



# **IADC Well Control Accreditation Program**

## **HANDBOOK FOR ACCREDITATION**

*Criteria & Procedures*

FORM WCT-1

# ***WellCAP***<sup>®</sup>

## **HANDBOOK FOR ACCREDITATION**

This document supercedes all program bulletins and other versions  
of this document issued prior to the date below.

**FORM WCT-1  
February 2004  
Revision 040218**

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## NOTICE

The information contained in this document was current at the time of publication. However, the elements of IADC's Well Control Accreditation Program as described herein are subject to change at any time. To determine if this handbook or any other program document contains the latest revisions, contact IADC at the address above or check the IADC web site at <http://iadc.org>.

If substantive changes in policy or procedure occur before the next edition of this handbook is issued, institutions affiliated with IADC's WellCAP system will be notified through special bulletins. Bulletins are also archived on the IADC web site.

Institutions that are currently accredited or those with accreditation pending will automatically be provided with any revised editions of this handbook.

Additional copies of this document and other program documents can be ordered from IADC at the address above. WellCAP documents are also available in electronic format at IADC's web site.

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# **WellCAP**

## **IADC Well Control Accreditation Program**

### **Handbook For Accreditation**

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## **PREAMBLE**

IADC's Well Control Accreditation Program (WellCAP) is a system designed to assist industry professionals in developing and delivering the recognized standards of Well Control training. Its guidelines and recommendations are made to help steer the user toward the proper professional approaches that should be used to establish a truly valid training program in Well Control.

WellCAP calls for the training provider to clearly identify the goal, curriculum and methodology that will be used in its Well Control training program for specific student levels. To facilitate this, WellCAP identifies concepts and skills essential to Well Control instruction for three levels: Introductory, Fundamental and Supervisory.

As in any formal accreditation system, WellCAP looks to the user for a clear explanation and justification of how the program they offer will accomplish the goals identified. WellCAP is the road map for consistent, quality Well Control instruction. It is the user's responsibility to identify specific details of how their program will comply along with how any alternate methods selected will fit into the overall quality of the Well Control training offered.

IADC established this program in 1995 to help develop a better way to reach employee competency the world over in managing Well Control activities on site. We encourage users to join this effort by developing programs in conjunction with the goals of WellCAP, and by using it as a cornerstone for their own programs.

## PROGRAM OBJECTIVES

The objectives of IADC's Well Control Accreditation Program are as follows:

1. Develop a core well control training curriculum applicable worldwide which:
  - Identifies fundamental well control concepts
  - Emphasizes fundamental job skills other than those related to rig-specific equipment, maintenance and safety training
  - Targets rig crews
  - Specifies performance criteria that encompass the following:
    - Sufficient understanding of preventative well control measures
    - Recognition of well control events
    - Measurement of current well parameters
    - Proper response to observations and measurements
2. Provide a formal system of industry accreditation, which recognizes the following:
  - Adherence to the concepts embodied in the well control training curriculum, guidelines and criteria
  - Demonstrated methodology for measuring individual proficiency to a prescribed minimum standard in the job skills identified in the well control training curriculum, guidelines and criteria

## **ACCREDITATION CRITERIA**

### **I. Accreditable Unit**

The International Association of Drilling Contractors (IADC) accredits active well control training programs for the oil and gas drilling industry. For this purpose, an accreditable unit is defined as any public or private institution, organization, or agency operating a well control training program.

The appropriate administrative entity making application is the accreditable unit, and its well control training programs and facilities are evaluated to determine accreditation status. All well control training programs and facilities of the accreditable unit must be included in the application and evaluated. Large commercial organizations having separate divisions, especially when located in different geographical areas, may elect to submit separate applications for each division or geographic location.

Separated facilities/satellite institutions seeking accreditation from IADC may have well control training operations conducted at one or more institutionally owned facilities located away from the primary site. If the management and operation of the well control training operations in the separated (satellite) facilities are integral to the main well control training program, e.g., they share administration, personnel, budget, equipment, etc., then they are considered part of the accreditable unit and the primary unit is accountable for their operations. If the management and operation of the separate facilities are not integral to the primary unit, they may be considered as separate facilities and IADC accreditation extended to each of them individually.

Institutions may not change their organizational structure, as defined in the Application for Accreditation or as amended in annual reports, so as to remove deficient facilities from evaluation. However, facilities previously used for well control training may be permanently abandoned or used for purposes unrelated to well control training at any time.

## **II. Standards**

IADC acknowledges that training providers may employ innovative methods and technology, and may have legitimate reasons to do so. However, the core criteria contained here shall be regarded as a minimum standard for course administration. The Well Control Committee of the IADC, with the approval of the Board of Directors, shall establish the specific standards and requirements for accreditation of well control training programs. In doing so, the rule-setting entity shall be governed by the following general principles:

- Well control training operations should be directed by qualified persons employing suitable methodology.
- All well control training instructors should be suitably qualified by training and experience in well control training procedures. (See Instructor Credentials, Section IX ).
- The Curriculum Guidelines of WellCAP (Form WCT-2XX current revision) shall serve as the core curriculum for establishing a well control training program. Courses may be accredited at either the Introductory, Fundamental or Supervisory levels, with either surface or surface and subsea stack options.
- The Well Control Committee and WellCAP Review Panel will periodically reevaluate the requirements of this program and revise those requirements as circumstances dictate to ensure that they are reasonable and in the best interests of the public and the industry.
- The applicant or accreditable unit shall observe any and all statutes and governmental regulations which bear upon its activities including, but not limited to, the prevailing standards of instruction, instructor qualification, health, labor and safety of the country, state, and community in which it is located.
- Membership in the IADC or membership in any association or organization shall not be required as a condition for gaining or maintaining accredited status under the accreditation program.

## **III. Accreditation Levels**

An institution may be accredited to offer courses that match any or all of the levels for which curriculum guidelines have been developed. These levels are: Introductory, Fundamental and Supervisory. Each Fundamental or Supervisory level may have either surface or surface and subsea stack options. Curriculum guidelines exist for a variety of drilling, workover, and other operations.

Outlines for each level of course and stack options offered by an institution must be reviewed and approved by the Review Panel for that course to be

recognized under *WellCAP*. Upon initial application, an institution must offer at least one level of course. Additional course levels may be added later by petitioning the Review Panel. The institution must provide a course outline and any other relevant information necessary for the Review Panel to make a decision to recognize the additional course level(s).

#### IV. Class Size

The submitting applicant must indicate the maximum number of students that will be trained and tested in one course and provide a detailed explanation of student activities during the course. The maximum class size approved for each program submitted will be affected by the number of well control simulators, the number of participants per simulator group, number of instructors, classroom space, course length, course content, etc. The program must demonstrate effective utilization of each of these, all of which are necessary to ensure that the students have optimum conditions for developing the required skills identified in the curriculum.

Eighteen (18) participants is the maximum number of participants that may attend a single course taught by one instructor. However, this number may be altered, depending on the resources available.

The accompanying table provides a general guideline for maximum class size when one instructor is available, with each participant completing two practice simulator exercises, and the course designed to meet only the minimum time requirements as specified in the criteria.

**MAXIMUM CLASS SIZE  
BASED ON ONE INSTRUCTOR, MINIMUM TIME ALLOWED**

Number of Simulators	Students Per Simulator Group	Maximum Class Size
1	2	4
2	2	8
3	2	12
1	3	6
2	3	12
3	3	18

NOTE: These limits are based on a course taught in the minimum time required for that type of course. The maximum class size may be adjusted to allow more students for courses that exceed the minimum

amount of hours.

When submitting an application for accreditation, the training provider should specify the maximum class size for which the course is designed and the total duration of the class. The review panel may request additional information regarding class management practices to verify that the increased class size does not adversely affect the learning environment.

## **V. Practice Exercises and Simulation**

The submitting applicant must incorporate into its program simulators and/or test wells, as well as other techniques and technologies, to test the performance of students in the specific job skills related to kick detection, well shut in and well control procedures. Practice exercises must be provided to give participants hands-on experience in implementing and completing the well control technique(s) taught in lecture. The simulator, well facility, etc. being used must provide realistic responses and scenarios that a student would encounter in the field.

A simulator may not be operating in the same room where a lecture or other form of lesson is in progress (with exception of working kill sheets), except to supplement the lecture or lesson with a demonstration of a well control procedure.

The Review Panel will evaluate and make a determination as to the maximum number of participants that will be allowed per practical exercise based on the training equipment type, proposed exercises, space requirements, etc., as submitted by the applicant. The applicant must specify in the program submitted, the maximum number of participants that will participate in each type of practical exercise proposed.

A minimum of two simulated well control practice exercises must be provided for each participant on a simulator suitable for modeling the type operation being certified. During each practice exercise, all participants must perform those specific skills in which they are to be tested. Practice simulations should be similar in design to final testing assessment. An exercise team is limited to a maximum of three (3) participants when using well control training simulators and five (5) participants when using live well or rigsite training exercises. Other techniques and technology will be evaluated based on the merits of the program submitted.

## **VI. Training Manual**

At the start of the course, a training manual must be provided to each student to use during the class and to keep for future reference (this requirement is optional for introductory courses). The training manual must include materials

(subject matter) that will be taught to students in conformance to the WellCAP curriculum guidelines for that level of course. The manual(s) used must be submitted to IADC as part of the application.

Unless otherwise noted, it must also include:

- A. Table of Contents
- B. Chapters
- C. Page numbers
- D. Glossary of terms (may be incorporated in a separate reference)
- E. Index (optional, but recommended)

A printed manual must be made available during the well control course. An electronic version (e.g., CD-ROM) may be provided to the student following the course.

## **VII. Curriculum**

Any stand-alone WellCAP course at the fundamental or supervisory level (drilling, workover & completion, coiled tubing, or snubbing) will consist of a minimum of 20 hours of instruction. An exception to this is a stand-alone wireline course, which must consist of a minimum of 15 hours.

Any combination of two different WellCAP curriculum components (e.g., drilling plus workover & completion, or coiled tubing and wireline) will consist of a minimum of 28 hours.

Any additional curriculum component added to a combination course will require a minimum of five more hours of instruction.

Including the Subsea Option with a full drilling or workover & completion course will require an additional five hours of instruction.

An Underbalanced Operations WellCAP course shall also consist of a minimum of 20 hours, but should not be combined with any other type of instruction.

An introductory course requires a minimum of eight (8) hours of instruction.

At any course level, a maximum of nine (9) hours of instruction (total instruction, including practical exercises, but excluding testing) per day may not be exceeded.

Accredited training providers must incorporate into their curriculum the IADC WellCAP curriculum guidelines for the appropriate level of instruction. Training Providers must demonstrate their adherence to the minimum course

guidelines during their detailed self-review and any site visits required in the accreditation application process.

Information detailing the curriculum and how it is presented must be enclosed with the submittal. The approximate duration in which the subject matter and the simulation/practical exercises are covered must be presented. Included in this breakdown must be the time mixture (expressed in percentages) of lecture, simulation, audiovisuals, etc. to ensure the minimum guidelines are met.

Sufficient time must be included for each student to individually practice identified hands-on skills. The total percentage of the minimum course time involved in hands-on or interactive activities (simulator exercises, kill sheets) should not exceed approximately 20 to 30 percent of total course time.

Audio/visual or other "passive" activities should range between 5 to 10 percent of the total.

The remainder of the course time should be devoted to lecture and discussion (which may be combined with demonstrations using a simulator or other instructional technology).

If special situation training topics (e.g., H<sub>2</sub>S) are addressed during the course, time spent on these topics must be in addition to the recommended minimum hours of instruction for the core curriculum.

### **A. Missed Portions**

Accredited programs must adopt a policy to ensure that a student may miss no more than a total of four (4) hours of instruction before he or she is required to retake the entire course. If a student misses any portion of the course, the missed portion(s) must be made up before any final written tests are given. The missed/made up portion(s) must be documented in the student's record. If a student does not make up the missed portion within forty-five (45) days of the missed date, no final test may be given and the entire course must be repeated.

In the case of a course combining a variety of curriculum types (e.g., workover & completion, wireline, coiled tubing), it is possible for the student to receive a certificate for segments completed, and to complete missed segments at a later date. The student needs to attend only the curriculum option(s) that was partially or entirely missed in the original combination course. He will then receive a replacement certificate showing all portions from both the original and second course.

The following stipulations apply to this policy:

- The student must complete a 20-hour minimum (or 15 hours for wireline), qualifying course.
- The student must schedule the second course with the same training provider as the original course.
- Missed portions must be completed within 90 days of the originally scheduled completion date.
- A certificate must be issued for the curriculum options of the original course that were completed by the student.
- The original course must have been accredited as a combination course with defined segments for each type of curriculum.
- The student must complete the entire course for the curriculum option missed, even if a portion of that course was attended at the original session.
- New certificate issued showing certifications attained and dated as for the original combination course completion date.
- If this provision is used, it must be promptly reported to IADC on Form WCT-22.

## **B. Course Suspension Policy**

When, in the judgment of the training provider, it is necessary in the interest of safety to suspend a WellCAP course due to severe and unavoidable circumstances (*e.g.*, tropical storm or natural disaster), the school may administer the final exam and issue certificates to successful students provided at least 20 hours of course instruction has been given (or, in the case of a wireline course, for which at least 15 hours has been completed).

If less than 20 hours of instruction has been given (or 15 in a wireline course), the course may be resumed by the original training entity and missed portions completed within 45 days of the date of the course suspension.

A WellCAP program must notify IADC immediately should it choose to exercise this option.

## **C. Student Assessment**

WellCAP has been developed with an expectation toward a high standard of testing of well control curriculum with regard to measuring proficiency in identified job skills. At the fundamental and supervisory level, at least fifty percent (50%) of the identified job skills must be specifically included in the curriculum testing process. A student must score a minimum of

seventy percent (70%) on each of the written and simulator tests to successfully pass a course. If a participant misses any portion of the testing, an entire test of equivalent difficulty and length must be taken within forty-five (45) days of course completion.

The examination may take place at the facility where the original instruction was delivered, another facility operated by the same training provider, or at a facility operated by a third party that has been previously identified and approved as a WellCAP Testing Administrator.

To be approved as a WellCAP Testing Administrator, the third party to be utilized must be identified in a school's original application, or in an amendment to its program.

The training provider or testing administrator managing the delivery of the examination must ensure that the facility has adequate lighting, ventilation, and that students are spaced a reasonable distance apart. Additionally, they should employ appropriate measures to verify the identity of the students taking the exam.

At the introductory level, a training provider must include in its application a description of how the instruction is delivered and the criteria for determining how a student has successfully completed the instruction.

The submitting applicant shall indicate how test scores shall be determined. The submitting applicant must indicate how specific skills are to be tested. Also, a description of how tests are administered to students (especially including how security is maintained during testing) must be provided in the submittal. In the case of simultaneous written and simulator testing, an additional test proctor must be provided.

Examples of the exams or tests that will be given to students must be included in the submittal. Written exams should be designed to be completed in no less than one and one half (1<sup>1/2</sup>) hours by the average student and should test the required IADC subject matter. The subsea option should be designed to be completed in no less than one half (1/2) hour. Additionally, simulator testing is recommended to be no less than 30 minutes excluding preparation of the kill sheet. Testing time for special situation training should include additional testing time.

As a minimum, each drilling and/or workover student must be assessed on the following skills and must demonstrate possessing these skills with the use of a simulator for each level of instruction.

If multiple students are assigned to a simulator or test well during simulation testing, students must rotate so that each student can be individually assessed.

## **INTRODUCTORY COURSES**

- Simulation or other practical exercises are not required for an introductory level course, but may be used at the program's discretion.

## **FUNDAMENTAL COURSES**

- Record circulating pressures for slow pump rate
- Kick detection and shut-in
- Read, record, and report drillpipe or tubing and annulus pressures

## **SUPERVISOR LEVEL COURSES**

- Demonstrate bringing pump on and off line while manipulating choke and while maintaining bottom hole pressure
- Determine the correct initial circulating pressure when circulating or killing the well as is appropriate
- Maintain the correct bottomhole pressure while circulating or killing the well

## **FOR SUPERVISOR LEVEL WITH SUBSEA INSTRUCTION**

- Determine choke line frictional pressures at various slow pump rates
- Ability to adjust circulating pressures to compensate for choke line friction
- Ability to adjust choke to compensate for rapid change in hydrostatic pressure

Exams must be rewritten at least once every two years. Verification that this has been accomplished must be provided to IADC as part of the annual report and renewal. A statement of safeguard procedures to protect student tests from being copied and disbursed must be included in the submittal.

If a student does not satisfactorily pass the written or simulator tests, one retest may be given. The retest shall not be identical to the original test, nor may it be the same simulator test problem. It should include, however, the same skills failed in the original test. The retest may be taken the site where the original test was given; at another facility operated by the same training provider; or at a facility operated by a third party that has been previously identified and approved as a WellCAP Testing Administrator.

The retest must be given within forty-five (45) days or the entire course must be retaken.

## **VIII. General Administration**

### **A. FREQUENCY OF RETRAINING**

WellCAP is based on the philosophy that retraining on a periodic basis is required for proper maintenance of well control related skills. Past experience has shown that repetition of instruction is required regularly if skills are to be maintained. WellCAP procedures require the full course at the Fundamental and Supervisory Levels be repeated every two years to maintain a current well control certificate.

### **C. ANNIVERSARY DATE FOR TRAINING**

To maintain a valid well control certificate, students may complete a retraining course anytime earlier than the second anniversary date of their last Fundamental or Supervisory course, but no later than ninety (90) days after that anniversary date.

### **D. CERTIFICATE INFORMATION**

Upon successful completion of an accredited course, the program will issue the student a WellCAP certificate and, optionally, a card of completion. *Only training providers that have been awarded either full or conditional accreditation may issue these items.*

A training provider may choose from either (or both) of two options when issuing WellCAP certificates and cards:

1. The program may purchase pre-numbered certificates/cards directly from IADC. Refer to Form WCT-5 for current certificate fees. Certificates may be purchased in any quantity. Certificates are available in English and Spanish.
2. The program may purchase unique certificate/card numbers from IADC and use these on certificates and/or cards it produces. Numbers may be purchased in any quantity. The certificates issued by the program can be printed using a template provided by IADC. Training providers may not modify the template except to include their name and/or logo in the space provided.

If a training provider wishes to issue certificates/cards of its own design and manufacture with IADC-provided numbers, the following requirements must be met:

1. In addition to the required information listed above, the certificate should include the IADC logo and/or the IADC WellCAP logo. These items should be printed in color as shown on the IADC certificate template.





































