TCR ADVANCED

EVOLVE by TCR
Innovate your skillset, Empower the mind

Two-Day Training Programme on Reactor Effluent Air Cooler (REAC) Inspection, Condition Assessment, FFS and FI

18th & 19th September 2025

Evolve by TCR
215, Pancham Icon,
Vasna Road, near D-Mart,
Vadodara, Gujarat 390007

Fees: INR 20,000/- for single person + GST 18% extra.

10% Discount on total amount of invoice for 03 or more nominations from the same organization.

Course Content

- Role of REAC in Hydrotreating I cracking.
- Materials for REAC tubes and headers.
- Design considerations for REAC.
- Role of NACE material certification and testing.
- Current standards and their role.
- Operational aspects and water injection for REAC.
- Damage mechanisms and mitigation.
- Inspection during fabrication and in-service.
- Failure investigation of REAC components.
- Fitness-for-service assessment.
- NDT methods and limitations for REAC application.
- Improving reliability based on the present condition.

Who Should Attend

- Inspection Managers/Engineers
- Maintenance Managers/Engineers
- Reliability Engineers
- Plant Managers
- Operations Managers
- Process Managers/Engineers
- Asset Managers
- Quality Assurance/Control Professionals

Objectives of the Training Programme:

- **Understand the Critical Role of REAC in Refinery Operations:** Explain the function of Reactor Effluent Air Coolers (REAC) in hydrotreating and hydrocracking units and how their performance influence's operational reliability.
- **Strengthen Knowledge of REAC Materials and Design:** Provide insights into the selection of materials for REAC tubes and headers, design considerations, and NACE material certifications essential for safe and efficient service.
- **Identify and Mitigate Damage Mechanisms:** Teach participants to recognize common damage mechanisms (e.g., corrosion, fouling, fatigue) affecting REAC systems and methods to mitigate them.
- **Develop Skills in Inspection and Failure Analysis:** Train participants on inspection methodologies—during fabrication and in-service—along with hands-on understanding of failure investigation (FI) techniques specific to REAC components.
- **Apply Fitness-For-Service (FFS) Assessment Techniques:** Equip engineers with tools and standards (API-based) to assess the remaining life and structural integrity of aging or damaged equipment.

Meet The Faculty

Mr. Paresh Haribhakti, MD

- He holds a post-graduate degree in Materials Technology from M.S. University, providing him with a solid academic foundation in metallurgy and materials science. With a leadership role at TCR Advanced Engineering Services, he has accumulated extensive experience in metallurgical engineering, and has solved over 9000+ industrial challenges. He is expert in risk mitigation and management.
- Paresh has authored 'Failure Investigation of Boiler Tubes: A Comprehensive Approach', published by ASM International, USA. He passionately advocates for eliminating failures across industries and working towards predicative approach. His commitment to advancing knowledge and expertise is evident through his active participation in global conferences and contributions to leading metallurgical journals. He is an acclaimed expert for damage mechanism of oil & gas, refinery, petrochemicals, power, fertilizers.

Mr. Nikhil Sabhaya

- He is a post graduate in Metallurgy. He has over 5 years of hands-on industrial experience in the field of Boiler Remaining Life Assessment (RLA) and Non-Destructive Testing (NDT). He is an ASNT Level III certified professional in ET, UT, PT, and MT. Additionally, he holds API 510 certification as a Pressure Vessel Inspector and is a CSWIP 3.1 Certified Welding Inspector. His deep practical experience, combined with his knowledge of various national and international codes and standards, enables him to effectively formulate and validate test procedures for diverse NDT applications.
- He has working experience in NDT testing at various Power projects, Petrochemicals, Refineries, Structural and Automobile Industries. He has an expertise in NDT and the application of various NDT methods for solving problems of Industry.

Mr. Ketan Upadhyaya

- BE in Metallurgical engineering, PGD in computer science. He has experience of 25 years in the field of NDE, Acoustic emission techniques, Vibration measurement and signature analysis, Failure Investigations, microstructure interpretation, Scanning electron microscopy and digital imaging system.
- He is a qualified level II for Acoustic Emission testing (IISC Bangalore), Vibration Analyst VT-II (Entec IRD) and Ultrasonic Flaw Detection (EEC Mumbai) techniques. He has expertise in Engineering Critical Analysis, high-temperature degradation of materials, Remaining Life Assessment (RLA), and Fitness-for-Service (FFS) evaluations. He has investigated over 1,000 failure cases related to petrochemical and oil & gas plants.

Mr. Hemant Pradhan

- He is graduate in Mechanical Engineering. With 38 years of experience in design, details engineering services, project, inspection, mechanical construction, procurement, estimation etc. for fertilizer and petrochemical plants and projects.
- Mr Pradhan has headed various department like Inspection, Mechanical Construction, Workshop and phosphoric acid and Fiber Unit Plants. He is expert in Fitness for Service.

For NFET/ RTGS/ Bank transfer:

Account No: 05730400000034
IFSC: BARB0INDMAK (5th letter is zero)
Bank: BOB, Makarpura Branch
Merchant Name: TCR ADVANCED ENGINEERING PVT LTD
UPI ID : tcrad93762@barodampay

QR code for payment

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