Hot Tapping and Plugging in Petroleum Industries

30 Jul - 03 Aug 2017
Dubai, United Arab Emirates

This course is Designed, Developed, and will be Delivered under ISO 29990:2010 Standards & ISO 9001:2015
WHY CHOOSE THIS TRAINING COURSE?

This interactive, applications-driven 5-day training course will highlight the added value that Hot Tapping and Plugging practices advised by API standards can offer to support engineers and technicians working in pipe lines installation and maintenance. It will show how to safely use the equipment and apply the modern techniques in successful hot tapping and plugging a pipe line.

The training course will emphasize the application of related recommended API practices for pipe lines hot tapping and plugging, focus on proper equipment selection, retrieval and interpretation of data from equipment manuals, preparatory actions prior to process execution, and safely carry out the hot tapping and plugging process.

This training course will feature:

- Discussions on the benefits and applications of hot tapping and plugging process
- The importance of proper selection of hot tapping and plugging equipment and understanding the related API recommended practice
- The detailed procedure of pipelines hot tapping and plugging, and the specific safety precautions
- Focusing on in-service hot tapping emergency action plan

WHAT ARE THE GOALS?

By the end of this training course, participants will be able to:

- Outline the economic and environmental benefits of pipelines hot tapping and plugging
- Retrieval and interpretation of data and procedure from hot tapping and plugging equipment manuals
- Properly select the hot tapping and plugging equipment for specific applications
- Describe the procedure of hot tapping and plugging
- Apply the safety precautions in conducting the hot tapping and plugging process
- Apply H&I instruction when conducting pipelines hot tapping and plugging process

WHO IS THIS TRAINING COURSE FOR?

This PetroKnowledge training course is suitable to a wide range of professionals but will greatly benefit:

- Pipelines Project managers
- Mechanical Maintenance Engineers
- Professionals in Pipelines Installations and Maintenance
- Engineers who are planning for hot tapping and plugging process
- Technicians involved in Pipelines Construction, Maintenance and Inspection
- Welding and Pipeline Professionals
- Safety Engineers and Professionals

HOW WILL THIS TRAINING COURSE BE PRESENTED?

This training course will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. The daily course sections will be highly interactive and participative. It also involves detailed discussions accompanying the presentation of videos showing the equipment, the safety precautions, and the whole procedure of pipe lines’ hot tapping and plugging. Delegates are strongly encouraged to bring and analyse data from their own work domain; this adds greater relevancy to the content.
**Daily Topics**

**DAY 1**

**Oil and Gas Pipelines**

**Competency Description:** A comprehensive introduction to the oil and gas pipelines construction process, pipelines components and relevant functions, and pipelines hot tapping and plugging terminology.

**Key behaviours:**
- State the oil and gas pipelines types and name their basic components
- List a set of glossary of hot tapping and plugging terms
- Describe the site preparation phase in pipelines construction process
- State the pipes safety transportation precautions
- Describe how the pipeline are inspected and tested
- Describe how the pipes are bent
- Outline how pipes are welded and joint coated

**Topics to be covered:**
- Introduction: Oil and gas pipelines types and standards
- Layout of oil and gas pipelines: Components and relevant functions
- Glossary of terms used in pipelines hot tapping and plugging operations
- Pipelines construction: Site preparation – Pipes transportation – Ground trenching – Pipes laying and covering – Pipes bending – Pipes welding and joint coating – Pipes cleaning – Pipeline inspection and testing

**DAY 2**

**Pipelines Hot Tapping and Plugging**

**Competency Description:** The description and comprehensive understanding of the standards related to pipelines hot tapping and plugging process, the factors that affect the process, and the relevant data and information.

**Key behaviours:**
- Outline the pipelines hot tapping and plugging process
- List the situations and circumstances of using hot tapping and plugging process
- Describe the content of pipelines hot tapping and plugging standards
- Explain the impact of various factors affecting the hot tapping and plugging process

**Topics to be covered:**
- The concept of hot tapping and plugging
- Factors affecting the hot tapping and plugging process: Pipe size – Distance flanges – Distance to welded portions – Distance to valves
- Hot tapping orientation: Standard and non-standard
- Hot tapping and plugging standards: API and ASME related standards

**DAY 3**

**Hot Tapping and Plugging Equipment**

**Competency Description:** Delegates will be expected to make a meaningful contribution to everything associated with pipelines hot tapping and plugging, and in this respect, they will need to take cognizance their principle of equipments operation, their design features and methods of functional testing.

**Key behaviours:**
- Name the types of pipelines hot tapping and plugging equipment
- Describe the design features of pipelines hot tapping and plugging equipment.
- Explain how to test the pipelines hot tapping and plugging equipment.
Topics to be covered:

- Types: Hand – Hydraulic – Electric – Pneumatic
- Equipment basic data and considerations
- Equipment design features and construction
- Examples of hot tapping equipment: Description, specifications, features and fitting applications of the tapping machines – the sandwich valve
- Branch connection fitting
- Thread O-ring flanged fitting
- Spherical three-way Tee
- Composite warp
- The plugging machine
- The lock-up ring flanges & plugs
- Wedge-lock pipe plug
- Equipment test
- Freeze plugging

DAY 4
Hot Tapping and Plugging Procedure

Competency Description: Participants need to gain a sound understanding of the requirements of pipelines hot tapping and plugging, the proper equipment installation, with emphasis on operation management

Key behaviours:

- Outline the procedure of pipelines hot tapping and plugging
- List the requirements for conducting hot tapping and plugging operations
- Write a checklist for hot tapping and plugging
- Explain how to manage the hot tapping and plugging process

Topics to be covered:

- Cases where hot tapping is prohibited
- Selection of hot tap location
- Design considerations
- Preparatory work to hot tapping
- Hot tapping operation management
- Technicians’ qualifications and skills
- Hot tapping of lines pipes
- Hot tapping basic requirements and operations
- Welding preparation, procedure, and inspection
- Hot tapping machine installation
- Hot tapping operations and work completion
- Hot tapping check lists
- Line stops: Types – Layout – Operation – Completion plug

DAY 5
Hot Tapping and Plugging Hazards and Risk Reduction

Competency Description: A pipelines’ hot tapping and plugging team leader needs to ensure that the process does not just perform correctly, but also optimally. In addition, he also has to plan for emergency situations so that the process is executed safely and in short time as possible.

Key behaviours:

- Prepare plans for hot tapping and planning in emergency situations
- Explain the hot tapping and plugging economy
- List the hazards associated with hot tapping and plugging operations
- Analyse a set of hot tapping and plugging case studies

Topics to be covered:

- In-service hot tapping emergency action plan
- Hot tapping features and relevant hazards
- Various hazards : Physical – Thermal – Chronic – Toxic – Combustible
- Hazards risk reduction
- Case studies: Hot tapping economy – Hot tapping hazards

Quality Certifications
Please use BLOCK CAPITALS to fill in this form. It is important that you read carefully through all information before starting to complete the form.

**REGISTRATION DETAILS**

Family Name
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First Name (Mr./Ms.)
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Position
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Company
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Mailing Address
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Telephone
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**AUTHORISATION**

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**COURSE SCHEDULE**

30 Jul - 03 Aug 2017
Dubai, United Arab Emirates

**REGISTRATION FEES**

US$ $4,500/- per participant

This fee is inclusive of Documentation, Lunch and Refreshments

**MODE OF PAYMENT**

☐ Please invoice my company
☐ Please invoice me
☐ Cheque payable to “PetroKnowledge Limited”

**WAYS TO REGISTER**

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E: info@petroknowledge.com
W: www.petroknowledge.com

**HOTEL ACCOMMODATION**

Hotel accommodation is not included in the Registration Fee. A reduced corporate rate and a limited number of rooms are available for attendees wishing to stay at the hotel venue.

Please make your request for accommodation at least 3 weeks prior to the commencement of the course.

**CERTIFICATION**

A Certificate of Completion will only be awarded to those delegates who attend the entire course

**CANCELLATIONS & SUBSTITUTIONS**

You must notify the Registrar of cancellations at least 2 weeks before a scheduled seminar in order to be eligible for a credit. If you cannot attend, you may send a replacement from your organisation at no charge. There is a $250 handling charge for all cancellations or rescheduling. We reserve the right to cancel a seminar due to low enrolment. All registrants will be notified in advance and a full refund will be provided upon request.

**DISCLAIMER**

Circumstances beyond the control of PetroKnowledge may necessitate postponement, change of venue or substitution of the Instructor. As such, PetroKnowledge reserves the right to implement such amendments.