Annex 11 Courses and hours of safety and health education and training specified for operators of dangerous equipment

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

1. Courses and hours of safety and health education & trainings specified for Level A boiler operator (heat transfer area over 500 m²) (60 hours)
   (1) Boiler related regulations  2 hours
   (2) Types and structures of boilers  4 hours
   (3) Thermal oil boilers  3 hours
   (4) Ancillary devices and accessories 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) Fuel storage and transport  3 hours
   (9) Boiler base, piping and valves  2 hours
   (10) Electrical equipment and instruments of boilers  3 hours
   (11) Boiler cleaning and maintenance  3 hours
   (12) Operation guidelines and abnormal treatment of boilers  3 hours
   (13) Accident prevention and treatment of boilers  3 hours
   (14) Self-inspection and inspection-point maintenance of boilers  3 hours
   (15) 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.

2. Courses and hours of safety and health education & trainings specified for Level B boiler operator (heat transfer area between 50m² and 500m²) (50 hours)
   (1) Boiler related regulations  2 hours
   (2) Types and structures of boilers  3 hours
   (3) Thermal oil boilers  3 hours
   (4) Ancillary devices and accessories 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 treatment of boilers 3 hours
(10) Accident prevention and treatment 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 & trainings specified for operators of Level C boiler operator (heat transfer area less than 50m²) (39 hours):
   (1) Boiler related regulations 2 hours
   (2) Types and structures of boilers 3 hours
   (3) Thermal oil boilers 2 hours
   (4) Ancillary devices and accessories 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 treatment of boilers 3 hours
   (10) Accident prevention and treatment 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 & trainings specified for Category A pressure vessel operators (35 hours):
1. Pressure vessel relevant regulations 2 hours
2. Categories and structures of pressure vessels 3 hours
3. Ancillary devices and accessories of pressure vessels 3 hours
4. Safety devices of pressure vessel and application 2 hours
5. Related knowledge of hazardous substances and chemical reaction 3 hours
6. Operation guidelines and abnormal treatment of pressure vessels 4 hours
7. Accident prevention and treatment of pressure vessels 3 hours
8. Self-inspection and inspection-point maintenance of pressure vessels 3 hours
9. Safety operation practicums 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 & trainings specified for operators of specified high-pressure gas equipment (35 hours)
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. Ancillary 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 treatment of specified high-pressure gas equipment 3 hours
7. Accident prevention and treatment 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 high-pressure gas equipment 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.

IV. Courses and hours of safety and health education & trainings specified for operators of high-pressure gas vessels (35 hours)
1. Relevant regulations of high-pressure gas vessels 2 hours
2. Introduction to high-pressure gas vessels 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
hours
6. Operation guidelines and abnormal processing of high-pressure gas vessel 3 hours
7. Accident prevention and treatment 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.