



BOILER FUNDAMENTALS



WE IMPROVE WORKPLACE SAFETY & PERFORMANCE

TRAINING DESCRIPTION:

This program has been designed to give the attendee a broad introduction to the most common and important components, principles, and concepts used in boiler systems. You will be trained by a field experienced, Lewellyn Technology instructor. Safe operation practices and boiler efficiency issues will be discussed, as well as the rules and regulations that govern your workplace. You will learn how to perform proper maintenance procedures for your system and how to conduct vessel inspections. The topics presented in this program are designed to help you become a better operator, troubleshooter, and maintenance technician. Upon completion of this course, you will have a solid knowledge of basic boiler systems, the components and accessories used in these systems, how and why boiler systems work, and an understanding of present dangers if not operating your system safely.

TRAINING BENEFITS:

- Proper installation procedures of components.
- Reduced costs to outside contractors.
- Increased knowledge of industry terminology.
- Understanding diagrams and schematics.
- Reduce energy costs.

TRAINING TOPICS:

COMBUSTION

- Fuel
- Draft
- Burner Operation

FUNDAMENTALS OF HIGH & LOW PRESSURE BOILERS

- Boiler Theory & Types
- Boiler Classification
- Pressure & Temperature

BASIC BOILER ROOM SYSTEMS

- Fuel System
- Draft System
- Feedwater System
- Steam System

OPERATING & SAFETY DEVICES

- Safety Valves
- Low Water Cutout Controls
- Operating Controls
- Limit Controls

BOILER OPERATIONS

- Operating Standards
- Safe Operation
- Efficient Operation

BOILER & PRESSURE VESSEL ACCIDENTS

- Boiler Room Safety
- Accidents, Cause & Effect
- Statistical Analysis of Accidents

CASE STUDY

- Boiler Explosion

NATIONAL, STATE, LOCAL JURISDICTIONAL RULES & REQUIREMENTS

- American Society of Mechanical Engineers
- National Board Inspection Code
- National Fire Protection Association Code
- Controls & Safety Devices for Automatically Fired Boilers (CSD-1)

PREVENTIVE MAINTENANCE

- Routine Boiler Maintenance
- Safety Valve & Low Water Cutout Control Tests
- Efficiency Tests
- Waterside & Fireside Maintenance

BOILER & PRESSURE VESSEL INSPECTION

- Preparing Your Boiler for Inspection
- Internal Inspection
- External Inspection
- Operational Inspection
- Hydrostatic Pressure Test

STATIONARY ENGINEERING

- Boiler Operator Licensing Requirements
- Question & Answer Session

CLASS DISCUSSION AND REVIEW

**2-DAY
TRAINING**

CLASS SIZE: UP TO 20
CLASS LENGTH: 12 HOURS
CLASS NUMBER: N_F202

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