



PERF Newsletter

March 2004

Environmental,
Health,
& Safety
Solutions for the
Petroleum Industry

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Next Quarterly Meeting to be Hosted by PetroCanada in Calgary, Alberta, Canada - April 1-2, 2004

PetroCanada will host the 64th PERF Quarterly Meeting in Alberta, Calgary, Canada. There will be a reception the evening of April 1, 2004 for all meeting participants.

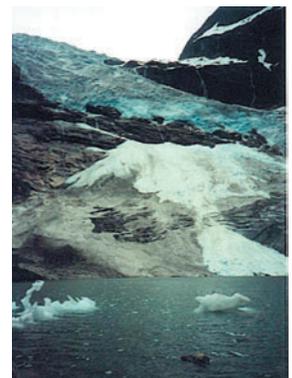
The theme of the meeting is "Heavy Oil". There will be a General Session on the Morning of April 1, 2004. PERF will also be holding our usual Upstream and Downstream Discussion Group Meetings on the afternoon of April 1, and our Business Meeting with new project proposals on April 2. Details of the meeting and a registration form are posted on our website: <http://www.perf.org>.

See you there!



Summer Meeting to be Hosted by Statoil

The PERF summer meetings are traditionally held in Europe, and this summer the meeting will be hosted by Statoil in Trondheim, Norway. The theme for the meeting will be "Protection of the Arctic environment" and several sub-topics will be included related to oil spills management, response and combat technologies, as well as discharges and handling of drilling wastes. The meeting will be in June, and the exact dates will be announced soon on our website <http://www.perf.org>.



New Project Proposals

During the PERF Fall meeting, four new projects were proposed:

2003-05 – Chemical Herders to Increase In Situ Burning Window-of-Opportunity: ExxonMobil conducted preliminary experiments with herders in cold water and water with ice in November 2003.

2003-06 – Dispersant Mixing: Proposals are under review for model testing of vessel mixing as a means of facilitating dispersion of oil in brash and pack ice. A contractor will be selected soon and project contracts will be drafted for circulation. To ensure you get a copy, contact C. K. Owens at charlene.k.owens@exxonmobil.com.

2003-07 – Dispersant for viscous oil: ExxonMobil continues to adjust the formulation of the proposed new dispersant concept. The new dispersant has the potential to increase dispersant application efficiency and to allow faster delivery of dispersants. However, if the proposed product is to

benefit a wide range of users, other companies need to join this effort, as current optimizations have been focused on a specific crude.

2003-08 – Pneumatic Diversion Boom to Separate Oil from Ice: ExxonMobil conducted additional experiments in December 2003 to determine the feasibility of using pneumatic diversion booms to separate oils of varying viscosities from ice. Proposals are due February 2nd for tests to evaluate how well the pneumatic boom will maintain its integrity and generate currents (to separate oil from ice) in high current environments. Proposals will be reviewed and project contracts drafted for circulation after a contractor has been selected.

For more detailed information regarding any of these proposals, please visit our web site, <http://www.perf.org> or contact Charlene Owens from ExxonMobil at charlene.k.owens@exxonmobil.com.



Lateral mixing feature of icebreaker, Fennica. Thrusters clearing channel. (Aker Finnyards)



Hylje with brush skimmer. Gulf of Finland



Clam shell at Antonio Gramsci Spill

Highlights of the Fall Meeting in Houston

The Fall 2003 PERF meeting was hosted by Conoco-Phillips in Houston, Texas on November 5 and 6, 2003. The themes for the meeting were “Deepwater and the Impacts of Treating Chemicals”.

The first session was dedicated to Deepwater, the second was dedicated to the Treating Chemicals used in production that could impact oil and gas industry activities. For the first time, chemical companies were invited to present their work to the PERF attendees, Champion Chemicals,



Nalco Energy Services, Baker-Petrolite, and GE Betz. The agenda included presentations on an MMS deepwater seabed survey, environmental risk of deep-sea E & P activities, synthetic drilling muds seabed survey, deepwater biodiversity, ROV technologies for deepwater interventions and mammals and noise issues. A detailed agenda for the meeting and presentation can be viewed on the PERF web site, <http://www.perf.org>.

DOE/PERF Hydrocarbon Vapor Workshop

In January, 2004, another workshop in a series of technical meetings sponsored by the Department of Energy (DOE) and the Petroleum Environmental Research Foundation (PERF) was hosted by Unocal in Brea, CA. The two day meeting was attended by approximately 80 scientists and engineers representing several state and federal regulatory agencies, academic and national laboratory research institutions, consulting firms, and the oil industry.

The objectives of the workshop were to highlight the important biological, geological, chemical and physical factors that control or affect the movement of hydrocarbon gases in the vadose zone leading to possible vapor intrusion in overlying structures. The intent of the workshop from DOE and PERF's point of view was to discuss the problems that affect hydrocarbon vapor intrusion estimates and



to derive consensus about some of the issues that exist surrounding the regulatory strategies that are used at contaminated sites.

Comments from attendees were very positive including remarks such as: “Better than my expectations.” “All speakers were very interesting & concise info very timely.” “Lots of good discussion!” An expanded summary of the workshop will be published in the journal *Environmental Forensics* by Fall 2004. The agenda for the workshop, the presentations, and a brief summary can be viewed on the PERF website at <http://www.perf.org>.

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TEAMWORK: Together we achieve the extraordinary!



PERF

We're on the web:
<http://www.perf.org/>

The Petroleum Environmental Research Forum (PERF)* is a research and development joint venture, formed to provide a stimulus to and forum for the collection, exchange, and analysis of research information relating to the development of technology for health, environment & safety, waste reduction and system security in the petroleum industry. PERF is a non-profit organization of Members which are corporations engaged in the petroleum industry that recognize the importance of a clean, healthy environment and are committed to support cooperative research and development. PERF does not itself participate in research projects but provides a forum for Members to collect, exchange, and analyze research information relating to practical and theoretical science and technology concerning the petroleum industry, and a mechanism to establish joint research projects in that field.

*The name Petroleum Environmental Research Forum and its acronym PERF are registered service marks.

PERF External Group Liaisons

PERF encourages external groups such as trade associations, national laboratories, and research institutes to join as Liaison members. PERF values the partnerships that we have with these external groups and they frequently join PERF projects and contribute valuable research.

Liaison members appoint Representatives which have the right to attend and participate in meetings of PERF and its committees but they do not have the right to vote or to serve as an officer of PERF. Liaisons are not required to pay the fee paid by Members.

American Petroleum Institute (API)
Department of Energy (USDOE)
Gas Technology Institute (GTI)
Lawrence Berkeley National Laboratory (LBNL)
Water Environmental Research
Foundation (WERF)
Argonne National Laboratory (ANL)
Electric Power Research Institute (EPRI)
International Association of Oil and Gas Producers
Oak Ridge National Laboratory (ORNL)
University of Manchester Institute of Science
and Technology (UMIST)

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Aramco Services Co.	Robert Finley
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ChevronTexaco	Sara McMillen
ConocoPhillips	Sung-I Johnson
EniTechnologie	Renzo Boni
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Shell	Karen Haynes
Statoil	Stale Johnsen
Total	Marine Julliard
Unocal	Todd Kirie

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BOC Gases Technology	Ram Ramachandran
Canadian Petroleum Products Institute (CPPI)	Adolfo Silva
Petrozyme Technologies	Bill Mullin