NEWS FOCUS 2006

DECEMBER 2006

ANNUAL NEWSLETTER OF THE GAS PROCESSORS ASSOCIATION - GULF CO-OPERATION COUNCIL CHAPTER

A SUCCESSFUL CONFERENCE IN SAUDI ARABIA

Chairman's speech at the 14th Technical Conference

Dr. Shaikh Mohammed Al-Khalifa
Chapter's Chairman

On behalf of the Executive Committee of the GCC Chapter of the Gas Processors Association, I am delighted to welcome you once again to our 14th Technical Conference here in Alkhobar, Kingdom of Saudi Arabia.

I am very pleased to report that the Chapter continues to grow in terms of the numbers participating in our meetings, the services provided and the increased informal networking between members and participants attending these technical meetings.

Since it's inauguration in the Kingdom of Bahrain in 1993, the Gulf Cooperation Council (GCC) chapter of the Gas Processing Association (GPA) has successfully run thirteen meetings. I am proud to say that it is continuing to develop and improve its services to meet the needs of its member companies and their personnel. As a professional, technical body it is committed to and focused on, the generation and dissemination of technical knowledge by providing the region with a forum for the interchange of technology and developments in the gas and gas processing industry. With the assistance of the GPA-USA and other international chapters GPA events have attracted professionals from different parts of the world covering all aspects of the fast changing world of natural gas.

I am very pleased to report that last year's Technical Conference, held in Dubai, was very successful. It was well attended, the papers presented provided considerable insight into the latest issues and the event was well organised. Thanks and appreciation goes to Dubai Natural Gas Company (DUGAS) for sponsoring the event and also for offering all the assistance necessary to make last year's meeting a successful and special occasion.

I would also like to take the opportunity while we are holding our gathering in Al-Khobar, to extend our thanks and appreciation to Saudi Aramco for sponsoring this event. Our sincere thanks are also extended to the Board and Senior Executives of Saudi Aramco.

(continued to page 7)

CALL FOR HYDROCARBON FLARING MINIMIZATION

The Gas Processors Association – Gulf Cooperation Council Chapter (GPA-GCC Chapter), would like to urge its member companies to seriously consider adopting the zero flaring as their road map and the way to go in order to actively participate in improving the health and welfare of the general population, protecting the environment in the Globe and saving the energy at the same time.

The GPA-GCC Chapter, in light of its objectives and efforts to help in protecting the environment, line up its strategies with its members needs & visions and providing best industrial practices & services for the region, has successfully organized a one day specialized technical session under the title "Zero Flaring". The subject of zero flaring has attracted a lot of interest and attention reflected in the unexpected large number of attendees and participant, since it contributes greatly in protecting the environment and saving the energy at the same time.

The event took place on November 29th, 2006, at the Le Meridien Gulf Hotel, Al-Khobar, Saudi Arabia. The main objective of the event was to stress on the need and importance of implementing flaring minimization technologies such as zero flaring & flare gas recovery and share the knowledge and experience in this area.

As an outcome of this event, the GPA-GCC Chapter Executive Committee has decided to approach all the member companies' executive management in the GCC countries to seriously consider adopting the zero flaring as their road map and the way to go. Realizing that companies in the region are very much concerned about environmental issues and conscientious about public image, the issue of zero flaring would surely contribute in improving the health and welfare of the general population, protecting the environment in the Globe and saving the energy at the same time.

Regional Adverse Effects of Flaring on Human Health and Welfare

Since Flaring is a major source of toxic pollutants such as SO_2, NOx and VOCs, and also contributing to the global

(continued to page 8)

Installing a Pentane Splitter (De-Isopentanizer) to Enhance Gasoline Production

Mr. Ahmed S. Ghazal,
Saudi Aramco, Saudi Arabia

The paper briefly described Yanbu Gas Plant's Fractionation facility. It also highlights the alteration to the process that has been implemented to send the normally rejected Pentane stream to a newly installed De-isopentanizer Distillation system to extract a rich Iso-pentane stream. The benefits, both to the company and the local market, being generated from producing pure iso-pentane, were presented.

BACKGROUND

A Performance Improvement Program in conjunction with the Shell oil company was launched in the year 2000 to identify opportunities for maximizing revenue at Yanbu Gas and Terminal Department. The subject proposal was one of the fruits of this program which resulted in total annual revenue of approximately $ 22.8 MM.

PROJECT OBJECTIVES

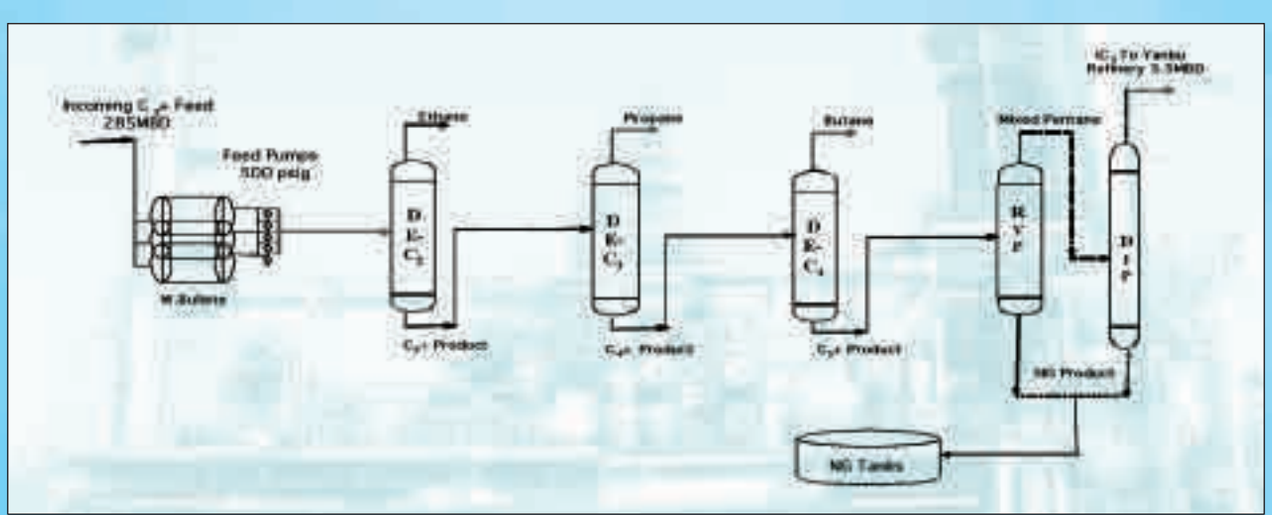
• Producing 5500 BPD of pure Iso-pentane (92% vol.) to be used as a gasoline blend at a neighboring Aramco refinery to meet the kingdoms increasing demand of MOGAS.

• Increasing the company's revenue by about $ 22.8 MM / year as a result of selling Iso-pentane for the price of gasoline.

SUMMARY

The De-isopentanizer project was commissioned in September of 2005. Since then it has been tested and proven to be successful in terms of achieving its intended objective of recovering a pure Iso-pentane stream (92% vol.). Furthermore, on the second of November Yanbu refinery received 4,100 barrels of it's firs batch of Iso-pentane which will enable them to initiate their new gasoline blending strategy. Based on current product prices the company will be able to generate an additional annual profit of about $ 22.8 MM, which was calculated using a process industry modeling system (PIMS).

THE MODIFIED FRACTIONATION FACILITY



Shuaiba Refinery Flare Gas Recovery Unit (An effort toward clean air)

Mr. Mubarak M. Al-Mutairi,
Shuaiba Refinery, KNPC, Kuwait

As a part of relentless efforts of KNPC towards clean air, many environmental projects have been taken up to control emissions and comply with EPA regulations on air quality. One such project implemented by Shuaiba refinery is Flare gas recovery unit (FGRU).

FGRU was commissioned in January, 2002 with capacity of 18.8 MMSCFD of recovered stack gas and reuse in fuel gas system. Project was implemented in a time frame of two years time with total cost of $ 19 MM. To ensure continuous availability, FGRU has been provided with two compressors (1+1) along with full accessory package, ESD, safety features and monitoring system etc.

A great deal of consideration was given for energy conservation & optimization by utilizing refinery's excess steam for turbine & reusing of return sea cooling water to meet cooling needs in the unit.

With the implementation of FGRU, Shuaiba refinery achieved a reduction in flare gases from 13 to 1 MMSCFD & SO_2 emissions reduced by 94%. The import gas requirements reduced due to use of flare gases to the extent of $3.5MM.

KNPC has set-up a Relief Gas Management Team (RGMT) to monitor/identify/reduce flaring from all the three refineries. Team consists of members from senior management level from Operations discipline. Various monitoring tools were developed by team focusing awareness improvement in every individual besides monitoring/controlling flare.

Lastly, KNPC is also targeting for Zero non-emergency flaring by improving further on instrumentation/procedures for unit start-up/shutdown.

Synthesis and Optimization of Ethane Recovery Process

Mr. A. Bashiri, *IUST, Iran*

The extraction of ethane and heavier hydrocarbons from natural gas has evolved from simple oil absorption to cryogenic expander processes. Some of these processes are licensed and others are available in the public domain. In either case, it is important to understand and examine the choices available before starting any project - new or revamp. This paper will present an overview of the basic principles that affect ethane recovery. Methods of how to compare different processes are discussed, and optimization of a process to achieve the highest return on investment is presented. This comparison is made using a consistent basis and assumptions for all the processes evaluated. The processes were optimized and evaluated over different inlet pressures, compositions, and recovery levels. The goal is to provide insight on how different processes perform under a variety of conditions. A strategy for process configuration design and debottlenecking of natural gas processing plants based on turbo-expander was presented.

SUPERCLAUS Technology along with Innovative Notions Play a Principal Role in the Berri Gas Plant (BGP)

As part of the Kingdom's objective to protect the environment, Saudi ARAMCO Company showed its commitments to maintain the highest standards in air quality control by approving funds to introduce SUPERCLAUS technology into sulfur recovery units (SRUs) at Berri Gas Plant (BGP). In addition to installing two (2) new SUPERCLAUS units, the existing three (3) SRUs were upgraded to the same new technology. As a result, all SRUs are currently running with 99.0% recovery efficiency instead of typical Claus process efficiency of 95%. Consequently, the enhanced sulfur recovery efficiency (SRE) will keep the SO_2 ground level concentration within the level set by Presidency of Metrology and Environment (PME) environmental regulations despite the significant increment of sulfur production at BGP. ABC system is one of the most important features in SUPERCLAUS process. Its function is to maintain the recovery efficiency (99.0%) at the sulfur recovery units through efficient control. The ABC system is critical to ensure the SUPERCLAUS process performance ability to maximize the sulfur recovery efficiency and minimize the SO_2 emission.

Mr. Muthkar Al Otaibi, *Saudi Aramco, Saudi Arabia*

The paper discussed the implementation of SUPERCLAUS technology in BGP new SRUs along with its ABC system and highlights the challenges faced to upgrade the existing units.

New Technologies in Gas Processing - QP Experience with NGL-4 Plant ADIP Treating

The paper highlighted technological improvement in gas processing by evaluating operational problems in ADIP treating of old NGL plants (NGL-1&2) and how it was solved by technical advancement in new plant NGL-4.

It is quiet common to have operational problems resulted by inadequacy of equipment, piping and control philosophy. But the paper focused on how operational problems were rectified by advanced technologies in newly installed plant NGL-4.

Operational Problems in ADIP treating in NGL-1&2

ADIP treating is a Shell patented process using 25 wt% DIPA for removal of CO_2 & H_2S from Propane stream.

It was noted that excessive loss of Amine from the ADIP treating unit of old NGL plants and foaming at times. Around 100 drums of DIPA were required (which was equivalent to 1.5 times the ADIP inventory) to maintain the required RFB (Regenerable free base) and system inventory. Technical investigation was carried out to find out the root cause of Amine loss. After a detailed investigation, it was revealed that amine loss from the system is mainly due to the carryover of DIPA with Propane stream to the down stream molecular sieve bed.

Carryover of free DIPA & dissolved DIPA along with Propane stream resulted in loss of DIPA and decline of performance of molecular sieve life due to detrimental effect of Amine on molecular sieve.

In old NGL plants, to remove dissolved DIPA & free DIPA, Coalescer and activated charcoal bed are provided at the downstream of ADIP treating. As it is an old technology, Coalescer and activated charcoal bed were not efficient to remove the dissolved & free DIPA carried along with the Propane stream. For filtration of slip stream of ADIP, only cartridge filter was available in old plants.

Mr. Ahmed A. Shuaib,
Qatar Petroleum, Qatar

NGL-4 ADIP treating: Merichem Wash Water Technology

After detailed technical evaluation, Merichem wash water package incorporated in NGL-4 ADIP treating unit instead Coalescer & Activated charcoal bed. Merichem wash water package is basically for co-current stripping of Propane with water to remove dissolved and free DIPA carried over with Propane stream.

Wash water package removes all the free DIPA & 97% of the dissolved DIPA carried over with Propane stream. In order to reduce foaming tendency by cleaning the solution, a series of filters (Cartridge filter, charcoal filter & Guard filter) incorporated for slip stream filtration of ADIP.

By merichem wash water package & charcoal filters, amine loss in NGL-4 ADIP treating is significantly less than old NGL plants (Around 10 drums of 200 lits of DIPA/Annum).

Alternatives for Natural Gas Sweetening by Combined MDEA and DEA Processes

Dr. Mahmood Moshfeghian
John M. Campbell, USA

Two alternatives for removal of H_2S and CO_2 from natural gas have been investigated. Each alternative consist of two stages of acid gas removal. The schematic diagrams for both alternatives are shown in Figure 1.

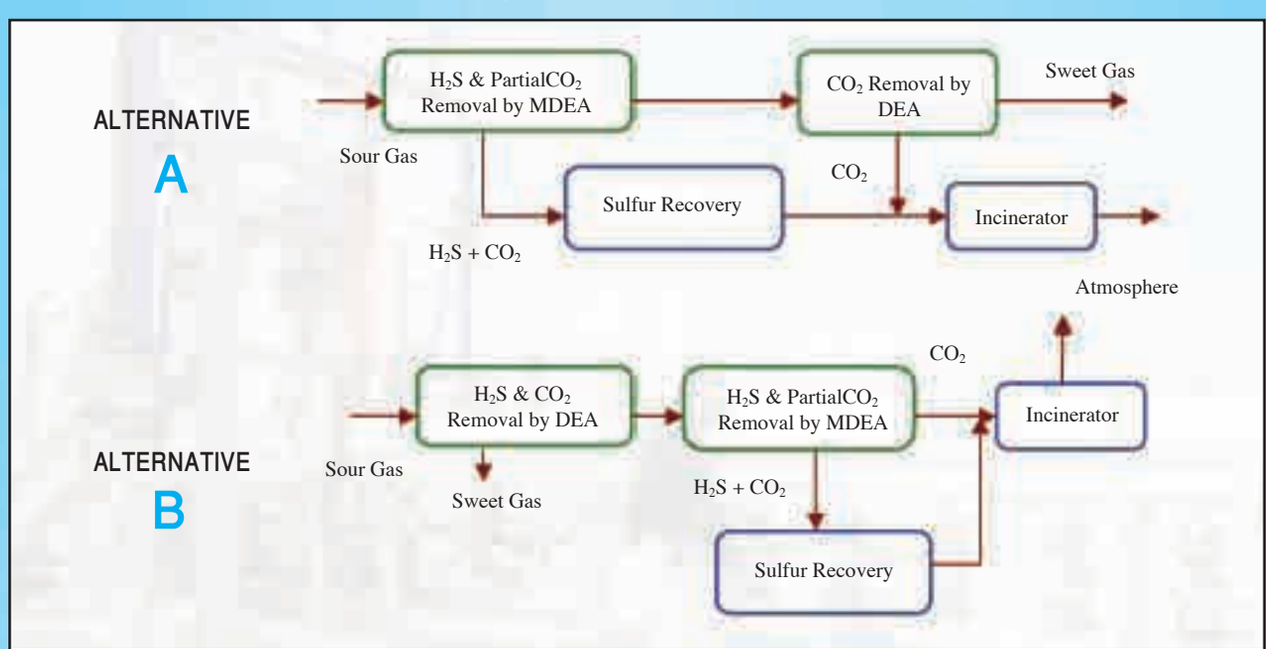


Figure 1: Schematic diagram for alternatives of acid gas removal

In the first alternative (**A**), sour natural gas is treated in the MDEA unit to selectively remove H_2S and part of the CO_2. The partially treated gas is then sent to the DEA unit for removal of the remaining CO_2. The acid gas from the MDEA unit is sent to the sulfur recovery unit (SRU). The acid gas from DEA unit, mainly CO_2, and tail gas from the SRU are sent to the incinerator.

In the second alternative (**B**), all of the H_2S and CO_2 are removed in the DEA unit and sent to the MDEA unit where H_2S is selectively removed at low pressure. The H_2S enriched acid gas from the MDEA unit is sent to the SRU. The CO_2 from the MDEA contactor is routed directly to the incinerator unit.

The paper presented the key results of computer simulation for both alternatives and discusses the operational aspects for each. The required heat duties, power requirements, potential sulfur plant impact and other process parameters for both cases were compared. The pros and cons of each alternative were discussed and the preferred alternative was presented.

Equilibrium Water Content of High Pressure Acid Gases

Mr. Ismail Alami, *Saudi Aramco, Saudi Arabia*

Compressed acid gas re-injection into producing, depleted or non-producing formations has emerged as a viable alternative to traditional sulphur recovery processes. To effectively design a re-injection scheme, water content, phase behavior and physical properties of the acid gas mixture over the range of operating temperatures and pressures are required. Although phase behavior and physical properties are relatively well predicted with existing equations of state, water content is not. Moreover, existing correlations and models have limitations when applied to acid gas mixtures.

A new simple, theoretically-based model that predicts equilibrium water content of pure acid gas components and acid gas mixtures has been developed for a temperature range of 32 to 212 °F (0 to 100 °C) and a pressure range of 14.7 to 2,000 psia (101 to 14,000 kPa). This new model provides a quantitative estimate of changes in equilibrium water content of acid gas mixtures due to a change in system pressure, temperature, or composition. When compared to available experimental data, the new model has an absolute average error (AAE) of 14%.

New Corrosion Mapping Technology at High Temperature Application

Process industries such as oil, gas and petrochemical plants have critical process equipment operating at high temperatures. These equipment require periodic comprehensive integrity assessment for safe and reliable operation. Conventional NDT technique such as manual ultrasonic is not only slow and subjective, but also often unsuccessful beyond 300 °F. There have been tremendous efforts in the industry to advent suitable new technologies for high temperature application. Hence, comprehensive monitoring of large size equipment operating at higher temperatures remained as a challenging task for decades.

In line with this requirement, and in an ongoing effort to deploy new technologies, Uthmaniyah Gas Plant (UGP) in Saudi Aramco, one of the largest gas processing plants in the world, partnered with Inspection Department in a pilot test program to validate a new corrosion mapping technology at high temperature application up to 500 °F. Implementation of this breakthrough technology for the first time in Saudi Aramco at UGP has been successful. This technology also has the capability to scan the process equipment at an operating temperature up to 725 °F.

The paper provided an overview of the importance of a comprehensive assessment to critical process equipment operating at high temperature, on-going developments to enrich the assessment capabilities and how this technology added value in enhancing the safety and reliability of the operating facility.

Mr. M. A. Saleem, *Saudi Aramco, Saudi Arabia*

Site Visit to BERI Gas Plant (BGP)

The Organizing Committee of the 14th Technical Conference have arranged a site visit to Beri Gas Plant (BGP), located south of Jubail on the Saudi Arabia East Cost, for the delegates. BGP, the first built by Saudi Aramco has a processing capacity of some 1.2 billion SCFD of gas.

A SUCCESSFUL CONFERENCE IN SAUDI ARABIA

Chairman's speech at the 14th Technical Conference

(continued from page 1)

In particular I would like to thank Mr. Saad Al-Turaiki, Executive Director of Gas Operations - Saudi Aramco, for sparing some of his valuable time to be with us this morning and to give the Keynote speech.

As you are aware, the global demand for gas continues to grow at a rate of 2.4%. This percentage is projected to continue until 2030 according to International Energy Agency (IEA). Gas consumption at this rate is mainly driven by an annual 3.5% consumed in power generation of which 1.7% is industry based and 1.4% is in the residential, services and agricultural sectors; quoting the same source. Proven world reserves were 5,410 trillion cubic feet (Tcf) at the start of 2001 according to IEA, exceeding the world's total proven reserves of oil in energy - equivalent terms. The gulf region oil and natural gas supplies are vitally strategic not only for the gulf countries but also to the global economy as a whole. Reserves within the GCC and other nations of the Middle East are second only to those of Russia. The Arabian Gulf region has a huge reserve of natural gas (i.e. 2,462 trillion cubic feet -- Tcf) accounting for 45% of the total proven world gas reserves.

According to the 'World Energy Outlook 2005', the Middle East and North Africa (MENA) regional natural gas demand is increasing at an average annual rate of 3.7% with an average investment expenditure requirement of $16 bn/year to meet the gas supply project plans. In the last two years we have seen substantial development in gas investment and significant gas agreements have been signed in the GCC countries.

In view of the above issues, we believe that the GPA has a role of strategic importance in the area, serving the gas processing industry by promoting interaction and exchange of knowledge and experience for the well being of our gas industry. Our professional mandate is to provide the proper ground for all industry professionals and investors to identify investment opportunities in the gas sector.

Today's event would have not been possible without the hard work and dedication of many individuals. I would like to take this opportunity to thank all members of the technical and organizing committees of this meeting for the tremendous work they have put in.

I would also like to thank all the speakers and session chairmen for sharing with us their experience and knowledge. Thanks also go to Mr. Faisal Al-Zahrani, the Master of Ceremony. Once again I would like to thank Saudi Aramco for the continued support to the Chapter and also for sponsoring the luncheon and for making all the necessary arrangements for conducting this meeting.

Finally, thank you all for participating. I wish you a very successful and enjoyable meeting.

CALL FOR HYDROCARBON FLARING MINIMIZATION

(continued from page 1)

warming, studies have clearly shown that flaring is significantly impacting the environment and negatively contributing to the health and welfare of the general population. It is also resulting into indirect negative impact to the region's current and future economy.

The following shows some of the adverse effects of flaring:

Flaring, especially sour gas and acid gas, releases large quantities of SO_2, which is a toxic pollutant, to the ambient air. Sulfur dioxide can irritate the respiratory system, particularly in people who suffer from chronic bronchitis, asthma, and similar diseases. People chronically exposed to SO_2 have a higher incidence of coughs, shortness of breath, bronchitis, and fatigue. SO_2 causes increased resistance to air movement in and out of the lungs, decreases the ability of the lungs to expel foreign matter, and adversely changes the respiratory tissues. Sulfur dioxide also adversely affects our welfare. Most notably, it contributes to the formation of acid rain. Acid rain damages lakes and aquatic life, plant life, building materials, cloth, metals, etc. Sulfur dioxide can also react to produce sulfate particles, which reduce visibility and soil materials.

Flaring also produces large quantities of nitrogen oxides (NOx). Because of its low solubility in water, nitrogen oxides can penetrate to the remote parts of the lungs, causing irritation of the respiratory system. This can contribute to bronchitis, pneumonia, chronic fibrosis, emphysema, and lowered resistance to infection. It can also adversely affect those with asthma, cause coughing and throat irritation, and possibly damage lung structure after long-term exposure to high levels. Nitrogen oxide is a prime component in the formation of ozone, and it also contributes to the formation of acid rain. In addition, NOx can stunt the growth of plants, cause fabrics to fade and deteriorate, and corrode some materials.

Ozone is another pollutant resulting from Hydrocarbon Flaring. It is formed primarily by the chemical reaction of nitrogen oxides (NOx) and volatile organic compounds (VOCs) in the presence of sunlight. Ozone is considered to be the primary component of smog. It can cause dryness of the mucus membranes in the mouth, nose, and throat; headaches; vision changes; functional changes in the lungs; lung congestion; and edema. It can also increase susceptibility to lung infection and worsen existing respiratory problems, such as asthma. Some people experience nausea, coughing, and chest pain after exposure to ozone. From a welfare standpoint, ozone is believed to cause more damage to plants than does any other criteria pollutant.

Global Adverse Effects of Flaring on Human Health and Welfare

Flaring also contributes to Global warming which is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The temperature of the atmosphere near the earth's surface is warmed through a natural process called the greenhouse effect. Visible, shortwave light comes from the sun to the earth, passing unimpeded through a blanket of thermal, or greenhouse gases composed largely of water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Infrared radiation reflects off the planet's surface toward space but does not easily pass through the thermal blanket. Some of it is trapped and reflected downward, keeping the planet at an average temperature suitable to life. However, the Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2° Celsius (1.1 ± 0.4° Fahrenheit) in the 20th century.

A UN Conference on Climate Change, held in Kyoto, Japan, in 1997 resulted in the Kyoto Protocol, an international agreement to fight global warming, which called for reductions in emissions of greenhouse gases by industrialized nations. The current scientific consensus is that "most of the observed atmospheric greenhouse gases (GHGs), especially carbon dioxide (CO_2), due to activities such as Flaring. Global temperatures are expected to continue to rise as human activities continue to add carbon dioxide, methane, nitrous oxide, and other greenhouse (or heat-trapping) gases to the atmosphere. Models referenced by the Intergovernmental Panel on Climate Change, project that global temperatures will increase between 1.4 and 5.8 °C (2.5 to 10.5 °F) between 1990 and 2100.

An increase in global temperatures can in turn cause other changes, including a rising sea level and changes in the amount and pattern of precipitation. These changes may increase the frequency and intensity of extreme weather events, such as floods, droughts, heat waves, hurricanes, and tornados. Other consequences include higher or lower agricultural yields, glacial retreat, reduced summer stream flows, species extinctions and increases in the ranges of disease vectors.

Global warming is one of the most serious challenges facing us today. To protect the health and economic well-being of current and future generations, we must reduce our emissions of heat-trapping gases by using the practical solutions already at our disposal.

Recommendations

The Gas Processors Association – Gulf Cooperation Council Chapter (GPA-GCC Chapter), would like to urge its member companies to seriously consider adopting the zero flaring as their road map and the way to go in order to actively participate in improving the health and welfare of the general population, protecting the environment in the Globe and saving the energy at the same time. This can be achieved by employing the technologies, know-how, and practical solutions already at our disposal such as:

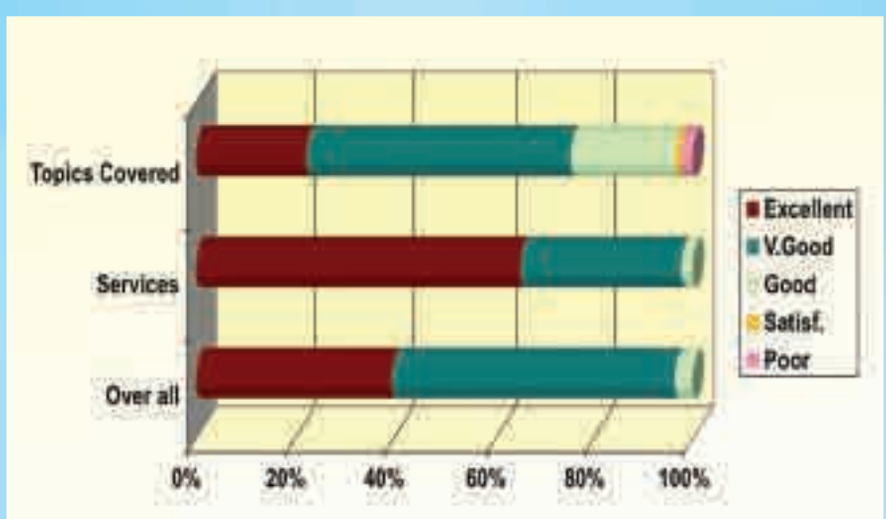
Best Operational Philosophies and Practices to eliminate unnecessary flaring. Tight Shut off Valves for reducing leakages to the flare system. Flare Gas Recovery Systems to recover normally flared gas from leakages & purge gas. Reliable Auto Ignition Systems to ensure Flares' readiness to handle intermittent sudden release of gas during emergency relieving scenarios.

A Brief Assessment of the

14th Technical Conference

The 14th Technical Conference complements the series of successful conferences conducted by the chapter since 1993. It was held at the Gulf Meridien Hotel - Al Khobar in Saudi Arabia on May 2nd, 2006. Over 170 people from all GCC countries and some other countries attended.

A total of 70 evaluation forms were received from delegates, the general feedback was excellent and most papers well received. The paper entitled "Superclaus technology along with innovative notions play a principal role in the Berri Gas Plant (BGP)" presented by Mr. Muthkar Al Otaibi, Saudi Aramco, Saudi Arabia, was voted by the delegates as the best paper delivered at the conference. The Best Paper Award will be presented to the author at the forthcoming conference in the Kingdom of Bahrain.



VISIT OUR WEBSITE

www.gpa-gcc-chapter.org

The Gas Processors Association-GCC Chapter has now upgraded its Internet Website. The Website contains updated information about the Chapter and its various technical activities, like Technical Conferences programmes, Chapter publications, Member Companies and direct links to individual company websites. Also, GCC Chapter Discussion Forum is one of the interactive tools to exchange experiences and ideas among the gas processing businesses.

14th Technical Conference

Thank You!

The Board Members of the GPA GCC Chapter wish to extend their thanks and appreciation to Saudi Aramco for sponsoring the 14th Technical Conference.

Best Paper Award

Mr. Isa Janahi , from Bahrain Petroleum Company receives the Best Paper trophy for the 13th Technical Conference from the Chapter's Chairman on behalf of **Mr. Faisal Al Mahroos**.

The Paper Title: **"Emerging LPG Potential of Middle East Region"**
Mr. Faisal Al Mahroos
Deputy Chief Executive
Bahrain Petroleum Company - Bapco

SEE YOU IN

15th Technical Conference

Crowne Plaza Hotel, Kingdom of Bahrain, May 9, 2007

SCENES FROM THE 14th TECHNICAL CONFERENCE & ZERO FLARING SEMINAR

Mr. Abdulla Al-Ajmi, KNPC representative presenting KNPC gift to the Chapter's Chairman.

ABOUT THE GPA - GCC CHAPTER

Some members of the Executive and Technical Committees.

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:

a) Companies owning and/or processing gas. These are classified as "members".

b) 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.

DUES

The annual dues for Chapter membership is US$1,325, payable in advance on or before the first day of March of each year.

EXECUTIVE COMMITTEE

Chairman
Mohammed Bin Khalifa Al-Khalifa
BANAGAS - Bahrain

Vice-Chairman
Mohammed A. Al-Abdulmoghni
SAUDI ARAMCO - Saudi Arabia

Secretary-Treasurer
Ahmed Majid
BANAGAS - Bahrain

Members

Adnan Fahad Al-Ramzani
QP - Qatar

Abdulla Al-Ajmi
KNPC - Kuwait

Yousif Abdulla Yousif
GPIC - Bahrain

Abdulla Saleh Musabeh
Dugas - U.A.E.

Samir Khoury
C.C.C. - U.A.E.

Uwe Rathmann
Linarco - Saudi Arabia

TECHNICAL COMMITTEE

Mohammed Al-Abdulmoghni
Kefah Al Faddagh
SAUDI ARAMCO - Saudi Arabia

Abdulla Al-Ajmi
KNPC - Kuwait

Ahmed Abdulla Khaja
QP - Qatar

Adel Al Jabri
ADCO - U.A.E.

Yousif Abdulla Yousif
GPIC - Bahrain

Ahmed Al-Khan
BAPCO - Bahrain

Mohammed Bu-Rashid
BANAGAS - Bahrain

Abdulla Saleh Musabeh
Dugas - U.A.E.

R. Shankar
Margham Dubai Est. - U.A.E

Michael Scott
RASGAS - Qatar

For more information please contact:
Abdulla Al-Ansari, Executive Officer
Email: abdulla@gpa-gcc-chapter.org
Website: www.gpa-gcc-chapter.org