Annex 4 Courses and hours of safety and health education & trainings specified for workplace monitoring personnel

I. Courses and hours of labor safety and health education & trainings specified for Level A workplace chemical-factor monitoring personnel (98 hours)

1. Laws and regulations relevant to labor workplace monitoring 20 hours
   (1) Labor Safety and Health Law and Enforcement Rules 3 hours
   (2) Labor Workplace Monitoring Rules 3 hours
   (3) Labor Health Protection Rules 2 hours
   (4) Laws and regulations of harmful substance prevention 6 hours
   (5) Anoxia Prevention Rules 2 hours
   (6) Permissible Exposure Level Standards of Workplace Airborne Harmful Substances 4 hours

2. General knowledge of chemical hazards 7 hours
   (1) Industrial processes and chemical factors 4 hours
   (2) General knowledge of chemical hazardous factors 3 hours

3. Regulations and practicum of hazard communication 4 hours
   (including 2 hours of regulations and practicum, respectively)

4. Sampling technology 25 hours
   (1) Sampling preparation (including preparation, arrangement and calibration of sampling devices and determination of sampling conditions) 6 hours (including 3 hours of practicum)
   (2) Airborne harmful substance sampling 9 hours (including 4 hours of practicum)
   (3) Airborne harmful particulate sampling 8 hours (including 3 hours of practicum)
   (4) Treatment, reservation and transportation of samples 2 hours

5. Introduction to sample analysis 7 hours
   (1) Introduction to common analytical instruments 3 hours
   (2) Application of recommended reference methods for sampling and analysis 4 hours

6. Direct reading instruments and equipment 6 hours (including 2 hours of practicum)

7. Workplace monitoring plan (including sampling strategy) 6 hours

8. Evaluation & treatment of monitoring results 5 hours
(1) Evaluation & treatment of monitoring results 3 hours
(2) Maintenance of sampling devices 2 hours
9. Workplace improvement practicum 6 hours
10. Industrial ventilation 5 hours (including 2 hours of practicum)
11. Personal protective equipment 3 hours (including 1 hour of practicum)
12. Communication with certified analytical laboratory 2 hours
13. Introduction to Workplace Monitoring Management System 2 hours

II. Courses and hours of labor safety and health education & trainings specified for Level A workplace physical-factor monitoring personnel. (79 hours):

1. Laws and regulations of labor safety and health 13 hours
   (1) Labor Safety and Health Law and Enforcement Rules 3 hours
   (2) Labor Workplace Monitoring Rules 3 hours
   (3) Laws and regulations relevant to workplace physical-factor monitoring (Standards for Labor Work/Rest Time in High-Temperature Workplace, health part of Labor Safety and Health Installation Rules) 3 hours
   (4) Labor Health Protection Rules 3 hours
   (5) Labeling and Communication Regulations of Dangerous Materials and Harmful Substances (including illustration of material safety data sheet) 2 hours.
2. Hot environment measurement 16 hours
   (1) General knowledge of heat stress 6 hours (including 2 hours of calculation practicum)
   (2) Hot environment monitoring 6 hours (including 3 hours of practicum)
   (3) Control and improvement of hot environment 4 hours
3. Noise measurement 42 hours
   (1) General knowledge of sound 6 hours
   (2) Noise measurement 24 hours (including 18 hours of practicum)
   (3) Noise evaluation 6 hours
   (4) Noise control 6 hours
4. Workplace monitoring plan (including sampling strategy) 4 hours
5. Personal protective equipment 4 hours (including 2 hours of practicum)
III. Courses and hours of labor safety and health education & trainings specified for Level B workplace chemical-factor monitoring personnel. (61 hours):
1. Labor Safety and Health Law and Enforcement Rules 2 hours
2. Labor Workplace Monitoring Rules 2 hours
3. Labor Health Protection Rules 2 hours
4. Labeling and Communication Regulations of Dangerous Materials and Harmful Substances 2 hours
5. Hazard prevention laws and regulations of harmful substances 4 hours
6. Anoxia Prevention Rules 2 hours
7. General knowledge of chemical factors 3 hours
8. Industrial processes and chemical hazardous factors 3 hours
9. General knowledge and applications of permissible exposure levels 7 hours (including 4 hours of calculation practicum)
10. Sampling preparation (including preparation, arrangement and calibration of sampling devices and determination of sampling conditions) 6 hours (including 3 hours of practicum)
11. Airborne harmful substance sampling 5 hours (including 3 hours of practicum)
12. Airborne harmful particulate sampling 5 hours (including 3 hours of practicum)
13. Treatment, reservation and transportation of samples 2 hours
14. Introduction to general analytical instruments 2 hours
15. Application of reference standard methods for sampling and analysis 3 hours
16. Direct reading instruments and equipment 3 hours (including 1 hour of practicum)
17. Workplace monitoring plan (including sampling strategy) 3 hours
18. Evaluation & treatment of monitoring results 2 hours
19. Communication (or coordination) with certified analytical laboratory 1 hour
20. Introduction to Workplace Monitoring Management System 2 hours

IV. Courses and hours of labor safety and health education & trainings specified for Level B workplace physical-factor monitoring personnel. (56 hours):
1. Labor Safety and Health Law and Enforcement Rules 2 hours
2. Labor Workplace Monitoring Rules 2 hours
3. Labor Health Protection Rules  2 hours
4. Health part of Labor Safety and Health Installation Rules  2 hours
5. Standards for Labor Work/Rest Time in High-Temperature Workplace  
   2 hours
6. General knowledge of heat stress  6 hours (including 2 hours of 
   calculation practicum)
7. Hot environment measurement  6 hours (including 3 hours of 
   practicum)
8. General knowledge of sound  6 hours
9. Noise measurement  24 hours (including 18 hours of practicum)
10. Personal protective equipment  4 hours (including 2 hours of 
    practicum)