Boiler Efficiency - Part 3 - Superheaters, Reheaters, and the Economizer

| Duration: 60 mins | Level: Intermediate | Pass mark: 80% |

Course Description:
This course is designed to explain how boiler instrument and control systems can affect boiler efficiency and heat rate. After completing this course, participants should be able to state the objective of an instrument and control system and explain how the system meets its objective. They should also be able to describe how problems related to the measurement and control of critical parameters affect efficiency and heat rate, and how these problems can be recognized.

Learning Objectives:
• Explain why superheaters are used to increase the temperature of steam
• Explain why a primary superheater and a secondary superheater are normally connected in series to superheat steam
• Explain how a reheater affects boiler efficiency and heat rate
• Explain how attemperators limit steam temperature and describe the impact that attemperators have on heat rate
• Explain how the economizer affects boiler efficiency and heat rate
• Describe the effects of ash buildup on superheaters, reheaters, and economizers and how ash buildup can be minimized
• Describe the effects of too much excess air on heat transfer in superheaters, reheaters, and economizers and why excess air should be maintained at desired levels

Product ID: rvt100_08_009_3_l1_eng_101
Price Band: B3
Provider: 3rd Party Provider
Category: Operations
Sub Category: Power Generation
Assessment Model: Standard – Pass/fail end of course assessment.
System requirements:
OS: Windows 7, 8, 10 / MAC
Browsers: IE11 / Chrome / Firefox / Safari
Plug-in: Flash player
Hardware: Desktop with speakers or headphones
Notes: Not suitable for tablets or smartphones