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# **REFERENCE SYLLABUS**

For

**Low Pressure Boiler Operator**

# Introduction

This Syllabus is intended to assist candidates studying for the Low Pressure Boiler Operator 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.



# Low Pressure BOILER OPERATOR SYLLABUS

Reference Syllabus for Low Pressure Boiler Operator Examination Candidates

## Major Topics

**Topic 1 Introduction to Boilers:** historical development of boilers, boiler design and applicable codes and standards

**Topic 2 Firetube Boilers:** design, components, and characteristics of firetube boilers

**Topic 3 Watertube Boilers:** design, components, and characteristics of watertube boilers

**Topic 4 Electric Boilers:** design and application of electric boilers

**Topic 5 Special Boiler Designs for Heating Plants:** the design of boilers used in heating plants

**Topic 6 Basic Fittings for Steam Boilers:** required fittings of a low-pressure steam boiler and explain their role in safe boiler operation

**Topic 7 Basic Fittings for Hot Water Boilers:** typical fittings of a hot water boiler and explain their role in safe boiler operation

**Topic 8 Water Level Safety Controls:** operation and testing of low water fuel cut-offs and describe feedwater control methods and devices used on low-pressure boilers

**Topic 9 Firing-Rate Controllers and Safety Interlocks:** operating and safety controls found on low-pressure boilers

**Topic 10 Basic Boiler Operation:** preparation, start-up and shutdown, abnormal conditions, and routine operational checks in the operation of steam and hot water boilers

**Topic 11 Boiler Maintenance and Inspection:** boiler inspections, general procedures for maintaining boilers and preparing them for lay-up, and boiler cleaning methods

