Committee on Construction Site Safety

Meeting No. 001/13 of Committee on Construction Site Safety (Com-CSS) was held on Monday, 18 March 2013 at 2:30 p.m. at Meeting Room No. 1, CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong.

The following items have been discussed at Com-CSS Meeting No. 001/13:

Agenda Item	Paper	Major Resolutions/ Progress Highlights
1.1	CIC/CSS/R/004/12 (for discussion)	Confirmation of the Progress Report – Members of the Com-CSS confirmed the Progress Report CIC/CSS/R/004/12 of the last meeting held on 15 November 2012.
1.2	CIC/CSS/R/004/12 (for discussion)	Matters Arising from the Previous Meeting –
		Agenda item 4.2:
		Experience sharing session on overseas site safety study tours by Mr. Victor KWONG would be
		arranged in the next meeting.
		Agenda item 4.6:
		This item was discussed under Agenda Item 1.9.

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Agenda item 4.7:

This item was discussed under Agenda Item 1.14.

Agenda item 4.11:

A small group meeting was held on 6 December 2012 among the Working Group Members drafting the Safety Alert No. 001/11 on Fabrication of Reinforcement Cages for Bored Piles. The comment received was addressed and resolved. The endorsed version was then submitted to the Council for approval on 14 December 2012. Comments were received from the Council Members on the Guidelines and were discussed under Agenda item 1.10.

Agenda item 4.14:

This item was discussed under Agenda Item 1.4.

Agenda item 4.15(ii):

The original date of the next meeting 002/13 (29 May 2013) would clash with the Safety Week 2013 and would be scheduled.

Agenda item 4.15(iii):

A Press Conference on the Guidelines on the Adoption of the Pay for Safety Scheme was held successfully on 13 December 2012.

1.3	CIC/CSS/P/035/12	Hong Kong's Construction Industry Vision 2020 by Hong Kong Construction Association (HKCA)
	(for discussion)	Ir Derrick PANG of HKCA was invited to give a presentation on the HKCA's Hong Kong's Construction Industry Vision 2020 on Safety, Health and Quality of Life aspect.
		After the presentation, the Com-CSS discussed the following issues: 1) Zero-tolerance approach to fatal and life-changing accidents It was noted that the CIC had been working in close collaboration with the industry stakeholders in enhancing construction site safety including organising the Construction Safety Week 2012 held in May 2012 and the Construction Safety Week 2013 to be held in May 2013. The key message of these events was promotion of "Zero Accident". Besides, the Informal Task Force on Site Safety Incidents (ITF-SSI) under the Com-CSS had been issuing Safety Alerts on accidents and would issue Safety Alerts on near miss cases.
		2) Alcoholic consumption It was noted that the CIC's Guidelines on Site Safety Measures for Working in Hot Weather had already specified the prohibition on consumption of alcoholic drinks. Com-CSS would consider the suitability of any further publications on alcoholic consumption.
		3) Working at Height "Working at Height" was one of the key considerations of Task Force on Review of Major Construction Method Statements (TF-CMS), Task Force on Safety of Repair, Maintenance, Alterations and Additions (RMAA) Sites (TF-RMA) and ITF-SSI throughout their work.
		4) Adoption of CDM principles in construction projects: The feasibility and the practical issues involved had already been discussed many times at

		Com-CSS and other forums. Com-CSS had taken into consideration CDM principles in its work where they were suitable for adoption and compatible with Hong Kong environment. However, it should be the commercial decision and agreement between contracting parties whether to put CDM as contractual requirements in the project procurement or not. 5) Widespread inclusion of safety and risk management in tertiary education A Task Force on Site Safety Training (TF-SST) was formed to review the competencies in site safety required for various types of construction personnel and to determine courses that should be undertaken by the personnel to acquire such competencies. The mentioned Task Force also communicated with local universities as well as professional bodies and most of their responses were positive. The mentioned Task Force would continue to solicit advice from any relevant organisations if necessary. 6) Basic health care for workers: CIC would continue to liaise with relevant stakeholders for continuous improvement in caring
		for workers' health and safety. A Task Force on Site Housekeeping (TF-SHK) had already been formed under Com-CSS to formulate strategies and recommend measures to promote good housekeeping at sites to enhance tidiness, hygiene and caring facilities for workers.
1.4	CIC/CSS/P/036/12 (for information)	Experience Sharing Session
		Representative from HKHA shared its Three-Pronged Approach in fostering site safety. That included: • Procurement strategy and performance monitoring mechanisms with incentives and sanctions; • Strengthening contract requirements and administration; and • Fostering partnership through research, training and promotion

		It was noted that HKHA had set a good example on site safety performance for the construction industry. The Chairman of Com-CSS recommended all Task Forces to take note of the HKHA's paper when formulating their own measures for construction site safety for both private and public sector works.
1.5	CIC/CSS/P/001/13 (for information)	 Progress of Activities of the Task Force on Site Safety of Working in Lift Shaft Key issues in volume 3 of the Guidelines included: Minimum number of staff should be involved in rope replacement works; The requirements of wearing safety harnesses when working in lift shaft in different conditions; The requirements of wearing reflective vests when working in lift shaft in different conditions; and The requirements on maintenance and repair works in relation to working in common lift shaft and carrying out of hot works in the lift shaft The draft Guidelines would be submitted to the Task Group for review in early April 2013.
1.6	CIC/CSS/P/002/13 (for endorsement)	Guidelines on Site Safety Measures for Working in Hot Weather With the concerted effort and support from Members of the Task Group on Implementation on Heat Stress Action Plan and Members of the Task Force on Working in Hot Weather, the "Guidelines on Site Safety Measures for Working in Hot Weather" had been drafted. The revised draft version incorporating comments received from Members of the Task Force and Task Group

		was completed.
		Members were invited to review and endorse the draft Guidelines in the meeting. One member suggested to add the need for application of permits for fixed structures like shelters in Clause 5.1.1 of the Guidelines. Another suggestion was to specify the definition for "Employers" applicable to this Guidelines as distinct from the publications attached to its Annex published by other organisations.
		After deliberations, Members endorsed the "Guidelines on Site Safety Measures for Working in Hot Weather" with the above suggested amendments. The Guidelines would then be submitted to the Council at its meeting scheduled on 26 April 2013 for approval.
1.7	CIC/CSS/P/003/13 (for information)	Progress Report of Meeting No. 001/13 of the Task Force on Safety of Repair, Maintenance, Alterations and Additions (RMAA) Sites
		1) New Safety Alerts With the support and input from the LD, two safety alerts were drafted and submitted for Task Force Members' agreement. The two safety alerts included "Safe Use of Mobile Metal Scaffolds for Repair, Maintenance, Alterations and Additions Works" and "Avoid Using Ladders for Working at Height in Repair, Maintenance, Alterations and Additions Works".
		The Safety Alert on "Safe Use of Mobile Metal Scaffolds for Repair, Maintenance, Alterations and Additions Works" was agreed in principle by the Task Force. The enhanced version was submitted to Com-CSS which was discussed in Agenda Item 1.8 below. Regarding the Safety

		Alert on "Avoid Using Ladders for Working at Height in Repair, Maintenance, Alterations and Additions Works", further elaboration would be required and it would be further reviewed by the LD and the Task Force. 2) Discussion on Upcoming Alerts to be Prepared After deliberations, Members were invited for views and suggestions on three most important messages in reminding workers on site safety before commencement of work. Details of which would be discussed in the next meeting. 3) Progress of Distribution of Banners to Promote Site Safety at Operation Building Bright (OBB) Sites LD had sent out around 73 no. of Banners to the OBB sites. Follow-up visits were made to 54 of those OBB Sites. It was observed that safety promotional banners were hoisted at 33 of those sites.
1.8	CIC/CSS/P/004/13 (for endorsement)	Safety Alert No. 001/13 – "Safe Use of Mobile Metal Scaffolds for Repair, Maintenance, Alterations and Additions Works" With the support and input from the LD, the "Safety Alert No. 001/13 – Safe Use of Mobile Metal Scaffolds for Repair, Maintenance, Alterations and Additions Works" was drafted. The draft Alert No. 001/13 (together with the meeting documents) was circulated to the Task Force members on 28 January 2013 and 1 February 2013. The Task Force Members agreed in principle the Safety Alert No. 001/13 in the Task Force meeting held on 4 February 2013 with some comments. The revised version was sent to Task Force Members for comment on 5 February 2013. The further revised

		version incorporated with the appropriate comments was appended in Annex A of the meeting document for Members' consideration and endorsement. One comment received in the meeting was to delete the letter "s" for the word "Alterations" and "Additions" for the English version of the Safety Alert No. 001/13. Another recommendation received was to add the word "Don't" in front of all the bullets points of the "DON'Ts" items on page 2 of the English version of the Safety Alert No. 001/13.
		After deliberations, Com-CSS Members endorsed in principle the Safety Alert 001/13. The diagrams shown in the Safety Alert No. 001/13 would be finalised with LD and the Task Force Chairman before issuance.
		[Post Meeting Note: The final version of the Safety Alert No. 001/13 incorporating with appropriate comments was issued to Task Force on Work Safety of RMAA Sites Members on 16 April 13 and attached in Annex A of this paper for information.]
1.9	CIC/CSS/P/005/13 (for discussion)	Progress of Activities for the Consultancy Services on Construction Method Statements for the Construction Industry of Hong Kong
		The "Assignment Brief of the Consultancy Services on Construction Method Statements for the Construction Industry of Hong Kong" was endorsed in the last Com-CSS Meeting No. 004/12 held on 15 November 2012. The endorsed Assignment Brief was then submitted to the Committee on Administration and Finance (Com-ANF) at its Meeting No. 006/12 held on 23 November 2012 for agreement in the financial aspect for the proposed consultancy.

		The Funding Request for the Consultancy Services on Construction Method Statements for the Construction Industry of Hong Kong was rejected at the Com-ANF Meeting No. 006/12 held on 23 November 2012. Members were informed that CIC was planning to engage technical writers for various committees and Task Forces of CIC to increase the number of guidelines and other documents to be produced
		each year. A paper on engagement of technical writers for various Committees and Task Forces of the CIC was submitted to Com-ANF for discussion on 8 March 2013.
		After deliberations, Members agreed to choose one of the previously identified high risk construction activity for trial by technical writer(s) (after getting endorsement from Com-ANF as well as approval from the Council). Details of the arrangement would need to be discussed by the Task Force Members.
1.10	CIC/CSS/P/006/13 (for discussion)	Guidelines on Fabrication of Reinforcement Cages of Bored Piles
		Subsequent to the Com-CSS Meeting held on 15 November 2012, a small group meeting was held on 6 December 2012 to address and resolve the comment raised by a Member. Afterwards, the mentioned document was submitted to the Council for approval on 14 December 2012. In the mentioned Council meeting, comments / suggestions were received from the Council Members. Amendments were made afterwards on the document with input from the Chairman of the Task Force on Review of Major Construction Method Statements, as well as representatives from the BD

		and LD. Members reviewed and discussed the revised Guidelines (incorporated with the received comments) as attached in Annex B of the meeting document no. CIC/CSS/P/006/13. One suggestion received in the meeting to re-consider the definition of Site Engineer(s). Members also discussed the categorisation of the Guidelines to be published, and agreed it should be categorised as "Guidelines".
1.11	CIC/CSS/P/007/13 (for endorsement)	Safety Alert No. 002/13 – "Adoption of Method Statements on Sites" To encourage a wider adoption of Method Statements on Sites by contractors which would take into consideration the need to protect worker safety, Safety Alert No. 002/13 was drafted. After deliberations, Com-CSS Members endorsed in principle the Safety Alert 002/13. In addition, Ir Derrick PANG would solicit views from HKCA members on the same and would send comments, if any, to the CIC Secretariat on or before 8 April 2013. [Post Meeting Note: Derrick PANG's email of 31 March 2013 advised that HKCA had no comment on the content of the Safety Alert No. 002/13. The final version of the Safety Alert No. 002/13 was attached in Annex B of this paper for information.]
1.12	CIC/CSS/P/008/13 (for information)	Progress Report of Meeting No. 001/13 of the Task Force on Site Safety Training

		The latest development of the Site Safety Training Programme was reported in the meeting. Two proposed safety training courses and course contents were agreed with some minor suggestions received at the Task Force on Site Safety Training Meeting No. 001/13. The training requirements, the syllabi and the exemption requirements for the proposed training courses were revised and discussed in Agenda Item 1.13 below.
1.13	CIC/CSS/P/009/13 (for endorsement)	Site Safety Training Programme for the Site Management and Site Supervisory Staff The purpose of the Site Safety Courses was to raise the awareness of the site management and supervisory staff on safety aspects. One suggestion was received in the meeting to consider specifying the TCP grade for the Technically Competent Persons for Site Supervisory Staff in Annex 2 of the meeting document no. CIC/CSS/P/009/13. After deliberations. Members endorsed the two proposed site safety training programme and the associated training courses for the Site Management and Site Supervisory Staff as attached in Annex C of this paper for information. The details of the training requirements, the syllabi, the exemption requirements and implementation road map for the proposed training courses would be submitted to the Board of Studies on Construction Safety Courses and the Construction Industry Training Board (CITB) for endorsement and approval.

1.14	Verbal Report (for information)	Progress of Activities of the Informal Task Force on Site Safety Incidents
	(101 miormation)	Mr. Victor KWONG elaborated that some of the major clients and major contractors adopted use of low voltage hand tools in Hong Kong. Some contractors adopted "Cordless Job Site". He mentioned that the two power utilities companies might have doubt on whether the use of reduced voltage equipment would be able to eliminate the safety concern. He advised that the Mass Transit Railway Corporation Limited, however, accepted the use of 110V hand tools. Limitations for the reduced voltage hand tools were also illustrated in the presentation.
		The meeting noted that from the findings so far, no conclusion could be drawn on whether the adoption of 110V, 220V or cordless hand tools would better protect worker safety. Members agreed to invite the Task Force to consider drafting a safety alert or organising a forum on the usage of 110V hand tools for the construction industry.
		Safety Alert No. 003/12 – "Prevention of Electrocution" with Press Release was published on 23 November 2012. The final version of the published Alert was attached in Annex D of this paper for information.
1.15	CIC/CSS/P/010/13 (for information)	Construction Safety Week 2013 and the Associated Activities To continue promoting and reinforcing the "Zero Accident" message to the industry stakeholders, the CIC and the Development Bureau (DevB) would co-organise the Construction Safety Week 2013 (27-31 May 2013) (CSW 2013) and the associated activities.
		Five key messages were developed to further promote "Zero Accident". They were: Caring Environment; Pro-active Organisation;

		 Responsible Individual; Recognition; and Achievable. The Campaign contained three phrases: Promotional activities before the Construction Safety Week 2013; Construction Safety Week 2013; and Follow-up actions and post event activities. Members were invited to take note of and support the organisation of Construction Safety Week 2013 and the associated activities.
1.16	Experience Sharing (for information)	Experience Sharing Session Owing to the number of agenda items to be discussed in the meeting, Chairman of Com-CSS suggested to present his experience sharing session in the next Com-CSS Meeting.
1.17	CIC/CSS/P/011/13 (for discussion)	<u>Year Plan – Progress Review</u> Alex LEUNG briefed Members on the paper CIC/CSS/P/011/13 regarding "Year Plan – Progress Review". Members noted and accepted the Year Plan for 2013 - 2017 for the Com-CSS.
1.18	AOB (for information and discussion)	 (i) Targets for year 2013 ■ Safety, welfare and insurance of workers; A discussion session would be organised with some of the relevant Com-CSS Members in due course to brainstorm possible way forward.

Explore ways to promote the application of the Pay for Safety Scheme		
(ii) Cordless portable handtools equipment in construction sites A letter received from Hilti dated 31 January 2013 regarding the adoption of cordless portable handtools equipment in construction sites was tabled (Paper CIC/CSS/P/012/13) for Members' information. Members took note of the letter.		



Safe Use of Mobile Metal Scaffolds for Repair, Maintenance, Alteration and **Addition Works**

Safety Alert No. 001/13

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Mobile metal scaffolds ("scaffolds") have been increasingly used for work-at-height in Repair, Maintenance, Alteration and Addition ("RMAA") works. However, scaffolds with substandard features or improper use of scaffolds, is the major cause of accidents resulting in falls of person from height as well as collapse or overturning of scaffolds. Employers, contractors and workers undertaking RMAA works are alerted of the following:

DOs

- Every part of a scaffold is of sound construction, adequate strength and free from obvious defect.
- The height to the least base dimension ratios should not be greater than 3.5 and 3 for scaffolds used within and outside buildings respectively. Stabilisers or outriggers should be installed if necessary to ensure the stability.
- Swivel-type castors with brakes are fitted at the bottom of the scaffolds.
- ✓ Safe access, such as a suitable ladder, is provided and maintained.
- ✓ The working platform on a scaffold is closely planked or boarded with suitable guard-rails and toe-boards provided on every side.
- ✓ Erection, alteration or dismantling of a scaffold should only be conducted by trained workmen with adequate experience and under the immediate supervision of a competent person.
- Scaffolds are regularly inspected and certified safe by a competent person.
- ✓ Warning notices should be conspicuously displayed on defective scaffolds to alert workers to the prohibition of their use.
- ✓ In addition to avoiding live electrical works at height conducted on the scaffold, suitable protective equipment such as insulating mats should be provided and properly maintained.



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Whilst reasonable efforts have been made to ensure the accuracy of the information contained in this publication, the CIC nevertheless would encourage readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions.



Safe Use of Mobile Metal Scaffolds for Repair, Maintenance, Alteration and **Addition Works**

Safety Alert No. 001/13

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DON'Ts

- X Don't use a scaffold unless it rests on a firm, level ground free from potholes.
- X Don't over-reach from the working platform of a scaffold.
- X Don't use ladders or makeshift devices on top of a scaffold to increase its height.
- X Don't use a scaffold under strong wind or other adverse weather conditions.
- X Don't move a scaffold while workers or heavy equipment / materials are on it.
- × Don't use a defective scaffold.

Relevant reference:

Labour Department

Code of Practice for Metal Scaffolding Safety



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Annex A



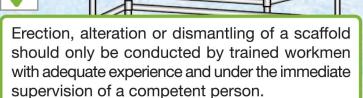
Safe Use of Mobile Metal Scaffolds for Repair, Maintenance, Alteration and **Addition Works**

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Adoption of Method Statements on Sites

Safety Alert No. 002/13

Page 1 of 1

Method Statements are intended for use by the frontline workers in carrying out construction works. They are usually prepared by the contractors in specifying the detailed working procedures for the completion of specific construction activities / tasks on site. As such, due consideration should be given in protecting workers from possible hazards and risks associated with the construction activity throughout the preparation of Method Statements. It is also advisable to take into consideration the following elements in preparing Method Statements:

- Highlighting all the possible dangers and risks associated with the specific project and the particular construction activity;
- Identifying the control methods to manage the risks in a safe manner;
- Specifying the health and safety control measures required to restrain and minimise the hazards and the associated risks identified by the risk assessment;
- Controlling the operation procedures to ensure safety at work; and
- Ensuring everyone involved is aware of the hazards associated with the work and safety precautionary measures that should be taken.



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Site Safety Training

Preambles

The British Chamber of Commerce (BCC) Construction Industry Group Safety Taskforce Group had reviewed the competencies required for management and site supervisory personnel and identified the safety courses that were considered to be essential and desirable for project management and site supervisory personnel.

The Committee on Construction Site Safety (Com-CSS) of Construction Industry Council (CIC) supported the recommendations of the Group in principle and decided to conduct further deliberations on them by forming a Task Force on Site Safety Training (Task Force) to review the competencies on construction site safety required by various types of construction personnel and to determine the courses that should be undertaken to acquire such competencies.

The purpose of the training course should be raising the awareness of site practitioners on safety aspects and to facilitate the participants to assess and identify site safety problems.

Member of the Task Force agreed that the introduction of safety training would cover the directorial, managerial and supervisory level of staff within consultants and contractors. A consultation was conducted in 2009 to seek industry's comments on the feasibility and content of a proposed safety training programme for different levels of site staff. The comments and views received were very diverse in terms of the number of courses and the duration of total training hours that would be required by different levels of staff.

Several meetings were held among the representatives from the Development Bureau (DevB), the Housing Authority (HA), the Labour Department (LD), the Occupational Safety and Health Council (OSHC) and the Construction Industry Council (CIC). It was considered that safety education and training for managerial and supervisory level of staff should be considered in the first priority. Training for the director level would be examined after the training requirements for site staff had been finalized. The proposed training requirements, the syllabi and the exemption requirements for the proposed training were considered appropriate for site management and supervisory staff. The proposed course outline and details are appended at Annex 2-6.

DevB and HA also agreed to include abovementioned safety training requirements into their future work contracts.

Upon receiving the views and comments from the key stakeholders, the training courses will then be submitted to the Task Force on Site Safety Training for discussion and endorsement.

We considered the proposed training courses may be feasible for the both private and public sector projects and thus improve the overall construction site safety.

1/3/13

Training Requirements for Site Management and Site Supervisory Staff

	Target Group	Training Courses Recommended	Remarks
A. Site I	Management Staff		
(Resident Site Staff (RSS) (a) Professional Grade (b) Professional staff where appropriate up to chief level (such as architects, engineers, maintenance surveyors, construction managers, project managers, quality control managers etc.)	Safety Training Course for Site Management Staff 5 Modules (27 hours) (Annex 3) Module 1: Safety Legislation and Safety Management Techniques (6.5 hrs) Module 2: Risk Assessment and Crisis	(1) Requirements for Module Exemption (Annex 6)
	Technical Inspectorate Staff (RSS) (a) Technical Inspectorate Staff where appropriate up to chief level (such as inspector of works, clerk of works, etc)	Management (6.5 hrs) Module 3: Safety Inspection, Accident Investigation and Accident Prevention (7 hrs)	
	Contractor's Site Management Staff (a) Management Staff (such as project managers, site agents, sub-agents, superintendents, site engineers etc.)	Module 4: Safe Design, Construction and Design Management (3.5 hrs) Module 5: Work Safe Behaviour and Safety Climate Index (3.5 hrs)	
1 (Housing Authority New Works Resident Site Staff (RSS) of site management level (a) Professional Grade or above (b) Clerk of works, building services inspector and inspector of works grades up to chief level	For Target Group A(4) Either Site Safety PASSPORT Training Programme for Works Professional (28 hours) Or Safety Training Programme for Resident	
		Site Staff (32 hours) plus Bridging Course(11 hours)	
(1) 1	Supervisory Staff Resident Site Staff (Supervisory Staff) (such as work supervisors, registered asbestos consultants, Technically Competent Persons etc.)	Construction Safety Supervisor Course 42 hours (by CIC) (Annex 4) / 43 hours(by OSHC) (Annex 5)	
t (Contractor's Site Supervisory Staff (such as site supervisors, gangers, foremen, asbestos removal site supervisors, Authorized Signatories, Technically Competent Persons, certified supervisors for application of tile adhesive, sub-contractor's superintendents / in-charge etc.)	Or For Target Group B(3)	
l s	Housing Authority New Works Resident Site Staff (RSS) of site supervisory level (work supervisors grade)	Safety Training Programme for Resident Site Staff (32 hours) plus Bridging Course(12 hours)	

Annex C

Safety Training Course for Site Management Staff

Annex 3

Module 1 : Safety Legislation and Safety Management Techniques

Objective: To provide participants with the basic knowledge on occupational safety and health legislation related to construction works in Hong Kong, the safety management system and the techniques in planning and implementing safety management system.

At the end of the course, participants are expected to apply the acquired knowledge on their day-to-day site operations, to implement the site safety management system by observing safety legislation as the minimum standard and to take the leading role in building safety culture.

Item	Contents	Duration (Hours)	Methodology
1	Roles of Manager in Construction Safety	3	Lecture
2	Safety Legislation in Hong Kong		
	2.1 Brief introduction to the history of occupational safety and health law in Hong Kong		Case Study
	2.2 Occupational Safety and Health Ordinance (including General Duties Provisions) and subsidiary regulations		Q & A
	2.3 Factories and Industrial Undertakings Ordinance (including General Duties Provisions) and subsidiary regulations including, particularly, the Construction Sites (Safety) Regulations		
	2.4 Regulations related to safety on marine works, gas supply works and electricity supply lines		
	2.5 Syndicate exercise & feedback		
3	Safety Management Techniques	3	Lecture
	3.1 Introduction of typical safety management system - OHSAS 18001		Case Study
	3.2 The Safety Management System under the Factories and Industrial Undertakings (Safety Management) Regulation		Q & A
	3.3 Safety management Plan Preparation and Implementation		
	3.4 Introduction of Safety Audit		
	3.5 Introduction of Safe Working Cycle and 5S good housekeeping		
	3.6 Syndicate exercise & feedback		
4	Examination (M.C. Questions)	0.5	
	Total:	6.5 hours	

Annex C

Safety Training Course for Site Management Staff

Annex 3

Module 2: Risk Assessment and Crisis Management

Objective: To provide participants with the knowledge on risk assessment related to construction works, the control measures to be taken, crisis management and emergency response in different scenarios.

At the end of the course, participants are expected to use the acquired techniques in risk assessment to evaluate the risks for their work activities and to handle crisis and emergency situations properly.

Item	Contents	Duration (Hours)	Methodology
1	Risk Assessment	3	Lecture
	 1.1 Introduction of Risk Management principles 1.2 Basic techniques on hazards identifications, risk analysis and risk control 		Case Study
	1.3 Introduction of typical risk assessment reports		Q & A
	1.4 Effective communication channels on risk assessments to front-line staff		
	1.5 Syndicate exercise & feedback		
2	Crisis Management	3	Lecture
	2.1 Overview of crisis management and emergency response		Case Study
	2.2 Emergency plans and procedures		
	2.3 Emergency organization and emergency teams		Q & A
	2.4 Role of government authorities		
	2.5 Communications and corporate response		
	2.6 Syndicate exercise & feedback		
3	Examination (M.C. Questions)	0.5	
	Total:	6.5 hours	

Safety Training Course for Site Management Staff

Module 3 : Safety Inspection, Accident Investigation and Accident Prevention

Objective: To provide participants with the knowledge on the techniques of safety inspection and accident investigation, causes of accidents and principles of accident prevention.

At the end of the course, participants are expected to acquire the skills and knowledge in performing safety inspection and accident investigation, to identify the root causes of accidents, to understand the common codes of practice on accident prevention and to recommend remedial actions to prevent the recurrence of accidents.

Item	Contents	Duration (Hours)	Methodology
1	Safety Inspection	3.5	Lecture
	1.1 Principles of safety inspection and Statutory		
	Requirements		Case Study
	1.2 Types of inspection on sites		0 %
	1.3 Techniques of safety inspection		Q & A
	1.4 Preparation before inspection		
	1.5 Develop safety inspection checklist		
	1.6 The safety inspection report		
	1.7 Syndicate exercise & feedback		
2	Accident / Incident / Near-miss Investigation		
	2.1 Reasons for accident investigation		
	2.2 The accident causation model		
	2.3 Accident investigation techniques		
	2.4 Investigation procedures		
	2.5 The accident investigation report / report handling		
	and reporting procedures		
	2.6 Develop remedial/preventive measures		
	2.7 Syndicate exercise & feedback		
3	Accident Prevention	3	Lecture
	3.1 Basic concept on accident prevention		
	3.2 Causes of accidents and principles of accident prevention		Case Study
	3.3 Code of Practice and Guidance Notes:		Q & A
	(i) Machine safe guarding and design		Feedback
	(ii) Manual handling		
	(iii) Work at height		
	(iv) Electricity and electrical appliances		
	(v) Fire prevention		
	(vi) Hand tools		
	(vii) Confined spaces		
	(viii)Lifting operation(ix) Underground digging (protection of gas mains and		
	cables)		
	(x) Heat stress related training		
	3.4 Syndicate exercise & feed back		
4	Examination (M.C. Questions)	0.5	
	Total:	7 hours	

Annex C

Safety Training Course for Site Management Staff

Annex 3

Module 4 : Safe Design, Construction and Design Management

Objective: To provide participants with the knowledge on safe design, Construction and Design management (CDM) concepts, benefits of safe design and CDM and their modern trends.

At the end of the course, participants are expected to use the safe design and CDM tools in risk assessment and to apply the safe design and CDM concepts in civil and building projects.

Item	Contents	Duration (Hours)	Methodology
1	Introduction of safe design and CDM	0.5	
	1.1 Global trend of safe design including CDM, accident prevention through design		Lecture Case Study
	1.2 Benefits of safe design and CDM		Q & A
	1.3 Barriers of safe design and CDM		
2.	Safe design and CDM processes	1	Lecture
	2.1 Risk assessment practice including safe design tool – CHAIR		Case Study
	2.2 Documentation of safe design and CDM		Q & A
3.	Application of safe design and CDM concepts	1.5	Lecture
	3.1 Case study on the application of safe design and CDM concepts in civil project		Case Study
	3.2 Case study on the application of safe design and CDM concepts in building project		Q & A
4.	Examination (M.C. Questions)	0.5	
	Total :	3.5 hours	

Safety Training Course for Site Management Staff

Annex 3

Module 5: Work Safe Behaviour and Safety Climate Index

Objective: To provide participants with the knowledge on Work Safe Behaviour and Safety Climate Index.

At the end of the course, participants are expected to apply the principle on Work Safe Behaviour to their works, to assist the implementation of Safety Climate Index programme on site and to take the leadership role in building safety culture.

Item	Contents	Duration (Hours)	Methodology
1	Work Safe Behaviour & Safety Climate Index	3	Lecture
	1.1 Introduction of Work Safe Behaviour and Behaviour Advancement Programme		Case Study
	1.2 The implementation of Work Safe Behaviour programme on construction sites		Q & A
	1.3 Introduction of Safety Climate Index		
	1.4 The Implementation of Safety Climate Index programme on construction sites		
	1.5 Syndicate exercise & feedback		
2.	Examination (M.C. Questions)	0.5	
	Total:	3.5 hours	

CIC/CMT/P/017/13 Annex C

Annex 4

Construction Industry Council

Construction Safety Supervisor Course

13/02/2012

Item	Course Contents	Training Hour	
1	Factories and Industrial Undertaking Ordinance and its Regulations		
	Occupational Safety & Health Ordinance and its Regulations		
2	Construction Sites (Safety) Regulations	3 hours	
	Safety Supervisor Duties and Responsibilities		
	Safety Officers & Safety Supervisors Regulations		
3	Lifting Appliances and Lifting Gear Regulations	3 Hours	
	Manual Handling Operation		
4	Working at Height	3 hours	
	Personal Protective Equipment		
5	Arc Welding and Gas Cutting Safety	3 hours	
	Safety for Working in Confined Spaces		
6	Electricity Safety	3 hours	
	Safe Use of Abrasive Wheel		
7	Excavation and Caisson Work	3 hours	
	Loadshifting Machinery		
8	Occupational Health (Heat stress related training)	3 hours	
	Pneumoconiosis		
	Fire Prevention		
9	Safety Management System and Regulation	3 hours	
	Safe Use of Cartridge Operated Fixing Tools		
10	Safe Use of Woodworking Machinery	3 hours	
	Guarding and Operation of Machinery		
11	Safety Training & Introduction of Tool Box Talks	3 hours	
12	Basic Principle of Accident Prevention	3 hours	
	Causes of Accident; Accident Investigation		
	Emergency Procedure After Accident Occurrence		
13	Safety Inspection Technique	3 hours	
	Inspection Report - Application and Practice of Prescribed Form 3A		
14	Safe Working Cycle and 5S in Construction Site	3 hours	
	Course Review and Examination		
	Total:	42 hours	

Occupational Safety and Health Council OSH Academy Safety and Health Supervisor (Construction) Course

13/02/2012

Module	Course Contents		Training Hou
1	Basic Safety Management		
	Introduction to Hong Kong Safety and Health Legislation		3 Hours
	Occupational Injury Statistics in Hong Kong		
	Accident Prevention Concept		
	Risk Assessment		3 Hours
	Safe Systems of work		
	Safety Management Techniques		
	Case Studies and Group Exercises on Hazard Identification Activities		
	Safety Committee and Safety Training		3 hours
	Evaluation, Selection and Control of Subcontractors		3 Hours
	Accident Investigation, Recording and Analysis		
	Safe Working Cycle		
			2 1
	Safety Information, Communication and Promotion		3 hours
	Safety Inspection Techniques		
	Case Studies and Group Exercises on Safety Inspection		
	First aid, Emergency Procedures and Welfare		
	End-of-module Examination		
2	Basic Accident Prevention		
	Safe Means of Access and Egress		3 hours
	Fall Arresting System and Practices		
	Mechanical handling		
	5S Good Housekeeping		
	Fire Prevention		3 hours
	Welding and Cutting Safety		
	Electrical Safety		3 hours
	Safe Working in Confined Spaces		2 Hours
	Machinery Safe Guarding and Design		3 hours
	Safe Use of Woodworking Machinery and Abrasive Wheels		3 Hours
	Safe Use of Hand Tools and Electrical Driven Hand Tools		
	Safe Use of Cartridge-Operating Fixing Tools		
	Compatibility of Different Work Processes and Case Studies		
	End-of-module Examination		
3	Basic Occupational Health		
	Occupational Disease and Compensation Ordinance		3 hours
	Occupational Health Legislation in Hong Kong		
	Recognition of Health Hazards on Construction Site		
	Recognition of Physical Hazards on Construction Site		3 hours
	Recognition of Chemical Hazards on Construction Site		
	Recognition of Biological, Ergonomic and Psychological Hazards		
	Case Studies on Occupational Health Hazards		
	Occupational Health Hazard Assessment and Monitoring		3 hours
	Manual Handling Hazards and Precautionary Measures		
	Control of Occupational Health Hazards on Construction site		3 hours
	Personal Protective Equipment		3 Hours
	Practices on Using Personal Protective Equipment		
	End-of-module Examination		
4			
4	Construction Safety Introduction to Construction Safety Logislation		2 5 1-
	Introduction to Construction Safety Legislation		3.5 hours
	Site Formation and Excavation		
	Scaffolding, Working Platforms and Ladders Safety		
	Safe Use of Material Hoists, Lifting Appliances and Lifting Gear		3.5 hours
	Safety on Transporting and Handling of Construction Materials		
	Safety on Hazardous Operations and Construction Related Activities		
	Case Studies on Construction Accidents		
	End-of-module Examination		
		Total ·	12 harres
		Total:	43 hours

Safety Training Course for Site Management Staff Requirements for Module Exemption

Annex 6

Module 1	Module 2	Module 3	Module 4	Module 5
Safety Legislations and	Risk Assessment and Crisis	Safety Inspection, Accident	Safe Design	Work Safe Behaviour and
Safety Management	Management	Investigation and Accident	And	Safety Climate Index
Techniques		Prevention	CDM	
(6.5 hrs)	(6.5 hrs)	(7 hrs)	(3.5 hrs)	(3.5 hrs)
(i) Personnel who have completed the following course(s) within 5 years are exempted from taking Module 1: 1. Occupational Safety Management Course (12 hrs) by OSHC / CIC 2. Occupational Safety Management for Project Managers Course (12 hrs) by OSHC 3. Basic Safety Management Course (12 hrs) by OSHC 4. Recognized equivalent courses (ii) Personnel who are RSO/RSA or recognized equivalent safety professional members are exempted from taking Module 1	(i) Personnel who are RSO/RSA or recognized equivalent safety professional members are exempted from taking Module 2	(i) Personnel who are RSO/RSA or recognized equivalent safety professional members are exempted from taking Module 3		(i) Personnel who have completed the following course(s) within 5 years are exempted from taking Module 5: 1. Construction Industry Safety Climate Index Survey Workshop by OSHC (6 hrs); 2. Work Safe Behaviour Workshop by OSHC (12 hrs); 3. Train-the-Trainer for Work Safe Behavior and Safety Climate Index Survey Course by OSHC (12 hrs)



Prevention of Electrocution

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Prevention of Electrocution

Casualties arising from the use of electricity or electrical appliances on construction sites. including renovation work sites, are not uncommon. Workers involved in accidents may include those engaged in electrical works and other works. To prevent the occurrence of electrical accidents, employers, contractors, electrical workers and other construction workers should be aware of the following safety precautions:

As Employers and Contractors

Must comply with the mandatory requirements and take adequate measures so as to ensure the safety of the electrical workers and other workers:

- Provide safe plant and safe systems of work;
- Conduct risk assessment by a competent person before the commencement of work;
- Formulate and implement appropriate safety precautions, including permit-to-work system, so as to eliminate or properly control the electrical hazards;
- Employ and arrange registered electrical workers to carry out electrical works;
- Provide adequate safety training and revision course to workers, equipping them with the basic knowledge on safe use of electricity;
- Provide proper and adequate inspection apparatus for electrical systems, switch locks, warning notices, insulation tools, personal protective equipment, etc.; and
- Supervise workers to follow the safety precautions.



Disclaimer

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Prevention of Electrocution

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Prevention of Electrocution

Electrical Practitioners and other Construction Workers

- "Isolate electricity source before conducting electrical works" All the electricity sources involved should be safely isolated to avoid work on live circuit before conducting any electrical works, including connecting electrical wires or checking and repairing electrical systems;
- Conduct electrical works by registered electrical workers Non-registered electrical workers are not allowed to conduct electrical works without the instruction and supervision of a registered electrical worker:
- Lock out the electricity source and display suitable warning notices The switchboards and/or switches must, so far as practicable, be locked with warning notices displayed, to ensure safe isolation of the electricity sources. If the switches cannot be locked out, control measures, for instance locking the switch room with barriers provided to fence off the switches and the display of suitable warning notices should be implemented to prevent inadvertent re-connection of the electricity sources;
- Render the electrical installation dead Before the actual commencement of work on the electrical installations, an independent inspection or a permit-to-work system should, so far as reasonably practicable, be adopted with the use of calibrated voltage indicators, meters, electricity testers or other suitable equipment to ensure that the electrical installation has been rendered dead;
- Examine the portable electrical tools before use Portable electrical tools, wires, etc. must be examined before use. If there is any damage or defeat found, do not use the tools and report it to the person in-charge immediately;
- Do not remove the protective devices Power supply systems and electrical tools shall be equipped with suitable fuses and circuit breakers. Do not remove or bypass the protective devices;
- Use of personal protective equipment Use suitable personal protective equipment, such as anti-electric shock safety shoes, insulating gloves and insulating rubber mats, etc.; and
- Hazardous work conditions
 - (i) Working at height If electrical works cannot be conducted at ground level, suitable working platforms should be used; and
 - (ii) Working in humid weather, ceiling voids or situations with earthed structures/fittings in the close vicinity, etc.
 - A comprehensive risk assessment shall be conducted by a competent person before the commencement of work. A permit-to-work system shall be adopted with appropriate safety precautions devised and implemented to eliminate or properly control the electrical hazards involved.



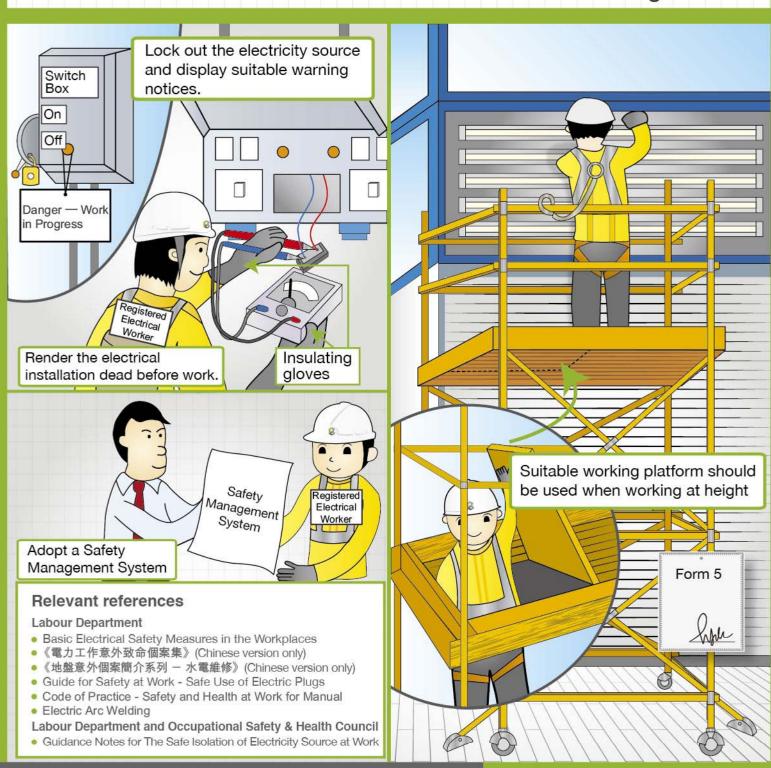
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Prevention of Electrocution

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