

IADC's WellCAP leads well control training efforts

SINCE ITS IMPLEMENTATION in 1995, IADC's Well Control Accreditation Program (WellCAP) has continued to gain acceptance around the world. To date, nearly 25,000 drilling professionals have earned certification under these rigorous standards.

That number promises to rise as companies operating in the US Gulf of Mexico look for ways to ensure that quality well control training is administered to their employees.

That's because the **US Minerals Management Service (MMS)** issued new regulations in August 2000 which will radically change its role within the industry.

Instead of prescribing training requirements and practices as in the past, MMS is moving to a performance-based system that will rely on key indicators shown by its lessees.

Essentially, operators and their contractors must assess their own training needs and put in place systems to ensure they are met.

Although designed to provide companies with more flexibility in addressing training, such a significant departure from what had been the norm caused a fair amount of concern within the drilling industry.

Among these concerns was the possibility that contractors might have to deal with a myriad of different requirements among different operators.

When the new regulations were published, MMS acknowledged that this might occur, but that it anticipated that industry would work together to avoid problems.

MMS clearly seemed to point a way this might be done, when it wrote in the Federal Register:

"MMS commends IADC for the WellCAP program and acknowledges the value WellCAP could bring in providing minimum well control training requirements to lessees and contractors worldwide."



API CREDITS PROGRAM

Since that time, IADC has augmented its international efforts to promote usage of WellCAP with efforts directed specifically at the Gulf of Mexico and US land contractors. These have included both group and individual meetings with key operator and contractor personnel, as well as other important associations serving the industry.

For example, the American Petroleum Institute (API) recently included references to WellCAP (as well as RIG PASS, IADC's other accreditation system) in two recently revised Recommended Practices, RP64 (Diverter Operations) and RP49 (Well Control).



A casing crew receives training on safe and efficient casing running procedures at Weatherford International's Training Center in Houston, Texas.

IADC's traditional conference exhibit has been redesigned to focus primarily on WellCAP. The new display debuted at IADC's International Well Control Conference late last year, and represented IADC at this year's Offshore Technology Conference in Houston. There, IADC was assisted by representatives of contractors and schools supporting WellCAP.

"Even though the transition period will extend almost another 18 months," said **Steve Kropla**, IADC Director-Accreditation & Certification, "we're trying to impress on operators and contractors alike that they should be planning now on how to comply with the new regulations.

"WellCAP is of importance to land contractors in the US as well, to ensure safe drilling operations even though well control training may not be required by law for most land operations," Mr Kropla continued.

INDUSTRY DEVELOPED

WellCAP was the first industry-developed training standard and school accreditation program for drilling well control.

In mid-1993, IADC assembled a cross-industry task force of well control training professionals to assemble what was then referred to as the "IADC Model Well Control Program."

The model was designed to provide guidance to industry by defining a core curriculum for well control. Operators on the development team included BP, Chevron, Conoco, and Unocal.

Contractors included **Diamond Offshore, Parker Drilling, Reading & Bates, and Sedco Forex**. Among IADC's associate members were **CS Inc, Louisiana State University, PETEX, WCS Well Control School, and Well Control & Systems Design**.

During the formative stage, the task force met on a weekly basis to assemble the working



WellCAP was the focus of a Well Control Conference in October 2000 at Chongqing Petroleum College in central China. Steve Kropla, IADC Director of Accreditation & Certification, is at front center.

draft of the core curriculum. The IADC Board of Directors approved it in September 1993, and at that point work began in earnest to complete the program. The draft was distributed for industry comment, and later the task force spent weeks poring over the comments received from IADC members, regulators and other interested parties worldwide.

The comments received from the working draft indicated a desire on the part of industry to put in place a comprehensive accreditation system to ensure operators and contractors that a training provider possessed the qualifications of what most professionals considered a first-rate well control facility.

Defining some of these administrative issues proved almost as controversial as the process of defining the core curriculum, the group would soon learn.

The process of assigning a definition to what the industry needed first began with a series of difficult questions: once "What do we teach?" was answered, next came "How long should the class take?" "How many students can we have?," "What type of simulators?" "What should we test on?" and so on.

As difficult and sometimes unnerving as this process was for the participants, decisions had to be made, keeping in mind they might work to shape programs being developed in areas

of the world not familiar with the way well control training had evolved in North America and Europe.

The result was a set of criteria and procedures that outline the minimum qualifications a school must meet in order to be considered for WellCAP accreditation. These not only include demonstrated adherence to the core curriculum (and more specialized curriculums developed since), but also requirements for the physical facility, simulator capa-

bility, instructor qualifications, and administrative procedures to ensure security and testing integrity.

During the time in which the task force considered the numerous comments from industry received in response to the working draft, the program became formally known as the IADC Well Control Accreditation Program, or WellCAP. The drilling curriculum and initial set of criteria and procedures took nearly 2 years to complete and implement.

Those were the pre-Internet days for IADC: All 1,600 copies of the working draft were mailed to members of the industry and other interested parties, and the task force took a breather to wait for written comments to be mailed or faxed.

The development timeline that was so extended during "WellCAP version 1.0," as the task force called it, has since been compressed considerably thanks to improved communications via the Internet. By the time the next phase of WellCAP development got under way—the workover and completion curriculum—IADC had established a presence on the Internet. While the working drafts were still sent out the "old-fashioned" way, the comment period was accelerated by responses sent via e-mail.

ENGAGING MMS

At the same time, regulators with the MMS were reviewing their own regulations in light of WellCAP. Since MMS announced that it would consider third-party accreditation, IADC has engaged the agency in a continuing dialogue to keep them informed of, and involved in, new developments. When the MMS regulations were revised in 1997, they included two tenets first used in WellCAP: a class size limit of 18 students and a maximum 9 hours of instruction per day.

Eventually MMS decided to entirely refocus its efforts away from prescriptive regulation to the approach that characterizes the new regulations. This echoes a widespread change in regulatory philosophy: since the UK "Safety Case" was first developed, regulators in the UK, Nor-

"Workers with IADC WellCAP certificates have the strong well control consciousness and have the ability & qualification to enter the domestic and overseas drilling markets."

Training center client in China

"At Baroid, we consider that WellCAP has provided an invaluable training tool to optimize the use of a drilling or workover fluid in extremely dangerous cases. ...in some countries our customers demand a WellCap certification before receiving us at their well sites."

**Héctor C. Moreno, Technical Instructor
Baroid Drilling Fluids**

"The support from IADC and the WellCAP program has greatly expanded our ability to train outside the borders of the US."

**Steve Vorenkamp, Sr
WCS-Houston Sales Mgr**



The Well Engineering School, Seeb, Oman, has received full WellCAP accreditation. Shown are (l-r) staff members Gerard de Blok and Ian Davidson, IADC Vice President-Operations Ken Fischer and staff member Kees de Koning.

way, Australia, the Netherlands and other countries have shifted the primary responsibility for defining training requirements, leaving it to operators and contractors to assess training needs and establish ways to meet those needs.

CURRICULA EXPAND

Just as the industry has rapidly embraced new and developing technology, WellCAP has sought to keep pace as well. In early 2001, a WellCAP curriculum for underbalanced well control was issued, and several schools are reportedly using it to structure new courses.

IADC is currently developing a WellCAP deepwater well control curriculum, based on recommendations contained in the IADC Deepwater Well Control Guidelines. A working draft will be distributed for comment this summer, with completion anticipated before year-end.

IADC's own utilization of technology is evident in one of the tools available to expedite the work of the deepwater curriculum task force: a private interactive workspace in the discussion groups section of IADC's website. This allows team members from all over the world to revise draft documents and conduct discussion without the need to frequently

travel to a central location. WellCAP has also adopted new technology to make the program more efficient.

These steps include providing accredited schools the ability to print their own certificates to reduce shipping and spoilage costs, and a system of automating the recording of certificate information in IADC's WellCAP database.

ENHANCING TESTING

The Well Control Committee is now considering ways to standardize tests used by WellCAP schools, perhaps using a computerized system to custom-tailor tests according to the level and area of instruction, stack qualification, regional characteristics, language and other factors.

The committee is also revisiting the need for an instructor certification program, to ensure that well control instructors possess a defined amount of experience and industry knowledge, as well as meet continuing education requirements for continued certification. Such a program was first proposed as an initial component of WellCAP.

In 1997, IADC entered into the International Alliance for Well Control, a joint operating agreement with the International Well Control Forum (IWCF), a group that distributes independently administered well control tests. Under this agreement, participating institutions conduct an accredited WellCAP training course, but the WellCAP written and simulator testing requirements are waived and replaced with the IWCF examination.

More than 35 schools are currently accredited or awaiting accreditation by IADC. Nearly 25,000 WellCAP certificates have been issued since the program started, and that number could increase significant-

ly as WellCAP replaces MMS certification in the US. WellCAP instruction has been given in 139 locations in 41 countries in English, Spanish, French, Portuguese, Chinese, Japanese, Russian and Bahasa Indonesian.

IADC will be providing information on WellCAP to the International Maritime Organization (IMO) for its consideration. The IMO's "Recommendations on Training of Personnel on Mobile Offshore Units" currently contain references to well control training, but provide no recommendations regarding standards for that training. IADC hopes that WellCAP will be recognized in this regard.

IADC will also be providing the IMO's Marine Environment Protection Committee with information on WellCAP as it focuses on development of best practices for prevention of pollution in offshore oil and gas activities.

More information on IADC's WellCAP program and the companion RIG PASS program for safety orientation can be found on IADC's web site at <http://iadc.org>. The latest curriculum guidelines and other documents pertaining to WellCAP criteria and procedures can be downloaded in pdf format. ■

"In the last 10 years drilling activity inside Hungary decreased dramatically, so the Hungarian Drilling Contractors had to find work on the foreign market which is impossible without an internationally accepted well control certificate. Up to the end of 2000 we issued 396 (one was IWCF) certificates for the crews of Hungarian drilling rigs."

**Tibor Szabó
Assistant Professor and Simulator Instructor
Well Control Training School
University of Miskolc**

"As a result of structured training, our well control has never been better and our Engineers, Drillers, and Supervisors are all highly skilled in well design, kick detection and blowout prevention. "

**Wyatt Farley,
W. E. Farley Petroleum Consultants**