Institute of Piping Engineering & Building Services

CERTIFICATE ONLINE TRAINING COURSE

ASME B 31.4 LIQUID PIPELINE

Course Speaker:

Mr. Mohammed Kamal Uddin Ahmed

Pipeline & Pumps Specialist.
Certified Engineer – Saudi Aramco, KSA.
International Trainer & Course Speaker.

ABOUT TRAINING PROGRAM

This course provides the foundation for properly applying the pipeline code in the interest of public and employee safety. Its goal is to familiarize pipeline operating personnel, public safety personnel, and state and federal regulators with the important safety-related aspects of ASME B31.4.

The **Online Training Course** is developed by the faculty of **IPEBS**, who are International Course Speakers and have more than 20 years work & training experience individually.

COURSE OBJECTIVES

✓ Describe the basic elements of Pipeline Design, Construction and Maintenance.
✓ Explain how to apply principles of Safe Pipeline Design and Operation.

PROGRAM FEATURES

✓ In-depth course content for easy understanding.
✓ Blended Learning: Online contact with faculty.
✓ Accessibility to Course Faculty & Counseling Services.
✓ Job oriented training program.
✓ Student will be job ready, after the course.
✓ Student will acquire skills and knowledge similar to working professional.

WHO SHOULD ATTEND

- **Graduating College Students in the following disciplines**

  ✓ Mechanical Engineers
  ✓ Chemical Engineers
  ✓ Petroleum Engineers
  ✓ Production / Industrial Engineers
  ✓ Diploma / ITI

- **Working Professionals**

  ✓ Piping Design / Layout Engineers
  ✓ Pipeline Engineers
  ✓ Pipeline Contractor
  ✓ Mechanical Engineers
  ✓ Pipeline Operators
  ✓ Public Safety Officials
  ✓ Government Regulators
  ✓ Inspection Engineers
  ✓ Piping QA / QC Engineers

- **Corporate / Organizations**

  ✓ EPC Companies
  ✓ Piping Equipment Manufacturing Companies
  ✓ Piping Consultants
  ✓ Piping Contractors
  ✓ Thermal Power Plants Industry
  ✓ Ship Building / Marine Industry

COURSE MODULES

- ✓ **Scope and definitions**
- ✓ **Design**
- ✓ **Material Selection**
- ✓ **Construction Welding and Assembly**
- ✓ **Hydrostatic Testing**
- ✓ **Operations, Maintenance and Corrosion Control**
- ✓ **Offshore Liquid Pipeline Systems**

Detailed Course Modules

Scope and definitions

Design

- The Barlow formula
- What is surge?
- Head loss and hydraulic design
- Pipeline size considerations
- Curved pipe, fittings, and flanges
- Longitudinal stress
- Stresses in buried pipelines
- Expansion and flexibility

Material Selection

- The difference between strength and toughness
- Ductile and brittle fracture
- How toughness is measured
- Line pipe materials and their characteristics
- Line pipe toughness specification
- How fittings and flanges are selected

Construction Welding and Assembly

- Care and handling of line pipe
- Bending of pipe
- Welding procedure specifications
- Welder qualification
- Welded joint design and fit-up considerations Welding problems
- Requirements for tanks, terminals, pump stations, and special components

Hydrostatic Testing

- History of the hydrostatic test
- Test-pressure-to-operating-pressure ratio
- Hold-time/leak test
- Pressure reversals
- Optimum tests for new pipe
- Optimum tests for revalidating existing pipelines

Operations, Maintenance and Corrosion Control

- Requirements for Operating and Maintaining a Pipeline
- Defect Assessment
- Pipeline Repair Methods
- Remaining Life Assessment
- Requirements for Corrosion Control

Offshore Liquid Pipeline Systems

- Design conditions
- Materials
- Construction
- Testing

- Operations and maintenance

Course Fee Details:

Course Title	Fee for Indian Participants	Fee for International Participants
ASME B 31.4 Liquid Pipeline – Online Training Course	**INR 25,000/-**	**USD 500/-**

For making e – payment for the course fee please find **IPEBS** Bank account details below.

Account Name	**IPEBS**
Account Number	**03182020005287**
Bank Name	**HDFC**
Branch	**ABIDS**
RTGS / NEFT / IFSC Code	**HDFC0004125**
SWIFT Code	**HDFCINBB**

IPEBS Corporate Training Clients:

Company Name	Location	Company Name	Location
Intergraph Consultants	India	SPPC	Sudan
Port of Sohar	Oman	CFPE Technology Solutions	Malaysia
Uhambiso Consultant	South Africa	Qatar Petroleum Technical Center	Qatar
Newtech Consulting Group	Sudan	Petro Vietnam Marine Shipyard	Vietnam
Yashada Consultant	India	Locus Technologies	India
Telstar Life Science Pvt Ltd	India	RasGas	Qatar
BHEL	India	ICB Technimont	India & Italy
IDC Training House SDN BHD	Malaysia	LG-Digitech	Sudan
Sakhlain Energy	Russia	Infotech Enterprises	India
Aveon Offshore	Nigeria	Petroleum Operating Company	Sudan
BPCL	Bhutan	Dr. Reddy's Labs	India
Saitech Engineers	India	Vasavi Power Services	India
Riyan Architects	Maldives	Siddhi Consulting	India
Oryx GTL	Qatar	Qatar Petroleum	Qatar
WNPOC	Sudan	Centroid Technical Services	Sudan
GNPOC	Sudan	MG – Vowgas Group	Nigeria
Fleming gulf	UAE	DAL Group	Sudan

Terms & conditions:

CANCELLATIONS: IPEBS does not provide refunds for Cancellations done after registration & fee payment. However, credit maybe granted to a later program. This credit will be available for up to one year from the date of issuance.

COURSE MATERIAL AGREEMENT: It is the intention of **IPEBS** that the course text and materials supplied to participants at **IPEBS** courses are prepared and issued for the participants' sole use. Codes and standards constantly change and interpretations are issued by the publishing societies. Information contained in **IPEBS** course materials is based on the best available data obtained by **IPEBS** at the time of publication. **IPEBS** is in no way responsible for subsequent use regardless of intention.

PROGRAM CHANGE POLICY: Please note that instructors and topics were confirmed at the time of publishing this document; however, circumstances beyond the control of the training organizers may necessitate substitutions, alterations or cancellations of the instructors and/or topics. As such, **IPEBS** reserves the right to alter or modify the instructors and/or topics if necessary. Any substitutions or alterations will be updated on our web site.

COURSE CANCELLATION BY IPEBS: IPEBS reserves the right to cancel any course due to circumstances beyond our control. All tuition fees will be refunded in the event of cancellation. **IPEBS** liability is limited to only those tuition fees paid in advance.

FORCE MAJEURE: Except for the obligations to make money payments as outlined hereunder, neither party shall be responsible to the other for delay or failure to perform any of the terms and conditions, or other activities, of this agreement if such delay or failure is caused by strike, war, act of God, or force majeure.

Frequently Asked Questions – FAQ's

Duration of the course?

Ans: Course Duration is 03 Days.

Daily Class Duration?

Ans: Morning 09:00am to 05:30pm with appropriate Lunch & Tea breaks.

Requirement for the Course?

Ans: Computer / Laptop with good internet connection, Camera and Mic.

Support from IPEBS?

Ans: Faculty assigned to all registered participant of the course. Faculty not only helps to clear the participant's queries while doing the course but also monitors the progress of the participant to help in successful completion of the course.

Mode of Payment?

Ans: You can make the payment through electronic transfer or at **IPEBS** office.

Issue of Certificate?

E - Certificate will be issued by **IPEBS** only on successful completion of the course & will be sent via email to the participant.

Training Methodology?

Ans: Online streaming of lectures, contact with faculty by email or chat groups.

Training Material?

Ans: Printed Material – Course / Class handouts will be provided in printed format and shipped (within India) to the participants.

Soft Copy Material - Data tables, charts, Nomographs, drawings, concept theory, design calculations and practice exercise's will be provided in soft copy.

Demonstration software's and excel spread sheets will be provided.

** International Shipping charges of printed material - course / class handouts to be borne by participants.