



# THE PIONEER

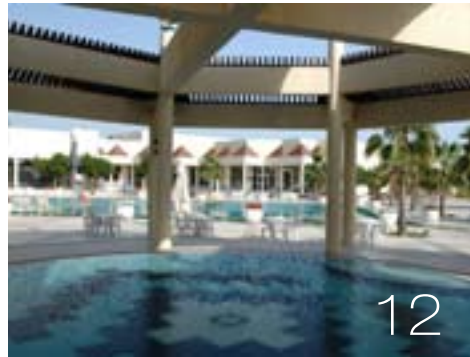
THE MAGAZINE OF QATARGAS OPERATING COMPANY LIMITED



**QATARGAS**

**DELIVERS FIRST Q-FLEX LNG  
CARGO TO CHINA**





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QSRTC was established in April 2008. The work at the Qatar Shell Research & Technology Centre is focused on the development and implementation of technologies that support Qatar's energy industry.

# Great achievements, greater responsibilities

During the past couple of months, we have witnessed some exciting developments that represent significant milestones in Qatargas' success story.



Our inaugural liquefied natural gas delivery to China under the sale and purchase agreement with the China National Oil Corporation (CNOOC) underpins Qatargas' expanding global reach. The berthing of the Q-Flex vessel "Al Ghariya" at the Guangdong Dapeng LNG receiving terminal on October 19 marked the beginning of a new long-term relationship with CNOOC. China represents a huge new market for Qatari LNG and our entry into China has opened up new horizons for Qatargas and the State of Qatar.

Another major achievement was the successful start up of LNG Train 5 in September. This has increased our total LNG production capacity to nearly 26 million tonnes per annum (mtpa), taking us well beyond the half way mark in our target of 42 mtpa when our ongoing expansion projects are completed. Qatargas will now be able to play a greater role in helping the world meet its energy needs.

The official launch of South Hook Gas was another major development and represents a very important aspect of the Qatargas 2 value chain. South Hook Gas owns and manages all of the regasification capacity as well as System Entry Capacity at the South Hook LNG Terminal at Milford Haven in Wales. LNG cargo deliveries from the Qatargas 2 will be handled by South Hook Gas.

Also in September, we started production from the Laffan Refinery, the first condensate refinery in Qatar. The start up of the Laffan Refinery is indeed a great achievement not only for Qatargas, but also for the State of Qatar. The refinery is an integral part of our strategy of diversifying our products and creating industry synergy.

However we must not forget that with great achievements come even greater responsibilities. As we grow and start to supply new markets across the globe, more and more people are looking to us to deliver a stable supply of energy. The responsibility is on

us to continue to deliver energy to the world, safely and reliably.

Looking ahead, we have the challenging task of completing the construction of two more mega trains and starting them up safely and successfully. While we focus our efforts on achieving this, it is equally important for us to continue operating our existing assets safely and efficiently.

I would like to use this opportunity to congratulate all of you on the remarkable achievements that we have made and thank you for your hard work and perseverance. Let us continue to work together as one team with a unity of purpose and vision – to make Qatargas the world's premier LNG Company. ■

**FAISAL M. AL SUWAIDI**  
Chairman and Chief Executive Officer

## SCORECARD 2009

PRODUCTION STATISTICS				
OCTOBER 2009	BUDGET	ACTUAL	CUM. BUDGET	CUM. ACTUAL
Net LNG Production (TBTU)	44120	43152	403790	403566
Field Condensate Production (KBbls)	1462	1537	14055	13871

## QATARGAS MONTHLY SAFETY STATISTICS REPORT

Monthly data (October 2009)	QATARGAS		CONTRACTORS	
	Current month	"Year to Date"	Current month	"Year to Date"
Number of Lost Time Accidents (LTA)	0	0	0	0
Days lost due to LTA	0	0	0	0
Hours worked this month	392,112		199,264	
Hours worked this year	2,976,928		1,893,552	
Hours worked this year (QG & Contractor combined)	<b>4,870,480</b>			

SUMMARY OVERVIEW	QATARGAS	CONTRACTORS
Date of last LTA	01-Jul-02	26-Apr-03
Days worked since last LTA	2,679	2,380
Personnel hours worked since last Lost Time Injury (LTI)	17,827,752	11,159,937
Hours worked since last LTI (04-26-03)	<b>26,984,036</b>	

Cover photo: Great wall of China, photo courtesy: Guangdong Dapeng LNG Company Ltd.

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**THE PIONEER**  
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One shipment can supply energy to all Shenzhen households for two months

## **MILESTONE FOR QATARGAS AS FIRST Q-FLEX LNG CARGO DELIVERED TO CHINA**





Qatargas achieved a significant milestone when the first Q-Flex LNG cargo was delivered to the People's Republic of China on 19th October. The cargo came under the sale and purchase agreement that had been signed with the China National Offshore Oil Corporation (CNOOC). The deliveries to CNOOC under these agreements will be expected to continue for up to 25 years.

Going by the current official statistics, this shipment is enough to meet the energy needs of some 580,000 households in the industrial city of Shenzhen (with a population of 14 million) for one year. In other words, this cargo is enough to supply energy for all Shenzhen households for two months.

A formal unloading ceremony was held at the Guangdong Dapeng terminal to celebrate the arrival of the first cargo. It was attended by representatives from both Qatargas and



Faisal Al-Suwaidi



Fu Chengyu, Chairman of CNOOC

CNOOC. It was the second LNG cargo that has been delivered to the People's Republic of China from the State of Qatar as Qatargas delivered its first spot cargo on a conventional sized vessel in September. Since then Qatargas has delivered its third cargo and more are to follow.

Speaking at the ceremony, Mr. Faisal M. Al Suwaidi, Chairman and Chief Executive Officer of Qatargas, said: "This is truly an exciting development for Qatargas as we start to deliver LNG under our agreement. China represents a new market for Qatari LNG and we are proud to be able to deliver this first cargo safely and



Celebrating the load out of the first cargo on 4th October: Abdallah Hijji, General Manager-China Liaison Office, Andrew Seck, Head of LNG Marketing – East Of Suez, H.E. Yue Xiaoyong, Ambassador of China to Qatar and Zhou Hongbo, General Manager, Doha Office, CNOOC

on time. Qatargas is very pleased to be playing an increasing role in providing stable energy supplies to China which has just celebrated its 60th Anniversary."

He added: "LNG has a key role to play in helping governments around the world improve the diversity of their energy supplies. We are

pleased with this development which will help to meet the growing demand for energy in China."

The cargo was delivered at the Guangdong Dapeng LNG receiving terminal near the major Chinese industrial city of Shenzhen, utilizing the Q-Flex ship "Al Ghariya" which departed

Ras Laffan Port on October 5th. Al-Ghariya is part of Qatargas' integrated shipping fleet which consists of the world's largest state-of-the-art LNG vessels.

Qatargas executed a long term LNG sales & purchase agreement in 2008 with CNOOC to supply two million tones per annum (mtpa) of LNG to the People's Republic of China for a 25 year time period. This LNG will be supplied from Train 6 of Qatargas 3 joint venture between Qatar Petroleum, ConocoPhillips and Mitsui. Train 6 is anticipated to start producing LNG in 2010. Until this time, LNG will be supplied from QG 2 whose shareholders are Qatar Petroleum, ExxonMobil and Total.

The State of Qatar is now the world's largest LNG producer and anticipates that China will become one of the world's largest LNG markets. Qatargas currently has executed contracts to supply a total of five mtpa of LNG to the People's Republic of China. ■



# ATTENDING THE 24TH WORLD GAS CONFERENCE IN ARGENTINA CEO OUTLINES FUTURE EXPANSION STRATEGY OF QATARGAS

The Global Energy  
Challenge: REVIEWING  
THE STRATEGIES FOR  
NATURAL GAS.



Faisal Al-Suwaidi



Ching Thye Khoo



Alaa Abujbara



Qatargas attended the 24<sup>th</sup> World Gas Conference (WGC), which was organised during 5-9 October 2009 in Buenos Aires, Argentina, by the International Gas Union (IGU) under the banner: “The Global Energy Challenge: Reviewing the Strategies for Natural Gas.” The WGC is the most important event of the global natural gas industry. Over 750 industry experts worldwide have been involved in contributing to all the studies and programmes undertaken at the conference.

Qatargas had an active and large-scale participation in the conference with a key-note address in the plenary session, presentation of a paper on QG2, chairing of the LNG Program Committee of the IGU, and a remarkable presence in the WGC exhibition, sharing a common pavilion with Qatar Petroleum, RasGas and Ras Laffan Industrial City.

The key-note address was delivered by Qatargas Chairman and CEO, Mr. Faisal M. Al Suwaidi, in the plenary session of the conference titled “International LNG

Markets: A Global Perspective.” In his speech, Mr. Al Suwaidi outlined the future expansion strategy of Qatargas explaining that projects in the pipeline through 2012 would not be followed by many new LNG projects until 2015 or later and the market for LNG could become very tight again.

“As markets become tight, Qatar will continue to deliver LNG where it is needed most. Qatar will use Q-Flex and Q-Max ships to deliver LNG to all global markets, while helping to balance volatile regional demand for natural gas. This tight market will put responsibility on existing projects

to squeeze the most LNG out of what we have,” he said.

Mr. Al Suwaidi also emphasised awareness about the shrinking number of professionals in the liquefied natural gas (LNG) industry to staff future requirements that will follow the world economy’s imminent recovery. He noted that many of the LNG industry’s most talented and experienced people are approaching retirement age, while at the same time, companies are looking for ways to reduce spending and capital projects are being deferred.

“These and other factors can lead to a shrinking number of professionals in LNG. At the same time, the young men and women, making decisions about their career paths will be influenced by what they are seeing today and possibly not select university studies that would prepare them for careers in our industry,” he added.

Mr. Al Suwaidi explained that the global LNG industry is poised for growth over the next three to four years. “This LNG will meet the natural gas markets’ requirements to replace declining gas production, bring diversity of supply to importing countries, and substitute for coal and liquid fuels in power generation as a more economic and environmentally friendly fuel,” he said.

He noted that though natural gas demand has been affected by the global economic downturn, the global consumption of LNG is growing. By not being constrained by

pipelines to a single market, LNG has adapted to the market fundamentals. For example, though LNG imports to Japan have dropped, China and India are pursuing spot LNG to reduce the cost of generating power and fueling their industries. European LNG imports are up more than 15 per cent this year, while imports of pipeline gas have fallen. The U.S. LNG imports are 45 per cent higher this year, while more expensive gas is left in the ground. This dynamic interaction of the markets benefits both the energy consumers and the LNG producers as LNG is delivered where it is needed the most.

A second paper was also presented in the conference by Mr. Ching Thye Khoo, Chief Operating Officer of QG 2 venture on “Execution of LNG Mega-Trains: The Qatargas 2 Experience.” He said the two mega LNG Trains that were set up as part

of the Qatargas 2 project, were the result of the Vision of the Qatari leadership, both in seeing the market opportunities and taking the decisive steps to pursue them.

Mr. Alaa Abujbara, Marketing Director, has chaired a meeting of one the LNG programme committees of the IGU that are entrusted with drafting a programme for the next WGC, scheduled to be held in Malaysia in 2012. The committee, which consists of 65 committee members, is headed by Mr. Abujbara as Chairman, Mr. Dirk Van Sloothen form VOPAK as Vice Chairman and Abdullah Al-Hussaini as Secretary. Three study groups have been formed by the committee to work on these topics: Enhance terminal capacity; Penetrate new markets for LNG; and Enhance efficiency in the LNG value chain. The committee will conduct a kickoff meeting in January 2010 in Doha. ■



# ESU LAUNCHES DEDICATED CMMS TRAINING A FIRST FOR QATARGAS

Qatargas has dedicated a multimedia, fully equipped CMMS training room that will improve efficiencies and help the company manage all systems and equipment well into the future.

Based on a first-rate CMMS (computerized maintenance management system), the program focuses on effectively managing the integrity of all Qatargas maintainable systems.

The initial project, developed by the ESU Maintenance Division team last year, involved researching best solutions to improve reliability, minimize downtime and manage day-to-day maintenance activities.

With the system now in place, ESU has started formal CMMS training – the first of its kind for Qatargas – for new venture employees.

“The training is a significant achievement, as Qatargas has never initiated formal

training for CMMS users,” says Abdel Kader Attou, Maintenance Division Manager, adding it will be a long-term benefit for the entire company.

“We have made numerous improvements to the QG CMMS PM (Plant Maintenance) module that ultimately requires all users to undergo refresher training, even if they are highly proficient with the system.”

Mr. Attou says the CMMS team will work closely with the trainer to develop the syllabus for each job category, as each level in the organization has different responsibilities in using the system.

Initial overview training began on Wednesday, 7 October, with personnel from Laffan Refinery.

Until a full-time trainer is in place to instruct the program, Hassan Omary, Lead CMMS Engineer, is heading up the training.

“ESU has already provided basic SAP Plant Maintenance training for more than

150 QG2 Operations and Maintenance personnel over the past year,” he says. “We are very pleased to see the program implemented on a full-time basis.”

CMMS size has increased seven-fold over the past year, with enhancements in core functionality through the development phase to achieve ‘Best in Class’ CMMS implementation.

“More intense training will soon follow, targeting specific roles and responsibilities of the different user groups,” reports Mr. Attou. “The training material will be developed in modules and will be ultimately placed in the InfoPac software adopted by Qatargas for long-term computer-based training.”

The OPCO Maintenance Planning department will assist in the development of the training criteria to ensure the training materials meet the needs of all Qatargas users. ■



Laffan Refinery personnel were the first to receive CMMS training on 7 October 2009 at the new location in Block 5 of the ESU premises. Also present to launch the training were (back, standing, from left) Abdel Kader Attou, Maintenance Division Manager; Abdelkader Haouari, Expansion Start Up Manager; Randy Delaune, Head of Maintenance Engineering; and Hassan Omary, Lead CMMS Engineer and Instructor.

# Shareholder Attachments

## Excellent Opportunities for National Development

The integration of Nationals into all levels of the Company and their development to internationally recognized standards is one of the core objectives of the Qatargas Learning & Development Department. This is accomplished through a process of continuous improvement, focused training, development programs and challenging job assignments. Project exposures and application of best business practices also support the overall development of employees.

In addition to individualized career development plans and first-class training options, the Company also provides opportunities for Shareholder Attachments with its partners – who are industry leaders. With some of the world’s oil and gas majors as its partners, Qatargas offers Nationals an unparalleled range of expertise and experience upon which to draw in building successful careers.

The Company’s Shareholder Attachments Program, initiated in 2008, provides exciting opportunities for Nationals holding established positions to learn from experienced, world-class professionals and build their skills on cutting edge technology and systems. The main objective of the Shareholder Attachments Program is to enable Qatargas Qatari National employees to be exposed to best practices and technologies beyond opportunities available in Qatar. The program is designed also to provide opportunities to contribute to the host organization apart from facilitating the transfer of such best practices and technologies to Qatargas, and is an opportunity for select Qatari Nationals to gain exposure to other company culture, ethics and working environments.

Adnan Al-Shaibi, A/ Head of Qatarization Division, is the focal point for the Shareholder Attachment Program. According to Adnan, “The Shareholder Attachment Program is not like the conventional training program or course. Projects are the incubators of leadership. Working as part of the established team, the Nationals participate

in actual projects of value to the organization. Qatargas coordinates with the shareholders in advance in order to schedule the attachment periods to coincide with major projects or annual work exercises to extract maximum benefit for the candidates. Candidates are engaged in the actual day to day work of the host organization and are given meaningful assignments. In doing so, they are able to learn and adopt best practices by comparing the work strategy and procedures followed in Qatargas with that of the host company.”

Mohammed Al-Hail, Head of Budgeting and Reporting – Operating Trains recently spent three months with Shell Global Solutions at The Hague in the Netherlands as part of his shareholder attachment program. Shell is a shareholder in Qatargas 4. Shell Global Solutions is one of Shell’s technology focused organizations and provides business and operational consultancy, technical services, licensed technologies and research and development expertise to the energy and processing industries worldwide.

During his attachment, Mohammed was introduced to a number of processes and reports used in Shell. He familiarized himself with the planning, budgeting and reporting process and core systems that are used in the management information system. Also, he gained a very good understanding of Shell Global Solutions’ ad hoc reporting, CAPEX process and reporting as well as other project reporting. Among the various tasks assigned to him was the harmonization of the reporting of a newly acquired company with the Shell reporting.

During his stint with Shell, Mohammed delivered a presentation in line with Global Solutions standards. He was also informed about Shell’s staff appraisal and staff development processes.

According to Mohammed, his attachment was a very enriching experience. “I got the opportunity to see and learn first hand how one of the largest

companies in the world conducts its business. I was able to learn a lot from a team of highly qualified and experienced professionals. Rather than a visitor, I was treated like a member of the team and was fully involved in various on the job tasks.”

“The people that I worked with were very friendly and helpful, which made the experience all the more enjoyable. I would like to thank the people at Shell who helped to make my stay productive and enjoyable. My special thanks also to Qatargas Learning & Development Department for providing me with this opportunity. I urge all my fellow nationals to make full use of such opportunities available in Qatargas.”

Mohammed Al-Hail graduated from Qatar University in 1996 with a Bachelors degree in Accounting. He joined Qatargas Accounting Department in 1997 as Payable Accountant. He has also worked as Revenue, Production and Shipping Accountant before being promoted to his current position in 2005. ■



Mohammed Al-Hail (far right) with Shell Global Solutions officials





## AL KHOR COMMUNITY - MORE THAN JUST A HOUSING FACILITY

“When people talk about the major cities in Qatar, the list is usually limited to Doha, Wakrah and Al Khor. But I think Al Khor Community should be added to the list and may be, even included in the weather report section of the daily news bulletin on Qatar TV.”

**M**ohammed Al-Khaldy, the Al Khor Community Director may have said it in a lighter vein during a chat with ‘The Pioneer’ recently. But the Community is in fact a mini town – and growing. About 6000 people, made up of employees of Qatargas and RasGas and their families currently live in Al-Khor Community, located between Al Khor and Al Dhakhira, about 25 kilometers from Ras Laffan Industrial City. By the end of next year, the population is expected to increase to 9000.

“Our aim is to provide a safe and comfortable living environment for the residents and make sure that the spouses and families are well looked after and cared

for while the employees are at work”, says Al-Khaldy, who has been in charge of the community since February 2008.

The 6000 residents are served by about 500 people who represent the contractor work force employed in the various areas, including the six clubs run by the Community, landscaping, maintenance, cleaning, transport and security.

The three clubs within the community provide residents with excellent facilities for relaxation and recreation. A fourth club, also in the community has been set up exclusively for the youth. The community also manages two clubs outside its perimeters – the Beach Club and the Golf Club, both of which are in

Ras Laffan.

In addition to restaurants serving international cuisine, the clubs also have other amenities like swimming pools, tennis and squash courts, well equipped gymnasiums and a range of other activities for adults and children alike. “The clubs are a great place for people to unwind after a long day at work or during the weekends. People can go and work out in the gym or take the kids to the swimming pool or have a meal in one of the restaurants. The clubs are also a great place for meeting friends and social networking.” says Al-Khaldy.

After driving through the security gate into the Al Khor Community, one is amazed by the lush

greenery all around – in stark contrast to the general topography of the area. Almost the entire community (with an area of 2 kilometers by 1 kilometer) is dotted with hundreds of date palms, trees, plants and shrubs. The landscaping contractors maintain the greenery of the community which looks like an oasis in the middle of the desert.

The Al Khor Community is perhaps one of the most well kept communities in Qatar, if not the entire region. It is rare to spot a soft drink can or even a piece of paper strewn about. The nearly 100 cleaning staff ensure that the streets, children’s play areas, parks, schools and offices are kept spic and span.

The Community Administration also manages a

fleet of about 68 buses. The transportation services include shuttle services within the community, school bussing, weekend trips to Doha for residents and special ladies’ trips to various destinations in Qatar. Children of employees who reside in Doha also use the buses to attend school in the Community.

“Managing the operation of the bus fleet is a huge responsibility. Our primary concern is the safety of the people who use these buses – especially the children.” says Al-Khaldy. “The school buses are equipped with special devices which enable us to determine the number of times the drivers have applied brakes. This way, we are able to monitor if they are safe drivers.” he adds.



The Security section is another crucial part of the Community Administration and is involved in all aspects of security and safety. The security personnel control access to the community at the two gates. They are also responsible for traffic control and minor accident investigation. The Community enforces very strict driving rules with a maximum speed limit of 25 kilometers per hour. As part of its safe driving policies the community has implemented a points system for various offences like over speeding, not wearing seat belts etc. "We spare no efforts in trying to ensure that the Community is a place where people can live peacefully without fearing for their safety and security and children are able to

replacing light bulbs to major electrical or plumbing works. Our aim is to make life as comfortable as possible for the residents. So for us, there is no such thing as an unimportant call." says Al-Khaldy.

The Community has evolved a lot since the first residents moved in during 1996 and is still growing. The Community has received 732 houses this year (from the real estate company) which include 482 housing units for Qatargas and 250 for RasGas. People have already started moving into these houses and the plan is to complete the relocation of all employees by February next year. That will bring an additional 3000 people into the community.

"Moving families into these new housing units is

Future requirements of houses are also being reviewed. So, by 2012 or 2013, the population of the Community is expected to increase to approximately 12,000.

A new school that will accommodate about 1700 students is also nearing completion. Work is also progressing on the biggest park in the community that extends all the way from the Al-Waha Club round about to Security Gate 2 – which Al-Khaldy refers to as the Community's 'Hyde Park'. The existing parks have all been upgraded and the Beach Club has also been given a facelift.

"Construction of new housing units within the community is a major challenge we have to deal

construction activities and contains clear guidelines for the contractor to minimize the inconvenience caused to residents. The policy covers a wide range of issues like noise and dust control, scheduling working hours to minimize disturbance to residents, providing advance notice regarding road closures, diversions etc. to name a few. We want to build more houses but not at the expense of the comfort of the existing residents. We want our residents to be able to sleep well and our children to be able to study peacefully." he continues.

"Residents are very understanding. We just need to communicate better with them. We need to gather feedback from people to see how we are

the residents and the Community Management.

According to Al-Khaldy, the appointment of the Resident Relations Officer has added a great value to the team. "It was a conscious decision to appoint a lady in this position since most of our clients as a service organization are the spouses. This has removed a lot of communications barriers and helped us address specific problems in a more efficient and effective manner." he says.

The Community organizes an array of recreational activities for the residents. The activities calendar is busy throughout the year with a wide range of events and programs. Various sporting events and tournaments are held regularly. Summer camps for

that live in the community – especially the Indonesians, Indians, Filipinos and Algerians who make up the major nationality groups. To add to these, there are other events like graduation days and annual prize giving days organized by the two schools (British and Indian curriculum) in the Community. "We have about 30 – 35 nationalities living here and I am happy to say that the community has something to offer for everyone.", says Al-Khaldy.

The community has a cricket field, football pitches and several parks and play areas for children. There are also shops including a vegetable shop, post office, bank and ATMs.

Wrapping up his chat with 'The Pioneer',



go out and play with friends or ride their bikes without the fear of being hit by a speeding vehicle.", says Al-Khaldy.

The maintenance section is another major service provider in the community. "On an average we get about 4500 maintenance calls a month. That is quite a high number. But we record every call, no matter how trivial the problem may be. The maintenance section provides a wide range of services – from

not as easy as it sounds." says Al-Khaldy.

"After we receive the houses, we have to prepare every unit before allocating to employees. This includes fixing curtains and installing all appliances like air conditioners, refrigerators, cookers etc. When you are talking about hundreds of houses, it is quite a challenge."

The construction of new houses will continue next year, with 292 new houses for RasGas employees.

with. There are bound to be problems when you have contractors carrying out major works in a residential area. The heavy equipment and increased vehicle movement warrants extra efforts to ensure the safety of our residents. The noise and dust are also a problem.", Al-Khaldy says.

"We have however made major improvements in this area with the introduction of the new construction policy that addresses the various problems related to

performing as a team and what we can do to improve our services. Positive feedback motivates and encourages us to take our performance to the next level while negative feedback helps us improve our performance.

The Community Management recently established a new position called 'Resident Relations Officer' reporting to the Community Director. The role of the Resident Relations Officer is to act as a link between

children last for almost three months and include lots of activities for kids of all ages - from arts & crafts to sports, music and much more. Several activities and events are held in Ramadan including the weekly 'Iftar' for about 1200 people. There is also the grand Eid party with food, fun and games for up to 4000 people.

Special events are also held to celebrate national days and other festivals of the various nationalities

Mohammed Al-Khaldy said, "It is not the well equipped clubs or parks or the beautiful landscaping that makes the Al Khor Community unique. The people in our community come from different parts of the world, speak different languages and have different cultural backgrounds. Yet, despite all the differences, they live as good neighbours and interact with each other in perfect harmony – that's what makes our community a fine place to live in". ■



On October 1, Andy Richardson completed his assignment as Qatargas' Shipping Construction Project Manager and returned to ExxonMobil. 'The Pioneer' had a chance to chat with Andy in early September about his tenure with Qatargas and future plans.

**How and when did your association with Qatargas begin?**

My first association with Qatargas was in the spring of 1996. I was working with Mobil Shipping Company for the merger (between Exxon and Mobil). At the time, the Qatargas 1 ship building project in Japan, which started in 1994 was in progress, constructing a total of 10 ships. They needed a new project manager. So I went to Tokyo in early spring as Acting Project Manager.

I supported Ali Al-Hammadi for a while until we moved to Nagoya and set up the Japan Liaison Office where I became Project Manager through to the end of 1998. We were building 10 ships in three yards and we thought that was a big project! It was a great opportunity. I learned a lot – I really enjoyed Japan.

On 18th October, I will have spent 20 years with ExxonMobil. I have spent nearly eleven of those 20 years working for Qatargas. It was on the strength of my experiences in Japan, that I got involved with the Qatargas 2 project nearly eight years ago. The rest, as they say, is history.

**The Q-Flex and Q-Max vessels represent a pioneering achievement that has brought about a step change for the LNG shipping industry. How does it feel to have been part of this journey?**



Personally and professionally, it has been an amazing and rewarding experience. Trying to get to where we have ended up has been an amazing journey – a program of this magnitude with 53 ships - not conventional but Q-Flex and Q-Max - of which no one had heard of the concept, until we invented it and developed the designs. There were a lot of people who said it couldn't be done – we have proved them wrong. The challenges have

been big – but the achievements are even bigger. It has been a team effort, everyone has done really well.

**What were the biggest challenges the ship building project successfully overcame?**

The whole project has been a massive challenge. It is expected for a project of

this magnitude to face a whole succession of challenges. It is difficult to say if one particular challenge was greater than another. Obviously, convincing folks this was the right step to take, to break away from the traditional designs, the traditional capacities and propulsion systems etc. for LNG ships in what is a very traditional industry, took a lot of effort – that was a big challenge.

There were a lot of engineering and

technical challenges, but those can always be dealt with by getting the right skills and resources and through a structured approach. The bigger challenges however, have been safety and people.

I will start with people – the success of any project lies with its people. At peak we have had over 160 people on the project team, based both here in Doha and on the various sites in Korea and they came from diverse

backgrounds. We have also had the changing horizon of shareholder engagement and a reasonable expectation that people would get the right opportunity to be exposed to and gain the knowledge of the project and the ships. We started out with ExxonMobil and Qatargas 2 and RasGas, and then with ConocoPhillips for Qatargas 3, Shell for Qatargas 4, and they rightly had an expectation supported by Qatar Petroleum that there would be a transition, that as we move through the program, there would be a reasonable and proportional representation of shareholder engagement etc.

For the past few years, we have been a really substantive unit. People have their own personal needs and pressures, family needs, professional needs etc. Due to the changing world economic scenario, there are pressures on contractors that did not exist three or four years ago or even two years ago. So sustaining and motivating a team of that size and meeting the expectations of a successful transition, proportional representation of the shareholders and transfer of knowledge back to the operating company has been a major challenge.

The people who have worked on this project have gained a huge amount of knowledge, and it is important for us to ensure as much of that as possible is passed back to the people who are going to operate the ships. And I think we have managed it very successfully, with the support of the shareholder organizations and senior management. We have got fair and proportional representation, we have sustained project knowledge and transfer of that knowledge to the operations teams is ongoing.

But my proudest achievement is in safety – and above all else, the progress that we have made with the yards, in reducing accidents and improving the work place from an HSE perspective. I have learned on this project that one of the hardest things in the world is to drive sustainable change in an area where you have no direct control or authority and little influence – and that is the truth of our relationship with the shipyards. But we have been extremely successful.

All three yards accepted our sponsorship of



the 'Incident and Injury Free' program – which has been a great success. It is the foundation of a sustainable legacy in safety to the shipyards, which is something we set out to do. I won't go into statistics in terms of safety achievements, because they are just numbers. At the end of the day, our goal is that nobody gets hurt.

We have had accidents, but we have learned from those accidents and worked very hard with the shipyards to ensure those accidents did not happen again. We have accrued nearly 64 million man-hours with the shipyard people – and I would argue that the levels of safety that we are achieving now are unequalled in shipyards around the world building commercial ships.

We have just done four million man-hours in Samsung since the last LTA and prior to that we had done eight million. Also at DSME, we are over ten million man-hours. Those kinds of numbers have never been achieved before. For the Qatargas project team (about 165 people at its peak), we have been now nearly 2700 running days since the project started without a single incident – and that's nearly a million man-hours in its own right.

Over half of the 44 ships delivered so far have been delivered incident free. We have worked diligently with the shipyards and developed a really meaningful relationship with them in trying to improve the working environment for the workforce.

But we still have some way to go – the project doesn't finish until July next year. We are six months on the project since the last incident of any sort. By their own admission, the shipyards have never seen safety performance of that magnitude in merchant ship construction in their facilities.

### What were the important factors that made the Qatargas ship building project unique?

Simply the scale of the project, for a start – the 53 ships. Some have argued that it is the biggest single connected ship building contract since the liberty merchant ships during World War II. I don't know if that is true – but it is certainly massive with nearly 13 billion US Dollars worth of ships. Nobody has ever achieved what we have done. A project

of such scale and complexity has never been undertaken in the entire LNG industry. I think these ships will provide first class service for Qatar for the coming years.

The size of the ships is also unique. Q-Max is 80% bigger than any LNG ship built before. The new technologies that have been used – the amount of innovative environmental and safety technologies incorporated in one place. The size and propulsion have made these ships more efficient and reduced the cost of transportation. More importantly, this has resulted in a reduction in CO2 emissions by nearly 30% - which amidst global environmental concerns is a significant achievement.

It is also important to reflect that the benefits and the economies and synergies that Qatargas is seeing from its program of ships come in part from the cooperation of Nakilat and RasGas and their willingness to utilize this team in an efficient way so that synergies are realized by everybody. It is a mutually beneficial arrangement – other parties have been brave and wise enough to look for the opportunity to reduce cost and bring value to shareholders.

Of the 53 ships, 21 were for RasGas.

The Qatargas team have assumed responsibility for the overall project because we were responsible for the design of the ships for Qatargas 2, and as our role expanded into RasGas 2 Train 5, RasGas 3, Qatargas 3 and Qatargas 4, there were significant savings to be made through the synergy of one team handling the design and construction on behalf of every body. For the last 25 ships, that was expanded further where we took on the dual role on behalf of the owners Nakilat and the charterer.

One of the important factors for the success of Qatargas has been the strength of its shareholders and the talent and resources that were made available by them. Out of 160, 13 or 14 were shareholder secondees.

The shipyards have been unbelievable. Yes, we have had our differences with them but ultimately, we have always come up with the right solution. The only area in which we rarely have disagreements with the shipyards is in our journey together in safety.

### What are your plans for the future?

I will be leaving in October and returning to the UK. This project has had eight years of my

life and five years of my marriage. The project has been great but the time has come for me to go back to my family. I had a great vacation in the summer with my family. It was then that I fully realized what I had been giving up and what they had been sacrificing and I want to go home.

I have got about three years left to go before I retire. I shall be returning to International Marine Transportation – the international marine subsidiary of ExxonMobil. I am looking to pass on my knowledge and experience to the next generation of project managers within a year.

At the same time, I am also hoping to keep one foot in the door here in Qatar, to help support the Qatargas and RasGas Commercial & Shipping groups in their marine activities and to make sure that we provide them with the right support and resources they need to be a success.

I hope to sustain the relationships I have with people in Qatar Petroleum, Qatargas and RasGas for the next three years to help them in their journey of continued success. Besides that, I have a lot of work to do on my golf swing, which is appalling.

I have a lot of catching up to do with my family and am really looking forward to getting back and re-establishing a sense of priority in my life ahead of my retirement.

I have been very lucky to have this opportunity and am grateful to the senior management of Qatargas, Qatar Petroleum, RasGas, ExxonMobil, ConocoPhillips and Shell, for all their support. As executive management, they did ask difficult questions as you would expect, but they were always willing to listen and provide all necessary support when needed.

Looking back on this project, it's been an absolutely marvelous experience. I have worked with some wonderful people and have so many people to thank I don't even know where to start. I don't know of many people who have had this opportunity in the past and I don't know how many will ever get it in the future. I am lucky guy and I am very grateful – but it is time to go home. ■



Naming ceremony of Q-Max LNG carrier "Mozah", July 2008



With Qatargas CEO Faisal Al-Suwaidi during a ceremony to mark the arrival of Q-Flex vessel Al Gattara at Ras Laffan in December 2007



With his wife Julia during the naming ceremony of Q-Max vessel "Al Samriya", August 2008



# REALIZING SYNERGIES THROUGH SHARED FACILITIES



1- Four LNG Berths    2- Three LNG Tanks    3- Five LNG Tanks

Aerial view of Common Lean LNG Facility (CLLNG)



1- Existing Sulfur Silo Storage    2- CSF – Sulfur Storage Building    3- Granulators

Aerial view of Common Sulfur Facility (CSF)

The State of Qatar is rapidly expanding to capture almost one-third of the world’s liquefied natural gas (LNG) market. By 2010, LNG export capacity from Qatar is projected to reach 77 million tons per annum (mtpa). In addition to the LNG, a sizeable quantity of by-products – condensate, propane, butane, and sulfur – result from the LNG production. These by-products are expected to reach production rates of approximately 500,000 barrels per day of condensate, 20,000 tonnes per day of propane, 13,000 tonnes per day of butane, and 12,000 tonnes per day of sulfur.

To support this expansion the State of Qatar has embarked on a pioneering approach to the storage and loading of LNG as well as its by-products. Traditionally, dedicated storage and loading facilities (infrastructure) have been designed and built to support a specific LNG production train and its associated by-products. Qatar’s innovative approach has been the design and construction of a fully integrated common infrastructure to support all of the joint venture owned lean LNG production trains as well as other gas related projects. This common infrastructure has resulted in significant

capital investment savings, increased operational flexibility and reduced land requirements.

Qatar’s common storage and loading export facilities are the most complex in the world in terms of scale, integration, and number of joint owners. These facilities are referred to separately as Common Lean LNG Facility (CLLNG), Common LPG Facility (CLPG), Common Condensate Storage and Loading Facility (CCSL) and Common Sulfur Facility (CSF). An important aspect of this strategy was to divide the responsibility for executing these projects between Qatargas and

RasGas. Qatargas managed the CLLNG and CSF while RasGas was responsible for the CLPG and CCSL facilities.

## Common Lean LNG Facility (CLLNG)

The CLLNG Facility offers significant storage volume savings over traditional standalone storage and loading facilities to support an equivalent LNG production capacity, insofar as, its size is still significantly larger in comparison to typical LNG storage facilities. In fact, it is the world’s largest combined LNG storage facility and the largest

combined LNG export arena, capable of exporting over 60 mtpa. The site for the integrated CLLNG storage and loading facilities is located on a total plot space of approximately 500,000 m<sup>2</sup> at RLC. The facility is equipped with storage and loading systems and numerous boil-off gas (BOG) compressors which return vaporized natural gas from LNG storage to upstream plant fuel systems. The total lean LNG storage capacity is eight x 140,000 m<sup>3</sup> storage tanks (three existing tanks prior to the CLLNG concept and five new tanks), resulting in a combined net storage volume of 1,120,000 m<sup>3</sup>.

Integrated with the LNG storage system are four LNG berths. It supports the total production of eight lean LNG trains with a combined production of 56 mtpa. Six trains are designed to produce 7.8 mtpa and the remaining two trains each are designed to produce 4.7 mtpa. This LNG will be supplied from the five Joint Ventures (referred to as CLLNG Owners) of the CLLNG Facility.

The storage tanks have double containment walls with internal pumps and vapor connections on the tank roof dome to handle tank boil-off gas.



The CLLNG Facility is operational accepting LNG from Qatargas 2, Ras Laffan Liquefied Natural Gas Company Limited (II) – Ras Laffan (II), and Ras Laffan Liquefied Natural Gas Company Limited (3) – Ras Laffan (3) and it is being used to export lean LNG to the European, Asian, and North American gas markets. Qatargas currently operates this facility.

### Common Sulfur Facility (CSF)

The Common Sulfur Facility (CSF) is a world class sulfur processing facility located within the RLC port area just south of the LNG loading berths and will be operated by Qatargas. The completed facilities will include a Molten Collection Pipeline Network that runs through RLC with a daily average nominal capacity of 12,000 tonnes per day. Sulfur comes from multiple natural gas,

LNG and GTL facilities. This pipeline network can transport molten sulfur from 11 producers (i.e., Joint Ventures). The collected molten sulfur will be transported to the existing sulfur berth area via this pipeline network where the primary processing will occur. Processing will consist of converting the sulfur from its molten liquid state to premium-grade solid granules, providing temporary storage, and then loading the product onto ships for use in other industries.

### Common Condensate and Storage Loading Facility (CCSL)

The CCSL Facility is a common storage and export facility that replaces and supplements existing Qatargas and RasGas condensate storage facilities. It consists of

14 storage tanks with an overall capacity of 900,000 m3 with a split of 720,000 m3 for field condensate and 180,000 m3 for plant condensate. Eight Joint Ventures jointly own the CCSL Facility which is currently operated by RasGas.

The storage tanks are floating roof design allowing for the roof to travel up and down along the inside walls of the tank. The floating roofs help reduce the vapor emission from the low-flash point condensate.

Export of the field condensate from this common pool of tanks is achieved by two means. One is via a single point mooring (SPM) facility (the primary mechanism) and the other is via a single loading berth (secondary option).

The SPM is located 56 kilometers offshore in a water depth of approximately 36.5 meters allowing for loadings on tankers as large as very large crude carriers (VLCCs). Plant condensate is exported via a single berth inside the RLC Port.

The CCSL is operational and accepting products from Qatargas 2, Qatar Petroleum, Ras Laffan Liquefied Natural Gas Company Limited (Ras Laffan), Ras Laffan (II), Ras Laffan (3), and ExxonMobil and it has been operating since the second-half of 2008 with products destined for the world petroleum market.

### Common LPG Facility (CLPG)

Similar to the CCSL Facility, the CLPG Facility (also operated by RasGas) is an

integrated storage and loading terminal.

It has the capability to store and load LPG (butane and propane) gathered from all fractionation facilities in RLC. This storage and export facility is located on reclaimed land. The reclaimed land area encompasses six storage tanks.

This integrated storage and loading facility is designed as a common terminal for storing and loading LPG and is jointly owned by nine Joint Ventures (referred to as the CLPG Owners). The storage facilities include inlet and export product meters, refrigerated propane and butane tanks, refrigeration facilities, tankage flare, and utilities. LPG supplied by the fractionators is a warm pressurized liquid and is refrigerated and stored at atmospheric pressure in the

six LPG tanks. Export of the LPG from this common terminal is accomplished by three LPG berths. The design capacity of the facility is approximately 32,000mt/SD (12 million mt per annum). Capabilities exist for adding another berth to bring the total LPG berths to four, if production is increased beyond the current three berth threshold occupancy level.

Propane and butane are being supplied to the CLPG Facility from Qatargas 2, ExxonMobil, Ras Laffan (II), Ras Laffan (3), and Dolphin Energy Limited and these products are being delivered to the world LPG market. ■



Aerial view of Common Condensate Storage and Loading Facility (CCSL)



Aerial view of Common LPG Facility (CLPG)



# QATARGAS 3&4 COMOPS SUCCESS

The Qatargas 3 and 4 Joint Asset Development Team (JADT) has safely completed its first phases of Combined Operations (COMOPS) work, laying pipelines near the jackets while a drilling rig is present and bringing one of three shared offshore platforms closer to operation. Safe working was the priority during the Combined Operations (COMOPS) which saw the JADT Drilling and Offshore teams working at the same time on and around the wellhead platforms.

The first COMOPS work occurred during pipelay operations at each of the three jackets.

The other COMOPS work took place during hookup of the topsides at WHP7. Crucial tasks such as drilling of wells and hooking up key equipment on the topsides all had to be done within the same tight time frame, and on a platform that measures less than 37 x 24 metres.

The foundations for successful COMOPS were laid three years ago, when Facilities Engineer, Glenn Hamrell, from Offshore, and Drilling Interface Coordinator, Phil Keller, joined forces to scope out the work and develop detailed plans and procedures. They pulled in the necessary engineering operations expertise and involved the drilling, topsides and pipeline contractors in developing the COMOPS manuals. The manual formed the basis for the required procedures and practices to be used during COMOPS.

Glenn explains: "The COMOPS interface work between the Offshore Facilities Project and Drilling started in 2006, to ensure that the platforms were designed for COMOPS. A COMOPS manual has been developed as a joint effort between Drilling and Offshore Facilities which is the guideline for safely managing the combined operations and describes the risk level of performing the combined activities."



Drilling rig Noble Kenneth Delaney rigged up over WHP-7. M/V Agile, dynamic positioning support vessel on hire to, J. Ray McDermott in position alongside WHP-7.

Photo courtesy David Morton - Chief Officer M/V Pacific Rapier.

Phil Keller says: "The first test was the laying of the two main 38" pipelines in close proximity - less than 40 metres - to the drilling rigs, and then laying the two 22" spur lines - again in close proximity to the drilling rig. The operation required careful planning so that the large pipelay barges, jacket, and drilling rigs were

operating safely as the pipelay vessel laid past the jacket and drilling rig. The moored pipelay barges, J Ray McDermott's DB-27 and KP-1 had to be precisely controlled as the hull to hull clearances between the rig and pipelay vessel was at times less than 40 meters. Careful planning of anchor patterns and required anchor

movements during pipelay was critical.

During the topsides hookup managing the work in the field, the work of Engineering Manager, Clay Fryer and Glenn Hamrell on Topsides, and Drilling Superintendents, Greg Spruiell and Allen Melvin were particularly important. Cooperation between contractors was

also vital. Drilling contractor, Noble, and Offshore contractor, J.Ray McDermott, worked extremely close to the drill rig, Noble Kenneth Delaney and the McDermott accommodation vessel, M.V. Agile both bridge linked to the platform.

On board the Agile, there were between 120-160 people. Depending on tasks, there during

dayshifts and 20-40 on night shift. On board the Noble Kenneth Delaney there were around 95 people, with 5-10 working on the platform.

Phil says, "The big test was hook-up and commissioning of the topside at WHP-7. This would put up to 100 workers from the Offshore Group and its contractors physically on the platform while the drilling rig was operating. It is a case of give and take. It was always understood there would be time that one group of the other would have to stand-down to minimize risks. We just tried to execute the work safely while at the same time keeping stand-down time to a minimum."

The environment also presented challenges: a strong current meant that J. Ray McDermott's M.V. Agile, a dynamically positioned vessel, had to move off the rig almost every day, and additional time for this had to be factored into the work.

But with careful forward planning, and cooperation by the teams doing the work on site, all tasks were completed safely and successfully.

Phil says: "The actual management of COMOPS activities is squarely in the hands of the folks in the field. The hook-up of Topsides at WHP-7 went well, I hope that this is an indication of the work Glenn and I put in, and how the rest of the COMOPS activities will progress."

Glenn adds "A lesson learned session was held after the WHP-7 hook-up campaign, so a continuous improvement process will follow for the COMOPS activities during pipeline pre-commissioning and WHP9 hook-up to ensure a successful completion of the campaign."

Further phases of COMOPS work will continue to be carried out on Qatargas 3 and Qatargas 4's platforms, WHP-7, WHP-8 and WHP-9 in coming months. ■





## RESERVOIR & PRODUCTION TEAM VISITS QSRTC

**M**embers of Qatargas Reservoir and Production Department, led by Hani Hussain, Reservoir & Production Manager, recently visited the Qatar Shell Research & Technology Center (QSRTC) in Qatar Foundation's Science and Technology Park.

The purpose of the visit was to learn more about the activities of the center, particularly the upstream program and specific topics related

to reservoir studies. Cas Groothuis, the General Manager of QSRTC welcomed the group and gave them an overview of QSRTC.

This was followed by a series of presentations that covered QSRTC's upstream program, integrated carbonate reservoir characterization and modelling – application to Khuff and, a 3D model demo of Khuff. The group also toured the Gas-To-Liquids (GTL) and Sulfur laboratories.

QSRTC was founded in 2005 and moved into the Science and Technology Park in April 2008. The work at the Qatar Shell Research & Technology Centre is focused on the development and implementation of technologies that support Qatar's energy industry. The Qatar Shell Research & Technology Centre has a team of over 35 from Qatar and around the world, including around 20 top engineers and scientists. ■