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# SOCIETY OF PETROLEUM ENGINEERS, NEW DELHI SECTION

Volume 2 • Issue 7 • April-May 2007



http://newdelhi.spe.org

Winner of 2006 SPE President's Award for Section Excellence

SPENDSE

Compared to the section of the section of

**NEWS** 

# Chairman's Corner

### Dear Member,

In the era of fast pace of growth in the energy sector, China & India have been able to make great impact on the global energy scenario. This provides both opportunities as well as threats to all.

To address the Young Professionals in understanding the fast paced changes in the industry. SPENDSEC, New Delhi section has set up the Young professional section for Delhi. I am really glad to say that several of its members attended our Monthly technical meeting held on 27th April 2007.

The meeting on 27th April was well attended. The topic on the challenges in developing deep water projects and the experience world over was very interesting and timely especially as ONGC, has made huge investments for the deep water prospects. I thank the SPE Distinguished lecturer Dr K Abou-Sayed for her deep knowledge and beautiful presentation.

Continuing our concern about global warming and climate changes, I am glad to share that I participated in the Carbon fair & Conference at Cologne (Germany), which discussed issues like Evolution of Global Carbon markets, trading in Green house gas Emissions, Voluntary Carbon Markets, risks associated with Climate Change & Verified Emission Reduction Credits (VER's) etc. I am sure, apart from our core issues of progressing in the energy sector, we will continue to contribute our might in such global concerns.

Assam has the longest history of being on the Oil & Gas map in India. I am glad in welcoming the North East India section of SPE, the sixth section in India, which has been approved by the SPE International Board and has been formally inaugurated on 14th May 2007. I congratulate the executive body of Assam Section for fulfilling the long cherished dream of opening SPE section which is surely going to be patronized by the two major operators in that area ONGC & OIL.

Looking ahead to more exciting times.



# SPE North East India Section Inaugurated

### Brief by Rahul Bali

SPE North East India Section has been formed at Nazira, Assam as per formal approval of SPE Middle East Board of Directors on 9th April, 2007.



Mr. A.K. Hazarika, Section Chair, presenting a cheque of Rs. 10000 on behalf of New Delhi Section to Mr. B. M. Singh, Chairperson, SPE-NE India Section.

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# SPE History Contd.

Rahul Bali

Secretary New Delhi and Chair 2007-SPE International Membership Committee

We are pleased to inform you that another section of SPE, named as North East India Section has been formally established on April 9, 2007 and was recently inaugrated at Nazira. With this, now there are 6 SPE sections in India. This has been possible due to efforts of some old and active members who not only have taken initiative in opening the section, but have also ensured its progress. Here is the list of officers who originally signed the petition for opening of their respective sections.

### Founder Section Organising Officers

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Section	Name	Position		
India	Mr. Sarat C Roychoudhury	Chairperson		
	Mr. Braj Nandan	Program Chair		
	Mr. Podila Venkata Ramana	Membership Chairperson		
	Mr. Satinder K Sood	Secretary		
	Mr. G. K. Bhattacharya	Treasurer		
North India	Mr. Sarat C Roychoudhury	Chairperson		
	Mr. Gajendra Singh Pundeer	Program Chair		
	Mr. Dinesh A. Pandya	Membership Chairperson		
	Mr. Ashok K Pathak	Secretary		
	Dr. Kewal Krishan	Treasurer		
Mumbai	Mr. P. K Kulkarni	Chairperson		
	Mr. Rajendra V Marathe	Program Chair		
	Mr. C D Narayanswamy	Membership Chairperson		
	Mr. Satyendra P Sinha	Secretary		
	Mr. Satyanarayan	Treasurer		
New Delhi	Mr. Niladri K Mitra	Chairperson		
	Mr. Rahul Bali	Secretary		
	Mr. Ramendra Sinha	Treasurer		
	Dr. Parathuruthil Gopalakrishnan	arathuruthil Gopalakrishnan Section Director		
Chennai	Dr. Chandra S Jain	Chairperson		
	Mr. Ravi Job	Program Chair		
	Mr. Jitendra Prasad	Membership Chairperson		
	Mr. Sandeep Ailawadi	Secretary		
	Mr. Emmanuel Singh	Treasurer		
North East India	Mr. B M Singh	Chairperson		
	Mr. Ashok Varma	Program Chair		
	Mr. B N Talukdar	Membership Chairperson		
	Mr. R K Vij	Secretary		
	Mr Deepak Mandal	Treasurer		

to be continued...

### MAY TECHNICAL MEETING

THURSDAY, MAY 24, 2007

New Wells and New Challenges: Selecting the most appropriate Drilling and Drilling Fluid Practices

Mr. K.Krishna Pratap, Head Mud Services, Mumbai, ONGC



Time: 1900 hrs

Venue : Amaltas, India Habitat Centre, Lodhi Road, New Delhi-110001

To check details visit "Events" section at our website at http://newdelhi.spe.org
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During this function Mr V.K. Dhir the only life Member of SPE North East India was felicitated.

SPE-NE section was inaugurated by Mr. R. S. Sharma, C & MD, ONGC at a function at Nazira on 14th May 2007. In

his inaugural address, Mr. R. S. Sharma, C & MD, ONGC, expressed happiness that SPE has approved formation of a new section in this part of country. He expressed hope that this section shall organize technological workshops and invite experts from all over the world for the benefit of petroleum professionals in NE. He urged SPE-NE India to work in true spirit of SPE and model themselves into an ideal section of SPE.

Mr. A. K. Hazarika, Chairperson-SPE, New Delhi Section, elaborated about the distinguished lecture series conducted in Delhi section. He stated that these lectures are gateway to the technological advancements in other parts of the world. He further expressed the need for similar exercise by SPE-NE. New Delhi section lent support to the newly formed section by gifting a cheque of Rs 10,000 for start up activities and also assured all the help in future.

# Middle East Regional awardees recognized during MEOS

Several SPE members were recognized during the Regional Awards Luncheon in March at the SPE Middle East Oil and Gas Show in Bahrain.



Pictured in the front row, from left, are Khalid H. Al-Saif, winner of the Regional Management and Information Award; Sami El-Halfawi, Regional Drilling and Completion Award; Mousa Al-Eid, Regional Projects, Facilities, and Construction Award; Ahmad Saqr Al Suwaidi, Regional Service Award; Badria Farhad, Regional Service Award; Hosnia Hashim, Regional Reservoir Description and Dynamics Award; and Omar Y. Mohamed, Regional Production and Operations Award. Pictured in the back row, from left, are 2007 SPE President Abdul-Jaleel Al-Khalifa; Ali Al-Hasan, SPE Director Middle East Region; 2003 SPE President Andrew Young; former SPE Director Middle East Region, Hussein Shehab; and SPE Executive Director Mark Rubin.

# "Great News" New Delhi Section Appears at No. 2 position. Membership Update Ramendra Sinha, Section Membership Chair

You will be glad to know that SPE New Delhi section is currently placed at number 2 position in "Group C" in the ongoing membership contest. We are hopeful to increase our strength to win the contest this year. We request all corporate partners to encourage their professionals to join SPE.



# Society of Petroleum Engineers

Sections | Section Membership Contest

## **Section Membership Contest**

Competition for the 2006-2007 Section Membership Contest continues into the second half. The contest runs from 1 September 2006 to 31 August 2007. Sections compete in groups determined by total membership at the beginning of the contest. The top three sections in each category are listed below as of 2 May 2007.

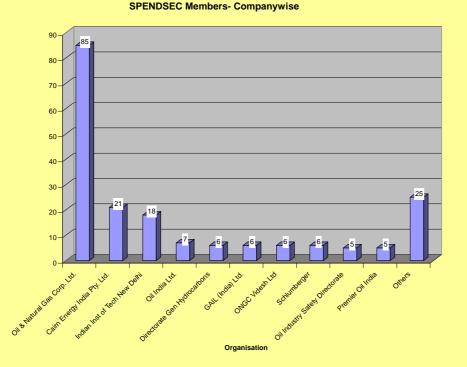
This year's top Sections with the highest percentage total membership gain will receive an even larger cash prize of USD 1000 and a 2' x 5' banner imprinted with the SPE logo and the section name. The winning sections also will be recognized in upcoming SPE publications, during ATCE 2007, and on SPE.org.

### 2006-2007 Leaders

Group A (1 - 70 members) 1. Congo 2. Sakhalin 3. Bahia-Sergipe	Group B (71 - 100 members) 1. Volga 2. Mississippi 3. Vietnam	Group C (101 - 150 members)  1. Northern China International  2. New Delhi  3. Colombian	Group D (151 - 200 members) 1. Romanian 2. Trondheim 3. Queensland
Group E (201 - 400 members) 1. Oman 2. Port Harcourt, Nigeria 3. Beijing, China	Group F (401 - 1,000 members) 1. Saudi Arabia 2. Kuala Lumpur 3. Fort Worth	Group G (1,000+ members) 1. Oklahoma City 2. Denver 3. Dallas	Young Section Contest (Est. < 10 years) 1. Volga 2. Bahia-Sergipe 3. Northern China International

The graphical representation of SPE New Delhi section depicts that members of around 12 different companies are now part of the section as on March 2007.

Also members from academia are represented by Indian Institute of Technology New Delhi.





### APRIL MEETING REPORT

Talk by Dr K Abou-Sayed in SPE Distinguished Lecturer meeting By Ramendra Sinha

The monthly technical meeting of the section was held on 27th April 2007 at IHC which was attended by more than 70 members and guests.

Considering that future oil production enhancement greatly lies on how well we know about the deep water reservoirs and how economically we are able to exploit it, the talk on "How Deep Can you go and What Challenges lie ahead?" by SPE Distinguished Lecturer Dr K Abou-Sayed of BP couldn't have been more opportune. During her talk she relied heavily on her vast experience of 20 years in deep water projects.



Dr K Abou-Sayed, SPE Distinguished Lecturer

Having considered all possibilities, Dr Abou-Sayed felt that there is no readymade solution to problems of flow assurance faced by facility engineering group. The industry is still in learning process and is experimenting all options.

Companies are experimenting on dry vs wet tree, incorporation of various options on surface facilities and ways and means to combat environmental challenges among other things. She was, however, of the opinion that future is for the most economic process that can answer all questions.

The evening proved to be very thought provoking considering the barrage of question showered on Dr Abou-Sayed. This is more so in the Indian context where there is thrust on ultra & Super deep water exploration.

Earlier, Section Chair Mr A K Hazarika had set the tone for the evening talking about the deep water activities and commitments in India during his opening remarks. He sincerely hoped that the evening would make all of wiser on ways and means of techno-commercially feasible production from deep water for the benefit of the Indian

Speaking about the 50th Year of SPE foundation, Section Chair announced that SPE New Delhi Section is all set to celeberate the Golden Jubilee in a grand manner on 6th October 2007, date coinciding with the SPE foundation

On this occasion, services of two veteran SPE members of India, Dr P Gopaklakrishnan, founder member of SPE India Section and Dr Bhagwan Sahay, third Chairman of SPE India section, who are currently members of SPE New Delhi section, were recognized. On this day the house was also introduced with the book written by Dr Bhagwan Sahay, a prolific writer.

The meeting was well attended by several young professional members who were glad to be part of SPE New Delhi Section.

# Glimpses of Technical Meeting, April 27, 2007





# Business imperative for adopting Carbon Management Practices

By A.K. Hazarika

lobal Warming is emerging as the leading environmental and sustainability issue facing societies, governments and business. As such, it is inexorably linked to the economic competitiveness and developmental requirements. As governments look to policy, legislative and regulatory frameworks to ensure energy security and economic growth in an environmentally acceptable manner, the debate is on, how to achieve the best mix of initiatives will not only continue but will intensify.

The per capita emission in India & China is insignificant compared to other developed countries.

The world's leading players in the Green House Gas (GHG) market met in Cologne from May 2 to 4, 2007, bringing supply and demand together. Representatives from all relevant sectors of the GHG market use this multilateral platform to jointly take advantage of knowledge and experience. CARBON EXPO presents the market mechanism which help to meet global climate protection goals, the targets laid down in the Kyoto Protocol, European Union Emission Trading Scheme (EU ETS) or emerging trading schemes such as the Regional Greenhouse Gas Initiative (RGGI) of US or National Emissions Trading Schemes (NETS) etc.



Mr A K Hazarika & Mr A B Chakraborty during the Carbon Fair & Conference at Cologne (Germany),

Categories of Countries: In general, the reference is made to the Annex-1 & Non Annex-1 countries.

Annex 1 Countries: All the states in the Organization of Economic Co-operation and development (OECD) plus the countries of Central and Eastern Europe with 'economies in transit'.

Annex B Countries: Those developed countries that have agreed a target for greenhouse gas emissions. They include OECD members, Central and Eastern Europe and the Russian Federation. The list is similar, but not identical, to that of Annex 1 countries.

Under the Kyoto Protocol, Annex-1 countries are given legally binding Emission reduction targets for GHGs (Green House Gases) by at least 5.2 % below 1990 levels in 2008-12 commitment period.

CDM is one of the greatest advantages to the Non Annex-1 countries both in terms of cleaner technology, environmental performance & CDM revenues. Clean Development Mechanism (CDM): The mechanism provided by Article 12 of the Kyoto Protocol, designed to assist developing countries like India, China, Brazil, Mexico, in achieving sustainable development by permitting industrialized countries to finance projects for reducing greenhouse gas emission in developing countries and receive credit for doing so.

International Climate change regime is gaining worldwide attention based on the following two recent reports.

(A) Intergovernmental Panel on Climate Change (IPCC) has already published 4 reports which highlight the stark effects of the Global warming and the climate change. The UN -backed IPCC report on global warming has projected alarming effects on the mother earth like Rise in sea levels, Flooding, melting of major glaciers disturbing water balance, reduction in crop yields, Drop in productivity of food grain, water shortages due to lowering of water tables, decrease in Winter precipitation, increase in Desertification as natural grassland cover drops & Impact on human health with spread of dengue fever would diarrhea diseases. (B) Prof. Nicholas Stern report on the economics of climate change includes:

lIncreased surface temp. effects Effect on monsoon pattern & river flows lEconomic costs of climate change in India

There would be effect on GDP due to Global warming & climate change. Perspectives on business threats & opportunities with the projected impacts of climate change, has brought the global concerns to fore.

The carbon markets are fragmented, encompassing both allowances and project- based assets that co-exist with different degrees of interconnection. and are complex and fast-moving. They continue to be influenced by both the development of policy and regulation that led to their creation and by market fundamentals.

The World Bank has seen the evolution of their carbon finance work rise from the original \$180 million Prototype Carbon Fund, which is now closing its portfolio, to 10 funds and facilities totaling more than \$2 billion. They are learning how carbon finance can be integrated into the main stream activities of international financial institutions and commercial banks; and how the regulatory systems for carbon trading need to be improved. While many governments agree in principle that carbon markets can make a significant contribution to achieving global mitigation, it is currently not clear what the market's precise role and size will be in a future climate regime.

The US climate change landscape has altered significantly in recent months-reflected in the plethora of bills that have recently been introduced in Congress.

As per governmental policy, India would only consider voluntary co-operation, and there would be no question of entering into a binding agreement. There is Need to co-operate in promoting more efficient biomass convergent technology which has the potential to stem shift to fossil fuel.

The Asia Pacific Partnership on Clean Development and Climate is a multilateral multi-stakeholder forum formed in July 2005 when its 6 partner countries (Australia, China, India, Japan, the Republic of Korea and U.S.A) agreed on a Vision statement to collaborate on three core issues of climate change, energy security and air pollution. Representatives from each of these member countries participated in the First Meeting of the partnership, now referred to as "AP6". The charter creating AP6 states: "The purposes of the Partnership are consistent with the principles of the United Nations Framework Convention on Climate Change (UNFCCC) and other relevant international



Mr Hazarika in discussion with Mr. Geirr Haarr, Project Manager from STATOIL during the the Carbon Fair & Conference at Cologne (Germany),

instruments, and are intended to complement but not replace the Kyoto Protocol". AP6 is not an Alternative to the Kyoto Protocol. Japan, the Republic of Korea, China and India have all ratified the Kyoto Protocol and are actively engaged in its Clean Development Mechanism which rewards investors and project developers for accelerating the use of low emission technology and practices with carbon credits that have a value in the international carbon market. It is also important in that the USA and Australia (neither of which has ratified the Kyoto Protocol) are directly engaged in (and leading) some form of international policy making on the climate change.

Preparedness for tomorrow Premier oil company in energy sector like has already initiated number of CDM projects that would not only earn good amount of CER (Carbon Credits), reduction of emissions & energy consumption, it would also ensure environment protection and sustainable operations. China has over 45% of global CER's compared to India's 16%. India is the leading country in terms of number of CDM Projects & India, ONGC is the only Central PSU with 2 Projects already registered. The Projects in China are mainly based on destruction of HFC-23, the GHG having very high GWP.However, We have long way to go.

Along with this, our focus on renewable energy, energy efficiency and energy conservation need to be more. We need to expand our focus to larger area ie GHG's assessment & accounting, which would be helpful in addressing the Global Warming issues, besides a good step to meet corporate social responsibility, as well.

### MAY MEETING PREVIEW

# New Wells and New Challenges: Selecting the most appropriate **Drilling and Drilling Fluid Practices**

K.Krishna Pratap, Head Mud Services, Mumbai. ONGC

The development of giant oil field "Mumbai High" has been a learning platform for the role that drilling fluids play in the successful rejuvenation program of any oil field. This paper attempts to manifest the learning curve right from the low angle wells drilled using simple conventional systems limiting the role of fluid services to the basic functions of enabling the normal drilling process. Over the years when farther parts of reservoir were explored at higher angles, the crucial role of the inhibition, bore hole stress management were exposed. The ultimate challenge was posed by the horizontal program where in the grey areas of cutting bed formation, hole cleaning, imperative drilling and drilling fluid practices dictated the completion of any well.

the ERD program showed the critical aspect of minimization of pore pressure transmission and gauge of hole to the successful drilling of any well. The chronology has dictated the imperative selection of the right drilling fluid for each phase starting from the change over to the non-dispersed KCL-PHPA systems the Cloud point Glycol system via the most inhibitive Silicate system and culminating with the selection of Synthetic Oil Base Mud for the long horizontal wells. The redevelopment program indicated that there are no degrees of freedom as far as the inhibition, hole cleaning, bore hole stress management and drilling practices are concerned, and that is up to the drilling fluid chemist to play a proactive role to fill in the grey areas between the driller, G&G and the drilling fluids.



Mr. K. Krishna Pratap, a post graduate in chemistry from Osmania University started his carrier in ONGC as a graduate trainee in 1977. He has worked in most of the business centers of ONGC both onshore and offshore, and exhibits a passion for drilling fluids. He has been instrumental in initiating various oil based and polymer based drilling fluid in ONGC for obtaining better productivity from wells. He has

also recently completed the prestigious Executive development program at Indian School of Business Hyderabad. Pratap has also authored technical papers for three Petrotech conferences.

### FORTHCOMING REGIONAL AND INTERNATIONAL EVENTS

Dates	Meeting	Location
5 - 6 Jun 2007	SPE Petroleum Reserves Estimation Workshop:	
	Sharing the Vision	Houston, Texas, USA
10 - 13 Jun 2007	Managed Pressure Drilling: Technologies for Production	
	Enhancement and Improved Drilling Performance	Kunming, China
11 - 13 Jun 2007	Drilling Technology Solutions For Achieving Today's	
	Production Targets	Abu Dhabi, UAE
17 - 19 Jun 2007	Realizing Your Potential: Knowledge and Teamwork in the	
	Petroleum Industry - SPE Young Professionals Workshop	Kananaskis, Canada
18 - 21 Jun 2007	Managing Oilfield Scale in the 21st Century	Lisbon, Portugal
19 - 21 Jun 2007	Horizontal Well Stimulation - Regional	
	Technology Workshop	Midland, Texas, USA
19 - 22 Jun 2007	Collaboration on Smart and Real Time Operations	Miri, Sarawak, Malaysia
24 - 26 Jun 2007	AAPG/SPE Multidisciplinary Conference on Oil and Gas	
	Reserves and Resources	Washington, DC, USA
25 - 27 Jun 2007	Emerging Technology Workshop: Seismic-While-Drilling	League City, Texas, USA
22 - 24 Aug 2007	SPE/IBP Latin American Health, Safety &	
	Environment Symposium	Rio de Janeiro, Brazil
9 - 14 Sep 2007	70% Recovery A Dream or Reality: From	
	Smart Water to Microbes	Dubrovnik, Croatia
16 - 18 Sep 2007	Keys to Effective Mature Waterflood Management	Cartagena, Colombia
18 - 20 Sep 2007	Alterntive Fluids for Improved Oil Recovery	Maracaibo, Venezuela
19 - 21 Sep 2007	Advances in Performance Diagnostics for Fractured and	
	Horizontal Wells	Banff, Alberta, Canada
23 - 28 Sep 2007	Evolving Mud Operations in a Changing Drilling World	Dubrovnik, Croatia

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