

PETEX PERSPECTIVES

From Director Greg McCormack



On behalf of PETEX, we are deeply saddened by the Deepwater Horizon incident, and our thoughts remain with all those who were affected. This includes foremost the families and friends of those who lost their lives in the accident, the

Gulf Coast families who work in the fishing industry, the business owners in the Gulf Coast areas and others economically impacted, as well as the wildlife and habitat being affected. The oil and gas industry continually strives to find better and more effective ways to work safely and with the least amount of impact on the environment as we reach toward our goal of meeting the energy needs of the 21st century through exploration and recovery. It is with these goals in mind that PETEX offers training in a wide variety of areas to those who work in this industry.

People from all over the globe have queried PETEX about our training programs, showing an interest in a variety of training formats. Over the last 65 years, PETEX has constructed a reliable, effective path for oil and gas training. More recently PETEX has added a new goal: that of addressing the online training needs of the industry. The intellectual content that PETEX has developed and cultivated for many years is being digitized.

Training is holistically recognized as a necessity, but the methodology within the industry varies greatly. While PETEX has sought to address the diverse needs of the industry and to increase training accessibility, we stand behind the importance of the right training and training right. The staple training approach is not one-way-serves-all, but rather a blend of instructor-led training, hands-on application, and e-learning.

While demand for e-learning is growing, it enhances rather than replaces instructor-led training. Some components of online training serve as a pretest as well as a refresher, but they will not replace the need for operations and maintenance hands-on exercises or testing and troubleshooting. The increased safety and regulatory requirements, the need for certification, and the economic rise of the oil and gas industry will continue to fuel the demand for training. As a leading training provider, PETEX will continue to serve you by delivering the most appropriate, results-oriented training.

PETEX® Voice of Training

No. 493

Summer 2010



Director: Greg McCormack
 Assistant Directors: Fran Kennedy-Ellis,
 Peter Kosewicz
 Editor: Michelle Wernert
 Graphics Designer: E.K. Weaver

Contributors: Josh Haberer, Greg McCormack, Fran Kennedy-Ellis, Peter Kosewicz, Zahid Yoosufani, Debby Denehy, Ann Arnold, Chris Parker, Monica Moore

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value. The yardstick for student performance will be improvements in equipment uptime and other efficiency benchmarks. As companies become confident that training yields a good return on their investment, the new training paradigm will truly take root. The end result will be safer, technologically skilled, higher valued employees, as well as an improvement in the bottom line for employers.

Josh Haberer is part of the Next Generation Program at National Oilwell Varco (NOV). A worldwide leader in training, NOV has developed a first-rate global training department that offers hands-on, simulation, and on-site training to support its product lines and customers.

Industry Partnerships Provide New Training Offerings

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For more information or to purchase your copy today with our easy-to-use shopping cart, visit: <http://www.utexas.edu/ce/petex>.

Coming Soon

New, Full-Color Edition *Diving and Equipment*, 3rd Ed.

This book introduces nondiving personnel to the procedures and equipment used in deep-sea diving operations. Updated by diving masters John Herren and Gene Lo Conte from Epic Divers & Marine, this edition provides a visual adventure into the undersea world of the commercial diver who services offshore rigs, platforms, and pipelines. With an increasing focus on offshore operations, this new edition is of special interest to all industry personnel.

New features include:

- Vibrant photos and illustrations
- Detailed accounts of operations and procedures
- E-book format and self-assessment also available



Video on Demand **NEW!**

Through the use of streaming technology, trainers and students can instantly access selected PETEX video files by using any web browser in virtual or classroom settings.

- Educational videos are an effective tool in transferring knowledge and skills.
- There are no storage concerns—you can access and view the videos and clips on the web.
- Access PETEX streaming videos flexibly—anywhere, any time.
- PETEX video products address a wide variety of subjects related to the oil and gas industry.

PETEX also offers animation clips of various detailed operations of equipment, tools, and processes. These clips provide exploded views of difficult-to-view parts, with workings clearly labeled and explained with voice and annotation. These animated graphics provide an excellent tool for demonstrating key industry mechanisms and operations. PETEX content is currently being transformed into video and animation product offerings. Check availability in the third quarter of 2010.

For more information visit us online at <http://www.utexas.edu/ce/petex> and click Coming Soon.



Come Visit Us at the PBI Oil Show

We hope you will make plans to join us at the Permian Basin International Oil Show on October 19-21 in Odessa. If you are attending, stop by our booth for information on our latest courses, publications, and digital training offerings. We look forward to seeing you! For more information, please call 281.443.7144.

For more information about the PBI Oil Show, visit: <http://www.pbioilshow.org>.



Bill Rehm Inducted Into AADE Drilling Fluids Hall of Fame, Class of 2010

Bill Rehm (Far East Energy), renowned industry expert and PETEX Advisory Board member, was inducted into the AADE Drilling Fluids Hall of Fame, Class of 2010, for his many contributions on directional drilling and well control. He was recognized as a Legend in Drilling by SPE in 2009 and has been awarded several patents, published 50 articles, and written four books, including PETEX's *Practical Underbalanced Drilling and Workover*.



UT Continuing & Innovative Education's (CIE) 100th Anniversary

In 1910, CIE was created by the University's Board of Regents "to make the university more useful to the people of Texas." Continuing education programs were soon developed to make education accessible to all persons, at any age or education level, who seek new ways to find deeper understanding, richer experiences, and a better life.

In 2010, CIE celebrates its 100th anniversary on our campus by asking the question, "How do you fill 100 years?" Since its inception, this division has been defined by the people whose lives have been changed or touched by continuing education. For 100 days, starting March 1 through July 16, visitors to CIE's new 100-Year Blog will find a daily story introducing our current students, faculty, staff, and programs. These stories illustrate the continuing legacy of CIE's commitment to education, innovation, and personal fulfillment.

As a component of CIE, PETEX is well-represented on the blog with profiles of client Gary Ware of Zurich Global Energy, content contributors such as Dr. Michael Webber of the University's Department of Mechanical Engineering, and PETEX staff member and project manager Zahid Yoosufani, as well as other PETEX stories and profiles. We invite you

to join the celebration by visiting the 100-Year Blog at <http://www.utexas.edu/cie/stories> and browsing the Archives section.



"PETEX courses I have attended have given me a wealth of information, all of which I use on a day-to-day basis—from the well drilling process itself to being able to read and understand an oilwell plan. I believe that I would not have been able to get to where I am now [in my career] without attending both of the PETEX courses."

-- Gary Ware of Zurich Global Energy



Upcoming Courses Offered by the Center for Lifelong Engineering Education (CLEE)

Energy Technology and Policy

CEUs: 2.1

Length: 3 Days

Dates: August 17–19, 2010

Dr. Michael Webber, Assistant Professor of Mechanical Engineering and Associate Director of the Center for International Energy and Environmental Policy at the University of Texas at Austin, will share his insights and candid views about the best and worst of U.S. energy practice.

Energy Solutions Workshop

CEUs: 2.25

Length: 3 Days

Dates: August 24–26, 2010

Upon completion of this three-day course, students will be able to conduct advanced energy audit assessments and implement practical energy solutions in key areas of their organizations with this structured, data-driven process in a variety of settings.

For more information or to enroll, visit <http://lifelong.engr.utexas.edu/calendar.cfm>.



Upcoming Courses Offered by the Center for Energy Economics (Bureau of Economic Geology, The University of Texas at Austin)

Economics of Natural Gas Value Chain

CEUs: 2.3

Length: 3 Days

Dates: November 15–17, 2010

Natural gas is a crucial source of energy and materials. It fuels most efficient power plants and many industries and heats homes during winter; and emits the least amount of greenhouse-gas emissions while providing these services. Globally and in North America, supplies of conventional and unconventional natural gas are significant, enabling increased production and trade via pipelines and as liquefied natural gas (LNG) to customers around the world. This course will provide a deeper understanding of economics of the natural gas value chain from exploration and production to pipeline or LNG transportation and to end uses.

Economics of Oil Value Chain

CEUs: 2.3

Length: 3 Days

Dates: November 8–10, 2010

Global oil demand will continue to rise for the foreseeable future as countries grow and prosper. The oil market has been volatile, and many are concerned about availability of supplies to meet growing demand. In this course, you will be provided with an analysis of world oil markets in addition to basic cost structures and project economics of upstream and downstream projects. National oil companies (NOCs), which will play a significant role in the global oil industry structure, will be discussed based on CEE's unique analysis of NOCs undertaken since 2005.

For more information or to enroll, visit <http://www.beg.utexas.edu/energyecon/>.



THE UNIVERSITY OF TEXAS AT AUSTIN
 Petroleum Extension Service (PETEX)
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SUMMER TRAINING

For the complete 2010-2011 schedule, visit www.utexas.edu/ce/petex.

School	CEUs	Location	Length	Dates	Tuition
Field Handling of Natural Gas Engineering	3.8	Houston	5	August 2-6	\$1,890
Instruments and Controls	3.3	Houston	4 ½	August 2-6	\$1,660
Supervisory Control and Data Acquisition Systems (SCADA)	3.3	Houston	2 ½	August 9-11	\$1,800
Introduction to Programmable Logic Controllers	1.9	Houston	2 ½	August 11-13	\$1,315
Plant Processing of Natural Gas Engineering	3.8	Houston	5	August 9-13	\$1,890
Production Technology	7.1	Odessa	9 ½	August 9-20	\$3,690
Week 1— Subsurface	3.8		5	August 9-13	\$1,890
Week 2— Surface	3.3		4 ½	August 16-20	\$1,800
LNG: Basics of Liquefied Natural Gas	3.3	Houston	4 ½	August 23-27	\$1,800
Basic EOR: Enhanced Oil Recovery	2.3	Houston	3	August 30-Sept 1	\$2,050

Courses are held at PETEX Training Centers in Houston and West Texas. Training dates are subject to change.

To enroll, visit www.utexas.edu/ce/petex, call 800.687.7052, fax 281.443.8722, and/or email petexhtc@www.utexas.edu.

From Spanners to Neutron Spectroscopy: Changing Technology and the Need for Training

By Josh Haberer, National Oilwell Varco

It used to be, all the “average Joe” needed to work on his car or truck was a good set of tools, elbow grease, and a shady tree. Up until the 1980s, automobiles were relatively straightforward machines, with rugged mechanical design and simple wiring arrangements. They were much easier to work on than today’s models, and it was very common for car owners to tinker with their own vehicles. As a rule these “shade-tree mechanics” were self-taught, with most of them gaining their know-how underneath the hood of their own car.

The advantages of hands-on learning are intuitively obvious: by encountering tasks and solving real problems in the field, the learner internalizes the “lessons” and retains them, developing critical thinking skills that he or she is able to transfer to other situations. This has always been an effective training method, and for many years it was the norm in the oilfield. On-the-job training certainly still has its place; however, due to the complexity of today’s critical drilling components, on-the-job training alone is no longer sufficient.

For decades, like cars, most equipment in the petroleum industry was fairly uncomplicated. But advances in technology over the last three decades have transformed rig equipment from basic, stand-alone mechanical devices into sophisticated systems that integrate mechanical, electrical, and computer technology. These advancements are unquestionably beneficial: they allow modern rigs to drill deeper and with much greater precision, operating more safely and reliably, even in harsher environments, with increased

productive drilling time. Yet they are vastly complex to operate, maintain, and repair. And just as the industry must adapt to this leap in complexity, a generational departure of experienced rig operating and service personnel is underway. This threatens to create a precarious gap in vital skills.

Adapt and Advance

As drilling technology advances, the oil and gas industry finds itself scrambling to equip the new wave of personnel with critical and ever-evolving skills. While the customary on-the-job training (OJT) can

teach skills effectively, one of its drawbacks is that it might take an unacceptably long time for an individual worker to experience the full variety of problem-solving situations in the field.

New training programs are appearing in the oil industry. Many of them incorporate research that shows that the best educational approach is to combine multiple

training methods. In some cases, the oilfield training programs model their delivery methods after proven success stories from other industries such as aviation. In that industry, the modern curriculum offers a mix of classroom instruction, hands-on experience, and computer simulation. Providing a wider range of “incidents”—for example, breakdown-and-repair scenarios—for the student to encounter in a controlled environment can prepare personnel faster, more efficiently, and more safely.

To replicate this example of success and ensure students learn the skills required in field applications, technical training courses are beginning to combine OJT with defined learning objectives and simulation tools. These types of formal training programs promise consistency and efficiency. But in order to gain widespread adoption by companies, these training programs will have to demonstrate quantitative



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