URGENT By Dispatch

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Date	27 February 2023	Total Pages 2 + Encl.

MEMO

Development Bureau Technical Circular (Works) No. 1/2020

Score Card for Assessment of Site Safety Performance

To complement the policy on adoption of Smart Site Safety System (SSSS) in public works contracts, as promulgated vide Development Bureau Technical Circular (Works) (DEVB TC(W)) No. 3/2023, this memo promulgates the following, with a view to duly reflecting the performance of contractors in the adoption, implementation and maintenance of SSSS in public works contracts and to continuing providing incentives to contractors in adopting other innovative construction methods and advanced technologies for uplifting site safety –

- (a) addition of a new scoring sub-item 2.17 "adoption, implementation and maintenance of Smart Site Safety System"; and
- (b) updating an existing scoring sub-item 2.13 as "innovation on safety measures devices and installations (other than Smart Site Safety System)".

2. The revised Appendix A, Appendix B and Appendix C of DEVB TC(W) No. 1/2020 are attached. The revised provisions take effect from the second quarter of the reporting cycle of the Report on Contractor's Performance in 2023. The revisions will be incorporated into the Contractor Management Information System.

3. Please bring this memo to the attention of the project officers, consultants and resident site staff supervising public works contracts, and contractors.

4. Any enquiries on the above should be addressed to Mr LEE Man-yiu, Assistant Secretary (Works Policies 5) 5 at 3509 8305.

(Terence T M LAM) for Secretary for Development

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PS(W) -						
DS(W)2						
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Score Card for the Assessment of Site Safety Performance for the Period from to						
Department :	Office :	Division	:	*Name of Consultant :		
Contract No. and Title	:					
Type of contract : Civil / Building / Term / Specialist / Maintenance / others (Please state) * : Pay for Safety Scheme * (* Delete as where inappropriate)						
Name of Contractor :						
Commencement date : Completion date :						

Summary of Scores :-

Main Item	Score (a)	Weighting Factor # (b)	Weighted Score (a) x (b)				
1. Provision and maintenance of plant		0.15					
2. Provision and maintenance of working environment		0.30					
3. Provision of information, instruction and training		0.15					
4. Provision and implementation of safe system of work		0.20					
5. Employment of safety officer/supervisor		0.10					
6. Site accident record		0.10					
Total Weighted Score							
Overall Performance Rating : Very Good / Good / Satisfactory / Poor / Very Poor * (Para. 9 of the Guidance Notes refers)							

These are the recommended weightings which can be adjusted to suit the particular nature of works of a contract.

Date(s) of issue of warning(s) / suspension order(s) by the Architect/Engineer	1.	2.	3.	4.
Date(s) of issue of Improvement Notice(s) by the Labour Dept.				
Date(s) of issue of Suspension Notice(s) by the Labour Dept.				
Date(s) of Revocation of Suspension Notice(s) (if any)				
Remarks :				
Final Performance Rating : Very Good / Good /	Satisfactor	y / Poor	/ Very Po	or *

Score Card completed by :	Score Card Endorsed by :					
() *Architect/Engineer's Representative	() Architect/Engineer*					
Name :	Name :					
Post : Date :	Post : Date :					

Item 1.0	Provision and maintenance of plant (0.15)	VG	G	s	Р	VP	NA	
Sub-item 1.1	Lifting plant and equipment (e.g. cranes, wires, slings etc.)							
1.2	Piling plant and equipment (e.g. material hoist, drilling, boring rigs etc.)							
1.3	Earth-moving plant (e.g. excavators, backhoes etc.)							
1.4	Temporary electricity supply systems and generators (e.g. power source, switchboards, distribution boards, cable and wiring, earthing system etc.)							
1.5	Welding and cutting equipment (e.g. electric arc/gas welding/cutting etc.)							
1.6	Construction vehicles (e.g. trucks, dumpers etc.)							
1.7	Powered hand tools (e.g. cartridge-operated tools, grinders, cutters etc.)							
1.8	Other machinery (e.g. bench circular saw, abrasive wheels, compressed/ pneumatic air tools, pumps and vacuum pumps etc.)							
Score of the	Score of this main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% = % (transfer to P.1) 5 x (no. of applicable sub-items)						P.1)	
Remarks :	Remarks :							
Rating of	Item 1.0 : Very Good / Good / Satisfactory / Poor (Para. 7 of the Guidance Notes refers)	/ V	ery F	oor	*			
<u></u>								

Item 2.0	2.0 Provision and maintenance of working environment (0.30)		G	s	Р	VP	NA
Sub-item 2.1	Housekeeping (e.g. stacking of materials, rubbish disposal etc.)						
2.2	Excavations, trenches and earthworks						
2.3	Covers and fencing to openings and fencing to edges						
2.4	Access to and egress from workplaces (e.g. ladders, stairs etc.)						
2.5	Scaffolds and working platforms						
2.6	Welfare facilities (e.g. sanitary, washing facilities, drinking water, shelters etc.)						
2.7	First-aid facilities (e.g. first aid kits, first aiders and stretchers)						
2.8	Traffic diversion and control (e.g. lighting, signing and guarding)						
2.9	Dust suppression, noise control and hazardous waste disposal						
2.10	Use, storage and disposal of dangerous goods and chemicals (e.g. fuels, gas cylinders, chemicals, refrigerants, paints, cleansing agents etc.)						
2.11	Fire prevention and protection (e.g. fire extinguishers and escape routes)						
2.12	Safety gear and personal protective equipment						
2.13	Innovation on safety measures, devices or installations (other than Smart Site Safety System)						
2.14	Safety input/measures beyond contract requirements						
2.15	Fostering an atmosphere for encouraging near miss reporting						
2.16	Design and construction of falsework/temporary works						
2.17	Adoption, implementation and maintenance of Smart Site Safety System						
Score of this	s main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items)	=		%	(trans	sfer to	P.1)
Remarks :							
Rating of 1	Item 2.0 : Very Good / Good / Satisfactory / Poor (Para. 7 of the Guidance Notes refers)	/ V	ery F	oor	*		

Item 3.0	Provision of information, instruction and training (0.15)	VG	G	s	Р	VP	NA
Sub item 3.1	Safety information, rules and regulations (e.g. safety plan, safety handbook, codes of practice, safety guides etc.)						
3.2	Safety promotion and publications (e.g. safety posters, banners, display boards and newsletters)						
3.3	Safety training to site management and supervisory staff						
3.4	Safety training to workers/mentors/visitors						
3.5	Caring programme for Probationers and New Comers						
3.6	Provision of graphical presentation of safety rules & regulations and working procedures						
3.7	Distribution of reminders on recent serious incidents in construction industry and near miss incidents on Site						
Score of this main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% = % (transfer to P. 5 x (no. of applicable sub-items)						P.1)	
Remarks :							

Rating of Item 3.0 :	Very Good /	Good	/	Satisfactory	/	Poor	/	Very Poor	*
(Para. 7 of the Guidance Notes refers)									

Item 4.0	Provision and implementation of safe system of work (0.20)	VG	G	s	Р	VP	NA
Sub-item 4.1	Management's commitment (e.g. safety policy, attitude, supports and efforts)						
4.2	Safety organization (e.g. structure, responsibility and safety committees)						
4.3	Identification of hazards and risk assessment						
4.4	4.4 Developing of control/mitigation measures (e.g. safe working procedures, permit-to-work systems, isolation and tag-off instructions etc.)						
4.5	Implementation (e.g. adherence to procedures)						
4.6	Monitoring (e.g. safety inspections)						
4.7	Review of safety systems and follow-up improvements						
4.8	Emergency preparedness (e.g. emergency procedures, co-ordinators, drills and rescue teams)						
4.9	Implementation of Site Safety Cycle						
Score of this m	nain item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items) x 100%	=	1	%	transf	er to l	P.1)
Remarks :							
Rating of Ite	m 4.0 : Very Good / Good / Satisfactory / Poor / (Para. 7 of the Guidance Notes refers)	Ve	ry Po	or	*		

Item 5.0	Employment of safety officer/supervisor (0.10)	VG	G	s	Р	VP	NA
Sub-item 5.1	Competence of safety personnel						
5.2	Adequacy of attendance and effort						
5.3	3 Records and reporting (e.g. statutory forms, inspection and training records, testing and examination records, safety reports and minutes of safety committee meetings)						
5.4	Adequate resources, power and support provided by senior management						
5.5	Sufficiency of safety officer						
5.6	Sufficiency of safety supervisors/safety representatives						
5.7	Engagement of accredited safety supervisors						
Score of this main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% = % (transfer to P.1) 5 x (no. of applicable sub-items)							
Remarks :							
Rating of Item 5.0 :Very Good / Good / Satisfactory / Poor / Very Poor * (Para. 7 of the Guidance Notes refers)							

Item 6.0	Site accident record (0.10)	VG	G	s	Р	VP	NA
Sub-item 6.1	Reporting of accidents/Dangerous Occurrence/near miss incidents and under-reporting situation						
6.2	Upkeeping and analysis of accident/Dangerous Occurrence/near miss incident statistics						
6.3	Standard of accident/Dangerous Occurrence/near miss incident investigation						
6.4	Follow-up actions						
Score of this m	ain item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items) x 100%	=		% (transf	er to l	2.1)
Other factors	to be considered in the Remarks :-						
No. of fatal acc	cident(s) occurred in the reporting period			(a)			
No. of non-fata	No. of non-fatal reportable $\operatorname{accident}(s)^1$ occurred in the reporting period(b)						
Total no. of ma	Total no. of man-hours worked in the reporting period (c)						
Accident frequ	ency rate in no. of reportable accidents per 100,000 man-hours worked			(d)			
[(d) = (a + b)/(a +	c) x 100,000]						
Prevailing limi	t ² of accident frequency rate for public works set by DEVB			(e)			
Accident frequency rate equal to or better than the prevailing limit of accident frequency rate, $d \leq e$: Yes / No *							
Dangerous occurrence(s) occurred in the reporting period no.							
Near miss incident(s) (with potential for fatality) occurred in the reporting period no.							
Remarks :							
Rating of Item 6.0 :Very Good / Good / Satisfactory / Poor / Very Poor * (Para. 7 of the Guidance Notes refers)							

Note : Please see **Appendix B** before marking the main items.

¹ Reportable accident means accident resulting in an injury with incapacity for more than three days.

² The prevailing limit is stated in Clause 1.2.3 of the Construction Site Safety Manual.

Guidance Notes for Completing the Score Card

Introduction

- 1. The Score Card has six main items which are identical to the six performance aspects under "Site Safety" section of the Report on Contractors' Performance (RCP). Similar performance ratings, *viz.* "Very Good" (VG), "Good" (G), "Satisfactory" (S), "Poor" (P) and "Very Poor" (VP) are adopted. Hence, the rating of individual main items in the Score Card shall be used to determine the performance rating of the corresponding performance aspects in "Site Safety" section of the RCP. In addition, the total score of the Score Card forms the basis to determine the overall performance rating for "Site Safety" section in the RCP.
- 2. Completed Score Cards are to be kept by the project office for record purpose.

Weighting

3. Weightings are assigned to the six main items in the Score Card at **Appendix A** of this Circular. They are recommended weightings applicable to most civil engineering or building contracts. Nevertheless, the Reporting Officer may adjust these weightings to suit the nature of a particular contract. An example of weightings adjustment for a term contract is as follows –

	Main item	Adjusted Weighting
1.	Provision and maintenance of plant	0.1
2.	Provision and maintenance of working environment	0.2
3.	Provision of information, instruction and training	0.15
4.	Provision and implementation of safe system of work	0.3
5.	Employment of safety officer/supervisor	0.15
6.	Site accident record	0.1

Scoring and Rating System

- 4. In completing the Score Card at Appendix A of this Circular, the Reporting Officer shall tick the appropriate box (VG, G, S, P, VP, Not Applicable (NA)) for marking the sub-items of the six main items 1 to 6 reflecting the site safety performance of the contractor during the reporting period. Reference shall be made to the Guidance Notes at **Appendix C** of this Circular in marking the sub-items.
- 5. Scoring system for each sub-item is as follows –

 $\begin{array}{rcl} VG &=& 5 \text{ points} \\ G &=& 4 \text{ points} \\ S &=& 3 \text{ points} \end{array}$

P = 2 points VP = 0 pointNA = not counted in the score

6. The score of each main item is calculated by the following formula –

 $\frac{(5 \times \Sigma \text{ VG} + 4 \times \Sigma \text{ G} + 3 \times \Sigma \text{ S} + 2 \times \Sigma \text{ P})}{5 \times (\text{No. of applicable sub-items})} \times 100\%$

where Σ = total number of applicable sub-items ticked against the respective grading of VG, G, S, P and VP.

7. The rating of each main item in the Score Card is then decided according to the following settings –

Score of each main item		<u>Rating</u>
Score < 40%	=	Very Poor
$40\% \leq \text{Score} < 60\%$	=	Poor
$60\% \leq \text{Score} < 71\%$	=	Satisfactory
71% \leq Score \leq 85%	=	Good
Score > 85%	=	Very Good

- 8. The Reporting Officer can revise the rating of a main item if he/she considers that the calculated score and thus the rating of the main item does not reflect the actual performance of the contractor. Under such circumstances, the Reporting Officer shall put down the reason(s) for the revision in the "Remarks" box of that main item in the Score Card. The decided ratings for the main items in the Score Card shall be entered into the corresponding aspects of performance in the "Site Safety" section of the RCP.
- 9. After assessment of the main items, their scores are then transferred to the "Summary of Scores" on page 1 of the Score Card for calculation of the "Total Weighted Score" and the "Overall Performance Rating". The settings for the Overall Performance Rating are as follows –

Total Weighted Score		Overall Performance Rating
Score < 40%	=	Very Poor
$40\% \leq \text{Score} < 60\%$	=	Poor
$60\% \leq \text{Score} < 71\%$	=	Satisfactory
$71\% \leq \text{Score} \leq 85\%$	=	Good
Score > 85%	=	Very Good

Rating of Item 2 in the Score Card

10. Sub-items 2.13 and 2.14 are incentives to encourage better safety performance. They should be given "G" or "VG" rating whenever the corresponding sub-item is applicable.

- 11. For sub-item 2.15, near miss incidents could have potential leading to fatality or serious accidents, poor or failure in reporting of near miss incidents could result in delay in implementation of necessary corrective actions. As such, this sub-item should be rated based on the contractor's effort in fostering an atmosphere to encourage reporting of near miss incidents.
- 12. The Reporting Officer should consider giving a "G" or above rating for Item 2 if prefabricated construction methods (e.g. Modular Integrated Construction (MiC), precast floor slab and staircase, precast façade, prefabricated prefinished volumetric construction) have been substantially adopted in the overall construction and/or over 30% by weight of the steel reinforcing bars used for the works is supplied by the approved prefabrication yards, provided that majority of the sub-items are rated "S" or above and a safe working environment¹ has been effectively provided/maintained.
- 12A. The Reporting Officer should consider giving a "G" or above rating for Item 2 if sub-item 2.17 is rated "G" or above, majority of the sub-items under Item 2 are rated "S" or above and a safe working environment¹ has been effectively provided/maintained. A "VP" rating with zero score for Item 2 shall be given if sub-item 2.17 is rated "VP".

Rating of Item 6 in the Score Card

- 13. In assessing the contractor's performance in Item 6 of the Score Card, consideration shall be given to the high accident frequency rate of the contract and the occurrence of Dangerous Occurrence(s), fatal accident(s) and/or near miss incidents² (with potential for fatality) during the reporting period, together with the preceding average accident frequency rate of all public works contracts. The Reporting Officer shall obtain the information from the contractor where necessary for completion of this main item.
- 14. In general, notwithstanding the rating for sub-items 6.1 to 6.4, if the accident frequency rate of the contract for the reporting period (irrespective whether the reporting period is 6-weekly, quarterly or 6-monthly) by the time of reporting is worse than the prevailing limit set by the Development Bureau (DEVB), the contractor shall be given a "P" rating for Item 6 subject to the condition that there was more than one reportable accident happened in the reporting period. The limit set by DEVB can be found in the Construction Site Safety Manual posted on DEVB's website, and if necessary, the Departmental Safety and Environmental Adviser shall also be consulted. In the interpretation of the accident frequency rate, the Reporting Officer shall take into consideration the nature and seriousness of the accidents and whether there were repeated

¹ With reference to the preceding average accident frequency rate of all public works contracts.

 $^{^2\,}$ A "near miss" is any incident which did not result in any injury or damage.

accidents of similar nature, when deciding the rating.

- 15. A "VP" rating with zero score for Item 6 shall be given if one or more Dangerous Occurrence, which could have led to fatality, or one or more fatal accidents, have occurred on the site during the reporting period, as long as the Reporting Officer considers that the Dangerous Occurrence(s), and the fatal accident(s) was / were due to the contractor not having taken reasonable practicable measures including the provision of information, instruction, supervision and training for the persons at work to ensure workplace safety.
- 16. A "VP" rating with zero score for Item 6 shall be given if there were repeated near miss incidents of the same type with potential for fatality and the contractor had not taken any action to prevent the recurrence of such incidents.
- 17. Reportable accident shall be as defined in the Contract, and in the absence of such, reference should be made to the Construction Site Safety Manual. A "VP" rating with zero score for Item 6 shall be given if there was any late reporting (i.e. over 3 months since the contractor being notified of the case) of reportable accident.
- 18. If sub-items 6.1 to 6.4 are not applicable due to no accident, Dangerous Occurrence or near miss incident occurred during the reporting period, Item 6 should be marked with a score of 70%, subject to the satisfaction by the Architect/Engineer's Representative of the contractor's setting up and implementation of safety management system for the contract as reflected in other sub-items of the Score Card.

Other Considerations

- 19. In completing the Score Card, the Reporting Officer shall make due consideration of the contractor's effort and attitude in rectifying defects and irregularities pointed out by site supervisory staff and the comments and deficiencies pointed out by the Marine Department (in respect of marine plant/vessels) and the Labour Department in the "Inspection Reports" issued. It should be noted that some comments made in the Inspection Reports are advisory only. Moreover, the Reporting Officer shall give due consideration of the contractor's effort and attitude in report, or dismiss where applicable, any reportable accident within a reasonable time.
- 20. If there are any contractor's internal safety audit / safety audit required by the legislation and/or the independent safety audit which is either under the Independent Safety Audit Scheme (ISAS) or arranged by the respective works department carried out within the reporting period, the results and recommendations contained in the safety audit report(s) shall be duly reflected in the "Site Safety" section of the RCP as they represent the findings of detailed and independent assessments of the contractor's safety management system and

its implementation.

21. For contracts included in the ISAS, the corresponding section(s) to be referred to in the safety audit report for consideration in the completion of the RCP are appended in the table below -

Aspe	ects of performance in the RCP	Corresponding Section(s) in safety audit report under ISAS
Section 3.1	- Provision and maintenance of plant	14.5
Section 3.2	- Provision and maintenance of working environment	8, 12, 14.1 to 14.4
Section 3.3	- Provision of information, instruction and training	3, 4 , 11
Section 3.4	- Provision and implementation of safe systems of work	1, 2, 5, 6, 7, 10, 13 14.1 to 14.4
Section 3.5	- Employment of safety officer/supervisor	2
Section 3.6	- Site accident record	9

- 22. In considering the ISAS safety audit results in the RCP, it should be noted that the receipt of safety audit report from the safety auditor normally takes two weeks or more after the audit. Therefore, it is possible that the safety audit report may not be available by the time of completing the RCP, especially when the safety audit is carried out close to the end of the reporting period. To avoid this, the Architect/Engineer should, in commenting the safety audit programme submitted by the accredited safety auditor, ensure that the safety audit reports will be received in time for the completion of the RCPs under normal conditions.
- 23. Where a 6-weekly reporting is required for a RCP, the Reporting Officer should check the safety audit programme that the date of next safety audit will not be close to the end of the 6-weekly reporting period. Otherwise, consideration should be given, in consultation with the contractor and the safety auditor, to bring forward or defer the date of next ISAS safety audit to suit the reporting schedule of the RCP. Where it is not possible to adjust the safety audit programme, the Architect/Engineer should attend the close-out meeting of the safety audit to obtain the preliminary assessment of the safety auditor on the contractor's safety performance for the completion of the respective RCP.

Final Performance Rating

- 24. The Reporting Officer shall take into account the warning(s) and/or suspension order(s) issued by the Architect/Engineer and the number of Improvement Notice(s) or Suspension Notice(s) issued by the Labour Department during the reporting period in deciding the Final Performance Rating of the "Site Safety" section of the RCP. If the Reporting Officer considers that the Final Performance Rating of the contractor is still satisfactory despite the warning(s) and/or suspension(s) given, he/she shall put down the justifications in the corresponding "Remarks" box on page 1 of the Score Card.
- 25. A Final Performance Rating of "VP"³ shall be given for any one of the following events
 - (a) more than two (2) Improvement Notice(s) and/or Suspension Notice(s) were issued by the Labour Department to the contractor for a three-month reporting period [or more than one (1) for 6-weekly reporting and more than four (4) for 6-monthly reporting] in respect of separate incidents or safety inspections;
 - (b) failure to revoke a Suspension Notice within 14 days after it was issued; (Note: Some improvement measures may need to take more than 14 days to complete. Hence, the Reporting Officer shall check with the Labour Department to confirm whether the contractor's performance is satisfactory in revoking the Suspension Notice which has not been uplifted by 14 days.)
 - (c) repeated non-compliance with safety procedures despite warning(s) given by the Architect/Engineer and/or the Labour Department and failure to rectify the situation within a reasonable time;
 - (d) any suspension of work or sections of work ordered by the Architect/Engineer under the relevant conditions of contract on grounds of site safety;
 - (e) failure to rectify within a reasonable time any situation of "imminent danger" identified by the Architect/Engineer and/or in the contractor's internal audit / safety audit required by the legislation and/or the independent safety audit which is either under the ISAS or arranged by the respective works department; and
 - (f) one or more fatal accident(s)⁴ happened within the reporting period.

³ An overall "VP" rating in the "Site Safety" section in the RCP will result in an "Adverse" RCP.

⁴ If there is doubt as to whether the death of a worker occurred on site is caused by an industrial accident, the Labour Department should be consulted. If the nature of death is subsequently confirmed by the Labour Department to be related to construction activities after the reporting period, the project office should re-examine the report and that the effect of the fatal accident should be duly reflected in the assessment.

Guidance Notes for Marking the Sub-items of the Score Card

- (a) The following are areas to be considered during marking of each sub-item. They are meant to be an aide-memoir and are by no means exhaustive. Most of them can be marked through impressions gained during the course of routine site inspections, day-to-day administration and site supervision of the contract. Others are related to record keeping which the Safety Officer are required to incorporate in their monthly safety reports submitted to the Architect/Engineer. The Architect/Engineer can also develop appropriate sub-items, such as demolition, precautionary measures against flooding and typhoon etc., to suit the particular nature of the works in the contract.
- (b) The checklist for marking the sub-items of the Score Card given in this Appendix is fundamental to construction activities in normal situation. The Architect/Engineer may consider incorporating the items into the weekly safety walk checklists for use by the site staff so that a more consistent and objective assessment can be made on the contractors' safety performance during the reporting period.
- (c) It should be noted that some of the safety management requirements, such as policy statements, safety committees, safety representatives etc., set out in these Guidance Notes may only be applicable to contracts where a Safety Plan is required.

1. <u>Provision and maintenance of plant</u>

- 1.1. Lifting plant and equipment (e.g. cranes, wires, slings etc.)
 - Assembly and dismantling of cranes, launching girders and lifting frames carried out by competent person
 - Cranes and lifting gears are tested with relevant certificates issued
 - Cranes inspected by competent persons weekly with forms completed
 - Outrigger extended and securely supported during lifting
 - Competent operator and slinger/signaller employed
 - Hooks, shackles and wire slings are marked with safe working load (SWL) and inspected for wear and tear.
 - Use of proprietary/genuine spares to replace worn out parts (e.g. locking pins)
 - Control system for ensuring the safe use of lifting gears (e.g. colour coding system)
- 1.2. <u>Piling plant and equipment (e.g. material hoist, drilling, boring rigs etc.)</u>
 - All assembling and dismantling carried out by competent person

- Checked and certified before commencement of work on site
- Maintained regularly with records kept
- Use of proprietary spare parts for replacement
- Suitability of type of plant used
- Hooks, shackles and wire slings are marked with SWL and inspected for wear and tear
- Provision of interlocking device for material hoist

1.3. Earth-moving plant (e.g. excavators, backhoes etc.)

- Maintained regularly with records kept
- Competent operators employed
- Use of proprietary spare parts for replacement
- Installation of audible reversing signals and/or flashing signals
- Precaution taken to avoid tipping over of plant near edges of slopes/excavations with the use of markers or stoppers

1.4 <u>Temporary electricity supply system and generators (e.g. power source,</u> <u>switchboards, distribution boards, cable and wiring, connections, earthing etc.)</u>

- Regular checking of electrical supply system by registered electrical worker with records of checking (including earthing resistance) kept
- Connections inside switchboard insulated with casing connected to earth
- Electricity supply protected by circuit breakers (ELCB and MCB)
- Generators (including its casing) are earthed with adequate earthing resistance
- Use of armoured cables / Protection of cables against damage
- Use of weatherproof type plugs/sockets/couplers
- Use of 110V voltage for portable & hand-held tools and temporary site lighting
- Use of 25V voltage for hand-held tools and temporary lighting in confined spaces and damp environment
- Provision of temporary lightning protection system to site office, high plant or high structure if they are not well protected by existing structures nearby

1.5 <u>Welding and cutting equipment (e.g. electric arc/gas welding/cutting etc.)</u>

Electric-arc welding

- Connections should not be exposed
- Condition of welding cables checked for damage
- Ensure adequate earthing and return current
- Screens to contain flying sparks
- Welders provided with appropriate personal protective equipment

Gas welding and cutting

- Gas cylinders kept upright in stands/trolleys with fire extinguishers nearby
- Gas cylinders fitted with flash-back arrestors
- Conditions of gas hoses/pressure gauge checked regularly
- Trailing gas hoses protected from damage and not to cause tripping hazard
- Screens to contain hot slag
- Welders provided with appropriate personal protective equipment

1.6. <u>Construction vehicles (e.g. trucks, dumpers etc.)</u>

- All trucks used on site are licensed or with road worthiness certificates
- Audible warning signals for reverse movements
- Regular maintenance with records kept
- No man-riding on skips or dumpers
- No excessively worn out tires are used

1.7. <u>Powered hand tools (e.g. cartridge-operated tools, grinders, cutters etc.)</u>

- All moving parts guarded and casing not damaged
- Trailing cables kept as short as possible
- Tools stored properly when not in use
- Electrical tools are earthed unless double-insulated
- Plugs and sockets are of weatherproof type
- Regular maintenance with record kept

Cartridge operated tools

- Tools must be type approved by Commissioner for Labour
- Operator must hold a certificate of competency
- Only pins and cartridges which meet the manufacturer's specifications are used
- Tool is only loaded immediately prior to firing and a loaded tool is not left unattended
- When not in use, tools shall be unloaded and kept locked in a box containing instructions on care and operation
- 1.8 <u>Other machinery (e.g. bench circular saw, abrasive wheels, compressed/pneumatic air tools, pumps and vacuum pumps etc.)</u>

Bench Circular Saw

- Crown guard, riving knife and push stick provided
- Emergency switch of push-button type installed
- Underside of bench enclosed
- Regular removal of saw dust

Abrasive wheels

• Name of competent person for mounting of abrasive wheels displayed

- Speed of spindles marked
- Speed of wheel not to exceed that of the spindle
- Protective guard provided
- Emergency switch installed

Compressed/pneumatic air tools

- Regular inspection and maintenance of air compressor
- Air receiver marked with its safe working pressure and fitted with proper pressure gauges and pressure relief valves
- Air receiver tested and certified
- Correct jointing of compressed air supply lines secured by steel wires or strong nylon ropes and regular inspection of connections for wear and tear
- Noise assessment conducted

Pumps and vacuum pumps

- Regular inspection and maintenance of pumps and motors
- Cable with appropriate protection against damage
- Earthing connection provided to pump casing
- Emergency stops and means of isolation provided to pump motors

2. <u>Provision and maintenance of working environment</u>

- 2.1. <u>Housekeeping (e.g. stacking of materials, rubbish disposal etc.)</u>
 - Proper planning for storage of materials
 - Materials are securely stacked and not overloading the supporting structure
 - Adequate bins/skips provided for disposal of waste and regular disposal
 - All passageway/works areas kept clear and free from tripping/slipping hazards
 - Wooden planks/sheeting/stripped formwork are denailed
 - Provision of adequate illumination at workplace
 - Provision of isolation and/or warning notices for plant and equipment temporarily suspended for work execution
 - Site properly fenced off to prevent unauthorized access

2.2. Excavations, trenches and earthworks

- Provision of protection to edges of excavations and trenches to prevent falls
- Adequate shoring provided to support excavations/trenches exceeding 1.2m in depth or with its sides cut to a safe batter
- Precautions taken against flooding or dropping of materials into trenches
- Prevention of vehicles falling into excavations

- Storage and stacking of materials/equipment/plant away from the edges of excavations
- Excavations inspected and examined by a competent person with prescribed form completed
- Provision of surface protection to slopes and cut-off drains at the top to prevent surface erosion
- Precautionary measures taken against damages to utilities with the use of detectors, trial pits etc. before excavation
- Provision of safe access to and egress from excavations
- 2.3. <u>Covers and fencing to openings and fencing to edges</u>
 - Covers of adequate strength provided and securely fixed in position
 - Immediate reinstatement of covers and fencing after temporary removal to facilitate work process
 - Fencing is of adequate strength to prevent persons falling into the opening and edges
 - Provision of intermediate rail to fencing for limiting any horizontal gap to less than 600mm

2.4. Access to and egress from workplaces (e.g. ladders, stairs etc.)

- Sufficient means of access to and egress from workplace are provided
- Ladders of sound material, fixed either at top and at the bottom, inclined at a batter of 4 in 1 and extends 1 metre above the landing point
- Cat ladders provided with protective circular hoops and landing platforms at intervals of no more than 9 metres
- Stairs provided with handrails
- Access and egress are free from obstruction and are of adequate width
- Adequate lighting provided in covered or enclosed workplace

2.5. <u>Scaffolds and working platforms</u>

- Scaffolds are of good construction, made of strong and sound materials and properly maintained
- Scaffolds adequately fixed, secured, tied, braced and founded
- Safe means of access, such as ladders, stairs and handrails provided
- Guardrails and toeboards provided at working platforms
- Working platforms closely boarded
- Warning notices displayed for incomplete or unsafe scaffolds
- Record of inspection of scaffolds on prescribed form
- 2.6. <u>Welfare facilities (e.g. sanitary, washing facilities, drinking water, shelters etc.)</u>
 - Provision of sufficient latrine and washing conveniences

- Provision of changing facilities and lockers
- Provision of adequate supply of drinking water
- Provision of covered areas/shelters for taking refuge in adverse weather

2.7. First aid facilities (e.g. first aid kits, first aiders and stretchers)

- Person trained in first aid, (first aider) available on site with their names and contact telephone number displayed (one first aider for 30 to 99 workmen and at least two for 100 or more workmen)
- First aid box provided at workplace including isolated locations (one first aid box for five or more workmen or cupboard for every 50 workmen or part thereof)
- Booklet "Hints on First Aid" kept in the first aid box
- Provision of a stretcher where there are 50 or more workmen
- Regular checking and replenishment of the provisions in the first aid box

2.8. <u>Traffic diversion and control (e.g. lighting, signing and guarding)</u>

- Movement of traffic for vehicles, plants and pedestrians organized and routes demarcated
- Adequate directional/warning signs erected for traffic control including speed limit sign, etc.
- Adequate lighting, signing and guarding of road works provided in accordance with the Code of Practice for Lighting, Signing and Guarding of Road Works
- Warning signs for construction access erected, e.g. uneven road surface
- Precaution taken to avoid tipping over of construction vehicles and plant near edges of slopes/excavations with the use of markers or stoppers

2.9. Dust suppression, noise control and hazardous waste disposal

- Dust suppression measures such as regular watering and provisions of sheeting for covering up excavated materials during transport
- Use plants with quieter models
- Provision of noise screens/enclosures
- Noise assessments conducted and hearing protection zone notices displayed
- Hazardous materials (e.g. asbestos) removed and disposed by specially trained persons in accordance with statutory requirement
- Provision of adequate ventilation in enclosed area

- 2.10 Use, storage and disposal of dangerous goods and chemicals (e.g. fuels, gas cylinders and other hazardous chemicals, refrigerants, paints, cleansing agents etc.)
 - Obtain permit/exemption certificates for storage of dangerous goods and chemicals
 - Storage not to exceed permitted/exempted quantity
 - Store for inflammable materials provided with suitable fencing and shelter
 - Fuel tank contents identified and NO SMOKING signs displayed
 - Paints, varnishes, lacquers and other volatile painting materials are stored in proper containers with labels
 - Adequate warning labels provided for chemicals
 - Instruction notice on properties of chemicals and treatment procedure displayed

2.11. Fire prevention and protection (e.g. fire extinguishers and escape routes)

- Adequate number of correct types of fire extinguishers provided and prominently located
- Fire fighting equipment are regularly checked for serviceability
- Establishment of fire orders, evacuation procedures and conduct of fire drills
- Fire escape routes kept free of obstructions
- Fire pump set up for water supply to floor levels above 30 m
- Liaison with Fire Services Department
- Layout plans showing fire escape routes and assembly points displayed at prominent positions

2.12. <u>Safety gear and personal protective equipment</u>

- Appropriate safety gear and personal protective equipment provided to workers
- Instruction and training provided to workers on their use and maintenance
- Properly stored and maintained of safety gears/equipment
- Keeping of record for issue of safety gears/equipment and maintenance log

2.13. <u>Innovation on safety measures, devices and installations (other than Smart Site</u> <u>Safety System)</u>

- Adopt new safety measures, devices or installations (other than Smart Site Safety System), the type or nature of design or product, of which has not been commonly used in the local construction industry
- Implement some new safety management initiatives that can promote the safety culture and improve the safety awareness of workers

- Modification of existing or commonly used safety measures, device or installation to suit the site situation which could enhance the required safety standard
- 2.14. <u>Safety inputs/measures beyond contract requirements</u>
 - Adopt safety measures, which are beyond the contractual requirements such as higher standard of fencing and noise control measures etc.
 - Provide more inputs or efforts (such as employment of more safety officers on site or frequent site visit by management staff) than that required under the contract with a view to achieving better safety performance
- 2.15. Fostering an atmosphere for encouraging near miss reporting
 - Provision, maintenance and implementation of initiatives or incentive for encouraging near miss reporting
 - Establishment of an effective/efficient means for reporting near miss incidents
 - Follow-up actions for near miss incidents
- 2.16. <u>Design and construction of falseworks/temporary works</u>
 - Establish an effective mechanism to monitor the compliance of contract provisions on design of falsework/temporary works
 - Appoint temporary works coordinator/supervisor
 - Maintain a registry recording the dates of submission and approval of all relevant documents including falsework/temporary works design and the associated method statement, risk assessment and checking certificates by the Independent Checking Engineer (ICE)
 - Maintain a registry recording date of inspection of falsework/temporary works by ICE
 - Falsework/temporary works constructed in accordance with the design certified by ICE and properly maintained throughout their working life
 - Records of spot-checking on compliance of contract provisions on design and construction of falsework/temporary works shall be submitted to the Architect/Engineer and sent to the project office for record purpose

2.17. Adoption, implementation and maintenance of Smart Site Safety System

- Adopting, implementing and maintaining Smart Site Safety System specified in the contract
- Adopting, implementing and maintaining new smart safety devices or Smart Site Safety System which has not been commonly used in the local construction industry and beyond the contractual requirements

3. <u>Provision of information, instruction and training</u>

- 3.1. <u>Safety information, rules and regulations (e.g. safety plan, safety handbook, codes of practice and safety guides)</u>
 - Safety rules (general and specific) and regulations are written in appropriate languages and understandable by all those working on the site and posted conspicuously on site
 - Discussion of safety rules and details of recent serious incidents with supervisors and workers
 - Visitors are adequately briefed on general and specific site hazards before visiting site
 - Relevant guidance notes, codes of practices, regulations and safety handbooks kept on site for reference and updated regularly
 - Safety plans distributed as required under the contract
- 3.2. <u>Safety promotion and publications (e.g. safety posters, banners, display boards and newsletters)</u>
 - Safety promotional activities organized, e.g. quiz, seminars, video and film sessions, competitions, and award schemes such as Model Workers Award, Model Frontline Supervisors Award, Model Site Tidiness & Cleanliness Award
 - Participation in safety campaigns organized by the Development Bureau, Labour Department or Occupational Safety and Health Council etc.
 - Workers representatives involved in organization of promotional campaigns
 - Safety hint-cards, checklist or pamphlets and booklets distributed to workers
 - Regular safety newsletters issued to all workers
 - A notice board specially assigned for safety where posters, newsletters, newspaper clippings on serious accidents and accident statistics are displayed to promote the safety awareness of the workers
 - Banners put up around the site to spread safety messages to workers

3.3 <u>Safety training for site management, supervisory staff, workers, mentors and</u> & 3.4 <u>visitors</u>

- All workers (including those of sub-contractors) received the Labour Department Recognized Mandatory Basic Safety Training Course (Construction Works) (referred to as "Green Card Training") and possess relevant certificate
- All skilled workers (including those of sub-contractors) received the Safety Training Course for Construction Workers of Specific Trade (referred to as "Silver Card Training")

- All workers (including those of sub-contractors) received site specific induction training on the first day of their commencement of work on site, and received refresher training at intervals of 6 months depending on the amount of changes to the site condition
- All site management staff and supervisory staff employed by the Contractor and subcontractors of all tiers to attend the corresponding basic safety training course specified in the contract to commensurate with their duties
- Specific training provided to staff engaged in hazardous activities, e.g. working in confined space
- Regularly conducted tool-box talks to workers
- A record of training received by all staff kept and reviewed for planning purpose
- Visitors well briefed of hazards and rules of the site before commencing visits
- Sharing session to workers and site personnel on lesson learnt from serious incidents¹ in the industry within 3 working days from the date of accident
- Additional training input provided to the prospective mentors (see second bullet of paragraph 3.5 below) to strengthen their understanding on their importance and responsibility before serving as mentors

3.5 <u>Caring programme for Probationers and New Comers</u>

- All workers who newly join the construction industry (referred to as "Probationers") and workers who have some experience but newly arrive at the construction site (referred to as "New Comers") are given a safety orientation programme covering the essential safety aspects related to the particular construction site
- Assign mentors (with a ratio of 1 mentor to not more than 4 Probationers) who possess good experience on the specific site, for which the Probationers would work at, and for them to look after the Probationers for a period of not less than three months
- All Probationers and New Comers are labelled by a sticker on their safety helmets for a period of not less than three months and two weeks respectively; and removal of identification stickers for Probationers subject to their mentors being satisfied with the safety performance of the Probationers

¹ Serious incidents are as defined in DEVB TC(W) No. 4/2022 and its subsequent updates

3.6 <u>Provision of graphical presentation of safety rules & regulations and working procedures</u>

- Workers provided with updated safety rules and regulations in graphical forms
- Development and maintenance of a management system for converting written form of safety rules and regulations into graphical form
- Provision and maintenance of graphical form of working procedures for high risk activities to workers
- 3.7 <u>Distribution of reminders on recent serious incidents in construction industry and</u> <u>near miss incidents on Site</u>
 - Relevant information provided to the workers within 3 working days from occurrence or upon receiving the same from the site supervisory staff

4. <u>Provision and implementation of safe system of work</u>

4.1. <u>Management's commitment (e.g. safety policy, attitude, supports and efforts)</u>

- Policy statement signed by the company's board level director or an equivalent senior executive
- Management commits to meet statutory/contractual requirements or a higher standard
- The policy identifies senior managers to charge with overall co-ordination and implementation of the policy
- Senior managers are involved actively in implementing the policy, e.g. attending safety tours, safety inspections, safety committee meetings and investigation of serious accidents or incidents
- Section managers/supervisors provided with adequate support and resources
- Safety reports/audit reports and action plan submitted to senior manager for coordinating and monitoring follow-up actions

4.2 <u>Safety organization (e.g. structure, responsibility and safety committees)</u>

- An updated safety organization chart covering all sub-contractors working on site provided
- Responsibility of each individual in the safety organization chart defined
- Sub-contractors are fully aware of their safety responsibilities
- Monitoring of sub-contractors' site safety performance
- Active participation in Site Safety Management Committee
- Safety Plan Implementation Working Group set up where required
- Site Safety Committee attended by senior managers, representatives from

all sub-contractors and safety representatives of workers working on site

- Safety performance targets, working procedures, safety plan, accident statistics reviewed in Site Safety Committee meetings
- Minutes of Site Safety Committee meetings distributed, endorsed by the most senior manager and action taken on the basis of its recommendations

4.3. <u>Identification of hazards and risk assessment</u>

- A list of high risk/hazardous activities are identified before work commencement with record kept
- Information on such hazards are made known to those executing the tasks (e.g. posters, briefing and instructions)
- Hazardous areas are fenced off or locked off
- Evaluation of the severity and frequency of the hazard, i.e. written risk assessment
- Frequent inspections made to identify new hazards in view of changing environment

4.4. <u>Developing of control/mitigation measures (e.g. safe working procedures, permit-to-work systems, isolation and tag-off instructions etc.)</u>

- Control/mitigation measures developed according to results of risk assessment
- Risk assessment included in method statement. It is comprehensive and includes, but not limited to, sequence of work, material and equipment to be used, training and instructions to be received by operatives and personal protective equipment to be used.
- Supervisor assigned for ensuring the implementation of control measures for each hazard
- "Permit-to-Enter", "Permit-to-Work", "Hot Work", "Fire Patrol" systems developed for high risk activities or activities with fire risks (e.g. confined spaces and hand-dug caissons)
- Provide isolation and tag-off instructions

4.5. <u>Implementation (e.g. adherence to procedures)</u>

- Before work commences, those executing the tasks should be adequately briefed of the safety procedures and safe working method appropriate to their work
- Supervisor assigned for ensuring precautionary measures stated in safe working procedures/method statements/permit systems are being followed
- Temporary works checked against certified designs and loading certificates issued before loading
- Any changes in site conditions are reported and safe working procedures/method statements revised to suit

- An effective system implemented for the issue, recording, inspection and replacement of personal protective equipment
- Safety co-ordination system established to enhance liaison between sub-contractors
- 4.6. <u>Monitoring (e.g. safety inspections)</u>
 - Adequate supervision to ensure safe working
 - Regular inspections (both planned and impromptu inspections) by line managers accompanied by safety personnel
 - A system of reporting irregularities observed during inspections and procedures for follow-up actions
 - A procedure developed to bring up repeated irregularities to senior manager for follow-up actions
 - A programme of self-audits and independent audits planned and implemented

4.7. <u>Review of the system and follow-up improvements</u>

- Review and updating of safety plan to suit site activities
- Review of safety performance against safety targets and prepare action plan for improvement
- Active participation by all personnel involved in hazardous tasks to review existing safety working procedures, method statements etc and recommend areas for improvement
- Prompt implementation of follow-up actions/recommendations in inspection/audit reports

4.8. <u>Emergency preparedness (e.g. emergency procedures, coordinators, drills and rescue teams)</u>

- Emergency procedures established and all personnel are fully aware of such procedures, copies displayed at prominent locations
- Emergency drills are carried out regularly and procedures reviewed
- Emergency team established, contact telephone numbers maintained and updated (including external emergency and rescue services)
- Development and maintenance of a management system for converting written emergency procedures into graphical form
- Provision and maintenance of graphical form of emergency procedures to the workers

4.9. <u>Implementation of Site Safety Cycle (SSC)</u>

• Conducted the activities of SSC including Daily Cycle, Weekly Cycle and Monthly Cycle incorporated in the Construction Site Safety Manual

- Important safety messages relevant to the works had been delivered to all site personnel in the activities of SSC
- Records of spot-checking shall be submitted to the Reporting Officer and sent to the project office for record purpose

5. <u>Employment of safety officer/supervisor</u>

5.1. <u>Competence of safety personnel</u>

- Safety personnel qualification
- Safety personnel has received appropriate training and possess sufficient safety knowledge, skill and experience relevant to work undertaken on site
- Provision of practical advice and comments
- Seek external expert advice readily if required

5.2. <u>Adequacy of attendance and effort</u>

- Regular inspection of sites and prompt issue of inspection reports
- Conducted follow-up visits
- Conducted investigation of incidents/accidents, prepared reports and recommended follow-up actions
- Arranged and conducted safety training if required
- Provided input in preparing working procedures, methods statements, safety plan
- Attended meetings of Site Safety Management Committee and Site Safety Committee
- Issued safety bulletins and newsletters
- 5.3. <u>Records and reporting (e.g. statutory forms, inspection and training records, test</u> <u>and examination records, safety reports and minutes of safety committee</u> <u>meetings)</u>
 - Regular updating of records
 - Prompt issue of inspection reports
 - Submission of monthly safety reports in advance of Site Safety Management Committee meetings
 - Prompt preparation of minutes of Site Safety Committee meetings
 - Monthly safety report is comprehensive and truly reflected site conditions
- 5.4. <u>Adequate resources, power and support provided by senior management</u>
 - Direct communication with senior managers and section managers
 - Safety officer given sufficient power to give instructions or cease hazardous operations or dismiss unsafe worker

- Recommendations/advice are given full consideration and supported by senior managers and section managers
- Adequate resources provided by senior management

5.5& <u>Sufficiency of safety officer, safety supervisors and safety representatives</u>

- 5.6
- Number of safety officers/safety supervisors provided in accordance with contractual/legal requirement and/or compatible with the number of sub-contractors/workers working on site
- Diligence in providing replacement for safety personnel in case of leave or resignation
- Foreman or ganger of each labour group or team appointed as safety representatives
- 5.7. Engagement of accredited safety supervisors
 - "VG" should be marked if 60% or above of the safety supervisors joined the voluntary accreditation scheme for Safety Supervisor (Construction) managed by the Occupational Safety & Health Council
 - "G" should be marked if 30% or above but less than 60% of the safety supervisors joined the voluntary accreditation scheme for Safety Supervisor (Construction) managed by the Occupational Safety & Health Council
 - "S" should be marked if less than 30% of the safety supervisors joined the voluntary accreditation scheme for Safety Supervisor (Construction) managed by the Occupational Safety & Health Council
 - When calculating the above minimum percentages set out for the performance rating, those safety supervisor(s) provided by the contractor beyond contractual requirements with a view to achieving better safety performance should be excluded

6. <u>Site accident record</u>

6.1. <u>Reporting of accidents/Dangerous Occurrence/near miss incidents and</u> <u>under-reporting situation</u>

- Prompt reporting of accidents to the Labour Department
- Prompt notification of serious accidents, Dangerous Occurrences and near miss incidents (with potential for fatality or Dangerous Occurrence), to Architect/Engineer, followed by preliminary accident report within 24 hours
- Submission of detailed report within 7 working days
- Comprehensiveness and depth of accident reports (with sketches and photos)

- All reportable accidents, Dangerous Occurrences and near miss incidents reported to the Architect/Engineer
- 6.2. <u>Upkeeping and analysis of accident/Dangerous Occurrence/near miss incident</u> <u>statistics</u>
 - Accident record include reportable accidents (accident resulting in an injury with incapacity for more than 3 days), non-reportable accidents involving minor injuries, Dangerous Occurrence, near misses, damage to properties and occupational illness
 - Regular updating of accident/Dangerous Occurrence/near miss incident statistics
 - Distribution of accident/Dangerous Occurrence/near miss incident statistics to senior managers, section managers and relevant parties and statistics displayed on notice boards
 - Analysis of statistics to identify common causes and trends in accidents

6.3. <u>Standard of accident/Dangerous Occurrence/near miss incident investigation</u>

- Procedures for accident/Dangerous Occurrence/near miss incident investigation written
- Investigation included incidents involving minor injuries, occupational illness, property damage, Dangerous Occurrence and near miss incidents
- Line manager and/or senior manager participated in investigation
- Depth of investigation and report included recommendations to prevent recurrence and any necessary training required
- Incorporation of interview records, photos and sketches etc.

6.4. <u>Follow-up actions</u>

- Distribution of accident/Dangerous Occurrence/near miss incident investigation report to senior managers, section managers and relevant parties
- Discussion of lessons learnt from accidents/Dangerous Occurrences/near miss incidents during Site Safety Committee meetings
- Review existing safe working procedures and method statements to check if recommendations contained in investigation report are properly incorporated
- Issue revisions to existing safe working procedures/method statement
- Time table set up to implement recommendations where appropriate
- Review if there is any need for specific training

URGENT By Dispatch

MEMO	

From	Secretary for Development	To Distribution
Ref	(03F9H) in DEVB(W) 516/71/01	(Attn :)
Tel. No.	3509 8385	Your Ref.
Fax No.	2707 0913	dated
Email	terencetmlam@devb.gov.hk	Fax No.
Date	29 December 2022	Total Pages 3 + Encl.

Construction Site Safety Manual

Development Bureau Technical Circular (Works) No. 1/2020 Score Card for Assessment of Site Safety Performance

Site Specific Induction Training

Site specific induction training is essential for all persons employed for the works or in connection with the contract. As observed from the recent spate of fatal accidents, some of the victims were just new comers to the construction sites in question and appeared not being familiar with the site conditions, special characteristics of the works, as well as their inherent hazards.

2. Taking cognizance of the above observations, we consider that there is an urgent need to enhance our contract provisions on site specific induction training for providing extra care to new comers.

Enhanced Measures

3. Contractors are required to provide site specific induction training to all persons employed on the works or in connection with the contract <u>on the first</u> <u>day of their commencement of work on site</u>, and provide refresher training at intervals of 6 months depending on the amount of changes to the site condition.

4. The revised particular specification (PS) clause to replace Clause 8(6) in Appendix III (Particular Specification on Site Safety) of Chapter 3 of the Construction Site Safety Manual (CSSM) is at **Annex A**. The revised PS clause at Annex A would be incorporated into the CSSM in its next updating exercise.

5. To complement with the above enhanced measures, the guidance notes for marking sub-items 3.3 and 3.4 of the Score Card have been updated. The revised pages of Appendix C of DEVB TC(W) No. 1/2020 are at **Annex B**.

Effect on Public Works Contracts

6. The revised PS clause at Annex A shall be incorporated in all public works contracts (including capital works contracts and maintenance contracts) of which the tenders are to be invited <u>on or after 29 December 2022</u>. For public works contracts tendered before 29 December 2022, project officers should incorporate the new PS clauses as far as reasonably practicable. For existing public works contracts, contract administrators should explore the feasibility of implementing the enhanced measures described in the revised PS clause at Annex A with the contractors.

7. The revisions in Appendix C of DEVB TC(W) No. 1/2020 (at Annex B) take effect from the first quarter of the reporting cycle of the Report on Contractor's Performance in 2023.

8. Please bring this memo to the attention of the project officers who are responsible for the preparation of tenders for public works contracts and the project officers, consultants and resident site staff supervising public works contracts.

Enquiries

9. Any enquiries on the above should be addressed to Mr LEE Man-yiu, Assistant Secretary (Works Policies 5) 5 at 3509 8305.

(Terence T M LAM) for Secretary for Development

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File DEVB(W) 51	6/70/03

Construction Site Safety Manual Chapter 3 Appendix III – PARTICULAR SPECIFICATION ON SITE SAFETY

8 Safety Training

- (6) (a) All persons employed on the Works or in connection with the Contract whether in the employ of the Contractor or sub-contractors of all tiers shall receive "site specific induction training".
 - (b) Site specific induction training and its refresher shall take the form of an one-hour talk conducted by the Safety Officer in accordance with sub-clause 6(e) below.

(c) The talk shall be conducted as follows:

(i)	Safety Policy	10 mins
(ii)	General particulars of the Site	10 mins
(iii)	Special characteristics of the Works and inherent hazards on the Site, highlights of particular safety measures and use of personal protective equipment	15 mins
(iv)	Emergency procedures and first- aid facilities	10 mins
(v)	Reporting of accidents and injury compensation procedures	5 mins
(vi)	Questions and answers	<u>10 mins</u>
	total	60 mins

- (d) The Safety Officer shall prepare the talk based on Part II of the "Site Safety & Health Induction Training Manual" published by the Hong Kong Construction Association Ltd.
- (e) An outline of the talk and every update of it shall be provided to the *Architect/Engineer's Representative for approval. All persons enumerated in sub-clause (6)(a) above shall be provided with site specific induction training on the first day of their commencement of work on the Site. Thereafter, they shall be given refresher talks at intervals of 6 months depending on the amount of changes to the site condition.
- (f) The Contractor shall ensure that "site specific induction training" talks are carried out by Safety Officers who are competent trainers and have received training on safety training techniques organised by the Hong Kong Construction Association Ltd. (HKCA), Construction Industry Council (CIC), Occupational Safety and Health Council (OSHC) or other approved training organisations.

and posted conspicuously on site

- Discussion of safety rules and details of recent serious incidents with supervisors and workers
- Visitors are adequately briefed on general and specific site hazards before visiting site
- Relevant guidance notes, codes of practices, regulations and safety handbooks kept on site for reference and updated regularly
- Safety plans distributed as required under the contract

3.2. <u>Safety promotion and publications (e.g. safety posters, banners, display boards</u> <u>and newsletters)</u>

- Safety promotional activities organized, e.g. quiz, seminars, video and film sessions, competitions, and award schemes such as Model Workers Award, Model Frontline Supervisors Award, Model Site Tidiness & Cleanliness Award
- Participation in safety campaigns organized by the Development Bureau, Labour Department or Occupational Safety and Health Council etc.
- Workers representatives involved in organization of promotional campaigns
- Safety hint-cards, checklist or pamphlets and booklets distributed to workers
- Regular safety newsletters issued to all workers
- A notice board specially assigned for safety where posters, newsletters, newspaper clippings on serious accidents and accident statistics are displayed to promote the safety awareness of the workers
- Banners put up around the site to spread safety messages to workers

3.3 <u>Safety training for site management, supervisory staff, workers, mentors and</u> & 3.4 <u>visitors</u>

- All workers (including those of sub-contractors) received the Labour Department Recognized Mandatory Basic Safety Training Course (Construction Works) (referred to as "Green Card Training") and possess relevant certificate
- All skilled workers (including those of sub-contractors) received the Safety Training Course for Construction Workers of Specific Trade (referred to as "Silver Card Training")
- All workers (including those of sub-contractors) received site specific induction training on the first day of their commencement of work on site, and received refresher training at intervals of 6 months depending on the amount of changes to the site condition
- All site management staff and supervisory staff employed by the Contractor and subcontractors of all tiers to attend the corresponding basic safety training course specified in the contract to commensurate with their

duties

- Specific training provided to staff engaged in hazardous activities, e.g. working in confined space
- Regularly conducted tool-box talks to workers
- A record of training received by all staff kept and reviewed for planning purpose
- Visitors well briefed of hazards and rules of the site before commencing visits
- Sharing session to workers and site personnel on lesson learnt from serious incidents¹ in the industry within 3 working days from the date of accident
- Additional training input provided to the prospective mentors (see second bullet of paragraph 3.5 below) to strengthen their understanding on their importance and responsibility before serving as mentors

3.5 <u>Caring programme for Probationers and New Comers</u>

- All workers who newly join the construction industry (referred to as "Probationers") and workers who have some experience but newly arrive at the construction site (referred to as "New Comers") are given a safety orientation programme covering the essential safety aspects related to the particular construction site
- Assign mentors (with a ratio of 1 mentor to not more than 4 Probationers) who possess good experience on the specific site, for which the Probationers would work at, and for them to look after the Probationers for a period of not less than three months
- All Probationers and New Comers are labelled by a sticker on their safety helmets for a period of not less than three months and two weeks respectively; and removal of identification stickers for Probationers subject to their mentors being satisfied with the safety performance of the Probationers

3.6 <u>Provision of graphical presentation of safety rules & regulations and working procedures</u>

- Workers provided with updated safety rules and regulations in graphical forms
- Development and maintenance of a management system for converting written form of safety rules and regulations into graphical form
- Provision and maintenance of graphical form of working procedures for high risk activities to workers

¹ Serious incidents are as defined in DEVB TC(W) No. 4/2022 or its subsequent updates

香港特別行政區政府 The Government of the Hong Kong Special Administrative Region

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Ref. : DEVB(W) 273/32/28 Group : 2, 8

12 October 2020

Development Bureau Technical Circular (Works) No. 1/2020

Score Card for Assessment of Site Safety Performance

Scope

This Circular sets out the policy of using Score Card to assess the contractors' site safety performance for all public works contracts, except for minor contracts involving supply of materials/equipment or laboratory testing, etc.

Effective Date

2. This Circular takes effect from the first quarter of the reporting cycle of the Report on Contractor's Performance (RCP) in 2021 commencing on 1 December 2020.

Effect on Existing Circulars

3. This Circular supersedes WBTC No. 26/2000, which is hereby cancelled. It shall be read in conjunction with Contractor Management Handbook on the assessment of the contractors' performance and regulating actions against contractors with poor performance.

Background

4. "Site Safety" is one of the sections to be reported in the RCP. In order to enhance the standard of reporting "Site Safety" in the RCP and to ensure a consistent approach be adopted in the assessment, a Score Card has been developed to provide guidance on the assessment. The Score Card is a quantitative tool to assess the safety performance of contractors. The six main items to be assessed are identical to the six aspects of performance in the "Site Safety" section of the RCP. Performance ratings of the main items are similar to that for other sections in the RCP, viz. "Very Good" (VG), "Good" (G), "Satisfactory" (S), "Poor" (P) and "Very Poor" (VP).

5. The revisions promulgated under this Circular mainly include an addition of two new scoring sub-items (i.e. sub-items 2.16 and 4.9 at **Appendix A**) on "the design and construction of falsework/temporary works" and "the implementation of Site Safety Cycle"; and enhancement of the guidance notes (at **Appendix B**) to better reflect (i) the adoption of innovative construction methods and advanced technologies for improving site safety; (ii) late reporting of reportable accidents; and (iii) occurrence of fatal construction accidents in the scoring system.

Policy

6. The Score Card at **Appendix A** shall be adopted in assessing the contractors' site safety performance for all public works contracts, except for minor contracts involving supply of materials/equipment or laboratory testing, etc. There are recommended weightings for the six main items in the Score Card, which are applicable to most civil engineering or building works contracts. However, the Architect/Engineer may adjust these weightings to suit the nature of works of a particular contract, e.g. electrical and mechanical contracts and term contracts.

7. The Guidance Notes for completing the Score Card and for assessing the sub-items of the Score Card are at Appendix B and Appendix C respectively. In completing the Score Card, the Reporting Officer shall mark those relevant sub-items only, taking cognizance of the general statutory requirements and the specific contractual requirements under individual contracts. The Guidance Notes are meant to be an aidememoir to assist the marking and are by no means exhaustive. The Architect/Engineer may add/amend the sub-items of performance as appropriate to suit the nature of work of demolition, particular contract, such as precautionary measures against a

flooding/landslips, etc.

8. Score Cards shall be completed by the Architect/Engineer's Representative and endorsed by the Architect/Engineer. The assessment should reflect the observations during routine site inspections, day-to-day administration and site supervision of the contract during the reporting period. Unless otherwise instructed by the Architect/Engineer, one Score Card shall be prepared for completion of each RCP throughout the entire contract period except maintenance period, defects liability period and establishment period.

9. Any items of major weaknesses identified in the Score Card shall be promptly communicated in writing by the Architect/Engineer or his/her representative to the Contractor who shall be requested to take prompt and appropriate actions to rectify the situation. The major weaknesses identified and follow-up actions required shall be discussed in the forthcoming Site Safety Management Committee meeting(s) or progress meeting(s) where appropriate, until satisfactory completion of the remedial actions.

10. A "Very Poor" rating in the Final Performance Rating of a Score Card as reflected in "Site Safety" section of the RCP shall result in an "Adverse" RCP. Under such circumstance, regulating actions against contractors with poor performance as set out in Contractor Management Handbook shall be initiated where appropriate.

Enquiries

11. Enquiries on this Circular should be addressed to Chief Assistant Secretary (Works) 5.

(LAM Sai-hung) Permanent Secretary for Development (Works)

Score Card for the Assessment of Site Safety Performance for the Period from to						
Department :	Office :	Division	:	*Name of Consultant :		
Contract No. and Title	:					
• •	1 / Building / Term / Spec for Safety Scheme * (* I					
Name of Contractor :						
Commencement date : Completion date :						

Summary of Scores :-

Main Item	Score (a)	Weighting Factor # (b)	Weighted Score (a) x (b)				
1. Provision and maintenance of plant		0.15					
2. Provision and maintenance of working environment		0.30					
3. Provision of information, instruction and training		0.15					
4. Provision and implementation of safe system of work		0.20					
5. Employment of safety officer/supervisor		0.10					
6. Site accident record		0.10					
Total Weighted Score							
Overall Performance Rating :Very Good/ Good/ Satisfactory/ Poor/ Very Poor*(Para. 9 of the Guidance Notes refers)							

These are the recommended weightings which can be adjusted to suit the particular nature of works of a contract.

Date(s) of issue of warning(s) / suspension order(s) by the Architect/Engineer	1.	2.	3.	4.
Date(s) of issue of Improvement Notice(s) by the Labour Dept.				
Date(s) of issue of Suspension Notice(s) by the Labour Dept.				
Date(s) of Revocation of Suspension Notice(s) (if any)				
Remarks :				
Final Performance Rating : Very Good / Good /	Satisfactor	y / Poor	/ Very Po	or *

Score Card completed by :	Score Card Endorsed by :					
	<i>,</i>					
() *Architect/Engineer's Representative	() Architect/Engineer*					
Name :	Name :					
Post : Date :	Post : Date :					

Item 1.0	Provision and maintenance of plant (0.15)	VG	G	s	Р	VP	NA
Sub-item 1.1	Lifting plant and equipment (e.g. cranes, wires, slings etc.)						
1.2	Piling plant and equipment (e.g. material hoist, drilling, boring rigs etc.)						
1.3	Earth-moving plant (e.g. excavators, backhoes etc.)						
1.4	Temporary electricity supply systems and generators (e.g. power source, switchboards, distribution boards, cable and wiring, earthing system etc.)						
1.5	Welding and cutting equipment (e.g. electric arc/gas welding/cutting etc.)						
1.6	Construction vehicles (e.g. trucks, dumpers etc.)						
1.7	Powered hand tools (e.g. cartridge-operated tools, grinders, cutters etc.)						
1.8	Other machinery (e.g. bench circular saw, abrasive wheels, compressed/ pneumatic air tools, pumps and vacuum pumps etc.)						
Score of the	is main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items) x 100%	=		%	(trans	sfer to	P.1)
Remarks :							
Rating of	Item 1.0 : Very Good / Good / Satisfactory / Poor (Para. 7 of the Guidance Notes refers)	/ V	ery F	oor	*		

Item 2.0	Provision and maintenance of working environment (0.30)	VG	G	s	Р	VP	NA
Sub-item 2.1	Housekeeping (e.g. stacking of materials, rubbish disposal etc.)						
2.2	Excavations, trenches and earthworks						
2.3	Covers and fencing to openings and fencing to edges						
2.4	Access to and egress from workplaces (e.g. ladders, stairs etc.)						
2.5	Scaffolds and working platforms						
2.6	Welfare facilities (e.g. sanitary, washing facilities, drinking water, shelters etc.)						
2.7	First-aid facilities (e.g. first aid kits, first aiders and stretchers)						
2.8	Traffic diversion and control (e.g. lighting, signing and guarding)						
2.9	Dust suppression, noise control and hazardous waste disposal						
2.10	Use, storage and disposal of dangerous goods and chemicals (e.g. fuels, gas cylinders, chemicals, refrigerants, paints, cleansing agents etc.)						
2.11	Fire prevention and protection (e.g. fire extinguishers and escape routes)						
2.12	Safety gear and personal protective equipment						
2.13	Innovation on safety measures, devices or installations						
2.14	Safety input/measures beyond contract requirements						
2.15	Fostering an atmosphere for encouraging near miss reporting						
2.16	Design and construction of falsework/temporary works						
Score of this	s main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items) x 100%	=		%	(trans	sfer to	P.1)
Remarks :							
Rating of 3	Item 2.0: Very Good / Good / Satisfactory / Poor (Para. 7 of the Guidance Notes refers)	/ V	ery F	oor	*		

Item 3.0	Provision of information, instruction and training (0.15)	VG	G	s	Р	VP	NA
Sub item 3.1	Safety information, rules and regulations (e.g. safety plan, safety handbook, codes of practice, safety guides etc.)						
3.2	Safety promotion and publications (e.g. safety posters, banners, display boards and newsletters)						
3.3	Safety training to site management and supervisory staff						
3.4	Safety training to workers/mentors/visitors						
3.5	Caring programme for Probationers and New Comers						
3.6	Provision of graphical presentation of safety rules & regulations and working procedures						
3.7	Distribution of reminders on recent serious incidents in construction industry and near miss incidents on Site						
Score of this	s main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items)	=		%	(trans	fer to	P.1)
Remarks :							

Rating of Item 3.0 :	Very Good /	Good	/	Satisfactory	/	Poor	/	Very Poor	*
_	(Para. 7 of the	Guidanc	e l	Notes refers)				-	

Item 4.0	Provision and implementation of safe system of work (0.20)	VG	G	s	Р	VP	NA
Sub-item 4.1	Management's commitment (e.g. safety policy, attitude, supports and efforts)						
4.2	Safety organization (e.g. structure, responsibility and safety committees)						
4.3	Identification of hazards and risk assessment						
4.4	Developing of control/mitigation measures (e.g. safe working procedures, permit-to-work systems, isolation and tag-off instructions etc.)						
4.5	Implementation (e.g. adherence to procedures)						
4.6	Monitoring (e.g. safety inspections)						
4.7	Review of safety systems and follow-up improvements						
4.8	Emergency preparedness (e.g. emergency procedures, co-ordinators, drills and rescue teams)						
4.9	Implementation of Site Safety Cycle						
Score of this m	nain item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items) x 100%	=	1	%	transf	fer to	P.1)
Remarks :							
Rating of Ite	m 4.0 : Very Good / Good / Satisfactory / Poor / (Para. 7 of the Guidance Notes refers)	Ve	ry Po	or	*		

Item 5.0	Employment of safety officer/supervisor (0.10)	VG	G	s	Р	VP	NA
Sub-item 5.1	Competence of safety personnel						
5.2	Adequacy of attendance and effort						
5.3	Records and reporting (e.g. statutory forms, inspection and training records, testing and examination records, safety reports and minutes of safety committee meetings)						
5.4	Adequate resources, power and support provided by senior management						
5.5	Sufficiency of safety officer						
5.6	Sufficiency of safety supervisors/safety representatives						
5.7	Engagement of accredited safety supervisors						
Score of this m	tain item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% 5 x (no. of applicable sub-items) x 100%	=		% (transf	er to l	P.1)
Remarks :							
Rating of Ite	m 5.0 : Very Good / Good / Satisfactory / Poor / (Para. 7 of the Guidance Notes refers)	Ver	ry Po	or	*		

Item 6.0	Site accident record (0.10)	VG	G	s	Р	VP	NA	
Sub-item 6.1	Reporting of accidents/Dangerous Occurrence/near miss incidents and under-reporting situation							
6.2	Upkeeping and analysis of accident/Dangerous Occurrence/near miss incident statistics							
6.3	Standard of accident/Dangerous Occurrence/near miss incident investigation							
6.4	Follow-up actions							
Score of this m	Score of this main item = $5 \times \Sigma VG + 4 \times \Sigma G + 3 \times \Sigma S + 2 \times \Sigma P$ x 100% = % (transfer to P.1) 5 x (no. of applicable sub-items)							
Other factors	to be considered in the Remarks :-							
No. of fatal acc	vident(s) occurred in the reporting period			(a)				
No. of non-fata	l reportable accident(s) ¹ occurred in the reporting period			(b)				
Total no. of ma	n-hours worked in the reporting period			(c)				
Accident frequ	ency rate in no. of reportable accidents per 100,000 man-hours worked			(d)				
[(d) = (a + b)/(a +	c) x 100,000]							
Prevailing limi	t ² of accident frequency rate for public works set by DEVB			(e)				
Accident frequ	ency rate equal to or better than the prevailing limit of accident frequency rat	te, d	\leq e :		Yes / I	No *		
Dangerous occ	Dangerous occurrence(s) occurred in the reporting period no.							
Near miss incident(s) (with potential for fatality) occurred in the reporting period no.								
Remarks :								
Rating of Item 6.0 : Very Good / Good / Satisfactory / Poor / Very Poor * (Para. 7 of the Guidance Notes refers) (Para. 7 of the Guidance Notes refers) (Para. 7 of the Guidance Notes refers) (Para. 7 of the Guidance Notes refers)								

Note : Please see **Appendix B** before marking the main items.

¹ Reportable accident means accident resulting in an injury with incapacity for more than three days.

² The prevailing limit is stated in Clause 1.2.3 of the Construction Site Safety Manual.

Guidance Notes for Completing the Score Card

Introduction

- 1. The Score Card has six main items which are identical to the six performance aspects under "Site Safety" section of the Report on Contractors' Performance (RCP). Similar performance ratings, *viz.* "Very Good" (VG), "Good" (G), "Satisfactory" (S), "Poor" (P) and "Very Poor" (VP) are adopted. Hence, the rating of individual main items in the Score Card shall be used to determine the performance rating of the corresponding performance aspects in "Site Safety" section of the RCP. In addition, the total score of the Score Card forms the basis to determine the overall performance rating for "Site Safety" section in the RCP.
- 2. Completed Score Cards are to be kept by the project office for record purpose.

Weighting

3. Weightings are assigned to the six main items in the Score Card at **Appendix A** of this Circular. They are recommended weightings applicable to most civil engineering or building contracts. Nevertheless, the Reporting Officer may adjust these weightings to suit the nature of a particular contract. An example of weightings adjustment for a term contract is as follows –

	Main item	Adjusted Weighting
1.	Provision and maintenance of plant	0.1
2.	Provision and maintenance of working environment	0.2
3.	Provision of information, instruction and training	0.15
4.	Provision and implementation of safe system of work	0.3
5.	Employment of safety officer/supervisor	0.15
6.	Site accident record	0.1

Scoring and Rating System

- 4. In completing the Score Card at Appendix A of this Circular, the Reporting Officer shall tick the appropriate box (VG, G, S, P, VP, Not Applicable (NA)) for marking the sub-items of the six main items 1 to 6 reflecting the site safety performance of the contractor during the reporting period. Reference shall be made to the Guidance Notes at **Appendix C** of this Circular in marking the sub-items.
- 5. Scoring system for each sub-item is as follows –

 $\begin{array}{rcl} VG &=& 5 \text{ points} \\ G &=& 4 \text{ points} \\ S &=& 3 \text{ points} \end{array}$

P = 2 points VP = 0 pointNA = not counted in the score

6. The score of each main item is calculated by the following formula –

 $\frac{(5 \times \Sigma \text{ VG} + 4 \times \Sigma \text{ G} + 3 \times \Sigma \text{ S} + 2 \times \Sigma \text{ P})}{5 \times (\text{No. of applicable sub-items})} \times 100\%$

where Σ = total number of applicable sub-items ticked against the respective grading of VG, G, S, P and VP.

7. The rating of each main item in the Score Card is then decided according to the following settings –

Score of each main item		<u>Rating</u>
Score < 40%	=	Very Poor
$40\% \leq \text{Score} < 60\%$	=	Poor
$60\% \leq \text{Score} < 71\%$	=	Satisfactory
71% \leq Score \leq 85%	=	Good
Score > 85%	=	Very Good

- 8. The Reporting Officer can revise the rating of a main item if he/she considers that the calculated score and thus the rating of the main item does not reflect the actual performance of the contractor. Under such circumstances, the Reporting Officer shall put down the reason(s) for the revision in the "Remarks" box of that main item in the Score Card. The decided ratings for the main items in the Score Card shall be entered into the corresponding aspects of performance in the "Site Safety" section of the RCP.
- 9. After assessment of the main items, their scores are then transferred to the "Summary of Scores" on page 1 of the Score Card for calculation of the "Total Weighted Score" and the "Overall Performance Rating". The settings for the Overall Performance Rating are as follows –

Total Weighted Score		Overall Performance Rating
Score < 40%	=	Very Poor
$40\% \leq \text{Score} < 60\%$	=	Poor
$60\% \leq \text{Score} < 71\%$	=	Satisfactory
$71\% \leq \text{Score} \leq 85\%$	=	Good
Score > 85%	=	Very Good

Rating of Item 2 in the Score Card

10. Sub-items 2.13 and 2.14 are incentives to encourage better safety performance. They should be given "G" or "VG" rating whenever the corresponding sub-item is applicable.

- 11. For sub-item 2.15, near miss incidents could have potential leading to fatality or serious accidents, poor or failure in reporting of near miss incidents could result in delay in implementation of necessary corrective actions. As such, this sub-item should be rated based on the contractor's effort in fostering an atmosphere to encourage reporting of near miss incidents.
- 12. The Reporting Officer should consider giving a "G" or above rating for Item 2 if prefabricated construction methods (e.g. Modular Integrated Construction (MiC), precast floor slab and staircase, precast façade, prefabricated prefinished volumetric construction) have been substantially adopted in the overall construction and/or over 30% by weight of the steel reinforcing bars used for the works is supplied by the approved prefabrication yards, provided that majority of the sub-items are rated "S" or above and a safe working environment¹ has been effectively provided/maintained.

Rating of Item 6 in the Score Card

- 13. In assessing the contractor's performance in Item 6 of the Score Card, consideration shall be given to the high accident frequency rate of the contract and the occurrence of Dangerous Occurrence(s), fatal accident(s) and/or near miss incidents² (with potential for fatality) during the reporting period, together with the preceding average accident frequency rate of all public works contracts. The Reporting Officer shall obtain the information from the contractor where necessary for completion of this main item.
- 14. In general, notwithstanding the rating for sub-items 6.1 to 6.4, if the accident frequency rate of the contract for the reporting period (irrespective whether the reporting period is 6-weekly, quarterly or 6-monthly) by the time of reporting is worse than the prevailing limit set by the Development Bureau (DEVB), the contractor shall be given a "P" rating for Item 6 subject to the condition that there was more than one reportable accident happened in the reporting period. The limit set by DEVB can be found in the Construction Site Safety Manual posted on DEVB's website, and if necessary, the Departmental Safety and Environmental Adviser shall also be consulted. In the interpretation of the accident frequency rate, the Reporting Officer shall take into consideration the nature and seriousness of the accidents and whether there were repeated accidents of similar nature, when deciding the rating.
- 15. A "VP" rating with zero score for Item 6 shall be given if one or more Dangerous Occurrence, which could have led to fatality, or one or more fatal accidents, have occurred on the site during the reporting period, as long as the Reporting Officer considers that the Dangerous Occurrence(s), and the fatal

¹ With reference to the preceding average accident frequency rate of all public works contracts.

² A "near miss" is any incident which did not result in any injury or damage.

accident(s) was / were due to the contractor not having taken reasonable practicable measures including the provision of information, instruction, supervision and training for the persons at work to ensure workplace safety.

- 16. A "VP" rating with zero score for Item 6 shall be given if there were repeated near miss incidents of the same type with potential for fatality and the contractor had not taken any action to prevent the recurrence of such incidents.
- 17. Reportable accident shall be as defined in the Contract, and in the absence of such, reference should be made to the Construction Site Safety Manual. A "VP" rating with zero score for Item 6 shall be given if there was any late reporting (i.e. over 3 months since the contractor being notified of the case) of reportable accident.
- 18. If sub-items 6.1 to 6.4 are not applicable due to no accident, Dangerous Occurrence or near miss incident occurred during the reporting period, Item 6 should be marked with a score of 70%, subject to the satisfaction by the Architect/Engineer's Representative of the contractor's setting up and implementation of safety management system for the contract as reflected in other sub-items of the Score Card.

Other Considerations

- 19. In completing the Score Card, the Reporting Officer shall make due consideration of the contractor's effort and attitude in rectifying defects and irregularities pointed out by site supervisory staff and the comments and deficiencies pointed out by the Marine Department (in respect of marine plant/vessels) and the Labour Department in the "Inspection Reports" issued. It should be noted that some comments made in the Inspection Reports are advisory only. Moreover, the Reporting Officer shall give due consideration of the contractor's effort and attitude in report, or dismiss where applicable, any reportable accident within a reasonable time.
- 20. If there are any contractor's internal safety audit / safety audit required by the legislation and/or the independent safety audit which is either under the Independent Safety Audit Scheme (ISAS) or arranged by the respective works department carried out within the reporting period, the results and recommendations contained in the safety audit report(s) shall be duly reflected in the "Site Safety" section of the RCP as they represent the findings of detailed and independent assessments of the contractor's safety management system and its implementation.
- 21. For contracts included in the ISAS, the corresponding section(s) to be referred to in the safety audit report for consideration in the completion of the RCP are appended in the table below -

Aspects of performance in the RCP		Corresponding Section(s) in safety audit report under ISAS
Section 3.1	- Provision and maintenance of plant	14.5
Section 3.2	- Provision and maintenance of working environment	8, 12, 14.1 to 14.4
Section 3.3	- Provision of information, instruction and training	3, 4 , 11
Section 3.4	- Provision and implementation of safe systems of work	1, 2, 5, 6, 7, 10, 13 14.1 to 14.4
Section 3.5	- Employment of safety officer/supervisor	2
Section 3.6	- Site accident record	9

- 22. In considering the ISAS safety audit results in the RCP, it should be noted that the receipt of safety audit report from the safety auditor normally takes two weeks or more after the audit. Therefore, it is possible that the safety audit report may not be available by the time of completing the RCP, especially when the safety audit is carried out close to the end of the reporting period. To avoid this, the Architect/Engineer should, in commenting the safety audit programme submitted by the accredited safety auditor, ensure that the safety audit reports will be received in time for the completion of the RCPs under normal conditions.
- 23. Where a 6-weekly reporting is required for a RCP, the Reporting Officer should check the safety audit programme that the date of next safety audit will not be close to the end of the 6-weekly reporting period. Otherwise, consideration should be given, in consultation with the contractor and the safety auditor, to bring forward or defer the date of next ISAS safety audit to suit the reporting schedule of the RCP. Where it is not possible to adjust the safety audit programme, the Architect/Engineer should attend the close-out meeting of the safety audit to obtain the preliminary assessment of the safety auditor on the contractor's safety performance for the completion of the respective RCP.

Final Performance Rating

24. The Reporting Officer shall take into account the warning(s) and/or suspension order(s) issued by the Architect/Engineer and the number of Improvement Notice(s) or Suspension Notice(s) issued by the Labour Department during the reporting period in deciding the Final Performance Rating of the "Site Safety" section of the RCP. If the Reporting Officer considers that the Final Performance Rating of the contractor is still satisfactory despite the warning(s)

and/or suspension(s) given, he/she shall put down the justifications in the corresponding "Remarks" box on page 1 of the Score Card.

- 25. A Final Performance Rating of "VP"³ shall be given for any one of the following events
 - (a) more than two (2) Improvement Notice(s) and/or Suspension Notice(s) were issued by the Labour Department to the contractor for a three-month reporting period [or more than one (1) for 6-weekly reporting and more than four (4) for 6-monthly reporting] in respect of separate incidents or safety inspections;
 - (b) failure to revoke a Suspension Notice within 14 days after it was issued;
 (Note: Some improvement measures may need to take more than 14 days to complete. Hence, the Reporting Officer shall check with the Labour Department to confirm whether the contractor's performance is satisfactory in revoking the Suspension Notice which has not been uplifted by 14 days.)
 - (c) repeated non-compliance with safety procedures despite warning(s) given by the Architect/Engineer and/or the Labour Department and failure to rectify the situation within a reasonable time;
 - (d) any suspension of work or sections of work ordered by the Architect/Engineer under the relevant conditions of contract on grounds of site safety;
 - (e) failure to rectify within a reasonable time any situation of "imminent danger" identified by the Architect/Engineer and/or in the contractor's internal audit / safety audit required by the legislation and/or the independent safety audit which is either under the ISAS or arranged by the respective works department; and
 - (f) one or more fatal $\operatorname{accident}(s)^4$ happened within the reporting period.

³ An overall "VP" rating in the "Site Safety" section in the RCP will result in an "Adverse" RCP.

⁴ If there is doubt as to whether the death of a worker occurred on site is caused by an industrial accident, the Labour Department should be consulted. If the nature of death is subsequently confirmed by the Labour Department to be related to construction activities after the reporting period, the project office should re-examine the report and that the effect of the fatal accident should be duly reflected in the assessment.

Guidance Notes for Marking the Sub-items of the Score Card

- (a) The following are areas to be considered during marking of each sub-item. They are meant to be an aide-memoir and are by no means exhaustive. Most of them can be marked through impressions gained during the course of routine site inspections, day-to-day administration and site supervision of the contract. Others are related to record keeping which the Safety Officer are required to incorporate in their monthly safety reports submitted to the Architect/Engineer. The Architect/Engineer can also develop appropriate sub-items, such as demolition, precautionary measures against flooding and typhoon etc., to suit the particular nature of the works in the contract.
- (b) The checklist for marking the sub-items of the Score Card given in this Appendix is fundamental to construction activities in normal situation. The Architect/Engineer may consider incorporating the items into the weekly safety walk checklists for use by the site staff so that a more consistent and objective assessment can be made on the contractors' safety performance during the reporting period.
- (c) It should be noted that some of the safety management requirements, such as policy statements, safety committees, safety representatives etc., set out in these Guidance Notes may only be applicable to contracts where a Safety Plan is required.

1. <u>Provision and maintenance of plant</u>

- 1.1. Lifting plant and equipment (e.g. cranes, wires, slings etc.)
 - Assembly and dismantling of cranes, launching girders and lifting frames carried out by competent person
 - Cranes and lifting gears are tested with relevant certificates issued
 - Cranes inspected by competent persons weekly with forms completed
 - Outrigger extended and securely supported during lifting
 - Competent operator and slinger/signaller employed
 - Hooks, shackles and wire slings are marked with safe working load (SWL) and inspected for wear and tear.
 - Use of proprietary/genuine spares to replace worn out parts (e.g. locking pins)
 - Control system for ensuring the safe use of lifting gears (e.g. colour coding system)
- 1.2. <u>Piling plant and equipment (e.g. material hoist, drilling, boring rigs etc.)</u>
 - All assembling and dismantling carried out by competent person

- Checked and certified before commencement of work on site
- Maintained regularly with records kept
- Use of proprietary spare parts for replacement
- Suitability of type of plant used
- Hooks, shackles and wire slings are marked with SWL and inspected for wear and tear
- Provision of interlocking device for material hoist

1.3. Earth-moving plant (e.g. excavators, backhoes etc.)

- Maintained regularly with records kept
- Competent operators employed
- Use of proprietary spare parts for replacement
- Installation of audible reversing signals and/or flashing signals
- Precaution taken to avoid tipping over of plant near edges of slopes/excavations with the use of markers or stoppers

1.4 <u>Temporary electricity supply system and generators (e.g. power source,</u> <u>switchboards, distribution boards, cable and wiring, connections, earthing etc.)</u>

- Regular checking of electrical supply system by registered electrical worker with records of checking (including earthing resistance) kept
- Connections inside switchboard insulated with casing connected to earth
- Electricity supply protected by circuit breakers (ELCB and MCB)
- Generators (including its casing) are earthed with adequate earthing resistance
- Use of armoured cables / Protection of cables against damage
- Use of weatherproof type plugs/sockets/couplers
- Use of 110V voltage for portable & hand-held tools and temporary site lighting
- Use of 25V voltage for hand-held tools and temporary lighting in confined spaces and damp environment
- Provision of temporary lightning protection system to site office, high plant or high structure if they are not well protected by existing structures nearby

1.5 <u>Welding and cutting equipment (e.g. electric arc/gas welding/cutting etc.)</u>

Electric-arc welding

- Connections should not be exposed
- Condition of welding cables checked for damage
- Ensure adequate earthing and return current
- Screens to contain flying sparks
- Welders provided with appropriate personal protective equipment

Gas welding and cutting

- Gas cylinders kept upright in stands/trolleys with fire extinguishers nearby
- Gas cylinders fitted with flash-back arrestors
- Conditions of gas hoses/pressure gauge checked regularly
- Trailing gas hoses protected from damage and not to cause tripping hazard
- Screens to contain hot slag
- Welders provided with appropriate personal protective equipment

1.6. <u>Construction vehicles (e.g. trucks, dumpers etc.)</u>

- All trucks used on site are licensed or with road worthiness certificates
- Audible warning signals for reverse movements
- Regular maintenance with records kept
- No man-riding on skips or dumpers
- No excessively worn out tires are used

1.7. <u>Powered hand tools (e.g. cartridge-operated tools, grinders, cutters etc.)</u>

- All moving parts guarded and casing not damaged
- Trailing cables kept as short as possible
- Tools stored properly when not in use
- Electrical tools are earthed unless double-insulated
- Plugs and sockets are of weatherproof type
- Regular maintenance with record kept

Cartridge operated tools

- Tools must be type approved by Commissioner for Labour
- Operator must hold a certificate of competency
- Only pins and cartridges which meet the manufacturer's specifications are used
- Tool is only loaded immediately prior to firing and a loaded tool is not left unattended
- When not in use, tools shall be unloaded and kept locked in a box containing instructions on care and operation
- 1.8 <u>Other machinery (e.g. bench circular saw, abrasive wheels, compressed/pneumatic air tools, pumps and vacuum pumps etc.)</u>

Bench Circular Saw

- Crown guard, riving knife and push stick provided
- Emergency switch of push-button type installed
- Underside of bench enclosed
- Regular removal of saw dust

Abrasive wheels

• Name of competent person for mounting of abrasive wheels displayed

- Speed of spindles marked
- Speed of wheel not to exceed that of the spindle
- Protective guard provided
- Emergency switch installed

Compressed/pneumatic air tools

- Regular inspection and maintenance of air compressor
- Air receiver marked with its safe working pressure and fitted with proper pressure gauges and pressure relief valves
- Air receiver tested and certified
- Correct jointing of compressed air supply lines secured by steel wires or strong nylon ropes and regular inspection of connections for wear and tear
- Noise assessment conducted

Pumps and vacuum pumps

- Regular inspection and maintenance of pumps and motors
- Cable with appropriate protection against damage
- Earthing connection provided to pump casing
- Emergency stops and means of isolation provided to pump motors

2. <u>Provision and maintenance of working environment</u>

- 2.1. <u>Housekeeping (e.g. stacking of materials, rubbish disposal etc.)</u>
 - Proper planning for storage of materials
 - Materials are securely stacked and not overloading the supporting structure
 - Adequate bins/skips provided for disposal of waste and regular disposal
 - All passageway/works areas kept clear and free from tripping/slipping hazards
 - Wooden planks/sheeting/stripped formwork are denailed
 - Provision of adequate illumination at workplace
 - Provision of isolation and/or warning notices for plant and equipment temporarily suspended for work execution
 - Site properly fenced off to prevent unauthorized access

2.2. Excavations, trenches and earthworks

- Provision of protection to edges of excavations and trenches to prevent falls
- Adequate shoring provided to support excavations/trenches exceeding 1.2m in depth or with its sides cut to a safe batter
- Precautions taken against flooding or dropping of materials into trenches
- Prevention of vehicles falling into excavations

- Storage and stacking of materials/equipment/plant away from the edges of excavations
- Excavations inspected and examined by a competent person with prescribed form completed
- Provision of surface protection to slopes and cut-off drains at the top to prevent surface erosion
- Precautionary measures taken against damages to utilities with the use of detectors, trial pits etc. before excavation
- Provision of safe access to and egress from excavations
- 2.3. <u>Covers and fencing to openings and fencing to edges</u>
 - Covers of adequate strength provided and securely fixed in position
 - Immediate reinstatement of covers and fencing after temporary removal to facilitate work process
 - Fencing is of adequate strength to prevent persons falling into the opening and edges
 - Provision of intermediate rail to fencing for limiting any horizontal gap to less than 600mm

2.4. Access to and egress from workplaces (e.g. ladders, stairs etc.)

- Sufficient means of access to and egress from workplace are provided
- Ladders of sound material, fixed either at top and at the bottom, inclined at a batter of 4 in 1 and extends 1 metre above the landing point
- Cat ladders provided with protective circular hoops and landing platforms at intervals of no more than 9 metres
- Stairs provided with handrails
- Access and egress are free from obstruction and are of adequate width
- Adequate lighting provided in covered or enclosed workplace

2.5. <u>Scaffolds and working platforms</u>

- Scaffolds are of good construction, made of strong and sound materials and properly maintained
- Scaffolds adequately fixed, secured, tied, braced and founded
- Safe means of access, such as ladders, stairs and handrails provided
- Guardrails and toeboards provided at working platforms
- Working platforms closely boarded
- Warning notices displayed for incomplete or unsafe scaffolds
- Record of inspection of scaffolds on prescribed form
- 2.6. <u>Welfare facilities (e.g. sanitary, washing facilities, drinking water, shelters etc.)</u>
 - Provision of sufficient latrine and washing conveniences

- Provision of changing facilities and lockers
- Provision of adequate supply of drinking water
- Provision of covered areas/shelters for taking refuge in adverse weather

2.7. First aid facilities (e.g. first aid kits, first aiders and stretchers)

- Person trained in first aid, (first aider) available on site with their names and contact telephone number displayed (one first aider for 30 to 99 workmen and at least two for 100 or more workmen)
- First aid box provided at workplace including isolated locations (one first aid box for five or more workmen or cupboard for every 50 workmen or part thereof)
- Booklet "Hints on First Aid" kept in the first aid box
- Provision of a stretcher where there are 50 or more workmen
- Regular checking and replenishment of the provisions in the first aid box

2.8. <u>Traffic diversion and control (e.g. lighting, signing and guarding)</u>

- Movement of traffic for vehicles, plants and pedestrians organized and routes demarcated
- Adequate directional/warning signs erected for traffic control including speed limit sign, etc.
- Adequate lighting, signing and guarding of road works provided in accordance with the Code of Practice for Lighting, Signing and Guarding of Road Works
- Warning signs for construction access erected, e.g. uneven road surface
- Precaution taken to avoid tipping over of construction vehicles and plant near edges of slopes/excavations with the use of markers or stoppers

2.9. Dust suppression, noise control and hazardous waste disposal

- Dust suppression measures such as regular watering and provisions of sheeting for covering up excavated materials during transport
- Use plants with quieter models
- Provision of noise screens/enclosures
- Noise assessments conducted and hearing protection zone notices displayed
- Hazardous materials (e.g. asbestos) removed and disposed by specially trained persons in accordance with statutory requirement
- Provision of adequate ventilation in enclosed area

- 2.10 Use, storage and disposal of dangerous goods and chemicals (e.g. fuels, gas cylinders and other hazardous chemicals, refrigerants, paints, cleansing agents etc.)
 - Obtain permit/exemption certificates for storage of dangerous goods and chemicals
 - Storage not to exceed permitted/exempted quantity
 - Store for inflammable materials provided with suitable fencing and shelter
 - Fuel tank contents identified and NO SMOKING signs displayed
 - Paints, varnishes, lacquers and other volatile painting materials are stored in proper containers with labels
 - Adequate warning labels provided for chemicals
 - Instruction notice on properties of chemicals and treatment procedure displayed

2.11. Fire prevention and protection (e.g. fire extinguishers and escape routes)

- Adequate number of correct types of fire extinguishers provided and prominently located
- Fire fighting equipment are regularly checked for serviceability
- Establishment of fire orders, evacuation procedures and conduct of fire drills
- Fire escape routes kept free of obstructions
- Fire pump set up for water supply to floor levels above 30 m
- Liaison with Fire Services Department
- Layout plans showing fire escape routes and assembly points displayed at prominent positions

2.12. <u>Safety gear and personal protective equipment</u>

- Appropriate safety gear and personal protective equipment provided to workers
- Instruction and training provided to workers on their use and maintenance
- Properly stored and maintained of safety gears/equipment
- Keeping of record for issue of safety gears/equipment and maintenance log

2.13. <u>Innovation on safety measures, devices and installations</u>

- Adopt new safety measures, devices or installations, the type or nature of design or product, of which has not been commonly used in the local construction industry
- Implement some new safety management initiatives that can promote the safety culture and improve the safety awareness of workers
- Modification of existing or commonly used safety measures, device or

installation to suit the site situation which could enhance the required safety standard

- 2.14. <u>Safety inputs/measures beyond contract requirements</u>
 - Adopt safety measures, which are beyond the contractual requirements such as higher standard of fencing and noise control measures etc.
 - Provide more inputs or efforts (such as employment of more safety officers on site or frequent site visit by management staff) than that required under the contract with a view to achieving better safety performance
- 2.15. Fostering an atmosphere for encouraging near miss reporting
 - Provision, maintenance and implementation of initiatives or incentive for encouraging near miss reporting
 - Establishment of an effective/efficient means for reporting near miss incidents
 - Follow-up actions for near miss incidents

2.16. <u>Design and construction of falseworks/temporary works</u>

- Establish an effective mechanism to monitor the compliance of contract provisions on design of falsework/temporary works
- Appoint temporary works coordinator/supervisor
- Maintain a registry recording the dates of submission and approval of all relevant documents including falsework/temporary works design and the associated method statement, risk assessment and checking certificates by the Independent Checking Engineer (ICE)
- Maintain a registry recording date of inspection of falsework/temporary works by ICE
- Falsework/temporary works constructed in accordance with the design certified by ICE and properly maintained throughout their working life
- Records of spot-checking on compliance of contract provisions on design and construction of falsework/temporary works shall be submitted to the Architect/Engineer and sent to the project office for record purpose

3. <u>Provision of information, instruction and training</u>

- 3.1. <u>Safety information, rules and regulations (e.g. safety plan, safety handbook, codes of practice and safety guides)</u>
 - Safety rules (general and specific) and regulations are written in appropriate languages and understandable by all those working on the site

and posted conspicuously on site

- Discussion of safety rules and details of recent serious incidents with supervisors and workers
- Visitors are adequately briefed on general and specific site hazards before visiting site
- Relevant guidance notes, codes of practices, regulations and safety handbooks kept on site for reference and updated regularly
- Safety plans distributed as required under the contract

3.2. <u>Safety promotion and publications (e.g. safety posters, banners, display boards</u> <u>and newsletters)</u>

- Safety promotional activities organized, e.g. quiz, seminars, video and film sessions, competitions, and award schemes such as Model Workers Award, Model Frontline Supervisors Award, Model Site Tidiness & Cleanliness Award
- Participation in safety campaigns organized by the Development Bureau, Labour Department or Occupational Safety and Health Council etc.
- Workers representatives involved in organization of promotional campaigns
- Safety hint-cards, checklist or pamphlets and booklets distributed to workers
- Regular safety newsletters issued to all workers
- A notice board specially assigned for safety where posters, newsletters, newspaper clippings on serious accidents and accident statistics are displayed to promote the safety awareness of the workers
- Banners put up around the site to spread safety messages to workers

3.3 <u>Safety training for site management, supervisory staff, workers, mentors and</u> & 3.4 <u>visitors</u>

- All workers (including those of sub-contractors) received the Labour Department Recognized Mandatory Basic Safety Training Course (Construction Works) (referred to as "Green Card Training") and possess relevant certificate
- All skilled workers (including those of sub-contractors) received the Safety Training Course for Construction Workers of Specific Trade (referred to as "Silver Card Training")
- All workers (including those of sub-contractors) received site specific induction training within 2 working days of any such employee of commencing work on site with refresher training at intervals of 6 months depending on the amount of changes to the site condition
- All site management staff and supervisory staff employed by the Contractor and subcontractors of all tiers to attend the corresponding basic safety training course specified in the contract to commensurate with their

duties

- Specific training provided to staff engaged in hazardous activities, e.g. working in confined space
- Regularly conducted tool-box talks to workers
- A record of training received by all staff kept and reviewed for planning purpose
- Visitors well briefed of hazards and rules of the site before commencing visits
- Sharing session to workers and site personnel on lesson learnt from serious incidents¹ in the industry within 3 working days from the date of accident
- Additional training input provided to the prospective mentors (see second bullet of paragraph 3.5 below) to strengthen their understanding on their importance and responsibility before serving as mentors

3.5 <u>Caring programme for Probationers and New Comers</u>

- All workers who newly join the construction industry (referred to as "Probationers") and workers who have some experience but newly arrive at the construction site (referred to as "New Comers") are given a safety orientation programme covering the essential safety aspects related to the particular construction site
- Assign mentors (with a ratio of 1 mentor to not more than 4 Probationers) who possess good experience on the specific site, for which the Probationers would work at, and for them to look after the Probationers for a period of not less than three months
- All Probationers and New Comers are labelled by a sticker on their safety helmets for a period of not less than three months and two weeks respectively; and removal of identification stickers for Probationers subject to their mentors being satisfied with the safety performance of the Probationers

3.6 <u>Provision of graphical presentation of safety rules & regulations and working procedures</u>

- Workers provided with updated safety rules and regulations in graphical forms
- Development and maintenance of a management system for converting written form of safety rules and regulations into graphical form
- Provision and maintenance of graphical form of working procedures for high risk activities to workers

¹ Serious incidents are as defined in DEVB TC(W) No. 3/2009

3.7 <u>Distribution of reminders on recent serious incidents in construction industry and</u> <u>near miss incidents on Site</u>

• Relevant information provided to the workers within 3 working days from occurrence or upon receiving the same from the site supervisory staff

4. <u>Provision and implementation of safe system of work</u>

4.1. <u>Management's commitment (e.g. safety policy, attitude, supports and efforts)</u>

- Policy statement signed by the company's board level director or an equivalent senior executive
- Management commits to meet statutory/contractual requirements or a higher standard
- The policy identifies senior managers to charge with overall co-ordination and implementation of the policy
- Senior managers are involved actively in implementing the policy, e.g. attending safety tours, safety inspections, safety committee meetings and investigation of serious accidents or incidents
- Section managers/supervisors provided with adequate support and resources
- Safety reports/audit reports and action plan submitted to senior manager for coordinating and monitoring follow-up actions

4.2 <u>Safety organization (e.g. structure, responsibility and safety committees)</u>

- An updated safety organization chart covering all sub-contractors working on site provided
- Responsibility of each individual in the safety organization chart defined
- Sub-contractors are fully aware of their safety responsibilities
- Monitoring of sub-contractors' site safety performance
- Active participation in Site Safety Management Committee
- Safety Plan Implementation Working Group set up where required
- Site Safety Committee attended by senior managers, representatives from all sub-contractors and safety representatives of workers working on site
- Safety performance targets, working procedures, safety plan, accident statistics reviewed in Site Safety Committee meetings
- Minutes of Site Safety Committee meetings distributed, endorsed by the most senior manager and action taken on the basis of its recommendations

4.3. Identification of hazards and risk assessment

• A list of high risk/hazardous activities are identified before work commencement with record kept

- Information on such hazards are made known to those executing the tasks (e.g. posters, briefing and instructions)
- Hazardous areas are fenced off or locked off
- Evaluation of the severity and frequency of the hazard, i.e. written risk assessment
- Frequent inspections made to identify new hazards in view of changing environment

4.4. <u>Developing of control/mitigation measures (e.g. safe working procedures, permit-to-work systems, isolation and tag-off instructions etc.)</u>

- Control/mitigation measures developed according to results of risk assessment
- Risk assessment included in method statement. It is comprehensive and includes, but not limited to, sequence of work, material and equipment to be used, training and instructions to be received by operatives and personal protective equipment to be used.
- Supervisor assigned for ensuring the implementation of control measures for each hazard
- "Permit-to-Enter", "Permit-to-Work", "Hot Work", "Fire Patrol" systems developed for high risk activities or activities with fire risks (e.g. confined spaces and hand-dug caissons)
- Provide isolation and tag-off instructions

4.5. <u>Implementation (e.g. adherence to procedures)</u>

- Before work commences, those executing the tasks should be adequately briefed of the safety procedures and safe working method appropriate to their work
- Supervisor assigned for ensuring precautionary measures stated in safe working procedures/method statements/permit systems are being followed
- Temporary works checked against certified designs and loading certificates issued before loading
- Any changes in site conditions are reported and safe working procedures/method statements revised to suit
- An effective system implemented for the issue, recording, inspection and replacement of personal protective equipment
- Safety co-ordination system established to enhance liaison between sub-contractors

4.6. <u>Monitoring (e.g. safety inspections)</u>

- Adequate supervision to ensure safe working
- Regular inspections (both planned and impromptu inspections) by line managers accompanied by safety personnel

- A system of reporting irregularities observed during inspections and procedures for follow-up actions
- A procedure developed to bring up repeated irregularities to senior manager for follow-up actions
- A programme of self-audits and independent audits planned and implemented

4.7. <u>Review of the system and follow-up improvements</u>

- Review and updating of safety plan to suit site activities
- Review of safety performance against safety targets and prepare action plan for improvement
- Active participation by all personnel involved in hazardous tasks to review existing safety working procedures, method statements etc and recommend areas for improvement
- Prompt implementation of follow-up actions/recommendations in inspection/audit reports

4.8. <u>Emergency preparedness (e.g. emergency procedures, coordinators, drills and rescue teams)</u>

- Emergency procedures established and all personnel are fully aware of such procedures, copies displayed at prominent locations
- Emergency drills are carried out regularly and procedures reviewed
- Emergency team established, contact telephone numbers maintained and updated (including external emergency and rescue services)
- Development and maintenance of a management system for converting written emergency procedures into graphical form
- Provision and maintenance of graphical form of emergency procedures to the workers

4.9. <u>Implementation of Site Safety Cycle (SSC)</u>

- Conducted the activities of SSC including Daily Cycle, Weekly Cycle and Monthly Cycle incorporated in the Construction Site Safety Manual
- Important safety messages relevant to the works had been delivered to all site personnel in the activities of SSC
- Records of spot-checking shall be submitted to the Reporting Officer and sent to the project office for record purpose

5. <u>Employment of safety officer/supervisor</u>

5.1. <u>Competence of safety personnel</u>

- Safety personnel qualification
- Safety personnel has received appropriate training and possess sufficient safety knowledge, skill and experience relevant to work undertaken on site
- Provision of practical advice and comments
- Seek external expert advice readily if required

5.2. <u>Adequacy of attendance and effort</u>

- Regular inspection of sites and prompt issue of inspection reports
- Conducted follow-up visits
- Conducted investigation of incidents/accidents, prepared reports and recommended follow-up actions
- Arranged and conducted safety training if required
- Provided input in preparing working procedures, methods statements, safety plan
- Attended meetings of Site Safety Management Committee and Site Safety Committee
- Issued safety bulletins and newsletters
- 5.3. <u>Records and reporting (e.g. statutory forms, inspection and training records, test</u> and examination records, safety reports and minutes of safety committee <u>meetings)</u>
 - Regular updating of records
 - Prompt issue of inspection reports
 - Submission of monthly safety reports in advance of Site Safety Management Committee meetings
 - Prompt preparation of minutes of Site Safety Committee meetings
 - Monthly safety report is comprehensive and truly reflected site conditions

5.4. <u>Adequate resources, power and support provided by senior management</u>

- Direct communication with senior managers and section managers
- Safety officer given sufficient power to give instructions or cease hazardous operations or dismiss unsafe worker
- Recommendations/advice are given full consideration and supported by senior managers and section managers
- Adequate resources provided by senior management

5.5& <u>Sufficiency of safety officer, safety supervisors and safety representatives</u>

5.6

- Number of safety officers/safety supervisors provided in accordance with contractual/legal requirement and/or compatible with the number of sub-contractors/workers working on site
- Diligence in providing replacement for safety personnel in case of leave or resignation
- Foreman or ganger of each labour group or team appointed as safety representatives

5.7. Engagement of accredited safety supervisors

- "VG" should be marked if 60% or above of the safety supervisors joined the voluntary accreditation scheme for Safety Supervisor (Construction) managed by the Occupational Safety & Health Council
- "G" should be marked if 30% or above but less than 60% of the safety supervisors joined the voluntary accreditation scheme for Safety Supervisor (Construction) managed by the Occupational Safety & Health Council
- "S" should be marked if less than 30% of the safety supervisors joined the voluntary accreditation scheme for Safety Supervisor (Construction) managed by the Occupational Safety & Health Council
- When calculating the above minimum percentages set out for the performance rating, those safety supervisor(s) provided by the contractor beyond contractual requirements with a view to achieving better safety performance should be excluded

6. <u>Site accident record</u>

6.1. <u>Reporting of accidents/Dangerous Occurrence/near miss incidents and</u> <u>under-reporting situation</u>

- Prompt reporting of accidents to the Labour Department
- Prompt notification of serious accidents, Dangerous Occurrences and near miss incidents (with potential for fatality or Dangerous Occurrence), to Architect/Engineer, followed by preliminary accident report within 24 hours
- Submission of detailed report within 7 working days
- Comprehensiveness and depth of accident reports (with sketches and photos)
- All reportable accidents, Dangerous Occurrences and near miss incidents reported to the Architect/Engineer

6.2. <u>Upkeeping and analysis of accident/Dangerous Occurrence/near miss incident</u> <u>statistics</u>

- Accident record include reportable accidents (accident resulting in an injury with incapacity for more than 3 days), non-reportable accidents involving minor injuries, Dangerous Occurrence, near misses, damage to properties and occupational illness
- Regular updating of accident/Dangerous Occurrence/near miss incident statistics
- Distribution of accident/Dangerous Occurrence/near miss incident statistics to senior managers, section managers and relevant parties and statistics displayed on notice boards
- Analysis of statistics to identify common causes and trends in accidents

6.3. <u>Standard of accident/Dangerous Occurrence/near miss incident investigation</u>

- Procedures for accident/Dangerous Occurrence/near miss incident investigation written
- Investigation included incidents involving minor injuries, occupational illness, property damage, Dangerous Occurrence and near miss incidents
- Line manager and/or senior manager participated in investigation
- Depth of investigation and report included recommendations to prevent recurrence and any necessary training required
- Incorporation of interview records, photos and sketches etc.

6.4. <u>Follow-up actions</u>

- Distribution of accident/Dangerous Occurrence/near miss incident investigation report to senior managers, section managers and relevant parties
- Discussion of lessons learnt from accidents/Dangerous Occurrences/near miss incidents during Site Safety Committee meetings
- Review existing safe working procedures and method statements to check if recommendations contained in investigation report are properly incorporated
- Issue revisions to existing safe working procedures/method statement
- Time table set up to implement recommendations where appropriate
- Review if there is any need for specific training