

HASAS Ver 1.8, HALESAS Ver 1.4 and NSC/SSC Checklist

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Amendment

- Contract specification
- Code of practice
- Guidelines
- Trade practice
- Review of past incident

**HOUSING AUTHORITY SAFETY
AUDITING SYSTEM
HASAS Version 1.8**

Effective date 1 October 2025

Note : HASAS Ver 1.7 since 1 October 2022

HASAS Ver 1.8 - Part A

Section	Element	No. of Questions	Score	% of Total Score
1	Safety Policy	10	30	5.5 > 5.3
2	Safety Organization	8	30	5.5 > 5.3
3	Safety Training	10 > 11	48 > 57	8.8 > 10.1
4	In-House Safety Rules	8 > 9	39 > 42	7.2 > 7.4
5	Safety Committee	7	39	7.2 > 6.9
6	Programme For Inspection Of Hazardous Conditions	8 > 11	42 > 51	7.7 > 9.0
7	Job Hazard Analysis	12	84	15.5 > 14.9
8	Personal Protection Programme	7	36	6.6 > 6.4
9	Accident/Incident Investigation	7	36	6.6 > 6.4
10	Emergency Preparedness	7	33	6.1 > 5.9
11	Safety Promotion	10 > 9	42 > 39	7.7 > 6.9
12	Health Assurance Programme	15 > 16	45 > 48	8.3 > 8.5
13	Evaluation, Selection And Control Of Sub-Contractors	10	39	7.2 > 6.9

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Part B 14.1 Management of Place of Work

Sub-section	Sub-element	No. of Questions	Score	% of Total Score
14.1.1	Fire Risks	8 > 9	39 > 45	2.1 > 2.3
14.1.2	Work in Confined Spaces	9 > 10	39 > 42	2.1
14.1.3	Working at Height	14 > 15	117 > 126	6.2 > 6.4
14.1.4	Housekeeping	9	75	3.9 > 3.8
14.1.5	Protection against Falling Objects	10	78	4.1 > 4.0
14.1.6	Overhead and Underground Services	8	36	1.9 > 1.8
14.1.7	Storage of flammable Substances, Gases and Vehicle Fuels	7	33	1.7
14.1.8	Substances Hazardous to Health	5	24	1.3 > 1.2
14.1.9	Occupational Safety and Health in Offices	5	24	1.3 > 1.2

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Part B 14.2 Management of Tasks and Operations

Sub-section	Sub-element	No. of Questions	Score	% of Total Score
14.2.1	Demolition	10	39	2.1 > 2.0
14.2.2	Excavations	10	48	2.5 > 2.4
14.2.3	Lifting Operations	12 > 11	81 > 75	4.3 > 3.8
14.2.4	Roadworks	8	39	2.1 > 2.0
14.2.5	Falsework	7	27	1.4
14.2.6	Structural Steel Erection / Dismantling Works	8	39	2.1 > 2.0
14.2.7	Welding / Cutting Operations and Installations	11	57	3.0 > 2.9
14.2.8	Site Traffic	9		2.4 > 2.3
14.2.9	Works over Water or Adjacent to	8	36	1.9 > 1.8

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Part B 14.2 Management of Tasks and Operations

Sub-section	Sub-element	No. of Questions	Score	% of Total Score
14.2.10	Piling and Foundations	11	36 > 48	2.5 > 2.4
14.2.11	Glazing	5	21	1.1
14.2.12	Grit Blasting	6	27	1.4
14.2.13	Asbestos	9	39	2.1 > 2.0
14.2.14	Machinery Guarding	7	24 > 27	1.4
14.2.15	Ground Investigation	6	18 > 24	1.3 > 1.2
14.2.16	Work on Slopes	8	39	2.1 > 2.0
14.2.17	Prestressing	5	21	1.1
14.2.18	Modular Integrated Construction (MiC)	16 > 18	78 > 84	4.1 > 4.3
14.2.19	Temporary Works*	7	27	0 > 1.4

* New Section

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Part B 14.3 Management of Powered Plant and Equipment

Sub-section	Sub-element	No. of Questions	Score	% of Total Score
14.3.1	Compressed Air Tools	7	33	1.7
14.3.2	Electrical Supply System	13	102	5.4 > 5.2
14.3.3	Electrical Works and Portable Electric Tools	10	54	2.8 > 2.7
14.3.4	Hand Tools	5	21	1.1
14.3.5	Woodworking Machines	9	45	2.4 > 2.3
14.3.6	Abrasive Wheels	12	60	3.2 > 3.0
14.3.7	Hand-held Power Tools	7	30	1.6 > 1.5

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Part B 14.4 Management of Plant and Equipment for Lifting of Material and Persons

Sub-section	Sub-element	No. of Questions	Score	% of Total Score
14.4.1	Tower Crane	14 > 15	96 > 102	5.1 > 5.2
14.4.2	Mobile Crane	10 > 11	75 > 81	3.9 > 4.1
14.4.3	Gondola (Suspended Working Platform)	8 > 9	36 > 42	1.9 > 2.1
14.4.4	Power-operated Elevating Work Platform	7 > 8	30 > 36	1.6 > 1.8
14.4.5	Material Hoist	10	45	2.4 > 2.3
14.4.6	Power-driven lifting appliance for Carrying Person, Builder's Lift and Tower Working Platform	7	30	1.6 > 1.5

Part B 14.5 Management of Mechanical Plant and Equipment

Sub-section	Sub-element	No. of Questions	Score	% of Total Score
14.5.1	Loadshifting Machineries and Site Vehicle	10	42	2.1

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Part	Section	No. of Questions 1.7 > 1.8	Total Score 1.7 > 1.8
A	1 to 13	119 > 124 (+5)	543 > 564 (+21)
B	14	360 > 375 (+15)	1899 > 1968 (+69)
Total of Part A & B		479 > 499 (+20)	2442 > 2532 (+90)

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Section 1 Safety Policy

Question	Amendment
1.1.1 Safety Policy	<ul style="list-style-type: none">The safety policy should be project specific.
1.1.4 Progressive improvement	<ul style="list-style-type: none">Implement follow-up actions based on recommendations raised in the safety audit.
1.2.1 Policy signed	<ul style="list-style-type: none">The project specific safety policy should be signed by the most senior management in site level.

Section 2 Safety Organisation

Question	Amendment
2.1.3 Accountable Person	<ul style="list-style-type: none">Top management at the site level has been given responsibility for the overall management of the safety management system.
2.1.7 Safety Personnel	<ul style="list-style-type: none">Appointment letters and training certificates of the safety representative should be submitted as documentary evidence.
2.1.8 Registers of CP & examiners	<ul style="list-style-type: none">Refine to assess appointment system and the register/summary of competent persons and examiners.

Amendment of HASAS Ver 1.8

Section 3 Safety Training

Question	Amendment
3.1.1 TNA & TP	<ul style="list-style-type: none"> All safety trainings specified in the contract specification and audit criteria should be identified in the training need analysis report and training plan Include training to site personnel involved in the use of SSSS components and construction general workers (3.5-hrs training course “Basic Safety for Construction General Workers”)
3.1.2 MC	<ul style="list-style-type: none"> ● Summary of mandatory basic safety training record is required.
3.1.3 Site specific	<ul style="list-style-type: none"> Content of training materials for induction training will be checked. Training to site personnel involved in the use of SSSS components and construction general workers should be provided
3.1.4 Tool-box	<ul style="list-style-type: none"> Tool-box training should be provided to workers once per week. A summary of tool-box trainings should be maintained and relevant training records with training materials should be submitted
3.1.5 VR	<ul style="list-style-type: none"> Virtual reality for safety training. Topics includes gondola, bamboo scaffolds, electrical works, heavy machinery, confined space.
3.1.7 SW	<ul style="list-style-type: none"> Specific work safety training to include all specified work activities : scaffolding, welding, electrical, confined space, specific tools/equipment. Summary is required
3.1.8 (New) Machineries	<ul style="list-style-type: none"> ● Operating machinery safety training for all employees engaged in machinery (but not limited to crane, loadshifting machinery, gondolas, builders lift, material hoist, MEWP). Summary is required.
3.1.9 Effectiveness	<ul style="list-style-type: none"> Re-weight audit score (3 to 6) to verify the effectiveness of safety training
3.1.10 Records	<ul style="list-style-type: none"> All levels of employees should be included in safety training recording system

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Section 4 In-house Safety Rules

Question	Amendment
4.1.1 Survey	<ul style="list-style-type: none"> In-house safety rules should be project specific and are developed based on risk assessment.
4.1.3 Gen Rules	<ul style="list-style-type: none"> Coverage of the general rules as specified in item (a) to (m) in the Code of Practice on Safety Management Section 5.4.1
4.1.5 Monitoring	<ul style="list-style-type: none"> To include the monitoring of permit-to-work system and the physical implementation on site
4.1.6 (New) Permit-to-work	<ul style="list-style-type: none"> Digitalised permit-to-work system for controlling high risk activities such as confined space, lift shaft, hot work, lifting operation, electrical work. Signal automatically transmitted to Centralised Management Platform
4.1.7 Authorized operation and controlling access	<ul style="list-style-type: none"> Refine question and audit criteria regarding the SSSS for authenticating authorized operation of plant or equipment and for controlling access such as inside danger zones Signal automatically transmitted to Centralised Management Platform
4.1.8 Disciplinary arrangement	<ul style="list-style-type: none"> Summary records such as warning and reminder letter should be submitted as documentary evidence
4.1.9 Documented & Reviewed	<ul style="list-style-type: none"> Apart from the regular review, the rules should also be reviewed or updated if an accident happened/ a suspension notice or improvement notice received

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Section 5 Safety Committee

Question	Amendment
5.1.2 Terms of reference, membership, frequency, etc.	<ul style="list-style-type: none">• The first site safety committee meeting shall be held not later than 28 days from and including the date for commencement of the contract period.• Review and update the implementation plan on SSSS monthly according to the prevailing site condition.• Review and discuss the register of certification status of the design, method statement, completion, safety certificate and dismantling method statement for temporary works for monitoring
5.1.6 Monitor, record & recommend action	<ul style="list-style-type: none">• The committee should ensure that appropriate follow-up actions are identified, assigned, and tracked to effectively address the issues raised in the committee meeting.
5.1.7 Prompt actions been taken	<ul style="list-style-type: none">• Implemented corrective actions made by the safety committee• The audit findings and corresponding recommendations should be fully addressed.

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Section 6 Programme for Inspection of Hazardous Conditions

Question	Amendment
6.1.1 Checklist	<ul style="list-style-type: none"> • Safety inspection checklists should accurately reflect the actual site conditions and cover ongoing site activities
6.1.4 Information of personnel, plant and equipment	<ul style="list-style-type: none"> ● Smart Site Safety System (SSSS) components for checking and updating information of personnel, plant and equipment ● Signal automatically transmitted to Centralised Management Platform
6.1.5 (New) AI	<ul style="list-style-type: none"> ● Artificial Intelligence (AI) system implemented for real-time monitoring of the site conditions ● Signal automatically transmitted to Centralised Management Platform
6.1.6 F2A, F3A	<ul style="list-style-type: none"> ● Inspection finding(s) in the inspection report should accurately reflect the actual site conditions and cover ongoing site activities
6.1.7 Appropriate actions taken	<ul style="list-style-type: none"> ● Repeating of the same non-conformity on site should not be acceptable
6.1.8 Collate & analyse results	<ul style="list-style-type: none"> ● Inspection records and trend analysis report should be submitted
6.1.9 (New) Implementation plan	<ul style="list-style-type: none"> ● Implementation plan of Smart Site Safety System (SSSS) should be developed and strictly implemented on site
6.1.10 (New) CMP	<ul style="list-style-type: none"> • Centralised Management Platform (CMP) should be provided to support the implementation of an efficient and effective SSSS

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Section 7 Job Hazard Analysis

Question	Amendment
7.1.5 Risk control measures	● Task-specific risk assessments for high-risk activities should be submitted
7.1.7 Review & update of RA	● All risk assessments should be reviewed at least annually, depending on the project progress and site situation

Section 9 Accident / Incident Investigation

Question	Amendment
9.1.1 & 9.1.2 Procedures for reporting and Investigation	• To include contract required accident reporting and accident investigation procedures

Section 10 Emergency Preparedness

Question	Amendment
10.1.2 Emergency plan	<ul style="list-style-type: none"> • To include dangerous situation such as trapped in a suspended working platform and establish emergency plan. • Implement a comprehensive emergency procedure in response to all signals and reminder issued by the Hong Kong Observatory

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Section 11 Safety Promotion

Question	Amendment
<p data-bbox="309 571 427 608">11.1.4</p> <p data-bbox="215 643 521 783">Display of accident statistics, safety signs, posters</p>	<ul data-bbox="551 635 2024 727" style="list-style-type: none"><li data-bbox="551 635 2024 727">• Safety posters should be display prominently on the site throughout the duration of the contract and remove on completion
<p data-bbox="226 836 506 873">11.1.10 in v1.7</p> <p data-bbox="309 911 423 948">Masks</p>	<ul data-bbox="551 884 2024 976" style="list-style-type: none"><li data-bbox="551 884 2024 976">• Question deleted regarding the provision of masks with high protection level and high breathability.

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Section 12 Health Assurance Programme

Question	Amendment
<p>12.4.1 Heat stress assessment</p>	<ul style="list-style-type: none"> ● Refine criteria regarding risk assessment on workplace heat stress ● Various heat stress risk factors (including environmental, work and personal factors) have to be considered ● Conduct different risk assessments for the employees' different job duties ● When the circumstances changed significantly and the assessment results are no longer valid, another risk assessment should be conducted
<p>12.4.2 Measures taken</p>	<ul style="list-style-type: none"> ● Effective measures based on the results of heat stress are in force
<p>12.4.3 (New) Smart Monitoring Devices</p>	<ul style="list-style-type: none"> ● Smart Monitoring Devices should be provided for workers and the Contractor's superintendent (such as smart wristbands or smart helmets) ● Automatically transmitted to a Centralised Management Platform
<p>12.4.4 Toilet, washing facilities, storage facilities, etc</p>	<ul style="list-style-type: none"> ● Provide shoe cleaning trays, water supply and brushes near the site exit ● Ground floor and on every third floor. Toilet with water tank for flush water supply, wash hand basin with water tank for fresh water supply, etc.

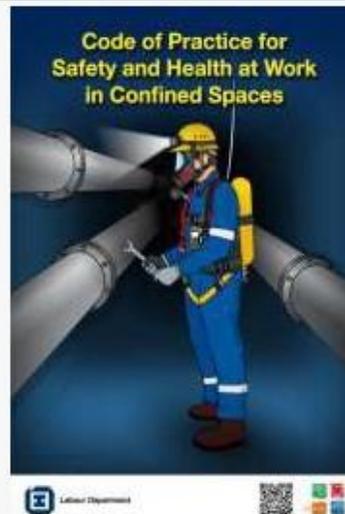
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Sub-section 14.1.1 Fire Risks

Question	Amendment
14.1.1.9 (New) Non-smoking policy	<ul style="list-style-type: none">The implementation of non-smoking policy

Sub-section 14.1.2 Work in Confined Spaces

Question	Amendment
14.1.2.1 Requirements & safety information	<ul style="list-style-type: none">To include “Guidance Notes on Safety and Health for Prevention of Gas Poisoning in Drainage Works” in the reference



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Sub-section 14.1.2 Work in Confined Spaces

Question	Amendment
<p>14.1.2.2 RA</p>	<ul style="list-style-type: none"> The elements to consider in risk assessment when designing a safe system of work, may form the basis of “permit-to-work” should include : <ul style="list-style-type: none"> - adopt technology to record videos at the entrance and exit of the confined space throughout the entire work period to monitor relevant personnel's compliance with the safety precautions and to keep the record
<p>14.1.2.4 Identified & dangerous atmospheres testing</p>	<ul style="list-style-type: none"> The air monitoring equipment should have a two-level alarm system to alert workers to take appropriate actions correspondingly Level 1 Alarm is a warning level indicating that there is a threat of atmospheric hazards, but the situation of worker is still safe. Under normal circumstances, when reaching Level 2 Alarm level, it indicates the atmospheric hazards pose risks to the workers, the emergency procedures should be activated, and the workers should be evacuated immediately
<p>14.1.2.6 Procedure & arrangement for entry to CS</p>	<ul style="list-style-type: none"> ● The standby person shall be trained on how to maintain communication with those workers inside the confined space
<p>14.1.2.8 (New) Monitoring CS works</p>	<ul style="list-style-type: none"> SSSS for monitoring confined space works. Warning alerts / signals and response times collected shall be automatically transferred to a Centralised Management Platform

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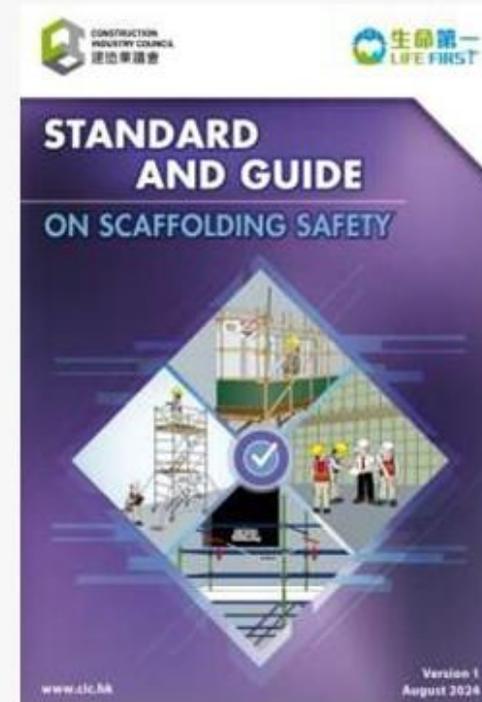
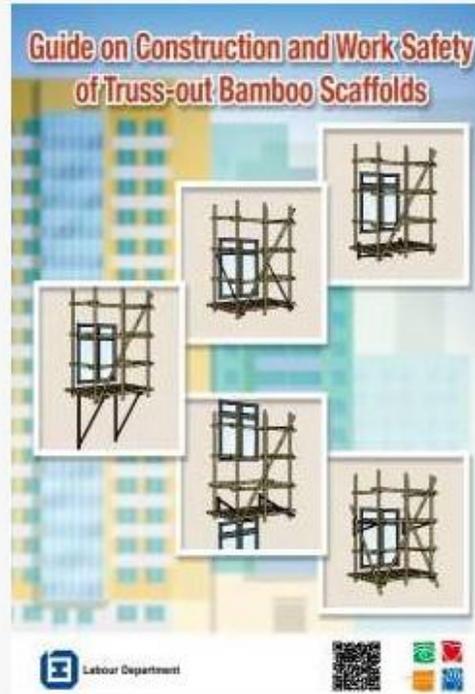
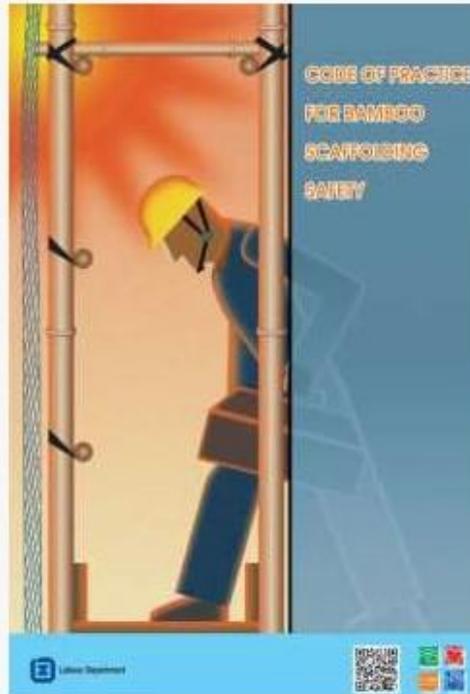
Sub-section 14.1.2 Work in Confined Spaces

Question	Amendment
<p>14.1.2.9 Emergency rescue procedure</p>	<ul style="list-style-type: none"> • Standby person shall be trained on how to maintain communication with those workers inside the confined space. • Emergency procedures should include situations that trigger evacuation, such as fire, adverse weather conditions
<p>14.1.2.10 Monitoring the effectiveness of management of CS</p>	<ul style="list-style-type: none"> • A system for access control on the confined space work, recording only relevant allowed workers to enter and leave the confined space. "Tag in / Tag out" notice. • Exercise sufficient supervision over confined space work, including recording videos at the entrance and exit of the confined space • The contractor may, where reasonably practicable, provide video surveillance or body-worn video cameras to workers who need to enter confined spaces. It allows the standby person outside the confined space to monitor the workers' work in real-time and promptly call for rescue when necessary • Each worker should be equipped with a personal motion-sensing alarm device which can emit audio and visual alarm so that the standby person outside is immediately alerted to arrange for rescue in case the worker inside confined space is unconscious.

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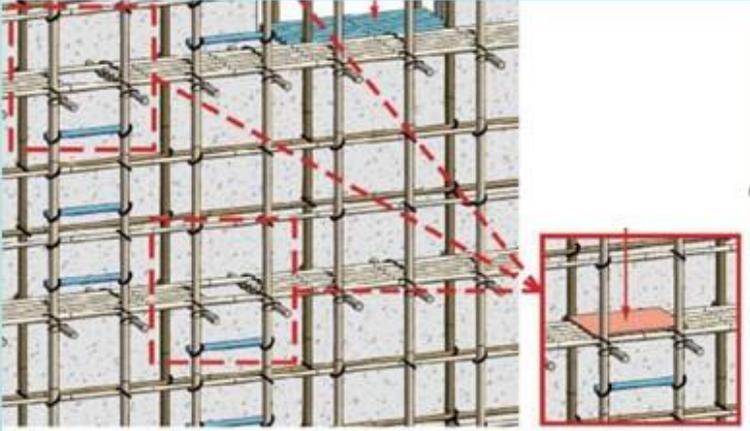
Sub-section 14.1.3 Working at Height

Question	Amendment
<p>14.1.3.1 Requirements & information</p>	<ul style="list-style-type: none"> Revised Code of Practice for Bamboo Scaffolding Safety, Labour Department Guide on Construction and Work Safety of Truss-out Bamboo Scaffolds, Labour Department Standard and Guide on Scaffolding Safety, Construction Industry Council



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Sub-section 14.1.3 Working at Height

Question	Amendment
<p data-bbox="293 826 448 863">14.1.3.3</p> <p data-bbox="237 900 504 936">Safe means of access (and egress)</p>	<ul data-bbox="562 395 2031 730" style="list-style-type: none"><li data-bbox="562 395 2031 539">• Safe access to and egress from place of work should be provided for the scaffolders and the users of the scaffold such as a safe gangway between the existing building/ structure and the scaffold<li data-bbox="562 544 2031 592">• No climbing along the standards/ ledgers of the scaffold should be allowed<li data-bbox="562 596 2031 683">• Access and egress openings constructed on consecutive scaffold layers must be positioned in an off-set pattern<li data-bbox="562 687 2031 730">• Access and egress openings must be well covered when not in use  <ul data-bbox="562 1193 2031 1431" style="list-style-type: none"><li data-bbox="562 1193 2031 1279">• The spacing between two adjacent rungs erected as foot-hold members should have the spacing not less than 250mm and not more than 300mm<li data-bbox="562 1284 2031 1431">• When permanent staircases are unavailable and the level difference is not less than 600mm, provide a secure temporary staircase or other safe means of access.

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Sub-section 14.1.3 Working at Height

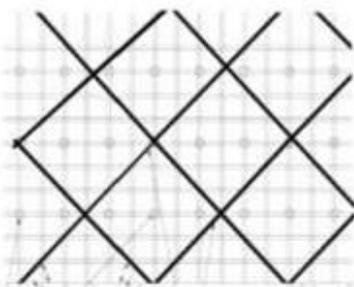
Question	Amendment																								
<p>14.1.3.4</p> <p>Safe place of work - proper working platform, scaffold and light-duty working platform</p>	<ul style="list-style-type: none"> For working involving a possible fall of less than 2m, suitable light-duty working platform such as hop-up platform and platform ladder with compliance of standards such as BS EN131-7 should be used <div data-bbox="633 596 1709 1107" data-label="Image"> <table border="1"> <caption>Ladder Specifications from Image</caption> <thead> <tr> <th>Model</th> <th>Working Hgt(m)</th> <th>WT (kg)</th> </tr> </thead> <tbody> <tr> <td>02-007</td> <td>2482</td> <td>9.9</td> </tr> <tr> <td>03-007</td> <td>2763</td> <td>11.2</td> </tr> <tr> <td>04-007</td> <td>3034</td> <td>16.7</td> </tr> <tr> <td>05-007</td> <td>3313</td> <td>18.1</td> </tr> <tr> <td>06-007</td> <td>3607</td> <td>20.5</td> </tr> <tr> <td>07-007</td> <td>3890</td> <td>22.3</td> </tr> <tr> <td>08-007</td> <td>4177</td> <td>24.2</td> </tr> </tbody> </table> </div> <ul style="list-style-type: none"> For bamboo scaffolds, suitable and adequate quantities of planks and toe-boards that are of good construction and adequate strength and thickness should be provided 	Model	Working Hgt(m)	WT (kg)	02-007	2482	9.9	03-007	2763	11.2	04-007	3034	16.7	05-007	3313	18.1	06-007	3607	20.5	07-007	3890	22.3	08-007	4177	24.2
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06-007	3607	20.5																							
07-007	3890	22.3																							
08-007	4177	24.2																							

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Sub-section 14.1.3 Working at Height

Question	Amendment
<p>14.1.3.5 Sufficient supports</p>	<ul style="list-style-type: none"> For truss-out scaffolding with height not exceeding 6m, at least 3 nos. of 12mm diameter heavy duty anchor bolts and have a tensile capacity greater than 7kN. The installation details and procedures should be in accordance with the manufacturer's recommendations The concrete strength of the structural element to which the metal bracket is fixed should be not less than 25N/mm²
<p>14.1.3.6 Suitable bracings, rakers, ties, and putlogs</p>	<ul style="list-style-type: none"> To safeguard structural stability of bamboo scaffold, including under extreme weather conditions, putlogs should be provided at a horizontal spacing not greater than 3.0m. At a height less than 100m above ground, the vertical spacing of putlogs should not be greater than 6.3m while at a height of 100m or more, the vertical spacing should not be greater than 4.2m. Unauthorized dismantling of putlog is prohibited. Paint putlogs (metal ties) of a scaffold in bright red colour and affix warning signs "DANGER: DO NOT ALTER SCAFFOLD & PUTLOG" "危險: 不可改動棚架及連牆器" in red on a white background for scaffold. The height of each letter / Chinese character on the signs shall not be less than 20mm.

圖4: 竹棚架連牆器及斜杆的位置 (正圖 — 不拉比例)



竹棚架離地面	橫向間距	垂直間距
<100米	≤ 3米	≤ 6.3米
≥100米	≤ 3米	≤ 4.2米



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Sub-section 14.1.3 Working at Height

Question	Amendment
<p>14.1.3.7 Fall-arresting system</p>	<ul style="list-style-type: none"> • Fall arresting system shall comprise a full body harness with double hook lanyard to allow a user to stay linked to at least a rigid anchor point. • The anchor point shall be planned in advance, installed and tested.
<p>14.1.3.8 Competent person & trained workman</p>	<ul style="list-style-type: none"> • Scaffolder who is responsible for on-site erection, substantial addition, alteration and dismantling of bamboo scaffold under the immediate supervision by competent person. • Proper training certificates for trained workman in respect of truss-out bamboo scaffolding <div data-bbox="571 911 1995 1225" style="text-align: center;"> </div>
<p>14.1.3.9 Inspections of scaffolds, Form 5</p>	<ul style="list-style-type: none"> • Photo or video records to demonstrate the comprehensiveness of the inspection carried out for completion of Form 5 • Designated persons should check the quantities of putlogs of scaffolds on a daily basis and rectifying anomalies immediately once identified

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Sub-section 14.1.3 Working at Height

Question	Amendment
<p>14.1.3.10 (New) Precautionary measure before and after adverse weather conditions</p>	<ul style="list-style-type: none">• Necessary precautionary measures taken to ensure scaffolding work safety before and after adverse weather conditions• Suspend all outdoor work in exposed areas immediately and take shelter in a safe place if they are endangered by adverse weather or “extreme conditions”• The competent person should carry out thorough inspection prior to such weather conditions and any other weather conditions that could have an adverse effect on the scaffolding work such as strong wind or typhoon and make improvement or enhancement over the scaffolds as required• Prior to the occurrence of typhoon or strong winds, the competent person should ensure the protective screen of scaffolds were lowered and tied up or removed, and remove the materials kept on the scaffolds• After adverse weather conditions, the competent person should check the strength and stability of the scaffold and determine whether the scaffold is safe, secure
<p>14.1.3.11 Special scaffolds & temporary loading platforms</p>	<ul style="list-style-type: none">• If bamboo scaffold less than 15m but more than 2 consecutive layers of working platforms are used at the same time at any bay (space between two adjacent standards along the face of a scaffold) for light duty purpose or more than 1 working platform for heavy duty purpose, the stability of the scaffold should be verified by a professional engineer

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Sub-section 14.1.3 Working at Height

Question	Amendment
<p data-bbox="286 754 465 791">14.1.3.12</p> <p data-bbox="248 826 504 911">Floor edges and stairways</p>	<ul data-bbox="562 499 1944 587" style="list-style-type: none"><li data-bbox="562 499 1944 587">• Brightly coloured safety nets should be provided onto the guard-rails and toe-boards for slab edges along building periphery 
<p data-bbox="286 1249 465 1286">14.1.3.13</p> <p data-bbox="286 1329 465 1366">Openings</p>	<ul data-bbox="562 1201 2027 1414" style="list-style-type: none"><li data-bbox="562 1201 2027 1294">• Automated access control and warning system to prevent unauthorized entry of floor opening ($\geq 500\text{mm} \times 500\text{mm}$) and lift shaft opening<li data-bbox="562 1321 2027 1414">• Warning signal shall be automatically transmitted to a Centralised Management Platform for record, review and data analysis

Amendment of HASAS Ver 1.8

Sub-section 14.1.5 Protection against Falling Objects

Question	Amendment
<p data-bbox="264 472 421 512">14.1.5.3</p> <p data-bbox="219 544 479 632">Nylon mesh and catch-fan etc</p>	<ul data-bbox="510 376 2018 528" style="list-style-type: none"><li data-bbox="510 376 2018 528">• Erection of the protective canopy should be completed no later than the seventh-floor slabs have been casted and entire scaffolds should be covered with protective screen 
<p data-bbox="264 1031 421 1070">14.1.5.9</p> <p data-bbox="203 1094 490 1286">Prevent materials, hand tools etc. from falling from height</p>	<ul data-bbox="510 815 1805 863" style="list-style-type: none"><li data-bbox="510 815 1805 863">• No stacking or storing of materials higher than edges of receptacles   <ul data-bbox="510 1222 1659 1414" style="list-style-type: none"><li data-bbox="510 1222 1659 1270">• Rigid toe-boards on edge protection<li data-bbox="510 1286 1659 1414">• Tool straps with appropriate international/ national standards such as ANSI/ISEA 121-2018

Amendment of HASAS Ver 1.8

Sub-section 14.2.3 Lifting Operations

Question	Amendment
<p>14.2.3.3 Lifting plan</p>	<ul style="list-style-type: none"> To include safety measures for loading/ unloading of vehicles in lifting plan If there is a risk of the load falling down from the vehicle, secure and keep the load to be unloaded from the vehicle in a position by a device or method before the strap / chain fastening the load is unfastened
<p>14.2.3.5 Implementation</p>	<ul style="list-style-type: none"> No stacking or storing of materials higher than edges of receptacles
<p>14.2.3.8 Lifting Operatives</p>	<ul style="list-style-type: none"> Delivery of materials to site, a list of lorry-mounted crane / operators should be maintained
<p>14.2.3.10 Inspections, examinations & tests</p>	<ul style="list-style-type: none"> Well-planned program of regular inspection for LALG. Records should be maintained
<p>14.2.3.11 (14.2.3.12 in v1.7 replaced) Precautionary measures before and after adverse weather conditions</p>	<ul style="list-style-type: none"> Refine question and criteria to assess necessary precautionary measures taken to ensure lifting safety before and after adverse weather conditions <ul style="list-style-type: none"> <input type="checkbox"/> suspend all outdoor work in exposed areas immediately and take shelter in a safe place if they are endangered by adverse weather or “extreme conditions” <input type="checkbox"/> before lifting operation, information on wind conditions should be obtained through the weather forecast <input type="checkbox"/> lifting operations should be stopped whenever the wind speed limit specified by the manufacturer is exceeded <input type="checkbox"/> a procedure for inspecting and examining relevant plant and equipment after adverse weather conditions

Amendment of HASAS Ver 1.8

Sub-section 14.2.5 Falsework

Question	Amendment
14.2.5.1 - 14.2.5.7	<ul style="list-style-type: none"> Refine questions and criteria to focus on falsework

Sub-section 14.2.7 Welding/Cutting Operations and Installations

Question	Amendment
14.2.7.10 Screened or isolated	<ul style="list-style-type: none"> Remove any combustible/ flammable materials from the work area Ventilate the indoor workplace using air blowers and exhaust fans
14.2.7.11 Hot-work permit	<ul style="list-style-type: none"> Modify question to assess hot-work permit system in welding operations

Sub-section 14.2.8 Site Traffic

Question	Amendment
14.2.8.8 Site entrance / exit alerting system	<ul style="list-style-type: none"> Visual and audio alarm system at site entrance / exit to alert drivers and security guards to stop a mobile plant from entering or leaving the Site Automatically transmitted to a Centralised Management Platform

Amendment of HASAS Ver 1.8

Sub-section 14.2.18 Modular Integrated Construction (MiC)

Question	Amendment
<p>14.2.18.15 MiC training</p>	<ul style="list-style-type: none"> • PM and SA : Master Class on MiC Project Implementation (Project Managers) • General Foreman and Block Foreman : Certificate in Modular Integrated Construction (MiC) for Foreman
<p>14.2.18.16 – 14.2.18.17 (New) (Y/NA) MiC training</p>	<ul style="list-style-type: none"> • MiC operatives : 3.5 hrs “Safety Training Course for MiC Work” • PM and SA : 7hrs “Safety Training Course For MiC Project Management Staff”

Amendment of HASAS Ver 1.8

Sub-section 14.2.19 Temporary Works (New Section)

Question	Amendment
14.2.19.1 Requirements	<ul style="list-style-type: none"> Requirement in regulation, CoP and guideline
14.2.19.2 RA	<ul style="list-style-type: none"> Task-specific risk assessment and taking into account of the scale and complexity of the design and works, the risk level of the temporary works should be determined
14.2.19.3 Manage & monitor	<ul style="list-style-type: none"> Arrangement to manage and monitor the implementation of measures to ensure the safe erection, alteration, use, and dismantling of temporary works
14.2.19.4 Design, MS & completion cert.	<ul style="list-style-type: none"> Design, method statement, and completion certificate certified by the appointed qualified persons (RSE, QE, Temp Work Coordinator, Independent Checking Consultant) for temporary works
14.2.19.5 Erection	<ul style="list-style-type: none"> Temporary works erected based on the approved design drawings
14.2.19.6 Video for dismantling /removal process	<ul style="list-style-type: none"> Video been taken throughout the dismantling/removal process of specified temporary works
14.2.19.7 Annual safety certificate	<ul style="list-style-type: none"> Annual safety certificate certified by Registered Structural Engineer for specified temporary work lasting over a year

Amendment of HASAS Ver 1.8

Sub-section 14.3.2 Electrical Supply System

Question	Amendment
14.3.2.6 Temp distribution boards securely mounted & locked	<ul style="list-style-type: none">• Automated access control and warning system should be in place to prevent unauthorized opening of electrical distribution board cabinet by means of electronic lock and key provided with automated warning system• Automatically transmitted to a Centralised Management Platform

Sub-section 14.3.3 Electrical Works and Portable Electric Tools

Question	Amendment
14.3.3.9 Cordless electric portable tools	<ul style="list-style-type: none">• Centralised charging facilities with at least one 6 kg dry chemical (automatic type) fire extinguisher and at least one fire detector which will trigger audio and visual alarm with alert to the site office in case of a fire

Sub-section 14.3.4 Hand Tools

Question	Amendment
14.3.4.5 Hand tools fit the tasks	<ul style="list-style-type: none">• Suitable tool straps with appropriate international/ national standards such as ANSI/ISEA 121-2018 should be provided

Amendment of HASAS Ver 1.8

Sub-section 14.3.7 Hand-held Power Tools

Question	Amendment
14.3.7.2 RA	<ul style="list-style-type: none"> Prohibit metal cutting and curve cutting with ordinary portable circular should be addressed in hand-held power tools risk assessment
14.3.7.4 Instructed & trained in proper care & use of hand-held power tools	<ul style="list-style-type: none"> Auxiliary handle should be equipped 

Sub-section 14.4.1 Tower Crane

Question	Amendment
14.4.1.4 Pre-delivery checking by competent ME	<ul style="list-style-type: none"> Pre-delivery checking of critical parts of the derrick crane should be in place
14.4.1.15 (New) (From 14.2.3.6 in v1.7) Alerting TC lifting zone	<ul style="list-style-type: none"> SSSS component provided for alerting against unsafe acts or conditions in tower crane lifting zone Automatically transmitted to a Centralised Management Platform

Sub-section 14.4.2 Mobile Crane

Question	Amendment
14.4.2.11 (New) (From 14.2.3.6 in v1.7) Alerting MC danger zone	<ul style="list-style-type: none"> SSSS component provided for alerting against unsafe acts or conditions in mobile crane danger zone Automatically transmitted to a Centralised Management Platform

Amendment of HASAS Ver 1.8

Sub-section 14.4.3 Gondola (Suspended Working Platform)

Question	Amendment
14.4.3.1 Requirements	<ul style="list-style-type: none"> Guidance Notes on the Inspection, Thorough Examination and Testing of Suspended Working Platforms, Labour Department
14.4.3.4 Std required for gondola	<ul style="list-style-type: none"> The area underneath a suspended working platform must be fenced Protection of climbers against the effect of weather, dust or material
14.4.3.6 (New) Precautionary measures before and after adverse weather conditions	<ul style="list-style-type: none"> To assess necessary precautionary measures taken to ensure gondola safety before and after adverse weather conditions <ul style="list-style-type: none"> Suspend all outdoor work in exposed areas immediately and take shelter in a safe place if they are endangered by adverse weather or “extreme conditions” Establish and implement a comprehensive emergency procedure in response to special weather tips and forecasts issued by the Hong Kong Observatory. To ensure vigilance regarding weather conditions, provide workers with real-time weather information such as installation of anemometers on gondolas After exposure to weather conditions likely to have affected the stability of the suspended working platform, the suspended working platform should be load tested and thoroughly examined by a competent examiner
14.4.3.8 Inspection and maintenance	<ul style="list-style-type: none"> Opening up examination of climber should be carried out in accordance with the manufacturers’ manual
14.4.3.9 Checklist	<ul style="list-style-type: none"> Safety checklist should include weights attaching to safety ropes



Amendment of HASAS Ver 1.8

Sub-section 14.4.4 Power-operated Elevating Work Platform

Question	Amendment
14.4.4.2 RA	<ul style="list-style-type: none">• When a risk of contact with an obstacle in the use of a MEWP is identified by the risk assessment, the contractor shall consider the need of smart device as secondary guarding device (SGD) for protecting the operator from the risk of entrapment.• The SGD shall be one of the SSSS component following the requirements in the contract specification (wireless communication technologies).• The Contractor shall maintain a register to monitor whether all MEWPs on site are fitted with SGD and the register shall be included in the monthly safety report.

Amendment of HASAS Ver 1.8

Sub-section 14.4.4 Power-operated Elevating Work Platform

Question	Amendment
<p data-bbox="232 874 456 1031">14.4.4.3 Standards for MEWP</p>	<ul data-bbox="517 368 2024 1501" style="list-style-type: none"><li data-bbox="517 368 2024 459">• The smart device shall be an anti-collision sensor fitted at a MEWP for detecting any obstacles around and above the MEWP.<li data-bbox="517 467 2024 703">• When the distance between any operator or worker on the MEWP and any obstacle around or above the MEWP becomes less than 500mm or other distance as pre-determined by the risk assessment, the device is to trigger a warning siren with a minimum of 70 dB noise level and a flashing red light to alert the operator and workers on the MEWP.<li data-bbox="517 711 2024 906">• When the distance between any operator or worker on the MEWP becomes less than the distance as pre-determined posing imminent danger by the risk assessment, the smart device could automatically carry out a function of stopping the MEWP operation at emergency.<li data-bbox="517 914 2024 1002">• All warning signals and the status of the smart device during operation shall be automatically transmitted to a CMP for record.<li data-bbox="517 1010 2024 1401">• The secondary guarding device (SGD) shall only be retracted or collapsed when:<ol data-bbox="607 1114 2011 1401" style="list-style-type: none"><li data-bbox="607 1114 1285 1153">1. The MEWP is at stationary status;<li data-bbox="607 1161 1984 1201">2. The presence of SGD will render works to be carried out not practicable;<li data-bbox="607 1209 2011 1305">3. Other types of safety precautionary measures are in place to completely eliminate the risk of entrapment of any operator or workers on MEWP;<li data-bbox="607 1313 1921 1401">4. The retract and collapse of SGD shall be done under supervision of a Safety Supervisor / Safety Officer<li data-bbox="517 1409 2024 1501">• Emergency procedures for accidents / incidents arising from or in connection with the use of MEWP should be prepared.

Amendment of HASAS Ver 1.8

Sub-section 14.4.4 Power-operated Elevating Work Platform

Question	Amendment
<p>14.4.4.5 (New) SGD for MEWP</p>	<ul style="list-style-type: none">• The smart device shall be an anti-collision sensor fitted at a MEWP for detecting any obstacles around and above the MEWP.• When the distance between any operator or worker on the MEWP and any obstacle around or above the MEWP becomes less than 500mm or other distance as pre-determined by the risk assessment, the device is to trigger a warning siren with a minimum of 70 dB noise level and a flashing red light to alert the operator and workers on the MEWP.• When the distance between any operator or worker on the MEWP becomes less than the distance as pre-determined posing imminent danger by the risk assessment, the smart device could automatically carry out a function of stopping the MEWP operation at emergency.• All warning signals and the status of the smart device during operation shall be automatically transmitted to a CMP for record.• The secondary guarding device (SGD) shall only be retracted or collapsed when:<ol style="list-style-type: none">1. The MEWP is at stationary status;2. The presence of SGD will render works to be carried out not practicable;3. Other types of safety precautionary measures are in place to completely eliminate the risk of entrapment of any operator or workers on MEWP;4. The retract and collapse of SGD shall be done under supervision of a Safety Supervisor / Safety Officer

Amendment of HASAS Ver 1.8

Sub-section 14.4.4 Power-operated Elevating Work Platform

Question	Amendment
<p>14.4.4.6</p> <p>Personnel to examine, test, supervise and operate MEWP</p>	<ul style="list-style-type: none"> • All workers on a MEWP shall have attained the training course provided by the supplier of the MEWP on the use of the respective type of MEWP. • All operators on a MEWP should attend a training course comparable to the 6-hr “Mobile Elevating Work Platforms Operator Safety Training” provided by the OSHC, one-day training course for aerial work platform operators provided by the Hong Kong Construction Association or equivalent. • Supervising staff for MEWP operation should attend a training course comparable to the 7-hr “Mobile Elevating Work Platforms Supervisor Training” provided by the OSHC or equivalent. • The workers/supervising staff for MEWP operation who have not received the training are acceptable up to 31 December 2026 provided that they have made arrangement to attend and complete the relevant training.
<p>14.4.4.8</p> <p>Checklist</p>	<ul style="list-style-type: none"> • Permit-to-work system for MEWP • The functionality of secondary guarding device (SGD) shall be included as one of the checking items for pre-operation inspection of MEWP

Amendment of HASAS Ver 1.8

Sub-section 14.4.5 Material Hoist

Question	Amendment
14.4.5.3 Standards for material hoist	<ul style="list-style-type: none">• Implement wireless communication technologies such as facial recognition or RFID for authenticating authorised operation of material hoist.• When the automated warning system activates, a signal shall be automatically transmitted to a Centralised Management Platform• Establish emergency rescue procedures.
14.4.5.5 Effective interlocking devices	<ul style="list-style-type: none">• Implement a material hoist control and landing gate locking system using wireless communication technologies with automated warning system• Automatically transmitted to a Centralised Management Platform

Sub-section 14.4.6 Power-driven Lifting Appliance for Carrying Persons, Builders' Lift and Tower Working Platform

Question	Amendment
14.4.6.3 Standards	<ul style="list-style-type: none">• To include emergency rescue procedures for accidents / incidents

Amendment of HASAS Ver 1.8

Sub-section 14.5.1 Loadshifting Machineries and Site Vehicles

Question	Amendment
<p>14.5.1.4 Standards</p>	<ul style="list-style-type: none"> • Maintain an unobstructed passageway of not less than 600 mm wide between the excavator and the structure • Examples of unsafe practices should be avoided • Necessary measures should be taken for adverse weather or “extreme conditions”
<p>14.5.1.5 Implementation of standards</p>	<ul style="list-style-type: none"> • For new or ongoing contracts with relevant provisions or CM’s instruction, mobile plants must use wireless communication systems (AI, RFID, infrared, IoT, or equivalent) to authenticate authorized operation. • For other ongoing contracts, similar requirements apply to mobile plants, including forklift trucks, bobcats, and excavators which are used on sites for at least 6 months
<p>14.5.1.8 Alerting mobile plant danger zone</p>	<ul style="list-style-type: none"> • SSSS component should be provided for alerting against unsafe acts or conditions in mobile plant danger zone • Signal shall be automatically transmitted to a Centralised Management Platform

**HOUSING AUTHORITY LIFT AND
ESCALATOR SAFETY AUDITING SYSTEM
HALESAS Version 1.4**

Effective date 1 October 2025

Note : HALESAS Ver 1.3 since 1 October 2022

HALESAS Ver 1.4 (Rename from HALENSAS to HALESAS)

Part A				
Section	Element	No. of questions	Score	% of Total Score
1	Process Safety Information	9	27	12.68 > 12.86
2	Process Hazard Analysis (PHA)/ Risk Assessment	10	33	15.49 > 15.71
3	Development of Safe Methods	10	36	16.90 > 17.14
4	Implementing the System	9 > 8	42 > 39	19.72 > 18.57
5	Monitoring the System	15	75	35.21 > 35.71

Part B				
Section	Element	No. of Questions	Score	% of Total Score
6	Working At Height	8	48	16.67
7	Protection Against Falling Objects	4	24	8.33
8	Housekeeping	5	30	10.42
9	Lifting Operations	4	24	8.33
10	Welding/Cutting Operations and Equipment	7	21	7.29
11	Abrasive wheels	6	18	6.25
12	Portable Tools	5	15	5.21
13	Electrical Works	6	36	12.50
14	Dangerous Substances	5	15	5.21
15	Manual Handling and Mechanical Materials Handling	4	12	4.17
16	Noise	4	12	4.17
17	Escalator Installation	4	12	4.17

HALESAS 1.4

Part	Section	No. of Questions 1.3 > 1.4	Total Score 1.3 > 1.4
A	1 to 5	53 > 52 (-1)	213 > 210 (-3)
B	6 to 18	69	288
Total of Part A & B		122 > 121 (-1)	501 > 498 (-3)

HALESAS Ver 1.4

Section 3 Development of Safe Methods

Question	Amendment
3.2 MS & permit-to-work system	<ul style="list-style-type: none">All checking items in permit-to-work under “Required safety precautions taken” should be checked and recorded upon issue of the Permit-to-Work.

Section 4 Implementing the System

Question	Amendment
4.7 Use, storage of PPE. Provision of training & instruction	<ul style="list-style-type: none">All PPE should be provided with appropriate accommodation for the storage when it is not in use. The PPE should be maintained in accordance with the manufacturer’s recommendations and instructions
4.9 in v1.3 Masks	<ul style="list-style-type: none">Question deleted regarding the provision of masks with high protection level and high breathability.

HALESAS Ver 1.4

Section 6 Working at Height

Question	Amendment
6.1 Safe means of access (and egress)	<ul style="list-style-type: none">To include the safe means of access (and egress) to guided SWP, working platform
6.2 Safe place of work	<ul style="list-style-type: none">Suitable light-duty working platforms such as hop-up platform and step platform/ platform ladder should compliance of safety standard such as BS EN131-7The fall arresting system shall comprise a full body harness with double hook lanyard to allow a user to stay linked to at least a rigid anchor point. The anchor point shall be planned in advance, installed and tested.
6.6 Installation of SWP	<ul style="list-style-type: none">Suspension rope, safety rope and independent lifeline shall be anchored to separate anchorage points for suspended working platform.
6.8 Standards for SWP	<ul style="list-style-type: none">Standards for the safe operation of suspended working platform<ul style="list-style-type: none">Pedal brake of the platformOpened-outward interlocking doorOperating switches and emergency stop on the control station of the platform

HALESAS Ver 1.4

Section 7 Protection against Falling Objects

Question	Amendment
7.2 Prevent hand tools etc from falling from height	<ul style="list-style-type: none">Hand tools with tool straps with compliance of standards such as ANSI/ISEA 121-2018 should be applied

Section 8 Housekeeping

Question	Amendment
8.5 Warn and prevent unauthorized persons from entering or trespassing	<ul style="list-style-type: none">The working area and material storage area should be entirely demarcated as far as reasonably practicable by barriers with suitable warning notices displayed to prevent unauthorized access.

Section 9 Lifting Operations

Question	Amendment
9.4 Lifting appliance operators	<ul style="list-style-type: none">Standardized duration of training and training contents recommended by LECA for lifting appliance operators

HALESAS Ver 1.4

Section 11 Abrasive Wheels

Question	Amendment
<p>11.1</p> <p>Suitable abrasive wheels and guarded</p>	<ul style="list-style-type: none"> Provision of safety features for angle grinders should be in place. 
<p>11.4</p> <p>Statutory warning notice</p>	<ul style="list-style-type: none"> Statutory warning notice for abrasive wheel should be displayed in the vicinity.

Section 18 Miscellaneous

Question	Amendment
<p>18.2</p> <p>Machines & equipment effectively guarded</p>	<ul style="list-style-type: none"> Protective guards and inspection windows shall be firmly and correctly installed and fixed to ensure that no rotating parts would be exposed. Clear and visible warning signs near dangerous parts, such as the rotating sheave, to alert workers of potential dangers
<p>18.7</p> <p>Heat stress assessment</p>	<ul style="list-style-type: none"> Various heat stress risk factors (including environmental, work and personal factors) have to be considered in the assessment.

HASAS Ver 1.8 – NSC/SSC Checklist
Electrical Installation, Fire Services & Water Pump and
Air Conditioning

Effective date 1 October 2025

Note : NSC Checklist since 1 October 2022

HASAS Ver 1.8 – NSC/SSC Checklist

Part	Activity	No. of questions	Score
1	Working At Height	6 > 7	18 > 21
2	Protection Against Falling Objects	3	9
3	Housekeeping	4	12
4	Lifting Operations	3	9
5	Welding/Cutting Operations and Equipment	7	21
6	Abrasive Wheels	5	15
7	Portable Tools	4	12
8	Electrical Works	4 > 5	12 > 15
9	Compressed Air Tools	3	9
10	Dangerous Substances	4	12
11	Manual Handling and Mechanical Materials Handling	3	9
12	Noise	4	12
13	Work in Confined Spaces	4	12
14	Miscellaneous	4	12
Total		58 > 60 (+2)	174 > 180 (+6)

HASAS Ver 1.8 – NSC/SSC Checklist

Part 1 Working At Height

Question	Amendment
1.1 Safe place of work	<ul style="list-style-type: none">Ladders, hop-up platform and step platform used should possess international/ national standards such as British Standard EN 131-7
1.3 (New) SGD for MEWP	<ul style="list-style-type: none">New question for assessing Secondary Guarding Device (SGD) provided for power-operated elevating work platforms
1.4 Operation of MEWP	<ul style="list-style-type: none">Workers on a MEWP should attend a training course comparable to the 6-hr “Mobile Elevating Work Platforms Operator Safety Training”
1.6 Fall-arresting system	<ul style="list-style-type: none">The fall arresting system shall comprise a full body harness with double hook lanyard to allow a user to stay linked to at least a rigid anchor point. The anchor point shall be planned in advance, installed and tested.Two lanyards should not be hooked together

HASAS Ver 1.8 – NSC/SSC Checklist

Part 2 Protection Against Falling Objects

Question	Amendment
<p>2.2 Prevent materials, hand tools etc. from falling</p>	<ul style="list-style-type: none"> • Tool straps with appropriate international/national standards such as ANSI/ISEA 121-2018

Part 6 Abrasive Wheels

Question	Amendment
<p>6.1 Suitable grinding/cutting machines used and adequately guarded</p>	<ul style="list-style-type: none"> • Provision of safety features for angle grinders should be in place. 

Part 8 Electrical Works

Question	Amendment
<p>8.5 (New) Notice and signage</p>	<ul style="list-style-type: none"> • New question for assessing appropriate notice and signage displayed in areas where electricity is used

THANK YOU!

END