

# Charisma Education Pvt. Ltd.

## **Training program on**

## Piping and Storage Tank Design and Engineering

for tank farms of Refineries

Vadodara, Gujarat, India, 5 Days, Year 2023

A training program on **Piping engineering and Storage Tank design and engineering of Tank Farm area**, relevant to hydrocarbon/ refining industries will be organized by Charisma Education Pvt Ltd.

CEPL is a Scientific and Technical Consultancy organization involved in the Design of Process Equipment, Technical Troubleshooting Process Plants, Failure Analysis of Equipment and Piping System. We also provide training courses and correspondence courses for Process Equipment and Pressure Vessel Design, Piping Technology.

#### **OBJECTIVE:**

This program is designed to refresh the engineers for the Piping Engineering as per Piping Code and selection of components of the piping systems. Practical aspect of selection and design considerations, sizing, rating, integrity, inspections, pressure testing shall be presented. This will include instructions and guidelines on the applications of relevant codes & standards. Storage Tanks as commonly used in petroleum/ hydrocarbon storages shall also be covered covering their design guidelines, understanding of codes for their construction, inspection and testing shall also be included in the training. Integration of piping systems for proper operations and safety of tank farm area will be covered.

#### **Program Contents:**

## Day 1: Piping Engineering, Module 1

Introduction of Plant Piping Design and their component selections guidelines Engineering of Piping to ASME B31.3
Piping Codes & Standards
Selection of Pipes & Fittings
Pipe Thickness Calculation, Rating





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### Day 2: Piping Engineering, Module 2

Metallic Piping Design as per ASME B31.3

Selection of Valves, Ratings

**Expansion Joints** 

**Piping Supports** 

#### Day 2: Piping Engineering, Module 3

Importance of Flexibility in piping system integrity

Piping Inspection Code, Evaluation, Analysis, API570

### Day 3: Storage Tank, Module 4

Design of Welded Steel Tanks for Oil Storage (API 650), Shell, Nozzles, Manholes, Bottom

Storage tank design as per IS:803 and API:650, Practical Exercise

Design of Tank Roof Assembly (Fixed/ Floating), Supported and Domed Roof

### Day 4: Storage Tank, Module 5

Selection and sizing of Tank Appurtenances, Breather Valves, Seals, Internal Floating Roof Fire Safety Systems integral to tank, Sprinklers, Foam

Lining of Aboveground Petroleum Storage Tank Bottoms (API RP 652)

### Day 4: Storage Tank, Module 6

Cathodic Protection of Aboveground Petroleum Storage Tanks (API RP 651)

Earthing Guidelines, Systems

Welding Quality Assurance, ASME PV Code Welding, Sec IX

### Day 5: Storage Tanks, Module 7

Welding Quality Assurance, ASME PV Code Welding, Sec IX

Tank Inspection, Examinations and Testing (API 653)

### Day 5: Storage Tanks, Module 8

Damages and Deterioration of Tanks in operation at Tank farms Maintenance practices, planning and Repairs for extended service

Open House, Discussion on case histories





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This program shall prove useful for

Experienced Professionals who wish to brush up their knowledge and stay abreast with the latest in the industry. This would provide you an edge amongst all. Engineers and Technologists and fresher from varied technical background interested in learning more about **Piping Systems**, **Storage Tanks**, **their design**, **construction and inspection guidelines**.

The program package include;

- 1. Comprehensive study and reference material of 150+ pages to each participant.
- 2. Lectures by renowned experts of 30+ years of experience in the Industry

Our clientele include Oman Refinery , Qatar Petroleum, QAPCO, Oman Gas, PDO Oman, L&T, ABB, TCE, EIL, GAIL, IFFCO, GSFC, IOC, RELIANCE, ALSTOM-POWER, LINDE, REAL, BHEL, TRANSPEK, ONGC, PRAJ, Tecnimont ICB, MECON, Chennai Petroleum, HPCL, HMEL, SAIPEM, Nirma & many others who have benefited from technical programs conducted regularly by us.

#### **METHODOLOGY**

- 1. Technical Sessions
- 2. Problem Solving Sessions
- 3. Case Studies

#### **DATE & TIME**

Place- Vadodara, Gujarat, India

Date- 5 days, **Year 2023** Time: 10.00 AM- 5 PM

**VENUE** 

Charisma Education Pvt Ltd.

302 Sunsilver Apartments, Nr. Akota Garden, Productivity Road,

Vadodara 390020

#### REGISTRATION

The Registration fees:

#### **Indian Participants:**

#### Rs. 56000 (Rs Fifty Six Thousand only) per delegate

The fee may be sent to us in the form of a Cheque drawn in favor of **Charisma Education Pvt Ltd.**, payable at Vadodara.

You may also pay the fee through bank transfer, the detail of which will be made available after the formal registration of the candidate through Emails.

Request for registration may be sent on the organization letter-head along with the fee as cheque.

#### **CONTACT**

## **Charisma Education Pvt Ltd.**

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