**Syllabus for Second Class Boiler Attendant:**

A candidate, in order to be qualified for a certificate of competency of the Second Class, shall, inter alia, satisfy the examiners that;

**(a) He clearly understands**

i. the working and management of a steam boiler and economizer;

ii. the use and purpose of the various valves, cocks, mountings and fitting;

iii. the precautions to be taken and procedure to be observed before starting fires and when raising steam;

iv. the use of a feed pump and injector;

v. the reading of the pressure gauge;

vi. the need for periodical cleaning and pure water supply and prevention of scale or other deposits on heating surfaces;

vii. the need for periodical inspection of boilers and the manner in which they should be prepared for thorough inspection, hydraulic test and steam test;

viii. the precautions to be taken before entering or allowing any person to enter a boiler that is connected to another boiler under steam;

ix. the use of the best means of firing for the prevention of smoke;

x. the danger of water lodging in steam pipes and the precautions to be observed in draining;

xi. the procedure to be followed in the event of shortage of water, bulging or fracture of furnaces of flat plates or bursting of tubes or of any accident to a boiler or steam pipe;

xii. precautions to be taken when starting an economizer to work after a period of rest; and

xiii. procedure to be adopted in bringing an economizer in to commission and also for putting it out of commission while the boiler is on steam; and that

**(b) He is able**

i. to stoke a boiler including cleaning and banking fires in a workmanlike manner;

ii. to show how avoidable smoke may be prevented;

iii. to blow though and test the correctness of water gauge glasses and test cocks;

iv. to replace a gauge glass and show how a false water-level might be shown;

v. to ease a safety valve and use a blow down cock or valve;

vi. to adjust a high steam and low water safety valve and renew a fusible plug;
vii. to pack pump or valve chest glands;
viii. to grind and adjust cocks and valves;
ix. to take a feed pump or injector to pieces and replace in working order; and
x. to handle appliances provided for keeping the economizer clean.