



## Steam Generation

24–29 August 2008 ■ Kananaskis, Canada



**Chairperson:** Gregory Kreider, AMEC Paragon Engineering

**Vice Chairperson:** Brian W. Burt, Chevron NA Exploration



### SPE Forum Description

Steam generation has a long history in the petroleum industry. In recent years, the interest in steam generation has increased due to the interest in heavy oil production. The cost of steam generation and the related water supply and treating facilities can be a significant project cost.

The forum will include designers, operators, and manufacturers. The topics to be discussed include the following:

- What new technologies are in development that will make the process of steam generation more cost effective?
- Has superheated steam technology evolved to a point to make it a viable option for field use?
- Can produced water be used as a water source? Issues related to other water sources are sea, well, and surface (including rain).
- Is steam the appropriate method to deliver heat to the production face? How do we pick the appropriate steam pressure required? Should we consider steam compression as an alternative to superheat? What quality steam (% water) is required at the production interface?
- What new water-treating technologies in development could be used? What purity is required for the water and are there alternate technologies that should be considered?
- Can refinery utility-type boilers be modified for use in the field?
- How good are our capital expenditures (capex) and operating expenditures (opex) models? Do we accurately consider the differences in steam quality?
- What is the reliability needed for steam generation? How does it vary by field?
- What are the issues related to fuels such as sour gas and emulsions? This includes fuel treating issues, metallurgy of hot path components, and burner design.
- Are current flow-simulation techniques for field steam distribution adequate? Are there any new techniques in development that would improve the accuracy of the simulations?

### Who Should Attend

This forum will appeal to multiple disciplines involved in the design, fabrication, and operation of steam generation equipment, including mechanical engineers, process engineers, reservoir engineers, and chemical engineers. The forum should also appeal to functional or departmental experts from operating companies, service companies, and equipment manufacturers.

### Attendees Will

- Discuss common interests informally with colleagues from around the world
- Share knowledge and experience in an off-the-record format
- Gain new insight and perspective through conversations with others from international companies, service companies, contractors, research institutes, and universities
- Enjoy the relaxed atmosphere of learning through one-on-one interaction





## Forum Sessions

Session Title	Chairperson(s)	
<b>Reservoir Steam Requirements and Revenue</b>	Ken Roberts, Chevron Canada Richard Scholl, McPherson Oil Bakersfield	Economic opportunities of steam usage in production of hydrocarbons and the importance of good reservoir simulations on project success.
<b>Boiler Feed #1</b>	William Heins, GE Water & Process Brian Burt, Chevron NA Exploration	Boiler feed water and its impact on steam production and overall project economics. Economics of new and old technologies.
<b>Boiler Feed #2</b>	William Heins, GE Water & Process J. Mike Brown, BJ Chemical Services	Continuation of Boiler Feed #1
<b>Making Steam #1</b>	John Kerchinski, PCL Industrial Services Eric Berger, Ramsgate Engineering	Steam making facilities and their economic efficiencies.
<b>Making Steam #2</b>	John Kerchinski, PCL Industrial Services Chris Eicher, AERA Energy, LLC	Continuation of Making Steam #1
<b>Steam Distribution #1 (Surface)</b>	Eric Berger, Ramsgate Engineering Stein Storslette, Chevron Energy Technology	Maximizing thermal efficiency in surface piping and facilities.
<b>Steam Distribution #2 (Vertical and SAGD)</b>	Travis Cavender, Halliburton John Stalder, ConocoPhillips Canada	Optimizing thermal efficiency by controlling steam placement in the reservoir, including vertical and horizontal completions.
<b>Greenhouse Gas Reduction and Zero Discharge: Joint Session</b>	Kevin Miller, Shell Global Solutions Gregory Kreider, AMEC Paragon Engineering	Joint session with forum on “R&D Meets Reality: Processing Technologies That Will Make A Difference”.
<b>Economics</b>	Gregory Kreider, AMEC Paragon Engineering John Stalder, ConocoPhillips Canada	Wrap-up economic algorithm of steam-injection costs.

## Application Information

Participants at SPE Forums are selected by a steering committee on the basis of ability to contribute to the discussion of the topic. Attendance is limited to maximize each person’s opportunity to contribute.

To apply, complete and return the application form in this brochure by **10 June 2008**. **Please obtain appropriate approvals from your supervisor prior to applying to the forum.** Include enough information about your experience and knowledge to enable the steering committee to evaluate your potential contribution to the forum. If the committee accepts your application, you will receive registration materials, including more detailed information on housing, transportation, and fees. After notification of acceptance, your registration form with payment must be returned by **10 July 2008** to ensure your place in the forum.

Included in the base fee of **USD 2,995** for the forum participant

- Registration to attend all nine forum sessions
- Five nights of hotel accommodation based on single occupancy
- Sunday evening welcoming reception and dinner
- Daily breakfast buffet
- Thursday farewell reception and dinner
- Morning and afternoon or evening coffee breaks throughout the duration of the Forum

Please note: The base registration fee does not include accompanying persons. The registration fee is not transferable. Gratuity for exceptional services is discretionary. The full fixed fee is charged regardless of the length of time a registrant attends the Forum. Attendees are expected to attend the entire Forum.

# Application

## Steam Generation

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Please print or type.

This application is due by 10 June 2008.

Do NOT send payment with this form.

Please check here if you have supervisor's approval to attend.

Name (First/Given)

(Middle)

(Last/Family)

SPE Member Number

Check here if you are not an SPE member.

Job Title and Discipline

Company Name

Complete Mailing Address

Telephone Number

Fax Number

Email Address

**IMPORTANT: list experience** that qualifies you to attend this Forum, and specify your expectations for this Forum. Use additional paper if required.

Please identify your primary technical discipline from the six categories below:

Drilling and Completions

Health, Safety, Security, Environment, and Social Responsibility

Production and Operations

Projects, Facilities, and Construction

Management and Information Technology

Reservoir Description and Dynamics

Indicate a topic that you would be able to present and discuss concerning evolving and future technologies, issues, and challenges. Remember that presentations are to be only 5 to 10 minutes in length, with only three to four slides. No professionally prepared visual aids are to be used. Attach additional paper if required.

Do you wish to present a poster? If so, please specify topic and provide a brief description.

The Poster Chairperson will notify you by telephone or email if your poster topic is accepted.

**This APPLICATION is due by 10 June 2008.**

**Do NOT send payment with this form.**

**This is NOT a registration form.**

Submit this completed application by mail, fax, online, or by email.

**Mail:** REGISTRAR

SPE FORUM SERIES

P.O. Box 833836, Richardson, TX 75083-3836 USA

Fax: +1.972.952.9435

**Email:** registration@spe.org

Recording of any portion of the SPE Forum Series in any form (photographic, electronic, etc.) is strictly prohibited. Extensive note taking is forbidden. Printed reference to any SPE Forum discussion is not permitted without the consent of the parties involved. All participants are specifically requested to omit public reference to forum proceedings in any published work or oral presentation. Registrants agree to attend ALL forum sessions and to discuss and share with forum participants their experiences and knowledge in the subject area, specifically in those areas of advanced technology in a given subject.

Each participant agrees to the above regulations when application is submitted.

Signature

Date

Applications are reviewed by the Forum Steering Committee. Accepted applicants will receive their registration forms and other materials by mid-June 2008. Accepted applicants must return their registration forms with payment by 10 July 2008.



## The Forum Series Format

The SPE Forum Series provides nine alternate mornings, afternoons, and evening sessions of short, scheduled and unscheduled presentations with maximum time available for informal discussions and exchange of experience.

To encourage maximum discussion, lengthy formal presentations are discouraged. Presentations are usually limited to three or four slides or transparencies. Breakout sessions for discussions in smaller groups are common. Participants are encouraged to come prepared to contribute their experience and knowledge, not to be spectators or students.

To create a cohesive group in which discussion is free flowing, attendance at forums is limited, and only registrants are allowed to attend sessions. To ensure opportunities for formal and informal discussions, all attendees are expected to attend every forum session.

To encourage the free interchange of information and ideas, SPE Forums are conducted off the record. Written papers are prohibited, and extensive note taking is not allowed. Mechanical recording of any portion of the forum in any form (photographic, electronic, etc.) is prohibited. Information disclosed at a forum may not be used publicly without the originator's permission. Participants are specifically requested to omit reference to forum proceedings in any subsequent published work or oral presentation.

A short, written summary of major issues and consensus arising from the forum may be prepared and distributed to attendees after the forum at the discretion of the program committee and with appropriate SPE approval.

### Location, Housing, and Transportation

If your application is accepted by the committee, you will receive acceptance material electronically by **10 June 2008**. If your application is placed on a waiting list, you will receive notification of that fact. Forum sessions and housing will be at Delta Lodge, Kananaskis Village, AB T0L 2H0, Canada. Ground transportation may be arranged individually with Hertz, Avis, Budget, or National Car Rental **after** acceptance and registration.

## The 2008 SPE Forum Series Program

### Laguna Beach, Phuket, Thailand

11–16 May ■ Deepwater and Harsh Environment

### Colorado Springs, Colorado, U.S.A.

1–6 June ■ Reservoir Geomechanics

### Kananaskis, Canada

24–29 August ■ Steam Generation

24–29 August ■ R&D Meets Reality: Processing Technologies That Will Make a Difference

### Cascais, Portugal

31 August–5 September ■ Revisiting Water Injection in the 21st Century

### Dubrovnik, Croatia

14–19 September ■ Well Construction in 2020+

21–26 September ■ Terabytes Petabytes in Asset Management

### La Romana, Dominican Republic

26–31 October ■ Offshore EOR: It's About Time

### Aqaba, Jordan

21–26 February 2009 ■ Naturally Fractured Carbonate Reservoirs: Characterisation, Modelling, and Simulation

