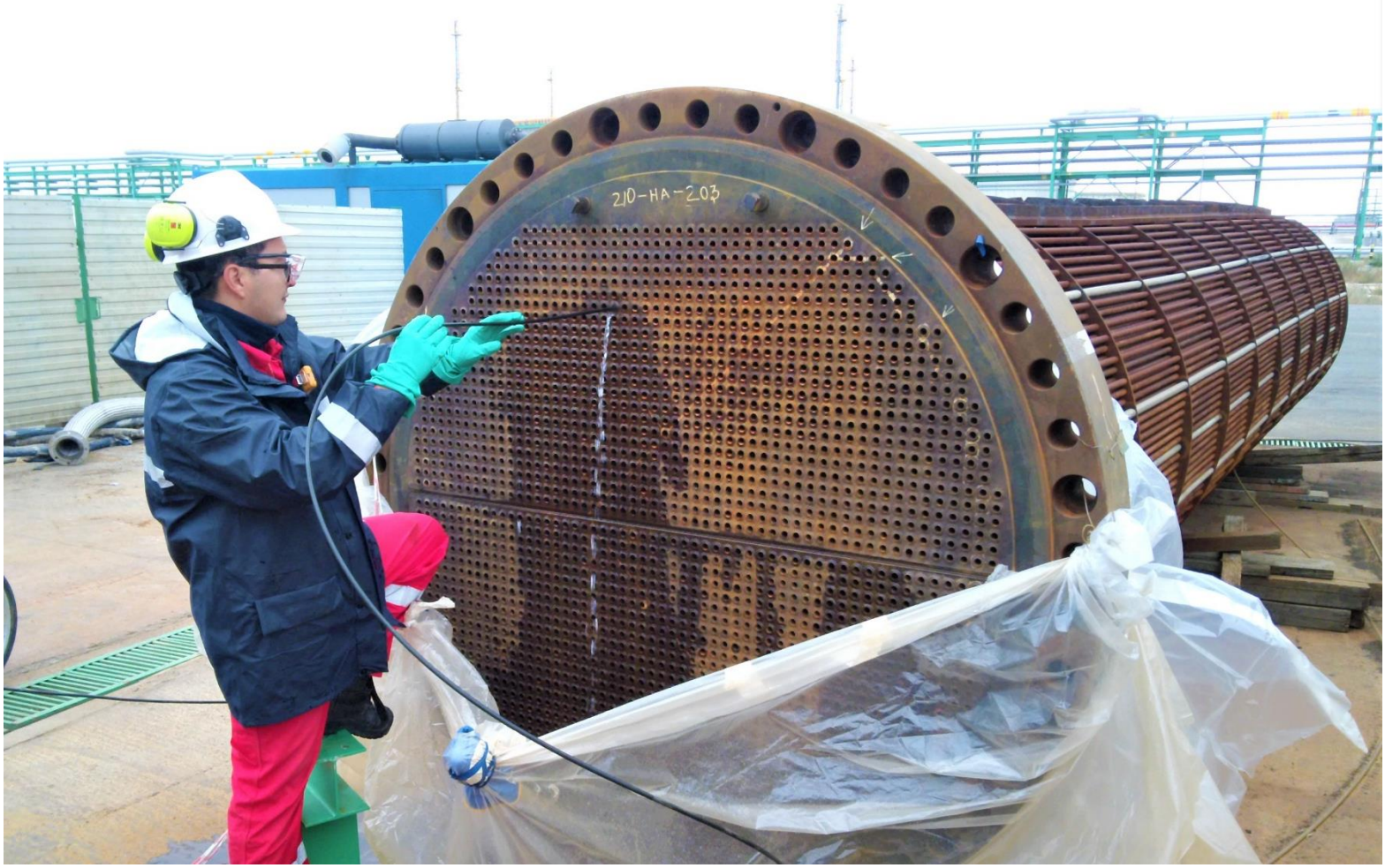

Tube inspection

In this issue:

Introduction

Refinery and Chemical plants can employ hundreds of heat exchangers or condensers in a single process unit, each having its unique process, service and damage mechanism. Heat exchanger tubing is subjected to process chemistry on both sides (I.D. & O.D.) such as; water, steam, or even air.

This fluid and heat transfer conditions, contributes to either process corrosion and/or mechanical damage within the heater exchanger such as; corrosion, thinning, pitting, cracking, erosion, vibration or a combination of those mentioned

Techniques

Non-destructive testing of tubing and surfaces relies on several techniques, which often depend on the application and the materials involved. By utilizing a single or combination of the following testing technologies, Arise Global has all the capabilities to inspect your tubular equipment according to your needs:

- Acoustic Pulse Reflectometry (APR)
- Eddy current testing (ECT)
- Eddy current array (ECA)
- Tangential eddy current array (TECA™)
- Remote-field testing (RFT)
- Near-field testing (NFT)
- Near-field array (NFA)
- Magnetic flux leakage (MFL)
- Internal rotating inspection system (IRIS) ultrasonic testing

Why Tube Inspection

- Component Reliability: Safety & Environment.
- Reliability: Reduce the Chance of Unscheduled Downtime & lost revenue.
- Predictive Maintenance: Determine Corrosion Rate/Remaining Life & Calculate Trending.
- Failure Analysis: Provides data for prevention of future failures.
- Reliable Data: Hydro-Test is not sufficient. Bore-scope inspection can be misleading, limited to visual examination.