Course Fee: US$450

Because vibration can cause critical operating problems in heat exchangers, it is important to analyze the potential for flow-induced vibration.

This workshop teaches you how to develop an input file, interpret results, and obtain accurate prediction of the vibration potential for installed units. Using ***X****vib* you'll practice determining if a heat exchanger is susceptible to vibration damage.

Key Topics

- Analysis methods for fluidelastic instability and vortex shedding
- Velocity profile development
- Vibration susceptibility

Suggested Participants

Engineers responsible for the mechanical condition of shell-and-tube heat exchangers

Course credits: 6 hours (PDH/CEU)

Outline

I. Fundamentals of Vibration Analysis
- Introduction
- Vortex shedding
- Fluidelastic instability

II. Getting Started with ***X****vib*
- Purpose of ***X****vib*
- Data input
- Build a case in ***X****vib* using ***X****ist* results

III. ***X****vib* Calculations
- Calculation approach
- Compare ***X****ist* vibration analysis with ***X****vib*
- Guidelines to implement the velocity profile
- Build an ***X****vib* case

IV. Straight Tube Analysis
- Interpret ***X****vib* reports
- Guidelines to assess vibration severity
- Analyze process condenser with parallel baffles

V. U-Tube Analysis
- Discuss U-tube configurations
- Analyze vibration potential for U-tube exchangers
- Analyze an H-shell with no baffles