

Course Fee: US\$0

Design decisions can have a costly impact on heat exchanger operation. Learn by reviewing several real cases in which unit designs had critical commercial consequences for operators/ owners. In some cases, the units did not work in service; in others, the designs were revamped before the units began operation.

Each case study is introduced as a problem; participants work individually or in groups to determine the cause and develop solutions. Prior to each case, the instructor reviews related HTRI methods.

Key Topics may include:

- Steam generator with tube failure
- Intercooler with vibration concern
- Condenser-subcooler with design flaws
- Recuperator with performance shortfall
- Economizer with convergence issues
- Brine chiller with insufficient duty
- Flooded condenser with inadequate subcooling
- Air-cooled condenser with noncondensables
- Once-through reboiler with instability
- Vapor-liquid separation
- Fouling with tube failure
- Gas cooler with inadequate performance

Suggested Participants

Engineers—from novice to expert—who want to ensure that design problems are identified before operation

HTRI Software

This course will make use of the following HTRI software: *Xchanger Suite*[®] components *Xist*[®] and *Xvib*[®]. All training materials are based on the current software version.

Course Credits: 6 hours (PDH/CEU)

Outline

- I. Case 1: Steam generator with tube failure
- II. Case 2: Intercooler with vibration concern
- III. Case 3: Condenser-subcooler with design flaws
- IV. Case 4: Recuperator with performance shortfall