



IADC
WELLSHARP

**International Association of
Drilling Contractors**

WellSharp™
***Global Well Control Training &
Assessment Standard***

SECTION 2:
Requirements for Accreditation

Preliminary Release

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Preamble

The International Association of Drilling Contractors' Well Control Accreditation Program (*WellSharp*[™]) was originally designed in 1995 to assist industry professionals in developing and delivering well control training that conforms to industry-recognized standards. The requirements, guidelines, and recommendations were made to help steer the user toward the proper professional approaches that should be used to establish a training program in well control.

This *WellSharp*[™] *Handbook of Accreditation* is the newly revised and vastly improved version of the WellCAP training and assessment standard. The WellSharp Program identifies the knowledge and skills essential to well control instruction for five courses applicable to Drilling Operations personnel: Awareness, Introductory, Driller, Supervisor, and Well Planning & Well Control Risk Mitigation ("Engineering"). Courses are designed to provide position- or role-specific training and assessment to assure individuals are better equipped to fulfill their well control responsibilities in the oil and gas industry.

As in any formal accreditation system for training, *WellSharp* looks to the training providers for a clear explanation of and justification for how the training they offer will accomplish the goals identified. *WellSharp* provides the roadmap for delivering consistent, quality well control instruction and assessment. It is the *WellSharp*-accredited training provider's responsibility to identify specific details of how their program will comply with the standard, as well as how any alternate delivery methods selected will assure the overall intent of the well control training is achieved.

Training providers seeking *WellSharp* accreditation are required to develop programs in compliance with this standard.

Definitions and Acronyms

Definitions of curriculum significant or uniquely used terms contained in this document are included in this list to ensure that all parties developing the *WellSharp* well control training use the terminology consistently and recognize the inclusion of basic, proven educational principles in designing the training materials.

Term	Definition
ACD	Accreditation and Credentialing Division, a division of IADC that manages the delivery of the <i>WellSharp</i> accreditation program.
Accreditable unit	An organization that is accredited to teach well control to the <i>WellSharp</i> standard. Normally called a “training provider,” the accreditable unit can be a company, educational establishment, or a training department within a company.
Assessment	The process of reviewing and evaluating a trainee’s level of mastery of the learning objectives. There are two forms of assessment required for well control training at the Driller, Supervisory, and Engineering levels: knowledge and skills.
Assessment criteria	The established standards by which a trainee’s knowledge and skills are evaluated and the evidence required to meet the standard.
Certificate of Completion	A certificate given to the trainee upon successful completion of a <i>WellSharp</i> well control course.
Computer-based training (CBT)	A form of e-Learning training that is completed on a computer, whether through self-contained training modules or otherwise.
Criteria	Typically referring to “accreditation criteria,” the standards (principles) on which a well control training program is evaluated for accreditation status. Criteria are based on program requirements and guidelines.
Curriculum	The documented plan, scope, and content for training delivery in a course or courses.
e-Learning	A training strategy wherein a trainee receives all or part of a training module via a computer, workstation, or other means of electronic delivery.
Grace period	A set period of time given to a person or organization to comply/conform with new regulations/rules (beyond the established deadline).
ILT	Instructor-led training comprising lecture in combination with other training strategies (for example, hands-on exercises, demonstration, video, etc.) delivered by a trainer interactively in real time in a face-to-face classroom environment.
Instructor Knowledge Test	IADC standardized electronic knowledge test that <i>WellSharp</i> instructors must pass before gaining IADC approval.

Knowledge	An employee or trainee’s clear and practical understanding of the information, facts, or processes needed to perform his or her job successfully and efficiently. Knowledge can be tested through written or verbal assessments.
Learning objective	A statement, written in measurable terms, that captures the intended outcome of a learning topic.
Learning styles	The method(s) by which an individual trainee processes (learns) the information in a training lesson. In the most basic form, these include visual, auditory or verbal, and kinesthetic (hands-on), but they also involve social and solitary learning. Teaching strategies should correspond to learning styles to the extent possible.
Observed teaching	A requirement for instructor approval that involves the “trainee” instructor being observed and assessed, by a <i>WellSharp</i> -approved instructor, while teaching a number of well control classes for which he/she is seeking approval.
OGP	International Association of Oil and Gas Producers, headquartered in London, which, according to their website, represents the interests “of the upstream industry before international regulators and legislators.”
Proctor	An independent person who administers the knowledge assessment and monitors trainees as they complete the knowledge assessment to ensure integrity of the assessment process.
Recommendation	An expression in the content of a document conveying that, among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required, or that (in the negative form) a certain possibility or course of action is deprecated but not prohibited. <i>SOURCE: The International Organization for Standardization.</i>
Requirement	An expression in the content of a document conveying criteria to be fulfilled if compliance with the document is to be claimed and from which no deviation is permitted. <i>SOURCE: The International Organization for Standardization.</i>
Self-paced study	A program of study based outside of a normal classroom environment. Content may be delivered through books, audio, video/TV, electronic delivery (CBT/e-learning) or a combination of these.
Skills	A trainee’s aptitude to perform well control tasks successfully and efficiently as demonstrated using simulator or live well exercises.

Skills assessment	A test involving a simulator or live well to assess that the learning objectives have been met. Criteria for the assessment are documented on a skills assessment checklist.
Standard vs. standards	IADC uses Standard with a capital “S” in referring only to an internationally or regionally accepted model or document providing a program’s requirements, guidelines, or characteristics. In contrast, the use of “standard” with a lowercase “s” refers to a program’s recommendations, requirements, and criteria developed by IADC and its committees with the goal of gaining wider acceptance and, eventually, the status of “Standard.” The use of the plural “standards” typically denotes the individual principles that form a standard or Standard.
Supplement	Additional training beyond the course’s required curriculum that is based upon an approved curriculum and additional assessment requirements. Successful completion of a supplement will be recognized on a trainee’s course Certificate of Completion.
Training module	Related material that is taught together as a unit. In terms of curriculum, a module is a topic or lesson or a set of topics or lessons that enhance a trainee’s knowledge, skills, and/or behavior in regards to the overall subject (e.g., well control). Training modules typically include an assessment at the end of the lesson(s) to determine the trainees’ retention of the material.
Train-the-Trainer	A required program of study that teaches a “trainee” instructor the techniques of good, learner-centered instruction.
WellSharp	IADC well control accreditation standard.
WellSharp Review Panel	Panel of selected industry Subject Matter Experts who review applications for <i>WellSharp</i> accreditation.
Written assessment	A test involving written questions to assess that the trainee has met course learning objectives.

2 Requirements for Accreditation

This section provides the requirements for gaining *WellSharp* accreditation, including the policies and procedures that must be in place before applying for accreditation. The core criteria contained in this section shall be regarded as a baseline standard for course design, content, delivery, administration, assessment, and quality control.

2.1 Accreditable Unit

WellSharp accreditation is available to an “accreditable unit,” where “accreditable unit” is defined as a training provider, company, organization, or unit of a company or organization that:

- Is managed by a director, manager, or head of the unit who has primary authority over and operational oversight responsibilities for the training entity seeking *WellSharp* accreditation, and has the authority to manage the activities of the well control training entity in accordance with this standard.
- Has a central management and administrative location where the training organization’s accreditation and training records will be housed.
- Operates according to centralized administrative and process controls that govern the well control training activities of the entire unit.

In applying for accreditation under *WellSharp*, the accreditable unit (hereafter referred to as the training provider) must comply with the criteria and operating procedures outlined in this section. The applicant is required to supply evidence of compliance during the application process that will be verified at the time of the site visit.

2.2 Pre-Application Considerations

General requirements for accreditation are as follows:

- Training providers shall agree to employ adult-learning-based training methodologies.
- All well control training instructors who will be delivering course material must possess well control subject matter expertise for the course(s) to be delivered and shall be suitably qualified through training and experience as well as in educational principles. (See Section 2.9 for more details).
- The curriculum defined for each *WellSharp* course shall serve as the core curriculum for accredited well control training (see the course-specific WSP-02 documents for details). The curriculum and related assessments will vary according to level and stack qualification.
- The training provider shall observe any and all statutes and governmental regulations that bear upon its activities including, but not limited to, the prevailing standards of well control training content, and health, labor, and safety requirements of the country, state, and district in which it is located.

Membership in IADC or membership in any association or industry organization shall not be required as a condition for gaining or maintaining accredited status under this well control training program.

2.3 Applying for Accreditation

To initiate the accreditation process, a training provider must submit an application with the required documentation and payment of application fees.

The training provider that seeks *WellSharp* accreditation must be able to prove conformance with all accreditation criteria. Therefore, the applicant seeking accreditation must prepare the accreditation application with a degree of thoroughness to withstand extensive technical review and onsite audit to verify full implementation of all program components.

In addition, the applicant must be prepared to supply further evidence of conformance with program requirements as requested during the review process.

WellSharp Program staff may provide consultative guidance to training providers inquiring about or undergoing the accreditation process but will not engage in completing any part of the application on behalf of the applicant. The application must be complete and fees paid before the application will be processed.

All instructors who will deliver well control training, whether employed by or contracted to an accredited training provider, will require IADC approval. The requirements for instructor approval are defined in Section 2.9.

2.4 Course Types and Description

A training provider may be accredited to offer one or more of the following five drilling well control courses:

- Awareness Course—Well Control Awareness
- Introductory Course—Introduction to Well Control
- Driller Course—Well Control for Drilling Operations
- Supervisor Course—Well Control for Supervisors of Drilling Operations
- Engineering Course—Well Planning and Well Control Risk Mitigation

These five (5) IADC well control courses for drilling operations are described below. Further curricula details are provided in the appropriate WSP-02 document for each course.

WellSharp curricula and associated training delivery requirements are designed to be relevant to the trainee's role and well control responsibilities. Therefore, a person's job role or function defines the course/training level the trainee should complete.

2.4.1 Awareness Course

This course is the *WellSharp*-recommended training for persons in positions identified as needing an awareness of well control operations. See Appendix A for a listing of personnel for whom the course is recommended. The course should be available to personnel in support roles (e.g., for all personnel working near or in support of the drilling, workover, or completion operations, including office and non-drilling rig personnel). See the WSP-02-DO-A curriculum document for details.

Instructor led training (ILT), self-paced study workbook, or e-Learning (e.g., computer-based training [CBT], web-based training, or other electronic delivery) may be used for delivery of the *WellSharp* Awareness course's content. If delivered through ILT, the course must be taught separately from the other *WellSharp* courses and must be at least 4 hours in length. If other delivery methods are used, the course length will vary based on the learner's pace of study, but all course content must be covered.

A written knowledge assessment is optional. Certificate of Attendance shall be issued to trainees completing a *WellSharp* Awareness course. Recertification at this level is not required.

2.4.2 Introductory Course

This course emphasizes kick prevention and detection and is recommended training for personnel identified in Appendix A. This course curriculum incorporates both surface and subsea topics, with the majority of the topics being relevant to both surface and subsea operations. See the WSP-02-DO-I Curriculum for details of the course content.

ILT, self-paced study workbook, or e-Learning (e.g., CBT, web-based training, or other electronic delivery) may be used for delivery of the *WellSharp* Introductory course. If delivered through ILT, the course will be a minimum of 16 hours and must be taught separately from the other *WellSharp* courses. If delivered through self-paced study workbook or e-Learning, the course length will vary based on the learner's pace of study, but all course content must be covered. Twelve hours is included in the curriculum content. This material will be supplemented with a 4-hour required training module. Therefore, the full course will be 16 hours.

Completion of a *WellSharp*-approved knowledge assessment is required. Simulator or live well exercises and assessment are not required for this course. The accredited training provider must ensure each trainee's completion of the study material (whether through completion of the ILT course or other delivery methods) before providing the trainee an opportunity to take the knowledge assessment.

A Certificate of Completion shall be issued to each trainee successfully completing the course. Continuation of certification for the target audience should be maintained, with certificates remaining valid for 5 years.

Demonstration of Introductory course knowledge is required of drilling contractor personnel before they are permitted to enroll in the Driller course for the first time. (See Section 2.5.1 for details on how to satisfy the Driller course prerequisite.)

2.4.3 Driller Course

The Driller course is designed for personnel who are engaged in drilling operations that have responsibility for detecting a kick and shutting in the well. This course focuses specifically on the Driller's primary responsibilities rather than on advanced calculations and well control methods. It includes kick prevention, influx detection, well monitoring, introduction to barrier management, and well shut-in. See the WSP-02-DO-D Curriculum for details of the course content.

The course is required training for the target audience identified in Appendix A.

This course must be delivered as ILT for the initial and repeat training. Simulator exercises are required. A *WellSharp* knowledge assessment and simulator or live well assessments are also required.

All persons taking the Driller level course for the first time must provide evidence of having passed the Introductory course knowledge assessment before enrolling for the Driller course. (See Section 2.5.1 for further details.)

The Driller course must be delivered separately from any other *WellSharp* course. A training provider delivering this course may include trainees requiring a Surface Stack and a Subsea Stack certification. (See Section 2.5.2 for details.)

A Certificate of Completion shall be issued to each trainee successfully completing the course. Continuation of certification for the target audience should be maintained, with certificates remaining valid for 2 years.

The Driller course is a prerequisite for drilling contractor personnel entering the Supervisor course for the first time.

2.4.4 Supervisor Course

The Supervisor course addresses more advanced well control topics such as well kill operations and well control risk management. It builds upon the kick prevention, influx detection, introduction to barrier management, and well monitoring content of the Driller course; therefore, successful completion of the *WellSharp* approved Driller course is required for drilling contractor personnel before taking the Supervisor course. See the WSP-02-DO-S Curriculum for details of the course content.

The Supervisor course is required training for the target audience as defined in Appendix A.

This course must be delivered as ILT. Simulator or live well exercises are required. A *WellSharp* knowledge assessment and simulator or live well assessments are also required.

The Supervisor course must be delivered separately from any other *WellSharp* course. A training provider delivering this course may include trainees requiring a Surface Stack or a Subsea Stack certification. (See Section 2.5.2 for details.)

A Certificate of Completion shall be issued to each trainee successfully completing the course. Continuation of certification for the target audience should be maintained, with certificates remaining valid for 2 years.

2.4.5 Well Planning and Well Control Risk Mitigation (“Engineering”) Course

This course is recommended for personnel involved in well design. Guidance on the content, delivery methods, and exercises is available in the curriculum documents for this level of training. Appendix A provides a list of positions for which the Engineering course is recommended.

The course focuses on those aspects of well planning and design (including barrier management) that are applicable to well control. Examples of learning topics are rig and equipment selection, uncertainty management, casing seat selection, shallow hazards assessment, risk assessment and mitigation, and contingency planning.

The Engineering course shall be a standalone course and include foundational training topics from the Driller and Supervisor courses rather than requiring those courses as prerequisites for the Engineering course.

The training must incorporate simulation and scenario-based strategies and must be delivered as ILT for initial and repeat training. A well control knowledge assessment and simulator or live well assessments are required.

The Engineering course must be delivered separately from any other *WellSharp* course. A training provider delivering this course may include trainees requiring a Surface Stack or a Subsea Stack certification.

A Certificate of Completion shall be issued to each trainee successfully completing the course. Continuation of certification for the target audience should be maintained, with certificates remaining valid for 5 years.

2.4.6 Well Control Training Supplements

Well Control Training Supplements may be added onto an existing course curriculum. These supplements provide standard content for specialized topics that certain trainees may require over and above the material covered in the course. A supplement will not replace existing course content, but will be in addition to, and an enhancement of, existing course content. Supplements are not available as a stand-alone course.

Additional training time will be required for each supplement, with the amount of additional time dependent upon the topic of the supplement.

A trainee's *WellSharp* Certification of Completion will reflect not only the name of the course completed but also will list the name of all supplements completed in conjunction with the course.

2.5 Course Design and Delivery

IADC recognizes that training delivery methods that provide higher trainee involvement enhance knowledge retention and are, therefore, considered highly preferable to lecture-focused methods only. Training providers are encouraged to build courses using a variety of adult learning strategies, including scenario-based and simulation methodologies, and to consider differences in trainees' learning styles and generational learning preferences in the course design and delivery. IADC encourages the training provider to employ innovative methods and technologies to deliver the well control training.

2.5.1 Course Design

In designing their courses, training providers are expected to adhere to the baseline expectations and content requirements provided in this Section and in the curriculum documents for each course (WSP-02 and the cross-reference tools submitted to IADC during the application process). Consideration must be given to the target audience, prerequisites, course length, and instruction time allocations.

Awareness and Introductory Courses: These two courses are general in design and do not focus in-depth on well control topics specific to stack type. Trainees from surface or subsea rigs can attend the same course. Therefore, certificates are not specific to stack type.

Driller, Supervisor, and Engineering Courses: These three courses are more specific in design, with time needing to be spent focusing on topics specific to stack type.

Trainees from surface or subsea rigs can attend the same course. The course curriculum defines what content must be delivered for each stack type. In a combined stack course, the training provider should manage course delivery in a way that assures both stack types are adequately addressed and that delivery is in conformance with specific instructions given in the course curriculum document. Additional course time will be required. Refer to Section 2.5.2 and the course curriculum for instructions in how to combine stack type within one course.

Target Audiences for Courses

The target audiences for the *WellSharp* courses are specified in the course curriculum documents (i.e., WSP-02 forms). These target audience listings include the common job functions/roles, but may not be all-inclusive. Many optional job titles may exist for each of the job functions. If there is any doubt as to the course an employee should take, the employer should contact IADC for guidance.

Course Length and Assessment Requirements

Table 1 defines course length and assessment requirements for *WellSharp* courses. Course length provided is the minimum time required. Training providers may increase the amount of time given to each course but may not deliver an accredited course with less than the required amount of time.

Table 1: Course Length and Assessment Requirements

Course	Minimum Course Length*	Skills Assessment (Simulator/Live Well)	Written Knowledge Test
Awareness	4 hr.	–	–
Introductory	16 hr.	–	Required
Driller courses			
Driller, Surface Stack only	24 hr.	Required	Required
Driller, Subsea Stack only	24 hr.	Required	Required
Driller, Combined Surface/Subsea Stack	29 hr.	Required	Required
Supervisor courses			
Supervisor, Surface Stack only	24 hr.	Required	Required
Supervisor, Subsea Stack only	24 hr.	Required	Required
Supervisor, Combined Surface/Subsea Stack	29 hr.	Required	Required
Engineering courses			
Engineering, Surface or Subsea Stack only	To be decided	Required	Required
Engineering, Combined Surface/Subsea Stack	To be decided	Required	Required

* For Driller, Supervisor, and Engineering courses, course length includes simulator or live well assessment time. Knowledge assessment (test) time and time allocated for lunch and breaks are outside this course length calculation.

The maximum number of training hours per day shall be limited to 9 hours for each *WellSharp* course. This time limit applies to any combination of instruction, simulation, exercises, and written and simulator or live well assessments.

Remediation (or requested time for individual trainees) and time required for homework can be in addition to the maximum 9 hours of instruction time; however, trainees are not required to remain in class for more than the maximum time.

Course Prerequisites

The Awareness, Introductory, and Engineering courses are designed to be standalone courses, and therefore, do not require that a lower level course be completed before enrolling in these courses.

The Driller and Supervisor courses build upon the content of the next lower level course, and therefore, have prerequisites that must be satisfied before enrolling in these courses. These prerequisite requirements apply to drilling contractor personnel only. See below for details of these requirements. All others enrolling in the Driller or Supervisor course are not required to meet the following course prerequisites.

Driller Course Prerequisite

Drilling contractor personnel/trainees enrolling in the Driller course for the first time must demonstrate that they possess the foundational knowledge communicated in the

Introductory course. Completion of the Introductory course is not required, but is recommended.

Two pathways are available for satisfying this Driller course prerequisite:

- Complete the Introductory course, pass the course knowledge assessment, and provide a copy of a currently valid, industry recognized Introductory course Certificate of Completion when enrolling for the Driller course. (For other internationally recognized non-*WellSharp* certificates, the training provider must check the validity of the certificate.)
- At time of enrolling for the Driller course, provide evidence of passing the Introductory course knowledge assessment within the past 45 days. An Introductory course Certificate of Completion is not required. This could be considered a “Test Out Option,” but the trainee would not receive an Introductory certificate upon passing the test. To receive a Certificate of Completion the trainee must attend and pass the Introductory course.

Supervisor Course Prerequisite

When enrolling for the Supervisor course, drilling contractor personnel/trainees must provide evidence of holding a currently valid, industry recognized Driller course Certificate of Completion or evidence of having successfully completed a Supervisor course. (For other internationally recognized non-*WellSharp* certificates, the training provider must check the validity of the certificate.)

2.5.2 Content Delivery Methods

A number of course content delivery methods are available and permitted depending upon the course level. Delivery methods may include one or more of the following:

- Instructor-led training (ILT), which includes lecture and other activities that require instructor interaction directly with the trainees during those activities (for example, demonstrations, short videos [and other media presentations], and hands-on practical exercises).
- e-Learning, which is the broad category of learning that includes CBT and other electronic media; the trainee interacts directly with the electronic media and works independently of the instructor.
- Self-paced study workbook, which does not typically include ILT.
- Simulator as a supplement to the instruction to demonstrate a well control procedure.

The delivery methods may be employed singly or in combination to enhance the learning experience. IADC requires that training providers utilize multiple methodologies for the higher-level courses, provided the time allocations for the various methodologies remain within prescribed time limits. See the next section for time allocations.

Throughout the course, the Instructor should clearly communicate the course Learning Objectives to trainees so the trainees understand what knowledge they are expected to retain and skills they are expected to demonstrate.

Instruction Time Allocations by Delivery Type

The minimum course time must be allocated among the various methodologies a training provider may use in delivering course content: lecture, demonstration, practical hands-on exercises, simulator/live well exercises, homework, simulator/live

well assessments, etc. At a minimum, the allocation of course time must meet the following requirements:

- Be a reasonable balance between ILT, simulator/live well exercises, other “active” learning and skills development activities, e-Learning, and other methodologies.
- Simulator or Live Well Exercises (for courses requiring these exercises):
 - Must not be less than 30% of minimum required course duration. (Simulator assessment time is not included in this percentage.)
 - Require individual trainees or trainee teams to be directly involved with operating the simulator.
 - During simulator exercises, those trainees who are not directly involved in the simulator exercises must spend that time engaged in other training activities. These may include kill sheet calculations, CBT, or other exercises.
- Instructor-led time:
 - Shall occupy the remainder of the course time.
 - Shall include simulator assessments.
- While CBT may be included in course delivery, individual trainees must not spend more than 4 hours of the minimum course time on CBT exercises.
- Each trainee must be engaged in training or simulator assessment for the full course duration. They may not leave the training center as long as training activities are underway.

Class Sizes

The class size approved for each course (up to the maximum) will be determined by the number of well control simulators or live well(s) available, number of instructors participating in the course delivery, classroom space, course length, and course being delivered.

The maximum allowable class size will be:

- Thirty-six (36) trainees in an Awareness course
- Eighteen (18) trainees in an Introductory course

Table 2 below shows how simulator numbers determine class size for Driller and Supervisor courses. The maximum class size for Driller and Supervisor courses shall not exceed 18 trainees.

Class size for the Engineering course is to be decided following development of the curriculum.

Table 2: Maximum Class Size for Driller and Supervisor Courses.
 (Based on One Instructor and Minimum Course Length)

Number of Simulators	Maximum Number of Trainees Per Simulator Group	Maximum Number of Trainees Per Live Well Group	Maximum Class Size
1	3	3	6
2	3	3	12
3	3	3	18

When submitting an Application for Accreditation, the training provider is required to specify the maximum class size for which the course is designed, the total course duration, and trainee management during simulator/live well exercises, other exercises, and skills assessments.

When determining class size, the training provider must consider that trainees for different course levels may not be combined into one class.

Combining Stack Types

WellSharp permits combining stack types within the same course in accordance with specific guidelines provided in the curriculum document for each course. The training provider is responsible for managing classes with “combined stack” trainees in a way that assures each stack type is adequately addressed in the course. Material from both stack types must be included, and additional course time is required for delivery of the combined stack content. See specific curriculum for details on additional training topics and additional time required for combining stack types.

Stack content may be delivered in a way that the surface and subsea topics are mixed throughout the course or the subsea topics are covered as discrete “modules” at some stage during the course. The training provider’s Application for Accreditation must provide details of how the combined stack course is to be managed.

See Section 2.10 Training Assessment Process for guidance on the assessment options available to trainees in combined stack courses.

Well Control Training Supplements

Guidance on delivering well control training supplements will be provided at the time curricula are developed for the supplements. Delivery of supplements will require that additional training and assessment time be added to the standard course delivery time.

2.6 Trainee Course Materials

Materials that must be given to each trainee at the beginning of the course include the following:

- Training Manual
- *WellSharp* Quality Statement & Comment Policy

2.6.1 Training Manual

A training manual must be provided for each trainee’s use during the class and given to keep for future reference. This applies to Introductory, Driller, Supervisor, and Engineering courses only.

The training manual must include subject matter appropriate for the course level and stack type in conformance with the *WellSharp* curriculum requirements. It must also include the following:

- Table of Contents
- Chapters
- Page numbers
- Glossary of terms (may be provided as a separate reference)
- Key well control formulae for the specific training topic (may be provided as a separate reference)
- Index (optional, but recommended)

This content may be addressed in one manual, or in separate modules or documents.

The manual may be printed or provided in an electronic format but must have the capability of being displayed by each individual trainee during the course (e.g., on a computer or an electronic tablet). If a printed manual is used during the course and then is retrieved from the trainee at the end of the course, an electronic version (e.g., CD-ROM, Memory Stick, etc.) must be provided to the trainee to take away after the course.

The manual(s) used must be submitted to IADC for review as part of the Application for Accreditation.

2.6.2 *WellSharp* Quality Statement and Comment Policy

The *WellSharp* Quality Statement and Comment Policy (Form WSP-67) must be distributed to each trainee at the beginning of each *WellSharp* course.

2.6.3 Trainee Agreement to Upload Records

IADC requires that each trainee grant permission to upload his/her training records from the electronic testing database into the IADC records database. The trainee's permission shall be obtained electronically at the launch of the electronic knowledge test. The testing system will prompt the trainee to read WSP-18 Agreement to Upload Records. The trainee must accept the terms and grant permission to upload records; otherwise, the test will not be delivered. The trainee and training provider may each request a copy of the completed agreement form.

2.7 Simulation, Live Well, and Other Practical Exercises

Training providers must develop simulator or live well and other practical exercises that complement the course content being delivered. Exercises shall model the type of operation for which the trainee will be assessed.

Each trainee must perform simulator or live well and other practical exercises as required by the curriculum.

The equipment used to provide each trainee hands-on learning and assessment must be operational for delivering training and for preparing the trainee for the skills assessment, and be approved by IADC. There are two types of equipment that may be used to carry out a skills assessment:

1. Approved Simulator
2. Approved Live Well

The following provides specific requirements for conducting simulation/live well exercises:

- Maximum of three (3) persons as a team on one simulator for simulator or live well exercises.
- Minimum of three (3) simulation/live well exercises per team per course.
- At least 30% of the minimum required course duration must be dedicated to hands-on simulator or live well exercises.
- The 30% simulator exercise time does not include time spent on simulator or live well skills assessments.
- Allocation of time to each individual exercise is at the discretion of the training provider; however, each trainee should have sufficient time to practice identified skills on the simulator or live well.

In each case above, an instructor will be in the simulator/live well area for a number of hours, potentially leaving trainees that are not participating in the simulator exercises unsupervised. Training providers will need to state in their application how they will manage classroom activities and provide direction for all trainees, both during simulator exercises and during completion of kill sheets, calculations, e-Learning, or other exercises.

2.7.1 Simulator Capabilities

A simulator must meet the following general requirements:

- Have two discrete and physically separate workstations.
- Be capable of simulating either surface stack, subsea stack, or both stack types.
- Allow for instructor analysis of a trainee's performance by recording certain key data within the simulator/live well and be capable of printing out that data at the end of the simulation.

Key data to be recorded must include drillpipe and casing/choke pressures, strokes per minute, pit level changes, casing shoe pressure, formation fluid pressure and bottomhole pressure, all of which must be scalable against time and/or strokes pumped.

Operational Capabilities

The simulator or live well to be used in the delivery of *WellSharp* course practical skills exercises and assessments should have the following operational capabilities:

1. Driller Course – must allow the trainee to:
 - Line up the BOP panel, remote choke, standpipe, choke manifolds, mud pits, trip tank, flow line, mud pumps, etc.
 - Record slow circulating rates.
 - Record choke line friction (subsea mode only), either circulating down through the bit or circulating down the kill/choke line and up the riser. (Circulating down choke or kill line and up opposing kill and choke line is recommended but optional.)
 - Drill ahead with required pump speed (strokes per minute, SPM), weight on bit (WOB), and rotary/top drive speed.
 - Monitor pit levels and return flow rate, and set up high/low level alarms for both.
 - Monitor the key drilling and well control parameters of rate of penetration (ROP), weight on bit (WOB), strokes per minute (SPM), total strokes,

drillstring revolutions per minute (RPM), pit level, flow rate, rotary/top drive torque, pump pressure, and choke pressure.

- Be able to monitor trip tank level when tripping in or out of the hole.
- Adjust mud weight in the surface pits.
- Trip in or out of the hole and monitor the trip tank.
- Add a full opening safety valve into the drillstring at surface in the event of a kick while tripping.
- Recognize a drilling break (positive or negative).
- Recognize a kick through changes to flow rate and pit level.
- Shut the well in using either the hard or the soft shut-in procedure.
- Recognize a problem with the shut-in process and take corrective action(s).
- Record key kick data, inclusive of shut-in pressures, kick volume, and pit level change.

2. Supervisor Course – must allow the trainee to:

- Review line up of main panels (as stated in the Driller level above) in preparation to kill the well.
- Check key kick data.
- Monitor for gas migration and take necessary action (with either a float in the string or not).
- Determine shut-in drillpipe pressure (SIDPP) if a non-ported float is in the string.
- Change mud weight.
- Start well control procedures inclusive of managing choke line friction effects for subsea wells (if applicable).
- Carry out the Driller or Wait and Weight method using the relationship between SPM, strokes pumped, mud weight in the well, and surface pressure to successfully kill the well.
- Recognize common problems that can occur during a kill operation, and take steps to maintain correct bottomhole pressure and continue kill operation.
- Carry out Volumetric Well Control and Bullheading.
- Shut down at the end of the kill operation to determine if the well is dead.
- Strip drillstring into the well and maintain correct bottomhole pressure during this operation.

Simulator Design Requirements

Detailed requirements for the simulator design to be used in conducting skills exercises and assessments are defined in Appendix B.

2.7.2 Live Test Well Exercises

Live test wells are an alternative method of delivering simulation exercises. The well to be utilized in training and assessment should be described in the Application for Accreditation. The description should include physical parameters of the test well (for example, its depth), its capabilities and limitations, controls available, and the assessment methodology to be used. The live well should be capable of satisfying operational and other requirements for simulators as defined in Section 2.7 and in Appendix B.

2.7.3 Other Practical Exercises

IADC encourages utilization of a variety of other practical exercises other than simulator or live well exercises. The training provider will be asked to provide details of these exercises in the Application for Accreditation.

Other practical exercises may include, but are not limited to, the following:

- Calculations
- Exercise questions
- e-Learning modules
- Individual small device simulations (e.g., computer- or tablet-based)
- Equipment inspection

2.8 Facilities and Equipment

All training facilities of the accreditable unit must be described in the Application for Accreditation. Training facilities may be located at the central location of the accreditable unit or may be located elsewhere but have strong management and administrative ties to the central location of the accreditable unit. (If needed, refer to Section 2.1 for a definition of “accreditable unit.”)

The applicant must provide training facilities and equipment information to satisfy every criterion defined in this section.

2.8.1 Classrooms

All training facilities used for course delivery must be described in the WSP-03 Application for Accreditation.

Facility floor plans (with dimensions) shall be provided for all classrooms and other rooms utilized for course delivery, simulation, and other practical exercises. The floor plans should include a sketch of classrooms and room layout, inclusive of dimensions and designation of simulator locations. Space should be large enough:

- For the trainees to be seated at a distance apart so that each trainee can carry out individual work during classroom activities and written assessment
- To place training equipment
- To allow room for the instructor to carry out duties
- To meet local/state/national regulations for access and egress requirements

Course administration areas do not have to be designated on the floor plan.

At time of the audit, the floor plan must be found to match the actual physical characteristics of the facility. If the facility or floor plans change during the application process or at any time after gaining accreditation, the training provider must notify IADC of these changes before the next audit.

The facility must have lighting and ventilation that meet local, state, or national regulations for a “general office” work area.

IADC recommend simulator exercises and assessments are conducted in a separate room from instruction or other training activities. If the simulator exercises must be conducted in the same classroom, the simulator(s) should be visually separated from trainees not engaged in the exercises (e.g., portable screen or other means of partitioning the room). Simulation exercises and assessments cannot run concurrently with lecture or discussion-type classroom activities.

Other off-premises facilities may be used for administration of the written and simulator or live well skills assessments if use of those facilities has been pre-approved by IADC.

Whether operated by the same training provider or operated by a third party, these facilities must be identified in the Application for Accreditation.

When a separate facility is to be utilized for assessments, the applicant must report where the assessments will take place and must provide the minimum requirements the training provider will use in selecting the alternate facility.

2.8.2 Traveling Schools

Applicants for accreditation who plan to deliver *WellSharp* courses at locations other than the designated facilities identified and described in the application must define the minimum criteria for selection of remote training location facilities. The applicant must demonstrate that the selection criteria meet the intent of the *WellSharp* facilities requirement as defined above in Section 2.8.1.

2.8.3 Instructional Resources

Educational aids and equipment, if utilized for instruction, should be reported on the application. The following are examples of additional equipment that should be reported:

- Visual aids, such as models of well components (e.g., BOP, pumps)
- Tubing, rings, flanges, connections, etc.
- Software, photos, diagrams
- e-Learning components or web-based programs

2.9 Qualifications of Instructors and Skills Assessors

Instructors employed or otherwise utilized by *WellSharp*-accredited training providers must be qualified and approved to teach the subject matter he/she will present. Specific requirements are based on the course level and stack type for which the instructor is requesting approval. Either the training provider or an instructor may submit an application for *WellSharp* instructor approval.

Once approved as a *WellSharp* instructor, the instructor is expected to maintain his or her approval by demonstrating retention and updating of his or her well control knowledge and skills as part of the renewal process.

Approved *WellSharp* instructors may teach for multiple accredited training providers. To be registered to teach for a specific training provider, the instructor must have been included in the training provider's Application for Accreditation or may be added as an approved instructor for the training provider at a later date. Training providers are responsible for requesting that IADC add other approved instructors to their registry of approved instructors who are authorized to teach for the training provider.

Maintenance of IADC instructor approval is achieved by instructors submitting to IADC evidence of their being actively engaged in delivery of *WellSharp*-accredited courses and supplying other documentation as specified in Section 2.9.6. **This "recertification of instructors" is required every 5 years.**

Sections 2.9.1 through 2.9.8 give details of instructor approval requirements.

2.9.1 General Requirements

Requirements differ for new instructors seeking approval and current instructors seeking to maintain approval. The requirements also vary according to the course level(s) the instructor requests approval to teach.

Before embarking on the approval process, prospective new instructors for *WellSharp* courses will need to meet specific requirements based on their previous work and teaching experience, as well as well control knowledge. Their knowledge and previous experiences will dictate the course(s) they may be initially approved to teach.

After being initially approved at a specific course level, the instructor can then progress to teaching higher levels per the requirements in this section.

Further details of instructor requirements for initial approval are noted in Section 2.9.2 below. Sections 2.9.3 through 2.9.4 give details on gaining approval for additional course levels and supplements. Section 2.9.5 defines the requirements for skills assessors who may be approved to deliver skills assessments only. Approval as skills assessor may be used as a stepping stone to full instructor approval, giving the individual time to gain classroom teaching experience and accumulate the required training hours.

All *WellSharp* instructors and skills assessors, once approved, are required to maintain their approval levels. See Section 2.9.6 for requirements for maintaining *WellSharp* approval.

2.9.2 Initial Approval of Instructors

Requirements for gaining initial approval to teach a *WellSharp* course are dependent upon the course for which approval is requested. The requirements each applicant must meet are defined in this section. See the subsection for the specific course to determine the requirements and evidence the applicant needs to submit with the Application for Instructor Approval (Form WSP-05).

Instructors who satisfy the initial requirements for any course level and are approved by IADC shall automatically be approved at all lower course level(s). Additional requirements or additional applications will not be required.

Instructors who hold approved instructor status for another internationally recognized well control training standard may be eligible for a fast-tracked Initial Instructor application process. Consult with IADC Accreditation and Credentialing staff for details.

Awareness Course

Minimum requirements for instructors seeking approval to teach the Awareness course are defined in Table 3. The applicant for this level must satisfy each of the three requirements. Requirements 1 and 2 provide optional pathways for demonstrating that the applicant meets the requirement.

Table 3: Minimum Requirements for Initial Approval of Awareness Course Instructors

Awareness Course Instructors
Requirement 1: Experience (<i>one of the following four options</i>)
1. Wellsite, rig, or oil industry experience—Worked 6+ months in oil-related industry.
2. Instructional experience—Worked 3+ months on rig with training as part of job function.*

3. Instructional or teaching experience—Have 12+ months experience as a fulltime vocational instructor or as a teacher in secondary education or higher level; rig experience not required.
4. Other work experience—Minimum 12+ months working in any industry and possessing a college degree in science/technical discipline or relevant vocational certification; rig experience not required.
Requirement 2: Well Control Knowledge (one of the following two options)
1. Provide evidence of holding a valid, industry recognized well control certificate at Introductory level or higher.
2. Provide evidence of passing the IADC Instructor Well Control Knowledge Test at the Introductory course level or higher.
Requirement 3: Other Training (Required)
1. Successfully complete an IADC-approved Train-the-Trainer classroom skills course.
2. ONLY for those without rig experience as noted in Requirement 1—Complete basic drilling principles course(s) of 32 hours minimum duration. (See Appendix C for further details.)

*Job function: not a full time instructor but has training duties (for example, safety officer, H₂S specialist, or fire officer).

For details on how to upgrade from Awareness level to a higher course level, see Section 2.9.3 for details.

Introductory Course

Minimum requirements for instructors seeking approval to teach the Introductory course are defined in Table 4. The applicant for this level must satisfy each of the five requirements. Requirement 1 provides optional pathways for demonstrating that the applicant meets the requirement.

Table 4: Minimum Requirements for Initial Approval of Introductory Course Instructors

Introductory Course Instructors
Requirement 1: Experience (Choose one of the following four options)
1. Wellsite, rig, or oil industry experience—Worked 6+ months on rig-floor or in role that requires an Introductory or higher-level certification (as stated in Appendix A).
2. Instructional experience—Worked 12+ months on rig with training as part of job function.*
3. Instructional or teaching experience—Worked 18+ months as fulltime vocational instructor or as teacher at secondary education or higher level; rig experience not required.

4. Other work experience—Worked 24+ months in any industry and possessing a college degree in science/technical discipline or holds a relevant vocational certification; rig experience not required.
Requirement 2: Well Control Knowledge
1. Provide evidence of passing the IADC Instructor Well Control Knowledge Test at the Introductory level or higher.
Requirement 3: Other Training (Required)
1. Successfully complete an IADC-approved Train-the-Trainer classroom skills course. 2. ONLY for those without rig experience as noted in Requirement 1— Complete basic drilling principles course(s) of 32 hours minimum duration. See Appendix C for further details.
Requirement 4: Observed Teaching**
1. Teach the equivalent*** of four (4) full Introductory courses (classroom delivery) supervised by a <i>WellSharp</i> instructor approved for the Introductory course or level higher. This must be completed within 24 months prior to applying for <i>WellSharp</i> approval.

* Job function: not a full time instructor but has training duties (for example, safety officer, H2S specialist, or fire officer).

** Guidance on how to supply evidence of meeting Requirement 4: Observed Teaching is provided on Form WSP-05.

*** “Equivalent” means that the trainee teaches all course modules for the designated number of courses, but these may be delivered in multiple courses over the span of 24 months. The accumulative number of teaching hours should equal the number of required courses multiplied by the minimum course length for that course.

Instructors who satisfy the initial requirements for Introductory-level approval may also apply for approval at the Awareness level. No additional requirements need to be met for approval at the Awareness level.

Driller Course

Minimum requirements for instructors seeking approval to teach the Driller course are defined in Table 5. The applicant for this level must satisfy each of the four requirements. Requirement 1 provides optional pathways for demonstrating that the applicant meets the requirement.

Table 5: Minimum Requirements for Initial Approval of Driller Course Instructors

Driller Course Instructors
Requirement 1: Experience (Choose one of the following six options)
1. Wellsite, rig, or oil industry experience—Worked 6+ months in role that requires a Driller or Supervisor Certification (as stated in Appendix A).

2. Wellsite, rig, or oil industry experience—Worked 24+ months in a role that requires an Introductory or higher level certificate (See Appendix A).
3. Wellsite, rig, or oil industry experience—Worked 24+ months in industry and possessing relevant technical degree.
4. Instructional experience—Worked 18+ months on rig with training as part of job function.*
5. Instructional or teaching experience—Worked 24+ months as fulltime vocational instructor or as teacher at secondary education or higher level; rig experience not required.
6. Other work experience—Worked 24+ months in any industry and possessing a college degree in science/technical discipline or holds a relevant vocational certification; rig experience not required.
Requirement 2: Well Control Knowledge
1. Provide evidence of passing the IADC Instructor Well Control Knowledge Test at the Driller level or higher course level.
Requirement 3: Other Training (Required)
1. Successfully complete an IADC-approved Train-the-Trainer classroom skills course.
2. ONLY for those without rig experience as noted in Requirement 1— Complete basic drilling principles course(s) of 32 hours minimum duration. Appendix C provides further details.
Requirement 4: Observed Instruction**
1. Teach the equivalent*** of five (5) full Driller courses (classroom delivery, simulator/live well exercises, and assessments) supervised by a well control instructor approved by <i>WellSharp</i> for the Driller or higher course. The approved <i>WellSharp</i> instructor and the trainee instructor must sign the assessment record and submit the records along with the other evidence. This must be completed within 24 months prior to applying for <i>WellSharp</i> approval.

* Job function: not a full time instructor but has training duties (e.g., safety officer, H₂S specialist, or fire officer).

** Guidance on how to supply evidence of meeting Requirement 4: Observed Teaching is provided on Form WSP-05.

*** “Equivalent” means that the trainee teaches all course modules for the designated number of courses, but these may be delivered in multiple courses over the span of 24 months. The accumulative number of teaching hours should equal the number of required courses multiplied by the minimum course length for that course.

Instructors who satisfy the initial approval requirements for Driller course level may also apply for approval at the Introductory and Awareness levels. No additional requirements need to be met for approval at the Awareness or Introductory level.

Supervisor Course

Minimum entry-level requirements that instructors seeking approval to teach the Supervisor course must meet are defined in Table 6. The applicant for this level must satisfy each of the four requirements. Requirement 1 provides optional pathways for demonstrating the applicant meets the requirement.

Table 6: Minimum Requirements for Initial Approval of Supervisor Course Instructors

Supervisor Course Instructors
Requirement 1: Experience (Choose one of the following four options)
1. Wellsite, rig, or oil industry experience—Worked 24+ months in role that requires a Driller or Supervisor Certification (as stated in Appendix A).
2. Wellsite, rig, or oil industry experience—Worked 36+ months in role that requires an Introductory or higher level certification (as stated in Appendix A).
3. Wellsite, rig, or oil industry experience—Worked 36+ months in industry and relevant advanced technical degree.
4. Wellsite, rig, or oil industry experience—Worked 60+ months and relevant technical degree.
Requirement 2: Well Control Knowledge
1. Provide evidence of passing the IADC Instructor Well Control Knowledge Test at the Supervisor course level.
Requirement 3: Other Training
1. Successfully complete an IADC-approved Train-the-Trainer classroom skills course.
Requirement 4: Observed Teaching**
1. Teach the equivalent*** of five (5) full Driller courses (classroom delivery, simulator/live well exercises, and assessments) supervised by a well control instructor approved by <i>WellSharp</i> for the Driller or higher course. The approved <i>WellSharp</i> instructor and the trainee instructor must sign the assessment record and submit the records along with the other evidence. This must be completed within 24 months prior to applying for <i>WellSharp</i> approval.

* Equivalent Job Position: any position identified as Target Audience for the Driller or Supervisor level certification.

** Guidance on how to provide evidence of meeting Requirement 4: Observed Teaching is provided on Form WSP-05.

*** “Equivalent” means that the trainee teaches all course modules for the designated number of courses, but these may be delivered in multiple courses over the span of 24 months. The accumulative number of teaching hours should equal the number of required courses multiplied by the minimum course length for that course.

Instructors who satisfy the initial approval requirements for the Supervisor course level may also apply for approval at the Driller, Introductory, and Awareness course levels. No additional requirements need to be met for approval at the Awareness, Introductory, or Driller level.

Engineering Course

The minimum entry-level requirements for instructors seeking approval to teach the Engineering course will be defined following development of the curriculum.

2.9.3 Upgrading Instructor Approval to a Higher Course Level

Instructors may seek approval to teach a higher level course once they have achieved the initial *WellSharp* instructor approval. Advancing to a higher approval level can only be achieved one level at a time. Instructors seeking approval to teach higher level courses must submit the required paperwork to IADC and provide evidence of satisfying the requirements defined in Table 7.

Table 7: Minimum Requirements for Upgrading Instructor Approval

Requirement 1: Teaching at Current Approval Level
1. Teach equivalent of five (5) stand-alone course at the current level of approval before applying for a higher-level course approval (e.g., if an approved Introductory instructor, the Instructor must teach five (5) Introductory courses).
Requirement 2: Well Control Knowledge
1. Provide evidence of passing the IADC Instructor Well Control Knowledge Test at the appropriate higher course level.
Requirement 3: Observed Teaching
1. Complete required “Observed Teaching” requirements (course/classroom delivery and simulator or live well assessments) for the next higher course level under supervision of a <i>WellSharp</i> -approved instructor at the new level.

The Train-the-Trainer course is generic across the courses and is to be taken only one time. It does not have to be repeated when seeking approval to teach a new course level.

2.9.4 Adding Approval for Supplements

Instructors requesting to teach Well Control Supplements (described in Section 2.4.6) must be a currently approved instructor at the Driller or Supervisor level and must satisfy the following additional approval requirements.

- Successfully complete the IADC Instructor Well Control Knowledge Test specifically designed for the required supplement.
- Submit required form to IADC for approval.

2.9.5 Skills Assessors

Training providers may employ persons who carry out only the skills (i.e., simulator and/or live well) training and assessment elements of a course. To qualify as a skills assessor, an individual must meet all the requirements of an instructor approved for the same course level (as defined in Section 2.9.2), except that the skills assessor is not required to satisfy the classroom teaching hours.

The same procedures as stated in Section 2.9.3 minus the classroom instruction elements will apply for upgrading from Driller to Supervisor level. See Section 2.9.6 for requirements on maintaining approval.

2.9.6 Maintaining Instructor and Skills Assessor Approval

WellSharp-approved instructors and skills assessors must renew their approval every 5 years. Requirements for renewing instructor approval are defined in Table 8. Table 9 lists requirements for renewing approval of skills assessors.

Renewal of approval for all course levels must be achieved at the time the initial approval is due for renewal. Instructors and skills assessors submitting a request for continued approval may continue to carry out their duties provided they have submitted their request for renewal before the expiration date.

Table 8: Requirements for Renewing Instructor Approval

Requirements for All Instructors
1. Undergo teaching skills assessment to be performed by IADC or their representative.
2. Provide evidence of having delivered well control instruction for the course(s) the instructor is approved to teach (since last <i>WellSharp</i> approval date) in accordance with the following. <ul style="list-style-type: none"> a. Awareness course Instructors must deliver 60 hours of instruction. b. Instructors at all other course levels must deliver a minimum of 360 hours inclusive of trainees' skills assessments, with the equivalent of at least 3 courses at the highest level of approval; records of 10 trainees' skills assessments must also be submitted.
Additional Requirements—Awareness Course Instructors (<i>choose one of two options</i>)
1. Provide evidence of holding a currently valid standard well control certificate.
2. Provide evidence of passing the written IADC Instructor Well Control Knowledge Test within three (3) months prior to renewal application.
Additional Requirements—Introductory, Driller, Supervisor, and Engineering Course Instructors
1. Provide evidence of passing the course appropriate IADC Instructor Well Control Knowledge Test within three (3) months of renewal application. Note: Test should be for the course(s), stack types, and supplements the instructor is approved to teach. If more than one course and stack type, then a combined test should be taken.

Table 9: Requirements for Renewing Skills Assessor-only Approval

Requirements for persons serving as a Skills Assessor only (applies to Driller and Supervisor courses only)
1. Provide evidence of having delivered well control skills training for a minimum of 10 full courses at each course level and stack type approved to assess. (The evidence should be for training delivered since the last <i>WellSharp</i> approval date*.)
2. Provide evidence of having delivered minimum of 50 trainee skills assessments for each course and stack type approved to assess, and submit 10 assessment records for IADC review. (The evidence should be for assessments since the last <i>WellSharp</i> approval date*.)
3. Undergo skills assessment process review by IADC or their representative.
4. Provide evidence of passing the course appropriate IADC Instructor Well Control Knowledge Test within three (3) months of renewal. Note: Test should be for the course(s), stack types, and supplements the Skills Assessor is approved to teach. If the skills assessor is approved for more than one course and stack type, a combined test should be taken.

* A sampling of assessment records should be submitted for IADC review.

2.9.7 Reinstating Previously Approved Instructors

Instructors whose approval has lapsed will be required to renew by meeting the initial approval requirements for the course level and stack type they want to teach.

2.9.8 Instructor Well Control Knowledge Test

All applicants for IADC approved instructor and skills assessor must demonstrate their well control knowledge by completing and passing the IADC Instructor Well Control Knowledge Test.

The written test will be an independently proctored, written test comprised of in-depth course appropriate well control questions. The test is required for instructors teaching at the Introductory, Driller, Supervisor, and Engineering levels, and is optional for Awareness course instructors. It is also required for skills assessors engaged in Driller and Supervisor course delivery. The intent is to ensure instructors and skills assessors have an in-depth understanding of well control relevant to the curricula the instructor is to teach. Instructors who teach at a number of levels will receive a single test that combines elements of each level.

The passing grade shall be 80%.

Instructors and skills assessors teaching both surface and subsea stack types will take one combined stack test for each course at different course levels.

NOTE: For persons who serve as well control instructor and who also spend time at the wellsite in an operational role, that person must have a valid *WellSharp* or *WellCAP Plus* certification commensurate with their wellsite duties and complete the IADC Instructor Well Control Knowledge Test for the course level they will teach.

2.10 Trainee Assessment Process

WellSharp requires a twofold assessment process that evaluates the trainee's well control knowledge and skills. All courses except the Awareness course require trainee assessment. The type and level of assessment is course-dependent. Assessment requirements are identified by course in Table 1.

With the exception of the pass/fail questions (safety-critical questions that must be passed at 100%), the passing rate for remaining questions in both the knowledge and simulator/live well assessments is 70% for the courses requiring these assessments.

The knowledge assessment process requires each trainee to pass a standardized, centrally accessed, electronically delivered test. The test is to be proctored. The instructor may be available to answer trainee questions as needed.

Knowledge assessments contain two types of questions:

- Standard core knowledge questions—These questions must be answered 70% correctly in order to pass this portion of the test.
- Safety critical knowledge questions—These questions must be passed at 100% in order to pass the course. A wrong answer on a safety critical question will result in failing the exam regardless of the score on the standard core knowledge questions.
- Trainees missing one or more of the safety critical knowledge questions will have another opportunity to retest on the safety critical question(s) missed. Once the trainee answers all questions on the test, the testing system will deliver another test question on the same core safety critical subject matter that was missed. A second failure of the same subject material will result in overall failure of the test.
- The trainee must pass both portions of the knowledge test in order to pass the test.

The skills (practical) assessment will be performed using standardized processes (to include standardized assessment criteria and templates) and an approved well control simulator or live well. The skills assessment may be administered by the instructor or by a skills assessor. The trainee must perform safety-critical skills correctly (receiving a 100% passing score on those skills) and must receive 70% passing score on all remaining skills checks.

Passing the course requires passing both the knowledge assessment and the skills assessment.

Details on the testing protocol are given in Appendix D – Testing Protocol.

2.10.1 Managing Stack Types

The stack type affects not only *WellSharp* course content, but also trainee written and simulator or live well assessments.

The Introductory course contains content for both surface and subsea stack, therefore the written assessment administered to trainees will be a combination surface and subsea stack assessment. A skills assessment is not required for this course.

WellSharp offer three stand-alone assessment options for each of the Driller, Supervisor, and Engineering courses. These options affect the management and delivery of both the written and skills assessments. The options are described below.

Option 1: Surface-Stack Only Assessment—This option covers only surface-stack topics. All trainees must complete and pass the surface-stack written assessment and the surface-stack simulator or live well assessment. The trainee passing both assessments will be issued a surface stack only Certificate of Completion.

- Option 2: Subsea-Stack Only Assessment—This option covers only subsea-stack topics. All trainees must complete and pass the subsea-stack written assessment and subsea-stack simulator or live well assessment. The trainee passing both assessments will be issued a subsea stack only Certificate of Completion.
- Option 3: Mixed Surface-Subsea Stack Assessment—This option provides for assessment of both surface and subsea stack types. The trainee must pass both a combined surface/ subsea written assessment and a subsea-only simulator or live well assessment. The trainee passing both assessments will be issued a combination surface/ subsea stack Certificate of Completion.

Table 10 summarizes the assessment process for the multiple stack types.

Table 10: Assessment Process for Surface and Subsea Stack Types

Training Option	Assessment Requirement
Option 1: Surface Stack course only	Written surface stack knowledge assessment and surface-stack simulator or live well skills assessment
Option 2: Subsea Stack course only	Written subsea stack knowledge assessment and subsea-stack simulator or live well skills assessment
Option 3: Combined Surface/Subsea Stack	Written combined surface/subsea stack knowledge assessment and subsea stack simulator or live well skills assessment

2.10.2 Knowledge Assessment

Knowledge assessments are developed by IADC in conjunction with industry work groups. The following details apply to this assessment and its administration.

- All questions are stored in a central database owned and maintained by IADC.
- Computer-generated knowledge assessments are customized to course, supplement, and stack requirements.
- The tests are randomly computer-generated with each question’s answers randomly shuffled. (Sample test questions are available in WSP-12.)
- Tests are to be given online via computer, electronic tablet, or other electronic device unless local circumstances preclude this delivery. (IADC approval of alternate delivery is required. See Section 2.10.7 for details.)
- An independent proctor shall observe all knowledge assessments at the Driller, Supervisor, and Engineering courses. The proctor is not required for the Introductory course written assessment.
- Selected core safety-critical questions are contained in the test and must all be answered correctly (100% pass), with the remaining answers requiring a 70% pass rate.
- Maximum time to complete the knowledge assessment is course dependent. See Table 11 for Knowledge Assessment maximum time allocations.
- Trainees are permitted to ask for clarification of a test question.
- The Instructor must be available to provide clarifications if requested and will provide clarification only under the supervision of the Proctor.

- Trainees shall be allowed to review missed questions following completion and submission of the test. A copy of the well control topics missed shall be made available to the trainee and the trainee’s employer.

Table 11: Knowledge Assessments Requirements*

Test Level	Proctor Required	Maximum Time Allowed (hours)
Awareness		Test not required
Introductory		1
Driller	✓	2
Supervisor	✓	3
Engineering	✓	To be determined

* Customers requiring a training provider to add additional test questions that cover their specific requirements (e.g., company specific or local content) are to be in addition to the above time allotments. The trainee’s performance on the additional questions will not affect issuance of the *WellSharp* certificate.

All knowledge assessments for Driller, Supervisor, and Engineering courses shall require an independent proctor to ensure fairness and integrity of the assessments. See Section 2.10.4 for details on proctor responsibilities and qualifications.

2.10.3 Skills (Simulator/Live Well) Assessment

The Driller, Supervisor, and Engineering courses require each trainee to complete a skills assessment on a simulator or “live” well. Criteria for performing the skills assessment have been developed by IADC and standardized for worldwide application.

The following details apply to simulator or live well assessments.

- The IADC-approved instructor shall typically be the simulator/live well assessor.
- A training provider may employ an IADC-approved Skills Assessor to carry out simulator/live well skills exercises and assessments during a course only. See Section 2.9 Instructor and Skills Assessor Qualifications for details on *WellSharp* approval procedure for the Skills Assessor.
- No independent proctor is required for simulator or live well assessments.
- Pass grade for simulator and live well assessments is 100% for safety-critical questions and 70% for all remaining questions.
- Assessments will incorporate a number of pass/fail criteria (e.g., shutting well in with pumps running, maximum kick size).
- A skills assessment template has been developed by IADC as a minimum standard on which training providers can develop their own assessment criteria and grading sheet. This is available as WSP-07. The pass/fail criteria are identified in this minimum standard.
- If a live well cannot perform any of the criteria identified in the Skills Assessment Template, those criteria must be assessed on a simulator.

- Simulators shall store key data to assist with grading and audit. Copies of key data (commonly in graphical format versus time or strokes pumped) together with the Skills Assessment Template shall be available to the auditor during the *WellSharp* audit. Hard copy or electronic format is acceptable.
- Simulator or live well assessment documentation must state the type of problem scenario given to the trainee for the assessment.
- All simulator or live well assessment records are to be signed by the assessor, maintained as part of the trainee's record, and be available for *WellSharp* audit purposes.

The simulator assessment must be carried out in a separate room or in the same classroom that has been segregated by screening trainees who are being assessed from those trainees who are not being assessed. Lecture or discussion-type classroom activities cannot run concurrently with the assessment when the assessment is taking place in the classroom. Further details on the skills assessment are given in Appendix D.

2.10.4 Proctor Qualifications and Responsibilities

A proctor shall be independent of the training provider and any affiliate company, neither directly employed by the training provider nor related to any direct employee of, or contractor to, the training provider. The proctor must be approved by and registered with IADC prior to performing the proctor role for a *WellSharp* knowledge assessment for the first time. A list of pre-approved proctors and proctoring organizations will be established by IADC. Training providers will be notified of the process for connecting with the proctor network and scheduling for proctor services. Training provider recommendations for a proctor(s) will be reviewed and, if suitable, approved.

The proctor's responsibilities include the following:

- Give instruction on test requirements (in conjunction with the training provider), start the test, and restart tests as needed due to any computer malfunctions or safety concern.
- Monitor trainees for cheating or other irregularities.
- Monitor instructor as he/she responds to trainee's requests for clarification of a test question. The proctor will assure trainee is not being directed or given an answer to a test question.
- Stop the test for any irregularity, e.g., trainee found to be cheating, creating a disturbance, incorrect use of mobile devices, etc. (The instructor may serve as a witness if the proctor must stop the test due to cheating.)
- Administer and grade the paper test (where applicable).

Proctor qualification requirements are defined in Appendix E.

2.10.5 Reassessment Policy

An approved instructor or skills assessor may reassess a trainee who fails either the knowledge or skills assessment provided certain criteria are met. A proctor is required for the knowledge reassessment but not for the skills reassessment.

A trainee has passed the course if he or she scores 100% on all safety-critical questions and 70% or above on all remaining questions in both the knowledge and simulator or live well skills assessment. Reassessment is not required.

Criteria for Reassessment

- A trainee who scores less than 50% on the knowledge assessment fails the course and may not be reassessed. The trainee must repeat and pass the full *WellSharp* training course before being certified.
- If a trainee's knowledge assessment score is from 50% to 69%, one reassessment must be made available. The trainee does not pass the course unless he/she passes the reassessment.
- The trainee who qualifies for reassessment may be reassessed on the same day or may arrange another time for the reassessment.
- The trainee who qualifies for reassessment must complete the reassessment within forty-five (45) days of the original assessment date. Failure of the trainee to complete the reassessment within the allotted time will result in the entire course and full assessment (written and simulator/live well) needing to be retaken.
- A trainee who does not satisfactorily pass the simulator/live well skills assessment must be given an opportunity to complete one reassessment. The reassessment may take place during the current training course or at another time agreed to by the trainee and the training provider. If the trainee chooses to complete the practical/live well reassessment at a later date, the reassessment must be completed within forty-five (45) days of the original assessment date.
- The reassessment shall not be identical to the original assessment. The computer-generated knowledge assessment will contain different questions. The skills assessment must use a different well scenario.
- The written or skills reassessment may be taken at the site where the original assessment was given or at another facility operated by the same training provider.

Results of Retest Failure

Upon retesting, failure to pass standard core knowledge questions at the 70% passing score and safety-critical questions at the 100% passing score will require the trainee to attend the full course again in order to achieve certification. The trainee will be required to complete all parts of the assessment process as required for a full course.

2.10.6 Testing Protocol

See Appendix D for detail on *WellSharp* testing protocol (procedure).

2.10.7 Offline Written Assessments

Under certain conditions, online delivery of the standardized knowledge assessment may not be possible; therefore, alternate arrangements for delivery of the written assessment may be permitted.

An offline computer-based assessment will be permitted in areas where internet access is unreliable or unavailable. The offline computer-based assessment shall be delivered under the control of the independent proctor. Purchase of additional hardware/software to administer the offline assessment will be required.

A hard-copy written assessment may be permitted in an emergency, and only on a case-by-case basis. **The training provider must request a waiver and gain IADC approval to deliver an offline paper written assessment prior to delivery.** The offline paper assessment shall be delivered under the control of the independent proctor, who will be responsible for administering and grading the offline assessment.

In both offline delivery cases, the instructor will be responsible for reviewing missed questions with the trainee and uploading the trainee’s test score and other required data to the online *WellSharp* testing database when internet access becomes available.

The training provider will issue the certificate to the trainee once on-line access is available. The training provider will also need to provide trainees the IADC Course Feedback Form, giving each trainee opportunity to provide feedback on the course and instructor directly to IADC. This is in addition to any evaluation process the training provider already has in place.

2.11 Recertification and Advancement

Personnel with well control responsibilities must maintain a valid well control certificate, achieving recertification at the course level commensurate with their current job position. For example, a driller must successfully complete and maintain a Driller certification as long as he/she remains in a driller position. Refer to Table 12 for course-specific recertification frequencies.

Table 12: Recertification Requirements by Course

Course	Recertification Requirement (years)
Awareness	None
Introductory	5
Driller	2
Supervisor	2
Engineering	5

Personnel must recertify prior to the expiration of their current well control certificate. There is no grace period for renewal of a *WellSharp* Certificate of Completion.

WellSharp trainees may take more advanced levels of well control training, but not at the exclusion of the level appropriate for the trainee’s current position, role, and responsibilities. More advanced training may be taken in preparation for promotion. IADC recommends companies develop a strategy for managing the risks of field promotions that could occur before an employee has earned the appropriate higher-level *WellSharp* certificate.

2.12 Administration and Process Control

Accredited training providers must adhere to program administration requirements, policies, and procedures defined by IADC. These are defined below.

2.12.1 Standard Operating Procedures

Each accredited training provider must have certain written standard operating procedures that define procedures and responsibilities for each of the following:

- Registering trainees in the course
- Checking trainee identity

- Checking trainee's eligibility for a course (per Form WSP-xx) (if applicable)
- Management of trainee assessments, both skills and written test
- Quality Control processes

These procedures are to be defined by the training provider, with procedures documents retained and accessible by all employees having responsibility for any of these processes.

In-house training programs may rely upon employment processes and records for checking and verifying the identity of the trainee, however third party training providers must establish a process for confirming the identity of the individual receiving training and written knowledge assessment and must adhere to that process.

2.12.2 *WellSharp* Quality Statement and Comment Policy

The *WellSharp* Quality Statement and Comment Policy (Form WSP-70) must be distributed to each trainee at the beginning of a *WellSharp* course.

The Policy is designed to advise trainees of IADC's commitment to quality training. It also requests those participating in *WellSharp* training to communicate directly to IADC any comments or concerns they may have about the instruction received. Options for contacting IADC are via the knowledge testing database, mail, phone, fax, or e-mail.

The *WellSharp* Quality Statement and Comment Policy must be provided in the language in which the course is being taught.

2.12.3 Attendance Policy

Accredited training providers must adopt an Attendance Policy that ensures a trainee 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 trainee misses any portion of the course, the missed portion(s) must be completed before any final written test is administered to that trainee. The missed, and later completed, portion(s) must be documented in the trainee's record. (See Section 2.12.6 for details on managing missed portions.) If a trainee does not complete the missed portion(s) and the final assessments within forty-five (45) days of the initial end of course date, the entire course must be repeated.

2.12.4 Certificate Issuance

All trainees that successfully complete a course shall receive a *WellSharp* certificate as evidence of successful completion of the course. A *WellSharp* Certificate of Completion will be electronically issued through the *WellSharp* testing database to, and in the name of, only the individual receiving the training and passing both skills and knowledge written assessments. The training provider will provide the trainee with a 'hard copy printout' if requested by the trainee.

When a certificate is issued, the training provider shall retain a copy of the certificate and copies of all training records supportive of issuing the certificate.

IADC maintains a record of the certification. This certification record is used for future verification of individual's well control training.

Training providers, once accredited, will be provided information on how to manage the *WellSharp* assessment and records database. Failure of the training provider to correctly complete the certification record in the IADC database may be grounds for disciplinary actions against the provider up to and including revocation of accreditation.

2.12.5 Records

WellSharp-accredited training providers must maintain certain required records as evidence of adherence to the *WellSharp* program requirements.

Required records include the following:

- Accreditation records
- Trainee registration and training
- Course delivery and management records
- Quality control records
- Other records as required to document course suspension, missed portions of course, etc.

Records must be maintained at the training provider's "primary place of business," which is indicated at time of application for accreditation. "Primary place of business" can be the location where classes are normally conducted, or a designated central administrative office. All required records must be retained at the primary place of business (unless other location is approved by IADC). Records of any courses conducted at remote or satellite locations or multiple training locations must also be kept at the primary place of business.

Large commercial organizations having training facilities located in different geographical areas and having separate administrative and records management centers will be required to submit an Application for Accreditation for each administrative center.

A training provider may request to retain records at a location other than the primary place of business. This request may be made at any time, and must be approved by IADC before initiation of the alternate records location. The training provider must show good cause for the satellite records location and must demonstrate that good records control measures are in place. Approval, once granted, may be withdrawn at any time a site visit report indicates the alternate location hampers the accessibility or security of the records.

All records should be: 1) complete, 2) accurate, 3) readily accessible at time of audit, and 4) secure. To be deemed "accessible," an auditor must be provided access to all requested records at the designated location upon 2-hours' notice. This notice must be given between 8 a.m. and 5 p.m. local time, local weekend, and holidays excluded.

Records may be retained electronically or as paper copy. Minimum retention time for records is shown in Table 13.

Table 13: Required Records and Minimum Records Retention Time

<i>Type of Record</i>	<i>Minimum Retention Time</i>
Accreditation Records	Duration of <i>WellSharp</i> Accreditation*
Trainee registration & training records	Duration of the certificate of completion
Course delivery & management records	3 years**
Quality control records	3 years**
Other miscellaneous records	3 years**

* Retain only current versions of required documents (e.g., the current Certificate of Accreditation and letter notifying the training provider of accreditation). Not all versions of the required documents need to be retained.

** Retain until completion of next audit.

Accreditation Records

Accreditation records include Application for Accreditation, notification of *WellSharp* accreditation, and Certificate of Accreditation. Other records of important correspondence with IADC may be helpful to retain. These records shall be retained for the life of the accreditation.

Trainee Registration and Training Records

Records must be kept for each trainee. Records documenting a trainee's registration, including evidence of satisfying any course prerequisites, as well as his/her performance and course completion may be kept in either hard copy (paper) or electronic (scanned original) format. These must be retained as long as the trainee's certificate remains valid, or longer if required by local regulations (i.e., *WellSharp* Driller and Supervisor course certificates are valid for 2 years; *WellSharp* Introductory and Engineering course certificates are valid for 5 years).

Trainee records must include the following:

- Trainee information:
 - Trainee's full name (as it appears on the trainee's legal government-issued identification card (ID))
 - Employer (company name)
 - Trainee's contact address (optional)
 - Trainee's email address (optional)
 - Phone number (optional)
 - Job title
 - Trainee's identification number (e.g., employee number, passport number, national identification number, or other ID number assigned by the training provider)
 - Course attendance record (e.g., class roster or other record)

- Documented evidence of satisfying a course prerequisite (if applicable)
- Written and simulator/live well assessment and reassessment scores (if required)
- A Skills Assessment Checklist and simulator assessment data record or graph
- Copy of certificate of completion
- Records of retraining due to missed portions of the course (if applicable)

Each subsequent *WellSharp* course taken by a trainee requires the completion of a new set of training records containing the above data.

Course Delivery and Administrative Records

Records of course delivery and other administrative processes include any of the following:

- Class roster, to include:
 - Name of course (Awareness, Introductory, Driller, Supervisor and Engineering; surface or subsea stack type as applicable), course dates, attendees,
 - Instructor(s)
 - Training location
 - All trainees' names with identification numbers
- Trainee feedback (optional)
- Any other record that documents administrative process and shows the training provider's efforts to manage or control quality of the course delivery

These records must be completed and retained for each *WellSharp* course taught.

Quality Control Records

IADC requires training providers, once accredited, to maintain records that demonstrate their commitment to quality control of the *WellSharp*-accredited training processes. At a minimum, the accredited training provider shall maintain the following quality control records:

- *WellSharp* and other client audit reports
- Corrective Actions (CA) issued to the training provider
- Record of the training provider's response to CA
- Evidence that an internal program review and instructor evaluation process are in place
- Management of Change

Other Miscellaneous Records

The *WellSharp*-accredited training provider shall retain any other miscellaneous records that would be necessary to demonstrate adherence to the *WellSharp* accreditation criteria. Examples of such records include documentation of course suspensions, and records of trainees' missing portions of a course and later completing the course. When in doubt about the type of records to retain, contact IADC for guidance.

2.12.6 *WellSharp* Training Interruption Policies

Applicants for *WellSharp* accreditation shall have in place policies and procedures that govern situations that may result in training interruptions, whether a trainee's choice to suspend training until a later date or the training provider's decision to suspend training deliver for reasonable cause (e.g., illness of instructor or natural disaster).

These policies and procedures shall be written and accessible to training provider staff as well as *WellSharp* auditors for review at time of audit.

The following stipulations apply to these policies:

- The trainee must reschedule the missed portion of the course with the same training provider as the original course.
- Missed portions must be completed within 45 days of the originally scheduled completion date.
- The training shall be resumed at the beginning of the curriculum that was originally interrupted.
- If this provision is used, the training provider must promptly report training interruption to IADC on Form WSP-22.

Provider-Initiated Course Suspension

When, in the judgment of the training provider, it is necessary in the interest of safety to suspend a *WellSharp* course due to severe and unavoidable circumstances (e.g., tropical storm or natural disaster), the *WellSharp* program permits such suspension with resumption of the course at a later date.

If the course is suspended prior to completion, the course may be resumed with the original trainees, and missed portions completed within 45 days of the date of the course suspension. New trainees may not be added to the class at this stage of the training. The trainees need to complete only the curriculum portions that were missed in the original course. The certificate issued to successful trainees will be dated for the day of the assessment.

If the suspended course was a combination course and the missed portions are later completed within 45 days of the suspension date, the trainees need to attend only the curriculum portions that were missed in the original combination course. The trainees passing the final assessments shall be issued a certificate that reflects successful completion of the combination course. The certificate issued to successful trainees will be dated for the day of the assessment.

IADC-Initiated Suspension

If IADC suspends a training provider's accreditation, any course already begun may not be completed. Refer to Section 4 for additional information on IADC-initiated suspension of accreditation.

2.13 Site Visits and Audits

All accredited training providers are required to undergo an initial site visit, including observation of a sampling of instructors in the classroom, as a condition of accreditation. Repeat audits shall be conducted every three (3) years. *WellSharp* reserves the right to conduct an audit or site visit of an accredited training provider at any time.

For more information on site visits and audits, please refer to Section 3 in this handbook.

2.14 Quality Assurance

An accredited training provider should have processes in place to assure integrity of the Program and strict adherence to the *WellSharp* accreditation criteria. At a minimum, the following processes should be implemented:

- Verification of trainee identity
- Verification of trainee eligibility to attend a *WellSharp* course
- Control of trainee and other records to assure those records are secure and remain strictly confidential
- Responding to non-conformities identified during site visits and assuring corrective and preventive actions are fully implemented in a timely manner
- Monitoring for *WellSharp* program updates and assuring updates are implemented

These procedures should be written, and include designation of person(s) responsible for the processes.

Other processes should be developed, as needed, to help assure adherence to accreditation criteria.

2.14.1 Responding to Non-Conformities

The accredited training provider is responsible for responding in a timely manner to non-conformities identified during a site visit or other *WellSharp* audit process. Actions and timelines to resolve a non-conformity must be appropriate for the issue identified, and agreed to by IADC-designated staff and the training provider.

Planned timelines must be strictly met; otherwise, the accredited training provider will be subject to disciplinary action. Continued failure to address non-conformities will ultimately result in revocation of accreditation.

For more information about responding to non-conformities, see Section 4, which addresses the corrective action process and responding to non-conformities.

2.14.2 Monitoring and Implementation of Program Changes

Any training provider that is accredited or awaiting accreditation must notify IADC of any program changes that will affect the accreditation. Changes that must be reported include change in business structure, change in content or means of delivery of the *WellSharp* course, change in instructors, changes initiated as a result of IADC's changing program requirements. E-mail or other written notification of implementation of change should be sent to IADC within 30 days of implementing the change except in cases where IADC specifies the response timeline(s) for compliance with new program requirements,

Business unit changes that must be reported include change in program administrator, change in contact information, addition or deletion of a training location, and name change or other structural changes to the business model (e.g., merger with another company).

Changes to course content or delivery that must be reported include revision of course manual, addition or change in simulator equipment, removal of an instructor, change in simulator exercises or assessments, and renovation of training facility. Any change, even those that improve and enhance the *WellSharp* curriculum delivery, must be reported if it is a deviation from or an alteration of the program as approved by IADC. Addition of a

new instructor or new course must first be reviewed and approved by IADC before being implementing by the training provider.

Accredited training providers are required to implement *WellSharp* program criteria changes initiated by IADC. Upon making a change in criteria, IADC will notify every accredited provider of the change, the timeframe within which the change must be implemented, and whether or not evidence of implementation must be provided to IADC. If evidence of implementation is required by IADC, any provider failing to supply evidence of implementation within the requested timeline is subject to having their training program placed on Probation. Continued failure to implement requested changes and to supply evidence of implementation would result in revocation of the accreditation.

2.14.3 Logo Usage and Other Processes

Any training provider accredited under the *WellSharp* program receives certain privileges of accreditation, including the right to promote its accreditation and to use the *WellSharp* name and logo in the promotion of the accredited course(s). All accredited training providers are responsible for appropriately representing its accreditation to its trainees and its customers, and should have processes in place to assure that all representatives of the organization (e.g., instructors, administrative, and marketing staff) appropriately represent the *WellSharp* program. Failure to do so could result in revocation of accreditation. See Section 4 for more details.

2.15 Schedule of Fees

Fees include, but may not be limited to, the following:

- Initial Application for Accreditation fee
- Annual accreditation fee
- Initial Instructor and Skills Assessor application fee
- Instructor and Skills Assessor Renewal Fees
- Fee for additional course that is submitted as a separate application
- Written assessment fee per trainee
- Audit fees—Expenses associated with the conduct of each *WellSharp* audit are to be reimbursed by the accredited training provider. Audit expenses include the auditor's fee plus reasonable travel expenses.

WellSharp fees are published as Form WSP-06 Schedule of Fees and can be downloaded from the *WellSharp* website. Fees are periodically reviewed, with the Schedule of Fees updated as needed.

2.16 Accreditation Agreement

The applicant must sign and submit the *WellSharp* Accreditation and Audit Agreement Form (Form WSP-04). In signing and submitting this form, the authorized representative of the program agrees to certain conditions that include, but are not limited to, the following:

- Accept *WellSharp*'s accreditation standards and submit necessary information for participation as an accredited training provider in accordance with procedures set forth in this handbook.

- Abide by the decision of the IADC as to the compliance or noncompliance of the training provider with applicable accreditation standards (subject to the right of due process appeal as defined in Section 3).
- Follow and be controlled by all *WellSharp* operating procedures and rules.
- Assure that the services it provides fully comply with the applicable accreditation standard at all times.
- Submit to site visits / audits, as required, requested, or otherwise deemed necessary or desirable by IADC.
- Promptly comply with any request of IADC for necessary information if a claim of noncompliance with accreditation procedures or standard is filed against the training provider.
- Reimburse IADC for any expenses associated with investigation of a complaint against the training provider, unless the claim was filed by another training provider and is found to be without merit, in which case the charging training provider shall reimburse IADC.
- Reimburse IADC for expenses incurred in connection with a meritless charge that it files against another accredited training provider.
- Indemnify and hold harmless IADC, et al., from all liability, loss, damages, costs, or expenses, including attorney's fees, which may be incurred.

Note: IADC may terminate the Accreditation Agreement for causes set forth in the Agreement.

Appendix F provides a list of all forms and documents available for the applicant seeking accreditation.

2.17 Exceptions and Variations to These Criteria

IADC acknowledges that certain training providers may employ innovative methods and technology, and may have legitimate reasons to depart from some of the general specifications contained here.

A training provider may request a variance from or exception to these specifications by submitting a request to IADC.

A request for variance will be reviewed by IADC. The program will be required to explain or demonstrate how the requested variance meets the intent of the *WellSharp* program and will result in successful development and performance of the trainee's knowledge and skills identified in the *WellSharp* curriculum. If satisfied that the proposed variance maintains the overall philosophy and intent of *WellSharp*, IADC may allow the exception or variation. IADC reserves the right to impose specific conditions, either permanent or temporary, on the training provider in order to ensure the training quality is not compromised in such a program.

Appendix A: Recommended Course for Each Position

IADC recommends that persons in the positions identified in Table 14 take the *WellSharp* course level as identified. Commonly accepted position titles are used here. Other titles may apply for the same position.

Table 14: Recommended Courses per Position or Job Role

Company Type	Positions
<i>IADC recommends that persons in these positions or roles complete the Awareness level course.</i>	
Contractor	Roustabout, deck crew, and Crane Operators
	Rig Move Captain or Rig Move Offshore Installation Manager
Operator	Office-based Operations Geologist
	Office-based logistics coordination personnel and logistics supervisors
Service Company	Casing running personnel, casing-crew (non-supervisory)
	Downhole Equipment Specialists/Operators
	MWD/LWD, Surveying Engineer or Operator
	Other non-supervisory and non-critical drilling or intervention personnel
	ROV personnel (non-supervisory)
	Well Control Trainers—in-house or commercial (for Awareness course)
	Supply and support vessel Watch Officers and Captains
	Oilfield equipment repair personnel
	Tubular and rig inspection personnel
	Wireline/Slickline crews (non-Supervisory)
<i>IADC recommends that persons in these positions or roles complete the Introductory Level Course.</i>	
Contractor/Operator/Service Company	MPD/UBD wellsite service personnel (non-supervisory)
Contractor	Barge Engineer
	Captain/Master
	Pit Hand, Pump Hand, Shaker Hand
	Subsea Engineer
	Derrickman
	Floorman
	BOP/Subsea Engineer, LMRP Engineer and Dynamic Positioning Officer
Operator	Operator Offshore Installation Manager (OIM)
	Onshore monitoring crew
	Wellsite Geologist and office-based Operations Geologist
	OIM (for installations not primarily involved with drilling)

Company Type	Positions
Service Company	Casing Crew Supervisor
	Cementer
	ROV personnel (supervisory)
	Mud Engineer
	Mud Logger/Wellsite Drilling Data Engineer
	Directional Driller
	Fishing Tool Operators (non-pressure operations)
<i>IADC recommends that persons in these positions or roles complete the Driller Level Course.</i>	
Contractor	Assistant Driller
	Driller (including intervention and workover drillers)
Service Company	Coiled Tubing Driller
<i>IADC recommends that persons in these positions or roles complete the Supervisor Level Course.</i>	
Contractor	Office-based Rig, Drilling, or Intervention Manager
	OIM for mobile offshore drilling and intervention units
	Rig Superintendent Offshore (most senior offshore leader for rig owner, may be OIM)
	Toolpusher (including Intervention and Workover Toolpusher)
	Drilling contractor Wellsite Engineer
Contractor/Operator/Service Company	MPD/UBD Wellsite Supervisor

Company Type	Positions
Operator	Assistant Wellsite Supervisor / Wellsite Drilling Engineer
	Drilling/Intervention Wellsite Supervisor, superintendent, or company representative (day & night)
	Office-based Drilling Supervisor / Superintendent (not involved with well design approval)
	Office-based Intervention or Workover Supervisor (not involved with well design)
Contractor	Office-based Wellsite Completions Engineer/Senior Completions Engineer
	Office-based Drilling Engineer/Senior Drilling Engineer
	Office-based Drilling Manager (first line management)
	Office-based Drilling Supervisor / Superintendent (involved with well design approval)
	Office-based Intervention or Workover Manager
	Office-based Intervention/Workover Engineer/Senior Engineer
	Well Control Engineers
Service Company	Well Control Engineers
	Well Control Specialists
<i>IADC recommends that persons in these positions or roles complete the Engineering Level Course.</i>	
Operator	Office-based wellsite Completions Engineer/Senior Completions Engineer
	Office-based Drilling Engineer/Senior Drilling Engineer
	Office-based Drilling Manager (first line management)
	Office-based Drilling Supervisor / Superintendent (involved with well design approval)
	Office-based Intervention or Workover Manager
	Office-based Intervention/Workover Engineer/Senior Engineer
	Well Control Engineer
Service Company	Well Control Engineer

Appendix B: Simulator Design Requirements

The simulator must have a minimum of two (2) discrete and physically separate workstations. Within that minimum design, the trainee must have access to specific operator controls and key data screen/panel displays. The simulator should be programmable, giving an instructor the ability to pre-program well control problems based on actions, time, or strokes pumped within the well control scenario.

The simulator should have operator controls that allow the trainee to carry out specific operations efficiently. The trainee should be able to carry out the following:

1. Drilling operations
2. BOP operation (e.g., surface or subsea)
3. Choke operation
4. Manifold line-up

The simulator must provide the instructor with the following capabilities:

- Alter the programmed bit size (openhole diameter), casing inside diameter (ID), drillpipe, heavy weight drillpipe, and drill collar outside diameter (OD) and ID.
- Add a non-ported float to the drillstring.
- Assign the use of water-based mud.
- Choose and set parameters for FIT and LOT.
- Program formation pressure and fracture pressure.
- Select kick type (e.g., simulate both gas and liquid kicks).

Simulator Operator Controls and Displays

Table 15 lists the minimum requirements for simulator controls and displays. Some controls or displays may reside on more than one of the panels and/or screens.

Simulator Reporting Capabilities

Simulators store key data to assist with grading and audit. Data that should be recorded include drillpipe and casing/choke pressures, strokes per minute, pit level changes, casing shoe pressure, formation fluid pressure and bottomhole pressure, all of which must be scalable against time and/or strokes pumped.

A record of key data from simulator assessments and the Skills Assessment Checklist shall be retained as a record of the assessment and shall be available to the auditor during the *WellSharp* audit. Record would commonly be in graphical format, with data parameters plotted against time or strokes pumped. Hard copy or electronic format is acceptable as a record.

Table 15: Requirements for Simulator Controls and Displays

Drilling Controls	
Controls	Displays
Drawworks (raise & lower) functions and brake control	Hook Load and Weight on Bit
Mud Pump (minimum 2 pumps)	SPM and Total Strokes
Rotary Speed/Top Drive Speed	RPM
Pit and flow alarm adjustments for high and low	ROP
Pit Volume Totalizer re-zero	Pit volumes and Totalizer
Adjust pit and trip tank volumes	Trip Tank volume
Auto Driller function (optional)	Pit Deviation indicator
Total stroke reset	Return Flow Rate indicator
	Pump Pressure
	Flowback when pumps are switched off (recommended)
BOP Controls	
Surface Stack Controls	Surface Stack Displays
One Annular Preventer	Air Panel gauge
Two Pipe Rams	Accumulator pressure gauge
One Blind and/or Shear Ram	Manifold pressure gauge
One Choke Line outlet with minimum of one valve	Annular pressure gauge
One Kill Line outlet with minimum of one valve	Accumulator fluid flowmeter (optional)
Annular Pressure regulator	Open and Close indicator lights for all Annular, Ram, and Valve functions
Master Control (push to operate control)	
Subsea Stack Controls	Subsea Stack Displays
One Annular Preventer (with Block function)	Air Panel gauge
Two Pipe Rams (with Block function)	Accumulator pressure gauge
One Blind and/or Shear Ram (with Block function)	Manifold Readback pressure gauge
One Choke Line outlet with minimum of one valve (with Block function)	Annular Readback pressure gauge
One Kill Line outlet with minimum of one valve (with Block function). Kill Line must be piped into a different cavity to Choke Line.	Accumulator fluid flowmeter
Annular Pilot pressure regulator	Open, Block and Close indicator lights for all Annular, Ram and Valve

Master Control (push to operate control)	functions
Ram Locks (optional)	
Choke Control	
Controls	Displays
Total Strokes Reset	Total Stroke counter
Simulated Choke Open/Close Control (second remote choke is optional)	SPM
Choke Speed Control	Choke Position indicator
Air Pressure on/off (optional)	Drillpipe Pressure
	Casing/Choke Pressure
	Kill Line Pressure (for Subsea Stacks)
	Stack gauge below Bottom Rams for Subsea Stack (optional)
Standpipe and Choke Manifolds	
Controls	Displays
Open and close capability for all valves	Labeling of pipework to rig equipment (e.g., Kelly/Top Drive, Pumps, BOP, etc.)
Manual choke and control	Pressure gauges or pressure sensor location(s)
Remote controlled choke	
Ability to route fluids from Choke Manifold to gas buster, flare line, and shale shaker	

Appendix C: Basic Drilling Technology Program

Personnel without rig experience who want to be a *WellSharp*-approved well control instructor will be required to complete a program of study that covers basic drilling concepts. The program of study should give an overview of the drilling process and explain why well control is critical to the process.

The course(s) should be designed for 32 hours of study and must include an assessment to ensure assimilation of the knowledge.

The program of study may be ILT, self-study (e.g., electronic delivery or workbook[s]), or a composite of these.

Topics covered should include, but not be limited to:

- Drilling environments
- Rig types
- Hydrocarbon reservoir prediction methods (e.g., seismic)
- Basic geology
- Formation pressure and strength
- Basic drilling, rotating, and circulating equipment
- Job roles at the wellsite
- Circulating system
- Tubular goods
- Drilling fluids
- Drilling and tripping process
- Directional Drilling
- Casing and cementing
- Logging
- Common rig problems, equipment, and processes
- Completion process
- Importance of safety
- Basic Risk Assessment

Appendix D: Testing Protocol

Training providers shall ensure that the following protocol is in place whenever a written knowledge test or skills assessment (simulator or live well assessment) is conducted.

Knowledge-Based Test*

- Training provider shall assist trainees with logging into testing database.
- Training provider or proctor shall review testing instructions with the class.
- Independent proctor will verify identity of test candidates before beginning the test. Proctors will use documents such as a national identification card, passports, driver's license (with photograph), or other valid means.
- Proctor will signal start time start all test candidates at the same time.
- All tests are to be "closed book." The candidate may have only the following items available during the test:
 - Formula Sheet supplied by training provider (This may not be part of a course manual or other handout reference document.)
 - Blank kill sheets and blank paper (for calculation work)
 - Reference tables specific to the course level (e.g., weights, pipe or annular displacements/capacities) that may not be part of a course manual or other handout reference document
 - Handheld calculator—Calculator should be non-programmable type and preferably supplied by training provider.
- Seating arrangements should ensure privacy of each candidates test questions.
- In normal circumstances, only one candidate at a time should be permitted to leave the examination room while the test is in progress.
- Candidates who have submitted their test and have been told their score are allowed to stay in the room and review the questions they got wrong.
- All kill sheets and papers used for calculations, etc. are to be collected and shredded by the Proctor following the test.

Introductory e-Learning Final Test

Final knowledge testing for the Introductory e-Learning course is currently under discussion based on current development of the question database. Guidance will be provided at a later date.

Simulator/Live Well Skills Assessment

- For the Driller course, trainees must be assessed individually. Each candidate must complete all elements of the skills assessment without technical assistance from others in the room.
- For the Supervisor course, trainees must be assessed individually. Each candidate must complete all elements of the skills assessment without technical assistance from others in the room. Whether the skills assessor or another trainee, a pump operator is permitted to assist during the simulator assessment.

- All assessment documentation must be based on the IADC Skills Assessment Template (Form WSP-07 Simulator and Live Well Assessment Template).
- Pre-Operational Set Up (Module 1 of the *WellSharp* Skills Assessment Template) can be assessed and documented before other components of the skills assessment (Items 2 and 3 on the Assessment Template) are assessed. This is at the discretion of the training provider.
- Items 2 and 3 of the *WellSharp* Skills Assessment Template are to be carried out as a continuous assessment. In the Supervisor course, the trainee will need to use information found on a kill sheet. This kill sheet may be pre-calculated and information provided to the trainee for the assessment, or the training provider may ask the trainee to complete a kill sheet.
- For training providers that employ more than one simulator, it is acceptable for one instructor to conduct up to three trainee assessments simultaneously, each on a separate simulator in the same room.
- If more than three (3) simulators are used, another instructor will be required to manage the additional assessments.

Appendix E: Proctor Approval Requirements

IADC require that written assessments be proctored by an individual who is suitably qualified for the role. Persons who serve as proctors must be pre-approved by IADC before serving in the role.

Proctor Qualifications

Candidates for *WellSharp* Proctor must meet three basic requirements: experience, skills, and other requirements as professionalism and integrity. The list of requirements, given below, is incomplete at this time, and will be further refined by agreement between IADC and the organization or agency providing proctoring services.

Experience (any one of the following)

- Professional qualification (active or retired)—Someone who requires a professional qualification to perform their job; e.g. teacher, college lecturer, accountant, legal person, doctor, banker, chartered engineer, etc. Evidence can be met by one of the following ways:
 - Professional qualification (active or retired)—Someone who requires a professional qualification to perform their job (e.g., teacher, college lecturer, accountant, legal person, doctor, banker, chartered engineer, etc.).
 - Employee of professional organization—Person who works for a “professional” company (e.g., education, accountancy, legal, medicine, banking, engineering).
 - Legal Notary or equivalent—Person who is allowed to notarize official legal documents.
 - Independent testing center staff member that can carry out their duties at the training provider’s premises.
 - Independent testing center staff member where the training provider sends trainees for their final written assessment.
 - Other, as defined by the IADC and the vendor organization or agency.
- Military, law enforcement, or responsible civil service position
- Licensed or certified position
- College degree
- Employee of professional organization
- Independent testing center staff member

Skills (all the following)

- Basic computer skills (MS Office minimum)
- Proficient/fluent in the language in which test to be administered
- Good verbal and written communication skills

Other (all of the following)

- Independent of the well control training provider (i.e., not an employee nor a relative of any employee of the training provider)
- Willing to undergo a background check

- Professionalism
- Integrity
- Ability to be reached by phone or email

Gaining Approved Proctor Status

The person seeking to be an IADC approved Proctor must submit the following:

- An application requesting approval
- Evidence of meeting the basic requirements to serve as a proctor

Proctor Training Requirements

The person who would serve as a *WellSharp* Proctor must complete, at a minimum, the following required training after approval and prior to first performing proctor duties:

- *WellSharp* proctoring procedures
- An orientation on the role of well control training in the oil and gas industry

Appendix F: *WellSharp* Forms and Documents Available for Training Provider Use

WSP-01	<i>WellSharp</i> Handbook for Accreditation
WSP-02	Course Curriculums and Supplements
WSP-02X	Curriculum Cross-Reference Tool
WSP-03	Application for Accreditation
WSP-04	Accreditation/Audit Policy Agreement
WSP-05	Instructor Application
WSP-06	Schedule of Fees
WSP-07	Skills Assessment Template
WSP-10	Application Process Flowchart
WSP-12	Sample Test Questions
WSP-13	Trainee Missed Portions Policy
WSP-19	Verification of Trainee's Eligibility for Training
WSP-30	Instructor Transfer Form
WSP-31	Instructor Continuing Education Credit Request
WSP-32	Instructor Conference Certificate of Attendance
WSP-33	Instructor Evaluation Form
WSP-61	Site Visit Report
WSP-67	<i>WellSharp</i> Quality Statement and Comment Policy