



PERF Newsletter

September 2005

Environmental,
Health,
& Safety
Solutions for the
Petroleum Industry

Argonne to Host Fall 2005 PERF Meeting November 1-4, 2005 Annapolis, MD

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Board of Directors

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The Fall 2005 PERF meeting focuses on upstream and downstream water issues. Because of the importance of this topic and the U.S. Department of Energy's (DOE's) interest in water research, the PERF meeting is being held in conjunction with a Program Review of DOE-funded water projects affecting the oil and gas industry. Prior to the technical meeting, the PERF Board will meet on November 1. The technical meeting will include one day of presentations from contractors that received DOE funds for water projects (November 2) and a second day of presentations from industry representatives, government officials, and other speakers who will describe key water issues and research topics that affect the industry (November 3). During a third day (November 4 - morning only), all participants will have an open discussion of the significance of ongoing research, gaps in current research, and areas in which more research might be conducted by industry or government. Following the meeting and program review, Argonne will prepare a summary report that outlines the key points of discussion.



The Historic Inns of Annapolis (58 State Circle, Annapolis, MD, 410-216-6320, FAX 410-216-9122, www.historicinnsofannapolis.com) consists of three buildings located in downtown Annapolis. Each building dates back to the 1700's and has individual history and charm. All three buildings are within a three-minute walk of one another through cobblestone and brick streets in the historic district and are surrounded by numerous shops, restaurants, and taverns. The U.S. Naval Academy, the State Capitol (which served as the U.S. Capitol for a few months in the late 1700's), and the City Dock are a short walk away.



A block of rooms is available for a conference rate of \$159/night. These rooms are guaranteed only until **October 2**; participants are encouraged to reserve rooms as early as possible. *When making your reservation, it is necessary to indicate that you are attending the PERF/DOE Water Meeting.* For government participants, a small number of rooms are available at the government rate.

There is no registration fee for this meeting, but it is necessary to register using the following form: http://www.perf.org/ppt/Registration_form_Argonne.doc. The completed registration form should be faxed to Patria Leath at 202-488-2413 or emailed to leath@anl.gov by October 14.

PERF Welcomes New Member Companies



Suncor and Pall Filter Corporation have recently become new members of PERF. A list of all the PERF representatives can be found on http://www.perf.org/index.php?act=contact_reps

PERF Project 03-01: Mercury Sharing Cooperative

ExxonMobil is coordinating PERF project 03-01, an information sharing forum on mercury. The objective of this program is to share information related to the management of mercury contained in crude oils and condensates focusing on both upstream and downstream issues.

A workshop was held on July 26th in Palo Alto, CA, to share information on the operational, environmental, analytical, removal, and other various aspects related to mercury. Potential focus areas for additional leveraged research were identified and may be progressed as a separate PERF project if there is sufficient interest. Additionally, there was significant interest in creating a mercury discussion group. The focus of the group would be to help track mercury concerns as well as identify and develop future mercury PERF projects.



Workshop participants included ChevronTexaco, ConocoPhillips, Natco Group, the University of North Dakota Energy and Environmental Research Center, Unocal, and ExxonMobil. For more information, please contact Meredith Gustafsson at meredith.b.gustafsson@exxonmobil.com.

PERF Project 02-13: Water Management Cooperative

ExxonMobil is coordinating PERF project 02-13, an information sharing forum on industry's water management practices. The objective of the program is to exchange research, technology, and experience in the area of water usage minimization, optimization, and reuse at operating facilities and in exploration and production.

A workshop is planned for November 1st in conjunction with the fall PERF meeting in Annapolis, MD, to share information on water reuse solutions in practice, rejected reuse solutions, case studies in the area of water reuse/minimization/optimization, produced water reclamation, wastewater recovery, and tools used to develop these solutions.

Project participants include Argonne National Laboratory, Unocal, UNDEERC, ConocoPhillips, and ExxonMobil. For more information, please contact Meredith Gustafsson at meredith.b.gustafsson@exxonmobil.com.

Reducing Desalter Environmental Impacts

BP is coordinating Project 2004-06 "Reducing Desalter Environmental Impacts". The objective of this project is to assess the performance of refining desalter systems when running various slates of Heavy Crude Oil, determine effects on desalter effluent characteristics, and evaluate desalter effluent treatment options.



The total project cost is to be determined and will be dependant on scope, timing and number of participants. The project utilizes a phased approach to survey issues relating to desalters, technology options to address issues, and then progress to a subsequent field test phase of promising technologies. Chemical vendors and equipment suppliers are potential project participants.

The project will build upon the PERF 91-14 knowledge base, increased understanding of emulsion and rag layer fundamentals, new hardware technology, new emulsion breaking chemistries, and adding 12 years more operating experience. This project is especially relevant with the current trends toward heavier crude slates, including bitumen, more asphaltenes, resins and emulsion precursors, higher solids content in crude, higher TAN crudes and sulfur crudes. Solids disposal handling in desalter brine can limit crude runs, causing increased fouling.

Production chemistries in crude: methanol, surfactants, acids etc. cause WWTP upsets. Higher desalter utilization, less residence time, conversion to bielectrics, desalter wash water: quality, quantity and availability; tighter environmental and product specifications are other issues to be addressed. contact Dave Fashimpaur (fashimdn@bp.com) for more information.

Summer Meeting Highlights



الرجو السعودية
Saudi Aramco



The 68th PERF Meeting was hosted by EPRI and Saudi Aramco at EPRI facilities in Palo Alto, California.

About 30 people attended the meeting. Most of them were representatives from the oil industry, research institutes or laboratories. The board meeting was held on Tuesday July 26th.

On Wednesday 27th the main session was dedicated to air: EPRI air pollution program, research on Ozone, Air quality model, vapor intrusion measurement techniques, mercury, particulates, SO₂ and NO_x controls and CARB and API research programs.

On Thursday 28th, attendees were given excellent presentations by speakers from Oil Companies and Research centers on various air related subjects: CO₂ capture and storage, GCEP project at Stanford, Effect of air pollution on Health, Emissions from heavy crude Oil storage tanks, NO_x reduction and innovation in the electricity sector.

Upstream and Downstream Discussion groups took place on the first day and PERF business items (status report and project proposals) took place on Thursday.

You can download most of the presentations on the PERF web site at the following URL:
http://www.perf.org/index.php?act=meeting_2005-07_overview

New PERF project proposals can be downloaded at
http://www.perf.org/index.php?act=research_proposals

PERF Board and Officers Nominating Committee Formed

Jill Kerr (ExxonMobil), Todd Ririe (Unocal) and John Wilkinson (ExxonMobil) were appointed at the last PERF board meeting to form the nominating committee for the upcoming election of PERF Officers and Directors for 2006-2007. The election will be held at the next PERF meeting that will be held in Annapolis, Maryland on November 1-4, 2005. A slate of nominated Officers and Directors was sent to each PERF member's designated representative on September 2, 2005. Additional nominations will also be accepted from the floor at the meeting.

PERF Officers manage PERF's administrative structure and finances, preside at meetings, and interface with government representatives on behalf of PERF. All PERF officers are also PERF directors, and together with the at-large Directors form PERF's Board. The Board sets the agenda for PERF meetings, determines PERF priorities and sets PERF's budget and dues. The Board meets in person prior to each PERF meeting and as often as necessary outside of regular PERF meetings, usually by conference call.

Bruce Kennedy retired from PetroCanada this year, so he has resigned from the PERF board as PetroCanada representative and At-Large-Member. We will all miss Bruce!! Bruce was a long-time board member; please join us in wishing Bruce all the best in his new endeavors.

Currently, we have two "At-Large-Member" positions available. If you would like to become more involved in PERF leadership, contact one of the nominating committee members and let them know of your interest.



PERF Projects are Open to Non-Members

PERF projects are not limited to Members of PERF. In fact, PERF's Charter explicitly states that PERF is to provide a forum for the presentation and consideration of proposals for industry projects related to any aspect of health, environment, safety, waste reduction, and system integrity for funding by Members of the organization and non-Members alike.



Projects considered in PERF's forum that appear likely to attract sufficient interest to move forward are announced to the industry for participation by PERF Members and non-members alike on a non-discriminatory basis. While projects do have set contribution requirements for participation, those requirements are negotiated between participants in each individual project, and often projects have staggered participation requirements, making it easier for smaller companies or government entities to participate.

In the event a non-Member is interested in participating in a certain project, that non-Member should contact the project's PERF sponsor to discover whether the projects funding needs have been filled, and the terms on which participation is available.

Environmental, Health, & Safety
Solutions for the Petroleum Industry

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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 as they contribute valuable research in the PERF projects they join.

Liaison members appoint Representatives that 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 a membership fee.

Liaison members include:

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 (OGP)
Oak Ridge National Laboratory (ORNL)
University of Manchester Institute of Science
and Technology (UMIST)

Member Companies & Representatives

Amerada Hess	Gerry Bresnick
Aramco Services Co.	Robert Finley
BP	Davis Taggart
Champion Technologies	Mark Edwards
Chevron	Sara McMillen
ConocoPhillips	Sung-I Johnson
EniTechnologie	Renzo Boni
ExxonMobil	John Wilkinson
INA-Naftaplina	Ivo Omrcen
PetroCanada	David McIntyre
Repsol YPF	Fernando Temprano- Posadas
Shell	Pete Robinson
Statoil	Stale Johnsen
Total	Virginie Vitello
Unocal	Todd Ririe

Associate Members & Representatives

BOC Gases Technology	Ram Ramachandran
Canadian Petroleum Products Institute (CPPI)	Adolfo Silva