

Location: Taaeen/ ADNOC

Date: April 2025

Duration: 4 Days

Fee: English

Course Title: Refinery Fired Heater and Boilers Inspection

Learning Objectives:

- Learn inspection techniques for refinery fired heaters and boilers.
- Identify common operational issues and maintenance needs.
- Ensure compliance with safety and performance standards.

Target Audience:

- Inspection and maintenance engineers
- Process engineers in refineries and petrochemical plants
- Health, safety, and environment (HSE) professionals

Daily Course Outline:

Day 1: Fundamentals of Fired Heaters and Boilers

- Types of refinery heaters and boilers
- Combustion principles and heat transfer mechanisms
- Key operational parameters and efficiency considerations

Day 2: Inspection Techniques and Regulatory Compliance

- API standards and industry best practices
- Common defects and damage mechanisms in fired heaters and boilers
- Regulatory requirements for safety and environmental compliance

Day 3: Non-Destructive Testing (NDT) & Performance Monitoring

- Ultrasonic, radiographic, and thermographic testing methods
- Efficiency assessments and emission control strategies
- Real-time monitoring and predictive maintenance approaches

Day 4: Maintenance, Risk-Based Inspection (RBI) & Case Studies

- Preventive and corrective maintenance approaches
- Risk-based inspection (RBI) planning and execution
- Real-world case studies from refinery operations
- Course wrap-up and Q&A

