation procedures in offshore non-associated gas fields during a recent forum conducted in Ju‘aymah.

see page 4

Bloomberg visits Saudi Aramco
Global media leader Michael Bloomberg gets an up-close look at Saudi Aramco.

see page 3

Loss Prevention announces 2016 safety awards
The Exceptional Safety Achievement Recognition Program (ESARP) introduced 10 years ago by Loss Prevention continues to serve as a shining example of how Saudi Aramco employees take the ongoing commitment of safety to heart. The awards recognize individuals and groups that take a proactive approach to develop and implement safety initiatives, resulting in safety enhancements that make a difference throughout the company. “ESARP has been a value added to many aspects of our facilities and practices,” said Abdullah A. Al-Ghamdi, Loss Prevention Department manager. “We are continuously looking at various ways to further advance the ESARP program. This is a real opportunity for people to innovate in safety practices and come up with fresh ideas addressing all aspects of our business.”

This year, the company sorted through more than 90 nominations that had been endorsed and forwarded by managers. Ultimately, 10 safety initiatives involving 28 employees were selected to be honored for their work in 2016.

see pages 5-7

‘Planting for the Planet’
With 10,000 mangrove saplings in tow, the Safaniyah Offshore Producing Department, in collaboration with the Environmental Protection Department and the Safaniyah Onshore Producing Department, conducts its 4th mangrove campaign near Tanajib.

see page 8

OPEC basket five-week price trend 2016–17

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Saudi Aramco by the numbers
10 safety initiatives involving 28 employees were selected to be honored for their work for the 2016 Exceptional Safety Achievement Recognition Program. The competition round saw a healthy 90 initiatives submitted for evaluation.
Utilities hosts inaugural Knowledge Sharing Technical Exchange Conference

by Motsham Manzoor

Dhahran — The Utilities and Technical Support Department (U&TSD) recently conducted its inaugural Knowledge Sharing Technical Exchange Conference at the North Park Auditorium.

The conference was attended by a large number of employees and Community Services (CS) management, including Mohamed A. Al-Abdul Karim, general manager of CS Projects and Technical Support, Mohammad A. Al Houraib, manager of the CS Projects Department, and Abdul Aziz M. Al Qahtani, manager of U&TSD. The conference was conducted under the mandate of U&TSD Operational Excellence process element 12.8 — Knowledge Sharing program.

sitting at one table

In his opening remarks, Al-Abdul Karim emphasized the importance of knowledge sharing as an essential element in the utility business where service reliability and continuity is paramount. He noted the conference provided a platform to young and experienced technical staff to come together at one table, which is one of the best ways to share knowledge interactively.

high-tech presentations

Seven technical presentations were delivered during the conference. The presentations were carefully selected to diversify knowledge sharing, including topics related to heating ventilation and air conditioning (HVAC), electrical and controls, operation and maintenance, underground utilities, and energy economics. The presenters came from diverse backgrounds, including a professor from King Fahd University of Petroleum and Minerals, U&TSD engineers, and vendors from various companies such as Zamil, Diakian, and Schneider.

Highlights included discussions on:

• Net present value and levelized cost of energy concepts of energy economics through energy production from municipal waste
• Renewable energy economics
• Potential energy savings concerning HVAC systems, which are responsible for about 70% of energy consumption in offices and residential areas in the Kingdom.
• U&TSD’s vision and current work practice for providing underground utilities.

Ashan Ansari presented on the model created by the department for all future underground piping for fire protection water, chilled water, and drinking water pipes. The new model will reduce maintenance costs by pinpointing and reducing water leaks and ensuring adequate water supplies to all fire hydrants.

About 90 employees, mostly technical staff from Saudi Aramco, attended the conference.

And it has also been said that transformation is often more about unlearning then learning.

individuals, despite living in a different era, culture and background, share the philosophy of the “change.” The philosophy of how to consume and devote your energy effectively is important in going through any positive transformation.

We tend to think of transformation in our lives only as something in the future, but does it make sense to think of transformations in past? If so, how could this help us understand how to meet our current initiative to transform?

As individuals, our time goes fast, and we have dreams and plans that rarely materialize. This can be due to a number of reasons, either internal (ourselves) or external (other people or factors beyond our control).

Human nature tends to allow us to blame others for not doing their own things, or for us to stop at the first obstacle. On the other hand, there are people who are trying to overcome these excuses but still do not get to their targeted objectives. Accordingly, I thought of the concept of “transform backward” to achieve the future transformation in a smoother way, without wasting a lot of energy, while shortening the unlearning process.

Simply put, the idea is to select a specific time in your past where you made a decision to transform, and then reflect back to that past state. Recall how you reached your targeted transformation and then look at how far you are (currently) from achieving it.

This will help you to accurately assess the situation — of how you are progressing and whether you need a support system to help yourself grow. It could be emotional support, skills training, money, equipment, or personnel. Normally, we are the one who has control of our dreams and vision, and we have more control on creating our support system. As author and leadership expert John C. Maxwell said, “There is no future in any jobs; the future lies in the person who holds the job.”

If “backward transformation” makes us realize that we are not transforming progressively, and the reality is that our progression has stalled, then we need to adjust our future transformation based on those facts. This is the desired learning and “know-how” of how to shape the future. The more you extend your ability, the better and faster you will transform.

As an example, the tension of a bow bent backward determines the distance the arrow will travel, providing that the archer has talent and focus. We must see where we are sitting at one table and whether you need a support system to help yourself grow. It could be emotional support, skills training, money, equipment, or personnel. Normally, we are the one who has control of our dreams and vision, and we have more control on creating our support system. As author and leadership expert John C. Maxwell said, “There is no future in any jobs; the future lies in the person who holds the job.”
Michael Bloomberg discusses ‘innovation and taking risks’ with Saudi Aramco’s young professionals

Michael Bloomberg speaks to young members of the Young Leaders Advisory Board as Yasser M. Mufti listens during a session at the UPDC in Dhahran. Bloomberg spoke about the importance of calculated risk and innovation in any successful business. (Photos: Abdulaziz Al-Moaiweed/MPD).

A glimpse into the Kingdom

by Scott Baldauf

Dhahran — Last week, a group of Saudi Aramco’s young professionals had the opportunity to meet and speak to Michael Bloomberg, a former mayor of New York and founder of global media empire Bloomberg LP.

Bloomberg was making his first trip to the Kingdom to learn firsthand about the transformation of the country as part of Saudi Vision 2030. Visiting Saudi Aramco, which is a key component of Saudi Vision 2030, provided him with an inside look at the world’s largest integrated energy and chemicals enterprise.

As part of the visit, he met with some of the company’s young professionals, engaging them in a lively discussion, fielding questions from an audience that included past and present members of the Young Leaders Advisory Board, and young entrepreneurs participating in the Wa’ed entrepreneurship program.

Bloomberg’s visit was also his first to a major oil and gas company and included meetings with the company’s senior management and visits to the Oil Supply Planning and Scheduling Department, the Exploration and Petroleum Engineering Center, the Upstream Professional Development Center (UPDC), the King Abdulaziz Center for World Culture, and the Shaybah Production Department. The visit comes at a time of transition as Saudi Aramco moves toward a potential initial public offering and as the Kingdom maps out a National Transformation Program aligned with Saudi Vision 2030.

Michael Bloomberg discusses ‘innovation and taking risks’ with Saudi Aramco’s young professionals

While sharing his own experience about taking big risks and the growth of his company from a start-up to a must-have for financial investors, he highlighted Saudi Aramco’s innovative culture, and its support for issues of broader concern such as reducing carbon emissions. He described how he took an innovative idea — using new computer technology to allow businesses and investors to study financial data — and helped to transform the financial industry in the United States. He encouraged young Aramcons to look for ways to innovate in the workplace, even if it means taking risks.

“In a company like Saudi Aramco — which seems to me as an outsider to be a company that stays ahead of technology and has been a real innovator — it looks to me like it allows innovation and rewards people who run risks,” Bloomberg said.

“I’ve always tried to do this at Bloomberg. If you try something and it doesn’t work, but a rational person would have taken that opportunity, based on the facts and the opportunities, I want to make sure that everybody in my company knows that I consider you a success, not a failure. As the saying goes, ‘Nothing ventured, nothing gained,’” he said.

From the Center to the Rub’ al-Khali

In a meeting with senior management, Bloomberg learned about the company’s strategy and its role as part of Saudi Vision 2030 as well as the business and investment environment in the Kingdom.

Bloomberg also heard a presentation from Johns Hopkins Aramco Healthcare and the progress it has made over the past three years. Bloomberg has previously donated generously to Johns Hopkins.

During his visit to the King Abdulaziz Center for World Culture, Bloomberg was briefed about Saudi Aramco’s citizenship and social responsibility programs and initiatives. It also provided an opportunity for him to speak about Bloomberg Philanthropies, which focuses on five key areas: public health, environment, education, government innovation, and arts and culture.

Bloomberg concluded his visit to Saudi Aramco with a visit to Shaybah, where he witnessed the scale of the company’s operations in the Rub’ al-Khali, or the Empty Quarter. He also took time to watch the sunset from the top of the sand dunes in Shaybah and was then hosted to a traditional Arabic dinner by Saudi Aramco president and CEO Amin Nasser with Upstream senior vice president Mohammed Y. Al-Qahtani, and Corporate Affairs vice president Nasser A. Al Nafisee.

A culture of innovation, calculated risk

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Northern Area Gas Producing Department forum puts focus on gas well safety

Dawood M. Al Dawood, vice president of Northern Area Oil Operations, asked a question during the recent Northern Area Offshore Gas Fields Safety Forum held in Ju'aymah. Joining Al Dawood at the table, are from left, Abdullatif A. Al Ghamdi, manager of Loss Prevention; Abdul Rahman M. Al Qahtani, manager of Northern Area Gas Producing; Mohammed Y. Al Qahtani, senior vice president of Upstream; and to Al Dawood's left, Ali S. Al Ajmi, general manager of Safaniyah Area Producing.

Ju’aymah — Focusing on Saudi Vision 2030, the Northern Area Gas Producing Department (NAGPD) recently organized the first safety forum for Northern Area offshore nonassociated gas fields.

The forum, with a theme “Potential Scenarios Beyond Current Safety Mitigations at Offshore Nonassociated Gas Wells,” was attended by more than 100 delegates, including senior managers and subject matter experts. The forum provided a venue to exchange experiences and best practices in offshore gas surface and subsurface safety measures.

“The new fields that we have discovered will challenge us to manage and develop the resources they contain,” said Mohammed Y. Al Qahtani, senior vice president of Upstream.

Dawood M. Al Dawood, vice president of Northern Area Oil Operations (NAOQ), said: “We have never had to deal with the massive flow rates and potential hazards that we are experiencing. We have sent people to look at operations in other areas in Saudi Aramco and even outside the Kingdom to get the best practices to handle these wells.

“These wells will probably outlive all of us, except the youngest of you. This is a great opportunity, and that is why we have asked you to share your best ideas for managing all aspects of safety in these developments,” he added.

Abdul Rahman M. Al Qahtani, manager of Northern Area Gas Producing, sponsored the forum, which featured presenters speaking about efforts made in design and procedures to ensure operational safety and integrity of wells.

“It is a good example of how the various company organizations can galvanize around one theme in a collaborative manner to address the most important issue in our business,” said Al Dawood.

Presenters shared their expertise from subsurface safety to the unique demands of surface completions, applications in surface design, and new challenges for the long-term maintenance of wells. The presentations included improvements in process safety and the emergency shutdown and emergency response plans to accommodate the new fields, as well as information on critical safety equipment that was installed at Northern Area gas facilities. The equipment was displayed for participants to view and understand the role it plays at offshore gas facilities.

The forum included breakout sessions of ongoing safety concerns and the development of “What if” scenarios, including input from attendees who are directly involved in the development of operations. Participants brainstormed some of the potential safety problems and then “frame-stormed” ideas with questions such as “Why is this still a problem?” or “Why hasn’t someone already solved this problem?” and “What are the possible scenarios to solve the problem?”

A steering committee from stakeholder departments will be formed to pursue the forum accepted ideas and proposals. “This is the beginning of our efforts to get ideas and apply them to real operations,” said Ali S. Al Ajmi, general manager of Safaniyah Area Producing.

meeting the Kingdom’s energy needs

Saudi Aramco is working to meet the Kingdom’s energy demands by developing offshore gas fields.

Karan, the first offshore gas field developed by Saudi Aramco, is 100 kilometers (km) northeast of Jubail, 200 km north of Dhahran and lies in waters 40 to 60 meters deep. It will produce 1,800 million standard cubic feet per day (MMscfd) of sour gas.

Karan features both onshore and offshore facilities. The offshore facilities operate unmanned, which means there are no operations or maintenance personnel who continuously work or live on these facilities. Karan field's gas wells operate at higher pressure than oil wells, and the gas has a higher hydrogen sulfide content than oil. Unmanned operation makes the offshore facilities safer for personnel.

A main wellhead complex includes five wellhead platforms (WHPs), and their associated auxiliary platforms, connected to a main tie-in platform. The wellhead complexes are 1.2 to 4.5 km away from the tie-in platform.

The five WHPs extract well gas from the reservoirs and export it to the tie-in platform via flow lines. The flow rate from each WHP is 450 to 500 MMscfd on a dry basis.

Arabiyah and Hasbah, also under NAGPD, have offshore nonassociated gas fields that were discovered in 2008. About 160 to 180 km northeast of the Wasit Gas Plant and 250 km north of Dhahran, the fields are in medium-depth waters with a range of 40 to 60 meters.

All platforms are designed as unmanned and are operated remotely from onshore via a supervisory control and data acquisition system inside the Wasit Gas Plant’s Central Control Room. Field service and maintenance work is accomplished using taxi boats.

NAGPD also has onshore nonassociated gas fields that consist of 22 wells and can produce 500 MMscfd, and another onshore nonassociated gas field is in the development stage that is expected to be completed by 2018.

The Saudi Aramco team is proud of the achievements realized in developing these mega gas fields in a record time, taking the field from the exploration phase in 2009 to first production in 2015 at a significantly reduced cost and with the added benefit of production flexibility to meet the Kingdom’s gas demand.

presentations

Muath Al Suhaibani, who has worked in Gas Producing in such disciplines as maintenance and engineering, gave a presentation on NAGPD fields’ “Safety Layers” and the importance of maintenance and layers of safety in such fields.

Rotimi Adesegha of Northern Area Gas Producing Engineering spoke about “Offshore Gas Subsurface Safety Measures,” noting that as the Kingdom’s energy demand increases, NAGD is working to meet this demand by fast-tracking gas field development with unique high-rate, high-pressure gas wells.

Operating these wells safely presents some challenges, and Adesegha demonstrated how safety measures are applied to manage these challenges. AbdulRahman AlNutaifi, a petroleum engineer with the Gas Reservoir Management Department, spoke about “Completion Practice in Offshore High-Pressure Sour Thick Gas Reservoir Reduces Risks and Cost,” sharing a new practice that reduces drilling risks and costs by completing the wells with pre-perforated, un Cemented liner completion across the prolific Khuff high-pressure gas reservoir, which has saved significant cost and rig time.

Avazbek Karimov, a mechanical engineer in Loss Prevention, spoke about the “Process Safety Management System,” including a brief history of the Chemical Safety Board, the definition of process safety, asset integrity, and the differences between occupational or maintenance personnel who continue to work on these facilities. Karan field's gas wells operate at higher pressure than oil wells, and the gas has a higher hydrogen sulfide content than oil. Unmanned operation makes the offshore facilities safer for personnel.

Fayiz U. Hussain, a piping engineer in the Consulting Services Department, spoke about the “Gas Pipe Joint and Analysis of Flow Induced Vibration” and how vibrations can cause significant failures. He noted that more attention should be paid to these factors during the design phase to consider the economic impact of lost production from such failures should be factored into the risk analysis.

Arvind Dhir, a chartered professional and certified functional safety engineer from TUV and Chevron, spoke about “Optimized Design for Offshore Gas.” He noted that optimization can simultaneously reduce costs and improve safety.
recognizing some of the best in safety

by Scott Balauf

Remaining the world’s most reliable source of energy requires more than staying vigilant about safety. It means fostering a culture of safety throughout the company, encouraging employees to constantly look for innovative new ways to take Saudi Aramco’s impressive safety standards, and to improve them. It means spreading good ideas that make our workplaces safer every day, and serving as a standard of safety best practices for the oil and gas industry throughout the globe.

Since 2006, the Loss Prevention Department has issued Saudi Aramco’s Exceptional Safety Achievement Recognition Program (ESARP) awards to innovators selected from various regions of the Kingdom where the company operates. With each passing year, the list of nominated individuals and groups keeps growing, a sign that the safety culture has become rooted in the company’s DNA. Winning nominees are those who take proactive steps to develop and implement safety initiatives, resulting in safety enhancements that ripple throughout the company.

The nominees are chosen by departments within the company, and each nominated candidate or candidate team is vetted by a field verification assessment team to determine the effectiveness of their initiative. One of the key aspects the Loss Prevention selection team looks for is whether the initiative is easily transferable to other company departments, a powerful multiplier effect that can enhance safety throughout the company.

strong safety culture

Bader F. Al Qadran, executive director of Safety & Industrial Security, said the growing number of safety initiatives and nominations is a positive sign of a thriving safety culture at Saudi Aramco.

“Saudi Aramco is working hard to achieve its safety vision to be the industry leader in safety, and the ESARP program reflects this devotion and hard work,” Al Qadran said. “We always thought highly of the ESARP program and the positive merits the proactive safety initiatives provide. This program was able to engage all members of the workforce on being proactive in loss prevention in their daily activities.”

Abdullah A. Al-Ghamdi, Loss Prevention Department (LPD) manager, said the importance of the ESARP awards is that they have significantly advanced safety within the company and the communities where we operate.

“The 2016 ESARP provides recognition to individual employees and teams who successfully implemented safety initiatives that can be emulated by others,” Al-Ghamdi said. “ESARP has been a value added to many aspects of our facilities and practices. We are continuously looking at various ways to further advance the ESARP program. This is a real opportunity for people to innovate in safety practices and come up with fresh ideas addressing all aspects of our business.”

safety initiatives

Salem S. Al Ghamdi, Technical Support Unit supervisor, said ESARP is constantly evolving and improving in an attempt to further promote safety initiatives across the company.

“We would like to recognize and extend our appreciation to all participants in this program — winners and non-winners — who are continuously striving to find ways to improve the company’s safety environment,” Al Gharmi said. “We actually consider all of the participants as winners and they should be proud of their efforts and safety attitudes.”

One of the winning initiatives this year was a detachable winched extraction clamp tool for the removal of couplings and bearings from vertical pump shafts during maintenance work. The idea was developed by Samer A. Al-Hindi, a plant maintenance foreman from the Yanbu’ NGL Fractionation Department.

“The vertical pump shaft is a tight space to work in, and so it is very stressful to your back to remove by hand the couplings and bearings that can weigh as much as 40 kilograms,” Al-Hindi said. “So the idea came to create a removal tool. Later, I thought, why not use a winch to make the tool even better? This was a team effort. Throughout the process, we enjoyed the full support of our management to come up with the idea and test it. They are the ones who helped us to create these new tools.”

Subhi Abderraeezq, ESARP coordinator at LPD, said: “This year, the ESARP committee was faced with the challenge of selecting the 2016 winners out of more than 90 nominations, which are endorsed and forwarded by managers before ultimately deciding on 10 safety initiatives with 28 individual winners for the year. Each initiative undergoes a rigorous selection process and qualifying initiatives must meet a detailed set of criteria. We always ensure that each submitted initiative is intensively reviewed and gets the same attention like the rest of the initiatives. We definitely value all initiatives that improve safety.

We at LPD always start the ESARP program at the beginning of each year and commit ourselves to complete it before the end of it.”

Following is a list of the 2016 ESARP recipients.

(Continued on pages 6 and 7)
This year, the ESARP committee was faced with the challenge of selecting the 2016 winners out of more than 90 nominations, which are endorsed by managers before ultimately deciding on 10 safety initiatives with 28 individual winners for the year.

— Subhi Abderrezaq

Safaniyah Offshore Producing Department (SOIPD)

Initiative: Enabling Remote Personnel Location Tracking System at Saudi Aramco Repair Barge ARB-3

Observations during headcount activities on barges indicated “no reliable” means of accurately accounting for the location of crew members during emergency situations. Knowing the location of crew members is critical to performing lifesaving rescues. For this reason, a means to quickly locate crew members was developed and implemented.

The initiative resolved these safety issues by commissioning a radio frequency identification technology developed by area IT to enable a real-time personnel tracking system with the use of a secure network system locally at a workstation on the barge and remotely at the Tanajib Admin Building’s Emergency Control Room. The system has been tested and proven reliable to enable the SOIPD to remotely maintain an automated real time head count of all barge personnel with the location of each crew member. This initiative was implemented on the ARB-3 barge.


Northern Area Technical Support Department (NATSD)

Initiative: Pipelines Risk Matrix

The NATSD developed and launched a pipeline risk assessment dashboard based on a model that assesses the risks associated with Northern Area Oil Operations (NAOO) fields’ pipeline network. The dashboard summarizes the result of the risk assessment, which provides management with a tool to track the risk levels and mitigation measures for the NAOO field pipelines.

The assessment matrix and model considered 10 elements for failure probability such as pipeline scrapeability, inspection, chemical inhibition and compliance, velocity of the service fluid, and pipeline age and condition.

Individuals recognized: Mohammed Al-Kallaf, Hassan Al-Matuq, Colin Lim, Mohammed Hamasqi, and Basem Obaidi.

Ras Tanura Producing Department (RTPD)

Initiative: RTPD Safety Training Tracking Tool

The safety training tracking system was developed to help track employees’ safety training, operators’ certification, maintenance technicians’ competency training, corporate job ladder certification, and provides next grade requirements based on job ladders. The system also tracks safety orientation training for new employees. This automated tool has significantly enhanced the department’s safety training performance from 70% to 90%, with the potential of achieving 100%.

This safety training tracking tool is designed to automatically alert chief position holders and training coordinators of due courses ahead of time to avoid overdue safety and/or competency training courses. In addition, the system sends a monthly detailed and summary report to RTPD management and training coordinators with forecasts of when employees’ certifications are due to expire.

The tracking tool was considered as a best practice model during the recent Loss Prevention compliance review that was conducted at RTPD. Currently, the program has been utilized by the Shedugh Producing and the Northern Area Production Engineering and Well Services Department, and was recently requested by other departments outside NAOO.

Individual recognized: Mohamad A. Qurairis.

Northern Area Gas Producing Department (NAGPD)

Initiative: Usage of Safe House Habitat Technology at Karan Offshore Facilities

To complete the tie-in of the new Karan platform K-45/51 at TP-1 without the shutdown of the Karan Gas Producing field and associated facilities, massive welding activities had to be carried out at the congested offshore gas producing area while it was in operation. A risk assessment study was carried out and completed by a team from NAGPD, which concluded that this simultaneous operation activity is high-risk and cannot be completed with the traditional open flame risk controls. The team searched the market and identified the safe house habitat technology to positively isolate the welding area from the operating platform. The technology was successfully applied to complete these extensive open flame welding activities at Karan TP-1 safely without shutting down the Karan facilities. This is the first time the technology was used at Saudi Aramco operating facilities, which made it possible to complete this high-risk, simultaneous operation task safely.

Individuals recognized: Ahmed A. Shwaiheen, Abdulwahed Al-Utaibi, Fayezy M. Al-Qahtani, and Saud Al-Ahmadi.

(Continued from page 5)
Loss Prevention issues annual Exceptional Safety Achievement Recognition Program awards.

Hawiyah Gas Plant (HGP) Initiative: Automatic Heat Stress Index Calculation and Alerting Tool

As part of HGP’s efforts to improve the safety and well-being of Saudi Aramco employees and contractors, HGP has successfully implemented the innovative safety initiative of “Automatic Heat Stress Index Calculation and Alerting.” The idea calls for automatically calculating the heat stress index (or apparent temperature) from available ambient temperature and relative humidity readings, and displaying the result in real time on the DCS screen.

The calculation logic for calculating the heat stress index is based on the equation of the U.S. National Oceanic and Atmospheric Administration. In addition, an alert is initiated when the heat stress index reaches 52°C or higher, which is categorized as “Extreme Danger,” because it is at this temperature that the risk of heat stroke is imminent. Having the heat stress index monitored continuously will enable plant workers to be aware of the immediate risk to their health and to take the required precautions that will reduce the risk of heat stroke and heat stress injuries.

This initiative has been first implemented at HGP in August 2014.


Yanbu’ NGL Fractionation Department (YNGFLD) Initiative: Detachable Winched Extraction Clamp Tool for Vertical Pump Coupling and Bearing Removal

The traditional practice of manually hoisting couplings and bearings (usually weighing up to 40 kg) from vertical pump shafts during maintenance work can expose our maintenance personnel to a high risk of muscular and skeletal injuries. Vertical pump shafts have limited working space and are usually substantially deep. The extraction tool was developed to eliminate the need to enter the pump shaft to perform the physically straining manual task of retrieving the bearings and couplings.

The components of the extraction tool are the following: a mounting frame with members connected with swivel bearings for horizontal maneuvering that can be attached to the pump frame; a grab clamp attached to an arm mounted on a swivel bearing so that it can also be rotated for horizontal maneuvering; and a mechanical hand operated winch, which drives a pulley system for hoisting the load.

This safety initiative has greatly reduced the risk of injuries to maintenance personnel. It can also be adopted to hoist other objects from hard to reach spaces.

Individual recognized: Samer A. Al-Hindi.

Riyadh Refinery Department (RRD) Initiative: Burner Management System Model

To enhance knowledge transfer for employees about the flame detection system at RRD — and to make it possible to see the flame rod with its burner in a safe environment, refinery staff created a practical training solution: a model that was constructed using a camping cylinder containing a mixture of butane and propane as a fuel supply, a torch modified as a burner, and a metal cloth hanger as a flame rod.

All these low-cost materials were assembled to create the simulation model. The model was connected to the simulator in the instrument shop, which facilitates the actual simulation and training.

The main advantages of this new system are:

- Practical sessions can now be held in the workshop and more than 90% of trainees are certified accordingly.
- Simulation of ionization and rectification can be demonstrated easily in a safe environment.
- The model is user-friendly and doesn’t require any specialized training.

Individual recognized: Mohammed S. Garmi.

Abqaiq Plant Maintenance Department Initiative: In-House Design of Portable Solar H2S/LEL Alerting System

During the upgrade of the Control System at the Abqaiq Plant, from August 2014 to October 2015, a time when maintenance personnel would be changing system components and the control system would not be functioning, an Abqaiq Plant Maintenance Department team recognized the need for an alternative system for detecting gas release to protect field personnel. The team worked to implement an innovative idea by installing temporary H2S/LEL monitoring devices. Normally, Abqaiq’s H2S/LEL sensors are connected to the control system, which continuously monitors gas concentration and generates an alarm horn and warning lights located in the field, but during major upgrades, the control system is disabled. The team originally proposed to have a field operator with a manual device (LTX-310) measuring H2S/LEL levels in the field when an area’s control system is down. This task would be risky and time-consuming since each upgrade, or cutover, would take 48 hours for each risk area, which is equivalent to 2,688 total man-hours.

As an alternative approach, the team suggested utilizing an external alerting device that generates warning lights and sound alarms, which could be installed easily in the field. The gas sensors were connected to the alternate system and configured to generate the alarm in the field if any high gas concentrations are detected. During upgrades, this light is monitored by an operator continuously, using the plant’s surveillance camera from the control room. Outside the control room, the light and sound would be detected by a field operator.

Individuals recognized: Aidhah J. Al-Zahrani and AbdulElah Al-Eid.
Tanajib — The Safaniyah Offshore Producing Department (SOIPD), in collaboration with the Environmental Protection Department and the Safaniyah Onshore Producing Department (SOIPD), recently conducted a 4th mangrove campaign on an approximately 1/2 km lagoon in the Safaniyah area.

The campaign, under the theme of “Plant for the Planet,” continued SOIPD’s tradition of working to ensure that environmental aspects of the community are improved on a continual basis, bolstering its goal of implementing our corporate values of Integrity, Safety, Accountability, Excellence and Citizenship.

An example of SOIPD’s commitment to maintain not only its operations but the local community as well, the campaign involved staff from the Safaniyah Area Producing departments. About 80 employees from various Tanajib organizations participated in the event, as they planted 10,000 mangrove plants at the Safaniyah East Flank Lagoon.

The event was inaugurated by Ali S. Al Ajmi, general manager of Safaniyah Area Producing Operations; Khalid M. Al Khaleb, manager of SOIPD; and Mansour F. Al Dosary, manager of SOIPD.

Members of management addressed participants on the important role played by the community in improving the environment in which we live. Planting trees in remote coastal areas develops natural habitats that provide a healthy and balanced ecosystem for the area.

They further highlighted that in addition to the environmental benefits, such initiatives improve the appearance of the area for the community to enjoy. They advised participants to make a conscientious effort to keep public areas clean and to take in such initiatives that improve the natural ecosystem.

Campaign coordinator Zouhair Kaaki highlighted the benefits of planting mangrove plants to the local ecosystem, noting that the campaign was a success.

"The awareness generated through this program will definitely go a long way in ensuring a culture change in our community to carry on with such initiatives to better understand the value of mangroves while keeping the beaches clean so as to maintain a healthy environment," he said.

This year, SOIPD built a nursery in the Tanajib community to help grow 500,000 mangrove plants every year to be planted on the shores of Khafji, Safaniyah, and Tanajib.
IT certifications a qualified success

by Saleh A. Oraini

Dhahran — Saudi Aramco’s Computer Systems (CSYS) Division exceeded its own expectations by achieving a total of 28 worldwide-recognized IT technical certifications in 2016. As the main system support organization in the Exploration and Producing Computer Center (ECC), CSYS maintains state-of-the-art technologies utilizing world-class practices. A relatively small group of skilled and certified professionals maintain advanced infrastructure services and solutions assembled from reputable IT technology leaders from across the globe. The division looks to keep its professionals continually certified with cutting-edge technologies to meet and exceed their challenging business demands.

Throughout 2016, 14 CSYS members worked extensively to attain the 28 certifications. Two participants have dominated 2016 certifications record by obtaining five certifications, each in a different discipline. “Those professionals who worked on these certifications went the extra mile by spending extra hours of their own time to develop the needed skills, and prepare for the exams,” said Raed Al-Shaikh, division head of the Computer System Division at the EXPEC Computer Center. “I believe their hard work and persistence deliver a great message to all other organizations in the company; there is no limit to what those professionals can do and achieve.”

IT industry technical certifications are proven to be a significant factor in raising employees’ knowledge and proficiency. Such certifications validate IT professionals’ expertise through rigorous and industry-recognized exams.

Among those receiving one or more certifications were Monerah Al-Mekhlal, Khalid Al-Barti, Mustafa Al-Hashem, Nabil Nabuli, Yaser Al-Wadei, Walid Shaari, Abdulrahman Al-Yahya, Ali Al-Awsh, Azmath Khan, Abdulrahman Abdulbaki, Dana Al-Qasabi, Mohammed Abdulhadi, Haya Al-Ubaidan, and Alaa Zarban.

The Southern Area/Central Region Community Services Department recently paid tribute to a number of long-serving employees for their exceptional service. The service award ceremony was presided over by Mohammad A. Al Shammary, executive director of Community Services, who was joined by other members of management, including Abdulhakim A. Al-Gouhi, vice president of Industrial Services. Among those recognized included: (40 years) Abdul Rahman Ali, Adnan Joher, Khamees Ruwaishid, Abdal Latif Fedhal, Khalid Saeed, and Mahmood Essa; and (35 years) Hussain Amir, Abdalla Ghanim, Yousif Turki, Mohammed Waheed, Misfer Dossary, Mubarak Muaidi, Mohammad Abbad, Ibrahim Mubaireek, Abdul Nameed Mousa, Ali Salfi, Abdul Raheem Budai, Leonila Perez, and Abdul Aziz Masalam.
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Ricardo V. Gonzalez captured this image of Boldt Castle located on Heart Island in the St. Lawrence River, which is part of the Thousand Islands region of the U.S. state of New York this past summer while on vacation. Gonzalez used his Nikon D810 to take the photograph. Gonzalez lives in Dhahran and is an Aviation technical librarian for the Aviation Department. He has been with the company 34 years.

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