Recommended Practice for Training and Qualification of Personnel in Well Control Equipment and Techniques for Wireline Operations on Offshore Locations

API RECOMMENDED PRACTICE T-6 FIRST EDITION, OCTOBER 2002

REAFFIRMED, JANUARY 2013



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Upstream Segment

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FOREWORD

This Recommended Practice (RP) is under the jurisdiction of the American Petroleum Institute (API) Executive Committee on Drilling and Production Operations (ECDPO). It has been prepared with the overall advisory guidance of the API and the Offshore Operators Committee (OOC).

The purpose of this RP is to provide criteria for the qualification of offshore wireline personnel in well control equipment operations and techniques to ensure safety and to prevent pollution.

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1 General

1.1 INTRODUCTION AND SCOPE

This Recommended Practice (RP) provides criteria for the qualification of wireline personnel in well control equipment operations and techniques. Although it does include recommendations for training wireline personnel on general rig well control equipment and theory, it should be noted that the main focus for training should be those operations using a lubricator as the primary well control mechanism. Wireline personnel classifications to which this RP is applicable are the Helper/Assistant and Operator/Supervisor. This RP is intended for the development of training courses with well-defined curricula and includes recommendations for testing to assure that a candidate is qualified when he/she completes a course.

The employer should maintain a record of the training which each employee receives in accordance with this RP. Each employee should be furnished documentation of the successful completion of each level of training.

1.2 POLICY

This RP may be used by a company or educational institution to develop and conduct a qualification program as outlined above. However, the Institute makes no representation, warranty or guarantee in connection with the publication of any API specification, or recommended practice, and hereby expressly disclaims any liability or responsibility for loss or damage resulting from their use, for any violation of any federal, state or municipal regulation with which an API specification or recommended practice may conflict, or for the infringement of any patent resulting from the use of an API specification or recommended practice.

2 Guidelines for Course Curricula

2.1 INTRODUCTION

This section describes the knowledge and skills that should be presented to the candidate through classroom lectures and hands-on demonstrations. Curriculum content is described on a general basis for each wireline crew member classification. Specific detail should be developed by each training organization using the criteria contained in this section as a guideline. A training program developed by a contractor or operator should be directed toward the well control equipment and techniques most widely used in their respective operations.

Other organizations offering training programs should develop a detailed curriculum directed toward well control equipment and techniques most widely used offshore.

The training programs may be conducted wherever the particular part of the course curriculum can be presented most effectively, whether it be on the rig, platform, in a classroom, or a training facility at another location.

Each candidate should be provided with a manual containing the course materials for future reference and review.

2.2 WIRELINE HELPER/ASSISTANT TRAINING REQUIREMENTS FOR QUALIFICATION IN WELL CONTROL OPERATIONS

- a. Prerequisite for Wireline Helper/Assistant Qualification
 All candidates should have satisfied the employment requirements of their employer.
- b. Instructions on Relevant Governmental Regulations

The candidate should receive instructions on governmental regulations that are pertinent both to their work and to well control activities. The candidate should understand the overall purpose of the appropriate regulations.

c. Instructions on Blowout Prevention Equipment

The candidate should receive general instructions within the first 6 months of their employment on the purpose, operation, and maintenance of the following, consistent with their assigned duties:

- 1. Annular type blowout preventers
- 2. Ram type blowout preventers
- 3. Accumulator systems
- 4. Inside blowout preventers
- 5. Full opening safety valves
- 6. Chokes and manifolds
- 7. Fluid level measuring devices
- d. Instructions on Formation Pressure, Hydrostatic Pressure, Kicks and Blowouts

The candidate should receive general instructions on the basic principles of well control such as, but not limited to:

- 1. Pressure and force
- 2. Formation pressure
- 3. Hydrostatic pressure
- 4. Overbalance
- 5. Definition and causes of a kick
- 6. Kick indicators
- 7. Definition and causes of blowouts
- 8. Well shut-in procedures
- e. Instructions on Wireline Equipment and Procedures

The candidate should receive instructions on the following equipment and procedures utilized when conducting wireline operations:

- 1. Wireline unit components
- 2. Types of wireline
- 3. Lubricators

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- 4. Wireline valves
- 5. Lifting/hoisting equipment
- 6. Wireline tool string components
- 7. Basic wireline tools
- 8. Surface wellhead valves and safety devices
- 9. Subsurface production equipment and safety devices
- 10. Pressure testing procedures
- 11. Safety procedures

2.3 WIRELINE OPERATOR/SUPERVISOR TRAINING REQUIREMENTS FOR QUALIFICATION IN WELL CONTROL OPERATIONS

a. Prerequisite for Operator/Supervisor Qualification

All candidates should have satisfied the training requirement as listed under 2.2 for wireline Helper/Assistant.

b. Instructions on Relevant Governmental Regulations

The candidate should receive instructions on governmental regulations that are pertinent both to their work and to well control activities. The candidate should understand the overall purpose of the appropriate regulations, including those related to spill prevention and pollution contingency plans.

- c. Instructions Regarding the Following Well Control Related Topics:
 - 1. Drilling/workover/completion fluid types and characteristics
 - 2. Gas expansion and migration
 - 3. Lubricator rig-up and testing requirements
 - 4. Shut-in procedures
 - 5. Well control drills
- d. Instructions on the Following Wireline Operations Related Topics:
 - 1. Wireline unit securement and safe operation procedures
 - 2. Proper rig up a deployment into the well
 - 3. Well monitoring while conducting operations
 - 4. Shearing wireline
 - 5. Fishing wireline
 - 6. Simultaneous operations
 - 7. Job assignments and responsibilities
- e. Instructions Regarding the Following Unusual Wireline Operations:
 - 1. Collapsed tubing
 - 2. Holes in tubing
 - 3. Stuck wireline tools

- 4. Excessive pressure on casing or tubing
- 5. Fishing under pressure
- 6. Loss of circulation
- 7. Perforating operations/safety

3 Qualification Procedures

3.1 QUALIFICATION OF WIRELINE HELPERS/ ASSISTANTS

- a. Prerequisites:
 - 1. The candidate shall have satisfied the requirements of 2.2a
 - 2. The candidate shall be completely familiar with all of the items listed in 2.2b 2.2e
- b. Type of Tests

Written tests and "hands-on" demonstrations should be used to assure the candidate has a thorough understanding of the well control equipment and techniques outlined in 2.2.

Test results shall be entered and maintained in the successful candidate's permanent training record. Appropriate documentation of training shall be provided the successful candidate and copies maintained by the training organization.

c. Maintenance of Qualification

Training requirements outlined in 2.2 and qualification testing should be repeated at a maximum of every 3 years.

3.2 QUALIFICATION OF WIRELINE OPERATORS/ SUPERVISORS

- a. Prerequisites:
 - 1. The candidate shall have satisfied the requirements of 2.2 and 2.3
 - 2. The candidate shall be completely familiar with all of the items listed in 2.3b 2.3e
- b. Type of Tests

Written tests and "hands-on" demonstrations should be used to assure the candidate has a thorough understanding of the well control equipment and techniques outlined in 2.2 and 2.3.

Test results shall be entered and maintained in the successful candidate's permanent training record. Appropriate documentation of training shall be provided the successful candidate and copies maintained by the training organization.

c. Maintenance of Qualification

Training requirements outlined in 2.2 and 2.3 and qualification testing should be repeated at a maximum of every 3 years.

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