Approval Conditions for Operating Mandatory Safety Training Courses

Part II – Module 5

Course Design and Specifications

For

- (A) Training Course for Persons Working on Suspended Working Platforms
- (B) Revalidation Training Course for Persons Working on Suspended Working Platforms

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Inquiry

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1. Overview

- 1.1 The terms and abbreviations adopted in this module follow those defined in Part I. This module is Part II 5 of the AC which covers 2 suspended working platform ("SWP") training courses, i.e. full course and revalidation course. This module should be read together with Part I of this AC.
- 1.2 Section 17 of the Factories and Industrial Undertakings (Suspended Working Platforms) Regulation ("the Regulation"), Cap 59AC, requires that every person working on a SWP should have successfully completed the relevant safety training course and obtained a relevant certificate. In this regard, the CL is empowered by section 17(1)(b) of the Regulation to recognise the following safety training courses:
 - (A) Training Course for Persons Working on Suspended Working Platforms ("full course"); and
 - (B) Revalidation Training Course for Persons Working on Suspended Working Platforms ("revalidation course").
- 1.3 Procedures for application for course recognition are stipulated in the GN. Applicant who wishes to run full course or revalidation course should submit an application to the CL for course recognition.
- 1.4 Unless stated otherwise, requirements stated in this module are applicable to both full course and revalidation course.
- 1.5 TCP should ensure that the course materials used should comply with the requirements of this module.
- 1.6 The objective of the full course is to provide the necessary training for the trainees to acquire knowledge and practical skills to operate the SWP in question safely. The trainees will be issued with a certificate upon successful completion of the course.

- 1.7 Revalidation course aims to provide refresher training to holders of SWP certificates, which are expiring or expired, to enhance or reinforce their occupational safety and health knowledge in connection with operation of SWP in question. Upon successful completion of the course, the trainee will be issued a new certificate.
- 1.8 At the end of the full course, the trainees should be able to acquire the knowledge of:
 - 1.8.1 designed purpose, capabilities and limitations of SWP;
 - 1.8.2 installation and working principles of SWP;
 - 1.8.3 correct operating procedures and good safety practices;
 - 1.8.4 basic maintenance knowledge required for checking and reporting to the management the irregularities identified;
 - 1.8.5 any statutory regulations relevant to the type of work which might be carried out in SWP; and
 - 1.8.6 the types, purposes, correct selection procedures and the proper use of personal protective equipment commonly used in connection with the operation of SWP.

Furthermore, the trainees should also be able to acquire the following practical skills to operate the SWP:

- 1.8.7 starting up, manoeuvring, operating and shutting down SWP in question. Operating skills must include all the normal tasks for which the machine is designed and operational safety in relation to work conditions;
- 1.8.8 checking of SWP and of its immediate surroundings prior to operating SWP;
- 1.8.9 identifying abnormalities in the operation and report to the management of any defects; and
- 1.8.10 understanding emergency procedures.
- 1.9 At the end of the revalidation course, the trainees should be able to:
 - 1.9.1 have the knowledge of designed purpose, capabilities and limitations of SWP;

- 1.9.2 have the knowledge of installation and working principles of SWP;
- 1.9.3 have the knowledge of correct operating procedures and good safety practices;
- 1.9.4 have the basic maintenance knowledge required for the safe operation of SWP in order to enable reporting to the management of any irregularities;
- 1.9.5 have the knowledge of any statutory regulations relevant to the type of work which might be carried out in the SWP;
- 1.9.6 describe new technological advancements and developments in work procedure or equipment usage associated with operation of SWP, particularly those that occurred during the five years preceding the conduct of the course; and
- 1.9.7 describe the typical/alarming accidents (including causes and related preventive measures) associated with operation of SWP, in particularly those occurred during the five years preceding the conduct of the course.

2. Admission criteria

- 2.1 Full course is run for trainee who does not possess a SWP certificate or possesses a SWP certificate which has expired for more than 6 months.
- 2.2 A TCP should ensure that applicant to be admitted to a revalidation course should, at the time of application, be holding a SWP certificate which either will expire within 6 months or has expired for not more than 6 months.
- 2.3 A TCP should ensure that trainee admitted to its full course and revalidation course has attained the age of 18 years.

3. Qualifications of trainer

3.1 A TCP should ensure that its trainer should at least possess the qualifications stipulated in <u>Annex 1</u>.

4. Trainees to trainer ratio

- 4.1 A TCP should ensure that the maximum ratio of trainees to trainer is 20 to 1 for theory session and 10 to 1 for practical session of the full course.
- 4.2 A TCP should ensure that the maximum ratio of trainees to trainer is 10 to 1 for both theory session and practical session of the revalidation course.
- 4.3 For effective instruction in practical training, there should never be more than two trainees on one SWP at any time.

5. Class size

- 5.1 A TCP should ensure that the maximum size of a class is 20 trainees for the full course.
- 5.2 A TCP should ensure that the maximum size of a class is 10 trainees for the revalidation course.

6. Course duration

6.1 A TCP should ensure that the minimum course duration of full course should be 14 hours in 2 whole days (7 hours per day) (break between half-day sessions or lunch time not included). It should include theory sessions of 8 hours with demonstration of personal protective equipment, a 4-hour practical session on general safe practices and complete check of the SWP, a written examination session of 30 minutes, a practical examination session of 30 minutes, and a total of not more than 30 minutes recess time per day.

6.2 A TCP should ensure that the minimum course duration of revalidation course should be 7 hours (break between half-day sessions or lunch time not included). It should include a 3-hour practical session, a written examination session of 30 minutes and a total of not more than 30 minutes recess time.

7. Attendance

7.1 A TCP should ensure that any trainee who is absent from the theory class for more than 15 minutes for any half-day sessions will be disqualified to attend the examination.

8. Lesson plan

8.1 A TCP should devise and submit the lesson plan(s) of course(s) applied for recognition to the CL for approval.

9. Course contents

9.1 A TCP should ensure that the course materials used should include all the topics and details stipulated at <u>Annex 2</u> and <u>Annex 3</u>. The TCP should also supplement additional materials in accordance with the needs of the trainees and the latest safety information. The course contents should be submitted to the CL for prior approval.

10. Display, demonstration and practising

10.1 A TCP should provide suitable and sufficient equipment (including safety helmet, safety shoes/boots, safety gloves, ear and eye protectors, respirator, portable fire extinguisher and etc.) for the purpose of display, demonstration and practising. A set of safety harness with lifeline and fall-arresting device should also be provided for each trainee for hands-on practice. The TCP should ensure that every trainee should safely complete the hands-on practice.

11. Examination

- 11.1 The TCP should submit the examination contents to the CL for approval, including at least 3 sets of examination papers (each consisting of 20 different multiple-choice questions) and their model answers and the contents of the practical examination and it marking schemes.
- 11.2 A TCP should ensure that every trainee attending the examination should meet the required attendance and the requirement of completing the hands-on practice.
- 11.3 Time allowed for both written and practical examinations is 30 minutes and the passing mark is 60%.

12. Validity period of certificate

- 12.1 A TCP should ensure that the validity period of SWP certificate issued is 5 years.
- 12.2 For full course, validity period of the certificate should be counted from the date when the trainee successfully completes the course.
- 12.3 For revalidation course, validity of the certificate should be counted

from the day—

- 12.3.1 immediately after the expiry date of the current certificate if the revalidation course is successfully completed within 6 months prior to expiry of the current certificate, or
- 12.3.2 of completing the revalidation course if the revalidation course is successfully completed within 6 months after expiry of the current certificate.

13. Standard certificate format

- 13.1 A TCP should ensure that the front side of the "Certificate for Operation of Suspended Working Platform" should be designed with the required words, in the format as shown in **Figure 1** and according to the specifications below. The reverse side is left to the TCP to include other information as appropriate, which should be commensurate with the purpose of the certificate.
 - Figure 1: Required Words and Design Format of the Front Side of SWP Certificate



(not to scale)

- 13.1.1 The certificate should be made of durable materials, either laminated or plastic, and in standard size of 85 mm x 55 mm;
- 13.1.2 A photograph (minimum size of not less than 20 mm x 25 mm) of the trainee should be incorporated into the certificate for easy identification;
- 13.1.3 For laminated card, the corner of the trainee's photo should be stamped with the TCP's company's chop;
- 13.1.4 For plastic card, the trainee's photo should be printed on the card;
- 13.1.5 Unless otherwise specified, information on the certificate should be printed in both Chinese and English;
- 13.1.6 The certificate should contain the following information:
 - The name of certificate, i.e. "操作吊船證明書" and "Certificate for Operation of Suspended Working Platform";
 - The empowering legislation, i.e. "工廠及工業經營(吊船)規例第17條" and "Section 17 of the Factories and Industrial Undertakings (Suspended Working Platforms) Regulation"";
 - The Chinese and English name as printed on the Hong Kong Identity Card (or equivalent identity documents) of the certificate holder;
 - Reference number of the certificate (an "R" should be appended to the last digit of the reference number to denote that the certificate is issued for a revalidation course);
 - Date of Course Completion (in the format of DD/MM/YYYY);
 - Validity period with starting date and expiry date (in the format of DD/MM/YYYY);
 - Name of the certificate issuing course provider; and
 - The wordings of "此證明書須由持證人擁有及保存。" and "This certificate is owned and should be kept by the certificate holder."

14. Training records

14.1 A TCP should submit the record of every certificate issued according to the required details stipulated in Table 1 as well as the name of the course.

HKID/ Passport No. (TRT1)	Name of trainee (TRT2)	Class Ref. (TRC1)	Name of Trainer (TRC2)	Date of Course completion (TRC3)	Effective	Certificate Expiry Date (TRT4)	Certificate Serial No. (TRT5)
A123456(1)	Chan Siu On	ABC1	HAU To-si	13/06/2011	13/06/2011	12/06/2016	W396000201R
A123457(2)	Chan Siu Chuen	ABC1	HAU To-si	13/06/2011	23/09/2011	22/09/2016	W396000202R
A123458(3)	Chan Siu Feng	ABC2	HAU To-si	18/06/2011	18/06/2011	17/06/2016	W396000203
A123459(4)	Chan Siu Lin	ABC2	HAU To-si	18/06/2011	18/06/2011	17/06/2016	W396000204

Table 1 : Example of Training Records

Qualifications for Trainer of Training Course for Persons Working on Suspended Working Platforms

	The trainer should have:
1.	at least 3 years' experience of working with SWP or similar plants;
2.	successfully completed an acceptable instructional-skills training course, such as the certificate course of Basic Instructional Techniques by the Hong Kong Institute of Education or the certificate course of Occupational Safety and Health Trainer by the Occupational Safety and Health Council ("OSHC") or the certificate course of Effective Site Safety Training and Instructing Techniques Course by Construction Industry Council Training Academy ("CICTA") or equivalent;
3.	hold a valid certificate for operation of SWP;
4.	attended the legislation-related courses and obtained the relevant certificates such as a mandatory basic safety training certificate issued by any approved course providers and a certificate of Safety Supervisor Course issued either by OSHC or CICTA or equivalent;
5.	sound knowledge relating to the prevention of injuries and property losses in connection with the use of SWP.
	In addition to the above, the trainer should be:
6.	familiar with the local safety regulations relating to the operation of SWP involved;
7.	able to read and write in the language to be used as a medium of instruction for the course;
8.	fit and proper to conduct the course; and
9.	nominated in writing by the course provider and approved by the CL.

Annex 2

Course Contents for Training for Persons Working on Suspended Working Platforms

(A) Full Course

- 1. An overview of relevant legislative provisions, including:
 - Occupational Safety and Health Ordinance (including General Duties provisions) and the Regulation;
 - Factories and Industrial Undertakings Ordinance (including General Duties provisions) and the Regulations;
 - Construction Sites (Safety) Regulations (including Part VA);
 - Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations;
 - Factories and Industrial Undertakings (Suspended Working Platforms) Regulation;
 - Factories and Industrial Undertakings (Loadshifting Machinery) Regulation;
 - Other related subsidiary regulations (e.g. Factories and Industrial Undertakings (Dangerous Substances) Regulations, Factories and Industrial Undertakings (Electricity) Regulations, Factories and Industrial Undertakings (Guarding and Operation of Machinery) Regulations, Factories and Industrial Undertakings (Safety Management) Regulation, Factories and Industrial Undertakings (Confined Spaces) Regulation, Factories and Industrial Undertakings (Gas Welding and Flame Cutting) Regulation,...etc.); and
 - Relevant codes of practice such as those for safe use and operation of suspended working platforms, safe use of mobile cranes, safe use of tower cranes, land-based construction over water prevention of fall, etc.
- 2. General knowledge of the SWP including suspension wire ropes and pulleys and safety devices;
- 3. Knowledge relating to electrical apparatus necessary for the starting and operation of the SWP;
- 4. Safe operating procedures;

- 5. Safe use of personal protective equipment such as safety helmets, safety shoes/boots, eye protectors, ear protectors and respirator, particularly the use of full-body safety harness with independent lifelines;
- 6. Safety measures concerning bad weather;
- 7. Signalling and communication system;
- 8. Safe working load; and
- 9. Emergency procedures.

Note: Annex 3 shows the details about the contents regarding items 2 to 9 for reference

10. The trainees should also have sufficient hands-on practice. The practical training should comprise safe operating procedures, signalling and communication system and emergency procedures in connection with operation of SWP, and complete check of the SWP and its safety features.

(B) Revalidation course

- 1. An overview of relevant legislative provisions, including:
 - Occupational Safety and Health Ordinance (including General Duties provisions) and the Regulation;
 - Factories and Industrial Undertakings Ordinance (including General Duties provisions) and the Regulations;
 - Construction Sites (Safety) Regulations (including Part VA);
 - Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations;
 - Factories and Industrial Undertakings (Suspended Working Platforms) Regulation;
 - Factories and Industrial Undertakings (Loadshifting Machinery) Regulation;
 - Other related subsidiary regulations (e.g. Factories and Industrial Undertakings (Dangerous Substances) Regulations, Factories and Industrial Undertakings (Electricity) Regulations, Factories and Industrial Undertakings (Guarding and Operation of Machinery) Regulations, Factories and Industrial Undertakings (Safety Management) Regulation, Factories and Industrial Undertakings (Confined Spaces) Regulation, Factories and Industrial Undertakings (Gas Welding and Flame Cutting) Regulation,...etc.); and
 - Relevant codes of practice such as those for safe use and operation of suspended working platforms, safe use of mobile cranes, safe use of tower cranes, land-based construction over water prevention of fall, etc.
- 2. General knowledge of the SWP including suspension wire ropes and pulleys and safety devices;
- 3. Knowledge relating to electrical apparatus necessary for the starting and operation of the SWP;
- 4. Safe operating procedures;
- 5. Safe use of personal protective equipment such as safety helmets, safety shoes/boots, eye protectors, ear protectors and respirator,

particularly the use of full-body safety harness with independent lifelines;

- 6. Safety measures concerning bad weather;
- 7. Signalling and communication system;
- 8. Safe working load; and
- 9. Emergency procedures.

Note: Annex 3 shows the details about the contents regarding items 2 to 9 for reference

- 10. Brief review of new technological advancements and developments in work procedure or equipment usage associated with operation of SWP, particularly those that occurred during the five years preceding the conduct of the revalidation course;
- 11. Brief review of typical/alarming accidents (including causes and related preventive measures) associated with operation of SWP, in particular those occurred during the five years preceding the conduct of the revalidation course; and
- 12 The trainees should also have sufficient hands-on practice. The practical training should comprise safe operating procedures, signalling and communication system and emergency procedures in connection with operation of SWP, and complete check of the SWP and its safety features.

Contents of Theoretical Training of Persons Working on Suspended Working Platforms

Subject	Areas to be covered
General Knowledge of the suspended working platform	a) capabilities of the type of the particular model;
	b) winch/climber mechanism;
	c) controlling devices;
	d) safety devices and its limitations;
	e) braking system.
Knowledge relating to electrical	a) basic knowledge of power units;
apparatus necessary for starting	b) electrical safety & danger of shock;
and operation of the suspended	c) emergency procedures in case of power
working platform	failure.
Operating procedures	a) pre-start check;
	b) start-up procedures;
	c) close down procedures.
Related safety and health laws	a) Suspended Working Platforms Reg.;
	b) General Duties provisions.
Personal protective equipment	Functions, limitations & proper use of :
	a) full safety harness, anchorage and
	lifeline;
	b) safety helmet;
	c) eye protectors;
Ded Weether	d) face shields & protective gloves.
Bad Weather	Knowledge on what constitutes an adverse
	weather unfavourable to continue with the work on suspended working platform with
	due consideration to the combined effect of
	such variables as wind speed, rainfall,
	humidity, severity of lightning or
	thunderstorm, the nature of work being
	conducted, the construction of the platform,
	the configuration of the platform in relation
	to the face of the building or structure

	being worked at, the position of the platform, the anchorage, etc.
Signalling and communication system	Signals for operation of the suspended working platform, including effective means of communicating with ground personnel concerned.
Safe working loads	Knowledge of the safe working loads of the suspended working platform, the conditions and the consequences of exceeding such limits in order to develop a good working sense on what might constitute a case of overloading in the installation he is working on.
Emergency procedures	Knowledge on measures to be taken in the event of power failure; tilting of the platform; rope failure; fire braking out or other emergency situations.