The 21st Annual Technical Conference of the Gas Processors Association – GCC Chapter was successfully held on 7th - 8th May 2013 at Sharq Village & Spa, Doha, Qatar with the theme of “Operational Excellence in the Gas Industry”.

At the opening session of the conference, welcome remarks were delivered by the Chairman of the GCC Chapter Mr. Fahad Al-Subaiey. The keynote speech of the conference was delivered by Mr. Hamad Al-Mohannadi, Vice-Chairman, Qatar Petroleum and CEO of RasGas.

ORYX GTL (ORYX) was the sponsor of the 21st Conference in Doha.

Nineteen technical papers were presented by the Chapter’s member companies which include the major Oil & Gas companies within the Gulf Cooperation Countries. In addition there were presentations from ORYX, Saudi Aramco and Qatar Petroleum (QP). Other papers presented were from KOC, Banagas, GPIC, QAFAC, Bryan Research & Engineering Inc., ExxonMobil, RasGas and WorleyParsons which covered a wide range of topics relevant to the gas processing industry highlighting the challenges, latest developments and best practice in this important industrial sector in the region.
Qatar’s health, safety and environment (HSE) regulatory regime is developing as the country’s economy continues to grow and expand. Although existing legislation in Qatar addresses various aspects of HSE, the need for a robust HSE regime is becoming increasingly evident but is still under development.

Ensuring compliance with the requisite provisions of various laws and regulations, in the absence of centralised legislation, presents additional and unique demands from senior management and HSE practitioners that are not encountered in well-developed HSE regulatory regimes. In addition to making a contribution to the development of progressive, centralized HSE legislation, ORYX GTL adopted a unique approach to safety to ensure a world-class performance that would meet the expectations of the Company’s employees, shareholders and other stakeholders, including Qatari society.

Thus, in December 2009, the Chief Executive Officer Abdulrahman Al-Suwaidi, initiated ORYX GTL’s highly successful safety culture transformation programme called “Road to Zero Harm Campaign”. The primary objective of the Campaign is to introduce and embed the companywide-shared value that “Safety is Our Way of Life.”

The result of the annual ORYX GTL employee engagement survey over the last three years confirms the steady improvement and reinforcement of the Campaign in achieving its objective of embedding a strong safety culture.

In summary, at least 90% of employees believe that ORYX GTL never compromise on safety, whilst 93% indicated that management responded quickly to safety matters.

The Campaign’s initiatives contributed to keeping ORYX GTL injury-free and drive the Total Recordable Incident Rate (TRIR) to zero 0.0. With this achievement, ORYX GTL became the third-ever Oil & Gas company in Qatar to reach this milestone. In addition to this, to date ORYX GTL and its Contractors have worked almost 12,000,000 man-hours without any recordable incidents and continue to strive to maintain an injury free workplace.

During November and December 2009 a three year safety improvement plan “The Road to Zero Harm Campaign” was devised with the goal of putting safety back into focus using a number of easy to implement quick win initiatives for example an executive management charter and individual charters for management were put into place.

These initiatives quickly raised levels of management visibility, leadership and commitment and further demonstrated to staff and contractors that safety always comes first. The secondary aim was to drive the company TRIR to zero, which would assist in clearly showing that management and employees had fully committed to taking safety seriously and simultaneously improve the company safety culture and morale.

Are we entering the Gas Golden Age?

Long time back and in order to provide its energy demand, the world entered the coal era then shifted to oil and the nowadays question is “Are we entering the gas golden age?”

The answer is clearly yes, due to the following reasons:

- Natural gas reserves are continuing to increase all over the world with its conventional gas and unconventional types such as stranded gas, tight gas, coal bed methane and shale gas.
- Natural gas is the best environmental friendly fossil fuel and may even be better then other non fossil fuels due to the research in catalytic decomposition to produce hydrogen as a fuel, therefore leads to lower emissions of greenhouse gases.
- Gas remains and will continue to dominate the power generation sector worldwide.
- Global gas resources are widely spread globally and can be transported easily and it can sustain supply & demand for almost 75 years of the current consumption.
- The lower growth in nuclear power generation due to policy changes in Europe and the recent incidents in Japan as well as more usage of gas in road and sea transport opens the way for increased demand for natural gas.
- The price of gas relative to other fuels in particular oil makes the gas the best choice for many energy consumers.
- Natural gas can be transformed to GTX (GTLNG, GTF, GTP & GTL) to produce high value products.
Capturing Operational Excellence Opportunities through effective plant performance monitoring at Saudi Aramco Khurais Gas Train

This paper shares Khurais Producing Department (KhPD) experience in deploying its in-house plant performance monitoring tool in its quest for operational excellence that resulted in value creations to the facility. The tool is developed to assist the engineers and the operators alike to monitor the overall plant performance in a dashboard effectively. Hence, such capability has enabled the KhPD team to proceed with various process improvement and optimization initiatives to meet its operational excellence objective. In addition, considering the greatest challenge by the facility to sustain optimum performance, such tool is a requirement to meet this goal.

To reinforce the drive for operational excellence, a multidisciplinary team member task force was formed with the objective of realizing the opportunities identified during the operational excellence initiatives. The focus of the task force is to capture "low hanging fruit" opportunities that can be implemented immediately and require little or no cost. Today, after implementing these initiatives, the facility is realizing the benefits of the operational excellence initiatives in the most sustainable way and has achieved steady reduction in energy consumption at the Khurais gas train, while increasing its NGL recovery value by around 1.5% without incurring any capital cost. Such value creation initiatives do not stop the task force from setting out on a journey of continuous improvement as part of its ongoing operational excellence effort.

Increasing Gas Production at EPF-50: A Systematic Operational Experience Based approach

• KOC started processing HP/HT sour gas from the Jurassic formation for the first time in 2008 by commissioning of its facility EPF-50 which was designed to process 175 MMscfd sour gas and 50 MBOPD light crude.
• However, the facility never achieved nameplate capacity in terms of gas production due to design and operational issues and since this was the first sour gas facility for KOC, there was no previous experience to fall back whenever a problem arose.
• Hydrocarbon carry-over and Amine contamination incidence was regularly encountered which prevented raising production above 120 MMscfd and increased flaring from the facility.
• During winter, frequent tripping of wells due to hydrate formation in the flowlines and at the inlet of the facility was encountered. This not only resulted in well downtime but also created a potentially unsafe condition of over-pressurization of the flow lines.
• Venting of these flowlines having H2S content of 3% to break the hydrates also created an additional hazard.
• Based on 4 years of operational experience for this first sour gas processing facility, the various bottlenecks in increasing gas production was identified.
• This paper will discuss how these potential bottlenecks were mitigated and the positive impact it had on making the operation safer and the improvement in the gas production figures from this facility.

Urea Plant High Pressure Stripper Energy Efficiency Technology

With the advent of OmegaBond™ tubes, GPIC has pioneered Siapem Urea Technology on to the new horizon. GPIC Urea Plant is the first in the world to adopt this new tubing technology for HP stripper. The new Ammonia stripping exchanger was set on the process in March 2010.

Siapem has designed the new exchanger for GPIC using plastically forged titanium and Zirconium bimetallic tubes. GPIC Urea Plant has already started reaping the benefits this new design that includes,
• Reduction in corrosion/erosion related down time due to Corrosion free metallurgy of new tubes and exchanger.
QAFAC Carbon Dioxide Recovery (CDR) Project

1. Overview and Background
Qatar Fuel Additives Company (QAFAC) was established in 1991. QAFAC is a joint venture between Industries Qatar (50%), CPC (20%), International Octane LLC (15%) and LCY Middle East Corp (15%). The Company commenced operations in 1999. The company operational in Mesaieed (South of Doha) and manufactures;

- Methanol (ICI Process) 982, 350 MTPA
- MTBE (UOP Process) 610,000 MTPA

Methanol process employs Steam Methane Reformer where Natural Gas (NG) mixed with Steam is converted to reformed gas (CO, CO₂ and H₂). The reaction is endothermic and requires heat. This heat is provided by burning fuel consisting mainly of plant purge gas (consisting of H₂, CO, CO₂, CH₄ and N₂) and NG. During this combustion process fuel gas is generated which is vented to atmosphere from Reformer Stack. The fuel gas consist of N₂ (66%), H₂O (27%), CO₂ (5.5%) and O₂ (1.5%). It means @ 55 MTPH of CO₂ is vented to the atmosphere.

QAPAC is constructing a CO₂ Recovery (CDR) Plant to recover a portion of CO₂ from this fuel gas. With this CDR plant QAPAC will be able to recover 21 MTPH (38%) of CO₂ from the fuel gas vented to the atmosphere.

The new stripper which is operated at higher temperature decomposes most of the unreacted process solution and in turn reduces the heat load on downstream heat exchangers & solution recycle. This advantage of decrease in recycle is realized in terms of net saving in steam consumption. The actual energy efficiency considering gain in steam production is about 150 kg/MT of Urea at higher loads.

Zirconium and Titanium are considered the excellent heat exchanger material due to fact that both have higher thermal conductivity. The thermal conductivity of both the materials are about 20-30% better than that of Type 316 stainless steel. This thermal properties render additional benefits in stripper design in terms of surface area required for the same heat loads.

2. Brief Description of CDR Plant

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- Higher process yield to 15% as new design can allow for more aggressive operating conditions. The stripper bottom temperature is now advantageously raised up to 210 degree celsius.
- Increased energy efficiency due to lower solution recycle and increased steam generation.

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3. Benefits of CDR Plant:
- Methanol Plant becomes Self Sufficient for Raw Material (CO₂).
- Reduction of 500 MTPD of CO₂ emission to atmosphere and converting it to a clean fuel.
- Recovering 30 m³/hr of water vapor from fuel gas and recycling it to DM Plant, thus reducing fresh water consumption.

Mr. Milind Sumant
Qatar Fuel Additives Co. Ltd., Qatar
Four Ways to Improve Your Gas Plant’s Performance

Gas plants are often compartmentalized, leaving small and sometimes misunderstood scopes for operating each section. This work will show the impact of process enhancements on downstream operations while focusing on four easy optimization areas. The study examines the amine sweetening unit, glycol dehydration unit, turbo-expander, sulfur recovery unit, and each piece is viewed together and evaluated as profit or loss for the plant as a whole.

Frequent Failure in Condensate Stabilizer Reboiler Due to Salt Deposition

Heavy salt deposits in a condensate stabilizer reboiler shell at Saudi Aramco led to severe external chloride stress corrosion cracking of 316 SS tubes after only nine months of service. The hydrocarbon condensate on the shell side of the reboiler is heated by hot oil in the tube side. The short term solution was to replace the stainless steel tubes of the reboiler with heavy gauge carbon steel material. However, salt deposit accumulation continued to be a problem and the reboiler had to be cleaned on a frequent basis as its heat transfer efficiency declines. Operating close to the temperature where the saltation begins was the root cause of the problem. Corrosion resistance coupons for different alloys were installed in the system for testing their suitability against corrosion and cracking under the salt deposit. The coupon were retrieved and tested after 4 years in service. Heat transfer efficiency for every material was calculated to select the best cost effective material. The paper discusses the process changes implementation in the plant to resolve the continuous salt deposition problem. Moreover, the possibility of upgrading the material and the cost effectiveness were discussed.

Enhancing Reliability & Safety of Banagas plants by Implementing RBI Best Practice

Banagas is a responsible operator of gas processing plants in the Kingdom of Bahrain. As part of our strategic vision and way forward, it was decided to implement a reliable and user-friendly Risk Based Inspection technology process incorporating best practices, in order to confidently enhance plant and equipment reliability, safety, environmental performance and net financial benefits.

RBI is relevant to all static equipment items, interconnected piping, storage tanks, pipelines and pressure relief valves operating in the oil, gas and petrochemical producing plants.

From a viewpoint of definition, Risk Based Inspection is a technology process which, when correctly implemented through a comprehensive multi-discipline team study, is used to formaly optimise the inspection efforts and inspection interval for each equipment item of plant within the boundaries of appropriately defined integrity operating limits, whilst minimising equipment failure risks caused by the relevant Damage Mechanisms (DMs). It is also evergreen as it requires reviews and updates after inspection or when operational changes are made. As such the integrity management responsibilities through the Risk Based Inspection process involve not just the inspection engineers but also the operations and process engineers at a plant site.

In order to match our strategic vision, the following aspects were considered as the ‘bottom line’ for implementing Risk Based Inspection (RBI) successfully.

1. Selected RBI technology is reliable (in assessing the Probability of Failure for each of the identified DMs and their Risks), ...
incorporates best practices and is user-friendly for Inspection Engineers at plant site.

2. RBI Team Study of each Equipment and each Piping Corrosion Loop (PCL) is comprehensive - there is no shortcut to this task, the study time must not be compromised.

3. In addition to RBI Specialist Engineer and Corrosion Specialist, the RBI Study Team includes Inspection, Operations and Process engineers from our plant site.

4. RBI Team Study Output is reliable, addresses all integrity related aspects (e.g. Inspection Interval, Integrity Operation Limits, Critical Maintenance Activities, etc) and matches plant site strategic goals.

5. RBI software system comprehensively supports 1-4, future updates of study and is user-friendly, transparent and auditable.

This paper is written from a plant operator’s perspective to highlight the critical processes involved in order to successfully implement RBI. It includes, for example, defining the technical specification for RBI, selection of an RBI technology and service provider to match the requirements above, RBI pilot project to validate the requirements and expected benefits, an example describing the benefits achieved, and finally the main implementation covering all our plants. It is hoped that this paper will also help other plant sites wishing to successfully implement a Risk Based Inspection technology process that would ensure achievement of their objectives and site strategic goals.

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**Establishing Knowledge Management System for the NGL Plants Complex of QP**

In this paper, we present the proposal for knowledge management system for the NGL plans complex of QP. The paper will have special focus on the cultural and behavioral change requirement to have a successful start and to ensure momentum until completion.

Considering the fact of our late start, we should have a remarkable advantage for presenting this initiative to our organization. We should be able to foresee the short comes and the pit falls of the different approaches. Thus, we should be able to avoid them in an early stage.

Establishing knowledge management strategies is imperative for today’s successful organizations. It insures the longer effect of the achievements of the best and brightest that ever contributed to any organization’s experience and success. It revolves around the best practices and the knowledge that ever existed in any organization. It ensures the evolvement of the workforce to be at its best at all time.

This presentation will cover the need realization to retain the knowledge and ensure that the full team members of our department are actively participating in this initiative. In the presentation we will cover the different means we have used to do that, and to ensure the mindset change that we require has taken place within our team members.

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**Controlled Freeze Zone™ Technology Attractive for Middle East Sour Gas Resources**

The CFZ™ technology provides for the single-step removal and liquefaction of CO₂ as well as other acid gas components present in sour natural gases. The resulting high pressure liquid can then be readily reinjected for geosequestration or Enhanced Oil Recovery (EOR) purposes. The CFZ™ technology enables the development of sour gas resources with CO₂ contents well in excess of 60% and as low as 8 mol%, while still protecting the environment from excessive greenhouse gas emissions.

ExxonMobil has been operating a 14 Mscfd commercial demonstration plant (CDP) at the Shute Creek Treating Facility in Wyoming, USA since 2011. The unit has completed tests on feed streams with CO₂ contents ranging from 25 to 71%. In the next phase of testing later in 2013 the CDP will start testing acid gas mixtures with H₂S contents of 0 to 35% at pressures up to 41 barg along with a similar range of CO₂ compositions. During this phase the net acid gas liquefied will be returned as a high pressure liquid stream via the existing acid gas injection (AGI) facility.
Adsorption Based Natural Gas Upgrading

The use of adsorption in gas processing is steadily increasing. Rapid improvements in material science and synthesis of new highly porous and stable adsorbents have been instrumental in the success of adsorption processes. Adsorption is used commercially in natural gas upgrading such as dehydration, mercury, BTX and mercaptans removal, and many more applications. Five essential ingredients are considered necessary for the development of a successful adsorption process: adsorption isotherms, isosteric heat of adsorption, adsorption kinetics, modeling experimental data, and adsorbent uptake capacity and selectivity. Saudi Aramco Research & Development Center developed the in-house capability to determine these essential ingredients on both laboratory and pilot scale. In this presentation, experimental results will be presented and discussed for the development of adsorption based technology for upgrading sub-quality natural gas and adsorbed natural gas storage.

Single Pack Moisture Cured Urethane for Rehabilitation of Steel Structures in Urea Export Gallery

The Urea export gallery steel structure (4 km) suffered from severe corrosion due to the hydroscopic nature of Urea forming strong electrolyte for the corrosion cell. Rehabilitation was planned in six phases. The total cost is 8 million US dollars. The selection of the paint was the challenge due to the restrictions in surface preparation and the severe environment. In phases 1 and 2, surface tolerant epoxy was used. The problem was the strict over coating intervals and humidity tolerance. Works had to stop when humidity raises. Surface preparation had to be redone due to stoppages related to ship loading and raise of humidity. These restrictions increased the cost of the works. To overcome this problem, a surface tolerant moisture cured urethane coating was tested as an alternative. Result were successful and decision taken to proceed with the urethanes. The cost had reduced by 35%. There was no stoppages and no over coating restriction. The results were successful and the paint was implemented for the sea piles also. The corrosion issues has reduced substantially and with life guaranty of 5 years in sea harsh environment.

Production Enhancing & Troubleshooting for Sulfur Recovery Unit

Kuwait Oil Company (KOC) has been for long decades specializing in Oil Exploration & Production operations, with two major line of Up-stream business:

- Crude Oil Production through Gathering Centers
- Associated Gas Production through Booster stations

However, after elaborated studies, KOC decided in 2008 to produce dry/sweet treated unassociated Gas from Jurassic Reservoirs North Kuwait. And hence, Early Production Facility was established.

Currently EPF has a daily crude production of 54,000 BPD and 145 mmscf of Gas. The Feed Comes from 22 Jurassic Formation wells connected to the Facility.

With actual Gas oil Ratio of 2,500, and 4% of H2S, EPF main processing units are:

- Crude trains (Wet/Dry)
- Crude stabilizing Unit
- Gas sweetening Unit
- Gas dehydration Unit
- Sulfur Recovery Unit (SRU)
- Tail Gas Treatment Unit

Sulfur Recovery Unit (SRU), was introduced in the basic design of EPF to eliminate the potential environment hazard caused by Acid gas flaring, and to have the financial advantage to Sulfur Production for the first time in KOC.

The Paper will focus on two main subjects:

a. Enhancing Production of SRU
b. Troubleshooting problems have risen due emergency shutdown of SRU (Case Study).

This part of the paper will discuss three points:

- Effects of CO2 and other contaminations in the feed gas on SRU Production
Propane Refrigeration System Optimization Study at Gas Processing Plant

When the feed gas inlet condition to a gas processing plant becomes colder than design, the load on the refrigeration compressors, which provide the cooling for the Sales Gas dew-point control, would invariably reduce, often resulting in increasing compressors recycling. This paper presents the work carried out at a gas processing plant to investigate ways to improve the energy efficiency on the refrigeration compressors operating under reduced load condition.

The work involved using both steady state and dynamic simulation models to represent design and current operation, and from which an optimized operation was derived and verified. The study investigated one short term and one longer term optimization options.

For the short-term option, the operation of a refrigeration unit was reviewed closely through ExxonMobil Research and Engineering Company’s (EMRE’s) proprietary FLEXSORB® SE process for treatment of acid gas and SRU tail gas. It is well understood that FLEXSORB solvent is highly selective for H₂S, resulting in effective CO₂ slip and extremely efficient H₂S removal, thus making it one of the few technologies of choice when ultra-high sulphur recovery efficiencies are required. What is not always so well understood is the extent of the commercial advantage offered by EMRE’s FLEXSORB technology when employed in the right application, irrespective of whether high sulphur removal efficiency is required. The lack of understanding can lead to the propensity for prospective licenses to disregard the technology strictly in the basis of solvent cost, which is known to be greater than that of MDEA.

Unequivocally, solvent cost cannot be used as the sole comparator in a commercial evaluation of gas treating technologies. Rather, all factors affecting capital, operating and maintenance expenditures must be considered in the assessment of facility life cycle cost. In the appropriate applications, FLEXSORB technology offers commercial benefits that far outweigh its higher solvent cost and render it the most attractive option.

This study differs from many other FLEXSORB studies in that it does not endeavor to display the merit of the technology in applications having particularly stringent performance specifications, as these benefits are already well known to the industry. Instead, the study explores the employment of FLEXSORB over a range of conventional acid gas enrichment and tail gas treating applications and quantities net present cost saving, as compared to MDEA. The intent is to equip the reader with a guide for deployment of...
FLEXSORB technology in the right applications; not only those that are technically challenging (e.g. ultra-high recovery efficiency), but also in what may be considered more routine sulphur recovery installations.

**Corrosion Challenges Mitigation Using Thermal Metal Spray Coating Method**

Corrosion in Acid Gas Removal Plant result in unscheduled down time, production losses and reduced equipment life. Although it is virtually impossible to eliminate, it can be minimized and controlled. Some key area which should be focus on in order to understand how corrosion affects an amine plants are:

- Corrosion mechanism
- Different corrosion types
- Corrosion contributing factors
- Preventive measures

Regenerative processes have used alkanolamines for CO₂ and H₂S removal since 1930’s. However, removing H₂S and CO₂ with alkanolamines based gas conditioning solvents posed its own corrosion. The amine itself is not culprit, but the acid gas that the amines absorb is.

Regenerator column was subjected to thorough inspection by Qatar Petroleum and it was found to have extensive Corrosion on the internal surfaces. Based on these findings, the residual wall thickness found to be bordering in allowable margins giving an estimated residual life of one year.

As a result Qatar Petroleum considered various option like Patch Welding, Metal Overlay, Metal Spray etc for Short Term repair of the equipment. After careful analysis, Metal Spray was found to be the best solution under the current situation.

The method was successfully applied and the corrosion rate was monitored during the column operation and it found that corrosion was controlled.

**ORYX GTL Experience in Flaring Reduction Challenges and Opportunities**

Continuous effort are being undertaken by oil and gas industry all over the world to reduce flaring and venting emissions, in order to mitigate negative environmental impact from greenhouse gas emissions. It is estimated that, worldwide more than 100 billion cubic meters of natural gas is either flared or vented annually, releasing 400 million tons of greenhouse gases to the earth’s atmosphere.

Gas-to-Liquids (GTL) is a technology breakthrough to convert natural gas into high-performing, ultra-clean liquid fuels by means of the Fischer-Tropsch (FT) process. This new and emerging technology can contribute to meeting energy security requirements in the future.

ORYX GTL, a joint venture between Qatar Petroleum and Sasol is a pioneering GTL facility producing premium, low emissions, easily transportable and marketable high-performance diesel fuel as well as naphtha and LPG liquids. The objectives of this paper are

a. to identify the various routine and non-routine sources of flaring
b. to describe methodology to quantify flaring emissions
c. History of actions taken to reduce flared gases and
d. to identify various opportunities to reduce flaring emissions from ORYX GTL facility.

The paper contains a brief overview of ORYX GTL process and various flaring and venting sources from the facility. The methodologies for flaring emission quantification are described along with the concepts and options to reduce and optimize the flaring emissions. The non-routine flaring includes releases from pressure reliefs, startup and shut-down venting. A brief overview is provided for the projects done by ORYX GTL to drive sustainability and stability resulting in reduced non-routine flaring. The flaring emissions are estimated based on the composition of flared gases, the energy content of the flared gases, available measurement data, emission factors or mass balance approaches. The flare reduction concepts include use of advanced process control techniques, utilization of tail gas for fuel, and recovery of low pressure vent gases to use as fuel in process heaters. The unique nature of the processes and its high integration with utilities poses a key challenge to balance the fuel network efficiently. The results from this study highlight that a significant improvement can be achieved to reduce greenhouse gas emissions besides improving carbon efficiency of the GTL process through driving plant stability and flare recovery projects.
Moleseive Operating Life Enhancement without Hardware Changes

Effective Molsieve operation is one of the key elements in ensuring reliable and maximum LNG production.

Process Surveillance Engineering with Operation developed an excellent practice to optimize the performance of Molsieve through close surveillance during transient and normal operations utilizing existing facilities without jeopardizing product quality and integrity of the equipment.

The strategy applied for these initiatives mainly cover:
1. Improved Start-up (Transient condition) to avoid bed-lift and liquid carry over.
2. Optimized Adsorption Process i.e. Normal operating condition by reducing inlet temp and managing adsorption cycle based in outlet specification.
3. Improved Regeneration Process by applying best practices within RasGas and recommendations from Vendor (UOP).
4. Optimized Bed Support Media configuration and type.

Above changes resulted in following benefits:
1. DP across Molsieve beds is almost flat after 300 days operations.
2. Adsorption time cycle (17 hours) is unchanged after 300 days operation.
3. Significant reduction in After Filter change out frequency.

Above All, it has given us confidence to proceed for 32,000 hours maintenance cycle by carrying out some physical changes on loading diagram in consultation with UOP.

Retirement Award

Former Technical Committee Chairman Mr. Kefah Al Faddagh, Saudi Aramco, former Executive Committee member Mr. Mohamed Burashid, Banagas and former Secretary Treasurer Mr. Ahmed Majid, Banagas, were invited to the 21st Annual Technical Conference in Doha and honored with GPA GCC Chapter retirement award.

Mr. Kefah Al Faddagh, Mr. Mohamed Burashid and Mr. Ahmed Majid receiving their retirement award from GPA-GCC chairman.
Gas Sweetening Workshop held in 2013

Gas sweetening workshop was conducted successfully during the year 2013, the 7th workshop on 5 - 6 May 2013 in Doha as part of the GPA-GCC Chapter technical program. The instructor of the workshop is Mr. Kefah A. Al-Faddagh, former Chairman of the Technical Committee.

Total of 25 participants mainly from the Chapter’s member companies attended these one sessions. It will be conducted again for the eighth time in Bahrain in May 11 - 12, 2014 at the Gulf Hotel. The prime objective of this workshop was to provide the participant with a good understanding of Gas Sweetening in general and common practice. This workshop presented a complete and up-to-date overview of the Gas Sweetening processes with emphasis on gas plant process operations.

The process flow sheets of several Sweetening Processes used to illustrate how the various operations differ. The advantages, limitations, and range of applicability of these processes were discussed so that selection and integration into the overall plant was fully understood and appreciated.

At the end of the workshop, each participant received a certificate from GPA-GCC Chapter. It is worth mentioning that both workshops were very well received by the participants.

Best Paper Award 2013

The GPA - GCC Chapter “Best Paper Award” is granted to recognize outstanding technical papers which are delivered during the Annual Technical Conferences.

The best paper of the 21st Technical Conference held in May 7th - 8th, 2013 at Sharq Village & Spa, Doha, as ranked by the audience is:

“Capturing Operational Excellence Opportunities through Effective Plant Performance Monitoring at Saudi Aramco Khurais Gas Train”
Mr. Sultan I. Ruwais, Saudi Aramco (Saudi Arabia)

The Best Paper Speaker will be awarded by the Chapter Chairman and other Executive Committee members at the forthcoming Annual Technical Conference to be held on 13th - 14th May 2014 in Bahrain.

Awarded best speaker for the 20th Technical Conference - 2012 Best Paper

“EMGAS Compressed Natural Gas (CNG) as a Green Fuel for Transportation”
Mr. Fazal Ali Khan, Emirates Gas (UAE, Dubai)
About the GPA - GCC Chapter

OUR MISSION
To serve as a forum for the exchange of ideas, technology and information that will benefit both the upstream and downstream Gas Processing industries, and their Suppliers, with a view toward improving Plant Operations, Health, Safety and Environmental performance in the GCC countries.

OUR VISION
To be the focal point and the main source of information on the Gas Processing industry in the Gulf Cooperation Council countries.

MEMBERSHIP
Membership in this organization is open to GCC Representatives of:

- Companies owning and/or processing gas. These are classified as “Members”.
- GCC-based organizations involved in the supply and/or service to the gas industry. These are classified as “Associate Members” and are entitled to vote on all matters in the Organization’s Annual meeting except for the Executive Committee elections.

All membership applications are considered and approved by the Executive Committee.

EXECUTIVE Committee

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<tr>
<th>NAME</th>
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<td>Mr. Abdulrahman Al Suwaidi</td>
<td>Chairman</td>
<td>ORYX GTL - Qatar</td>
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<td>Mr. Khalid Taher</td>
<td>Vice - Chairman</td>
<td>Tatweer Petroleum - Bahrain</td>
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<td>Dr. Ahmed Al Kaabi</td>
<td>Secretary</td>
<td>BANAGAS - Bahrain</td>
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<td>Mr. Eisa Al-Kubaisi</td>
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TECHNICAL Committee

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<th>COMPANY/COUNTRY</th>
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<tr>
<td>Mr. Shadi Al Adel</td>
<td>Chairman</td>
<td>SAUDI ARAMCO - Saudi Arabia</td>
</tr>
<tr>
<td>Mr. Khalid Ahmed</td>
<td>Member</td>
<td>BANAGAS - Bahrain</td>
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<tr>
<td>Mr. Ahmed Ghuloom</td>
<td>Member</td>
<td>GPIC - Bahrain</td>
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<tr>
<td>Mr. Abdullah Al-Ajmi</td>
<td>Member</td>
<td>KNPC - Kuwait</td>
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<tr>
<td>Mr. Khalid Taher</td>
<td>Member</td>
<td>Tatweer Petroleum - Bahrain</td>
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<td>Mr. Ahmed Khaja</td>
<td>Member</td>
<td>QP - Qatar</td>
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<tr>
<td>Mr. Taib Abang</td>
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<td>SAUDI ARAMCO - Saudi Arabia</td>
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<tr>
<td>Mr. Mohamed A. Egab</td>
<td>Member</td>
<td>ADGAS - UAE</td>
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