

## Burner & Igniter Systems

This two-day course covers basic burner and igniter fundamentals and theory, construction, and maintenance. The course starts with fuels and combustion theory, followed by burner and igniter operation and system controls. Maintenance of the burners and igniters closes out the course with labs of typical maintenance activities associated with the burners and igniters. Although this course is designed for anyone tasked with the operation or maintenance of the following burner/igniter systems, site-specific information can be incorporated into the course, including: I-Jet Lighters, Mark IV Dual Register Burners, Flamon Flame Detectors, LC 200 Lighter Control System, and Bailey 762 Control Package.

### I. Fuels and Combustion

- Fuels and Fuel Characteristics
- Combustion
- Basic and Ideal Combustion
- Components of a Burner Port
- Factors Affecting Combustion
- Pulverizer Group Stop Sequence
- Inert and Clearing System
- Pulverizer Group Trips
- Pulverizer Group Sequence Permissives

### II. Systems / Operations

- Fuel Oil System
- Pulverized Coal Burning
- Equipment
- I-Jet Lighters
- Mark IV Dual Register Burners
- Flamon Flame Detectors
- LC 200 Lighter Control System
- LC 200 Lighter Control Logic Sequence

### III. Bailey 762 Controls

- Air Flow
- Fuel Flow
- 762 Functional Description
- 762 Unit Description
- Purge
- Furnace Firing Permissives
- Pulverizer Group Start Sequence
- Maintained Lighters
- Pulverizer Group Operation