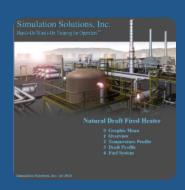# Furnace Operations

SIM-FOP

This interactive 2-day course combines elements of high fidelity, generic process simulators as well as a student-driven learning model centered around the INSTO Methodology. This course teaches operators how to build a mental model of various processes and stress critical thinking skills for operators that can be brought back to the control room. In this course each trainee will have access to their own generic simulators including an Air Cooler, Natural Draft Fired Heater, and Balanced Draft Fired Heater simulator. Trainees will have an opportunity to startup each piece of equipment as well as spend time troubleshooting common heater malfunctions. Furnace operations that promote both safety as well as optimization are stressed throughout the course. The material of the course is applicable to refineries, petrochemical sites, chemical plants, and any other facilities that operate industrial sized fired heaters.

LEVEL- Foundation

DESIGNED FOR

This training course is useful for Console Operators, Outside Operators, Console Supervisors, and Young Engineers that work with fired heaters.

YOU WILL LEARN HOW TO

- Identify key operating points in natural draft and balanced draft (ID/FD) fired heaters
- Examine the different control points for natural draft fired heaters versus balanced draft fired heaters
- Build a mental model of the normal operations of an air cooler and two types of fired heaters
- Analyze trends and relate this information to various normal and abnormal situations for fired heaters
- Utilize the Think EQ.U.I.P.P.E.D.™ method to expand troubleshooting options while operating an air cooler or fired heaters
- Discuss and simulate HAZOP analyses on common troubleshooting scenarios with fired heaters focusing on specific mitigation techniques
- Assess critical safety concerns during the startup or restart of fired heaters as well as simulate these startup procedures
- Practice techniques for heater optimization including maximizing throughput while maintain a minimum, safe level of excess O2

All classes available at your location. Contact us today.

petroskills.com | +1.732.688.8689 | simulationsolutions@petroskills.com

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