

## **Annex 11 Courses and Hours of Safety and Health Education and Trainings specified for Operators of Dangerous Equipment**

### **I. Courses and hours of safety and health education and trainings specified for boiler operators**

#### **1. Courses and hours of safety and health education and trainings specified for Level A boiler operator (heat transfer area over 500 square meters) (50 hours)**

No.	Course Name	Hour(s)
(1)	Boiler-related regulations	2 hours
(2)	Types and structures of boilers	3 hours
(3)	Auxiliary devices and accessories of boilers	4 hours
(4)	Automatic control of boilers	2 hours
(5)	Boiler feed water and processing	4 hours
(6)	Boiler fuel and combustion	2 hours
(7)	Fuel storage and transport	3 hours
(8)	Boiler base, piping and valves	2 hours
(9)	Electrical equipment and instruments of boilers	3 hours
(10)	Boiler cleaning and maintenance	2 hours
(11)	Operation guidelines and abnormal handling of boilers	3 hours
(12)	Accident prevention and response of boilers	2 hours
(13)	Self-inspection and inspection-point maintenance of boilers	2 hours
(14)	Boiler safety operation practicum	16 hours (including 6 hours of on-site observation and practicum)

Notes:

1. The operation training shall be divided by groups, less than 15 persons

a group, for practicum. It may be conducted by groups at the same time or by sequence.

2. Level A boiler operator safety and health education and trainings shall be participated by Level B boiler operator obtaining session finished certificate for safety and health education and trainings. However, personnel with level A boiler practicum operating hours accumulated to reach above 800 hours and approved by the business unit such restriction shall not be applicable.

2. Courses and hours of safety and health education and trainings specified for Level B boiler operator (heat transfer area between 50 square meters and 500 square meters) (50 hours)

No.	Course Name	Hour(s)
(1)	Boiler-related regulations	2 hours
(2)	Types and structures of boilers	3 hours
(3)	Boiler-related regulations	3 hours
(4)	Types and structures of boilers	3 hours
(5)	Automatic control of boilers	3 hours
(6)	Boiler feed water and processing	6 hours
(7)	Boiler fuel and combustion	3 hours
(8)	Boiler cleaning and maintenance	2 hours
(9)	Operation guidelines and abnormal handling of boilers	3 hours
(10)	Accident prevention and response of boilers	3 hours
(11)	Self-inspection and inspection-point maintenance of boilers	3 hours
(12)	Boiler safety operation practicum	16 hours

Note: The operation practicum shall be divided by groups, less than 15 persons per group. It may be conducted by groups at the same time or by sequence.

3. Courses and hours of safety and health education and trainings  
specified for Level C boiler operator (heat transfer area less than 50  
square meters) (39 hours)

No.	Course Name	Hour(s)
(1)	Boiler-related regulations	2 hours
(2)	Types and structures of boilers	3 hours
(3)	Boiler-related regulations	2 hours
(4)	Types and structures of boilers	2 hours
(5)	Automatic control of boilers	2 hours
(6)	Boiler feed water and processing	3 hours
(7)	Boiler fuel and combustion	2 hours
(8)	Boiler cleaning and maintenance	2 hours
(9)	Operation guidelines and abnormal handling of boilers	3 hours
(10)	Accident prevention and response of boilers	3 hours
(11)	Self-inspection and inspection-point maintenance of boilers	3 hours
(12)	Boiler safety operation practicum	12 hours

Note: The operation practicum shall be divided by groups, less than 15  
persons per group. It may be conducted by groups at the same  
time or by sequence.

II. Courses and hours of safety and health education and trainings  
specified for Category A pressure vessel operators (35 hours)

No.	Course Name	Hour(s)
1	Pressure vessel relevant regulations	2 hours
2.	Categories and structures of pressure vessels	3 hours
3.	Auxiliary devices and accessories of pressure vessels	3 hours
4	Pressure vessel relevant regulations	2 hours
5	Related knowledge of hazardous substances and	3 hours

	chemical reaction	
6	Operation guidelines and abnormal handling of pressure vessels	4 hours
7	Accident prevention and response of pressure vessels	3 hours
8	Self-inspection and inspection-point maintenance of pressure vessels	3 hours
9	Safety operation practicum of pressure vessels	12 hours

Note: The operation practicum shall be divided by groups, less than 15 persons per group. It may be conducted by groups at the same time or by sequence.

III. Courses and Hours of Safety and Health education and trainings specified for operator of specified high-pressure gas equipment (35 hours)

No.	Course Name	Hour(s)
1	Relevant regulations of specified high-pressure gas equipment	2 hours
2.	Introduction to high-pressure gases	3 hours
3.	Categories and structures of specified high-pressure gas equipment	3 hours
4	Auxiliary devices and accessories of specified high-pressure gas equipment	3 hours
5	Safety devices of specified high-pressure gas equipment and application	3 hours
6	Operation guidelines and abnormal handling of specified high-pressure gas equipment	3 hours
7	Accident prevention and response of specified high-pressure gas equipment	3 hours
8	Self-inspection and inspection-point maintenance of specified high-pressure gas equipment	3 hours
9	Safety operation practicum of specified	12 hours

	high-pressure gas equipment	
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Note: The operation practicum shall be divided by groups, less than 15 persons per group. It may be conducted by groups at the same time or by sequence.

IV. Courses and hours of safety and health education and trainings specified for operator of high-pressure gas vessels (35 hours)

No.	Course Name	Hour(s)
1	Relevant regulations of high-pressure gas vessels	2 hours
2.	Introduction to high-pressure gases	3 hours
3.	Categories and structures of high-pressure gas vessels	3 hours
4	Safety devices and accessories of high-pressure gas vessels	3 hours
5	Loading, transportation and storage of high-pressure gas vessels	3 hours
6	Operation guidelines and abnormal handling of high-pressure gas vessel	3 hours
7	Accident prevention and response of high-pressure gas vessels	3 hours
8	Self-inspection and inspection-point maintenance of high-pressure gas vessels	3 hours
9	Safety operation practicum of high-pressure gas vessels	12 hours

Note: The operation practicum shall be divided by groups, less than 15 persons per group. It may be conducted by groups at the same time or by sequence.