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REFERENCE SYLLABUS

For

Steam Boiler Operator (LP)



STEAM BOILER OPERATOR (LP)

SYLLABUS

Introduction

This Syllabus is intended to assist candidates studying for the Steam Boiler Operator (LP) Examination.

Recommended Study Program:

It is recommended that, before undertaking this examination, the candidate completes Power Engineering Course of study, offered through a recognized and approved technical institute or training provider which addresses the Syllabus Outline.



STEAM BOILER OPERATOR (LP)

SYLLABUS

Reference Syllabus for Steam Boiler Operator (LP) Examination Candidates

Major Topic: Basic Physical Science, Safety, and Regulation for Facility Operations

Topic 1 Introduction to Thermodynamics

Topic 2 Fire Safety and Site Hazards

Topic 3 Building Safety

Topic 4 Confined Space Entry

Topic 5 Introduction to Occupational Health and Safety Legislation

Topic 6 Introduction to Heating Plant Safety

Topic 7 Handling of Dangerous Materials

Topic 8 Introduction to Electricity

Major Topic: Low Pressure Boiler Components and Operation

Topic 1 Watertube Boilers (Heating, Power, and Tubular)

Topic 2 Cast-Iron Sectional and Modular Boilers

Topic 3 Firetube Boilers (Heating and Power)

Topic 4 Electric Boilers

Topic 5 Basic Fittings for Steam Boilers

Topic 6 Basic Fittings for Hot Water Boilers

Topic 7 Low Water Fuel Cut-Offs and Feedwater Controls

Topic 8 Heating Boiler Operating Controls

Topic 9 Boiler Combustion Controls

Topic 10 Boiler Programming Controls

Topic 11 Basic Boiler Operation

Topic 12 Routine Boiler Maintenance and Inspection

Topic 13 Combustion and Draft

Topic 14 Burners for Boilers

Topic 15 Piping Materials and Connections

Topic 16 Piping Expansion, Support, and Insulation

Topic 17 Steam Traps

Topic 18 Introduction to Valves



STEAM BOILER OPERATOR (LP)

SYLLABUS

Major Topic: Elements of Human Comfort in Facility Operation

Topic 1 Steam Heating Equipment

Topic 2 Steam Heating Systems

Topic 3 Hot Water Heating Systems

Topic 4 Hot Water Heating System Equipment and Operation

Topic 5 Warm Air Heating System Equipment

Topic 6 Warm Air Furnace Components and Maintenance

Topic 7 Ventilation and Air Filters

Topic 8 Electric Controls for Heating Systems

Topic 9 Refrigeration Theory

Topic 10 Air Compression