

#### Course Fee: US\$650

This short course is dedicated to the discussion of thermosiphon reboilers. Model thermosiphons in *Xist* using detailed guidelines for piping and fluid property specification. Investigate thermosiphon operational issues and learn how to screen for these using *Xist*. This course provides a checklist for future design review.

## **Key Topics**

- Common types of distillation column reboiler
- Once-through vs. recirculating thermosiphon reboilers
- Vertical vs. horizontal configurations
- Modeling thermosiphons in Xist
- · Piping and fluid property specification
- Operational issues
- Modeling turndown operation

## **Suggested Participants**

Engineers who design, rate or troubleshoot thermosiphon reboilers

## **HTRI Software**

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

Course Credits: 6 hours (PDH/CEU)

#### **Outline**

- I. Reboiler Equipment
  - Types of reboilers
  - Advantages and disadvantages of each
- II. Modeling Thermosiphons
  - Activating the thermosiphon logic in Xist
  - Piping specification
  - Guidelines for fluid properties and heat release specification
  - Overview of pressure drop calculations

# III. Operational Issues

- Overview of wet-wall and dry-wall boiling methods
- Typical thermosiphon reboiler operational problems
- HTRI thermosiphon reboilers checklist
- Modeling turndown operation