



REFERENCE MATERIAL

on Safety Roles and Responsibilities of Key Stakeholders in the Hong Kong Construction Industry

Practical Reference Guidance On Lifting Operation

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Disclaimer

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

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Appendix I – Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Lifting Operation"

Preface

The Construction Industry Council (CIC) is committed to seeking continuous improvement in all aspects of the construction industry in Hong Kong. To achieve this aim, the CIC forms Committees, Task Forces and other forums to review specific areas of work with the intention of producing Alerts, Reference Materials, Guidelines and Codes of Conduct to assist participants in the industry to strive for excellence

The CIC appreciates that some improvements and practices can be implemented immediately whilst others may take more time to adjust. It is for this reason that four separate categories of publications have been adopted, the purposes of which are as follows:

Alerts	Alerts are reminders in the form of brief leaflets produced quickly					
	to draw the immediate attention of relevant stakeholders to the					
	need to follow some good practices or to implement some					
	preventive measures in relation to the construction industry.					

Reference	Reference materials for adopting standards or methodologies in
Materials	such ways that are generally regarded by the industry as good
	practices. The CIC recommends the adoption of relevant
	Reference Materials by industry stakeholders where appropriate.

Guidelines	Guidelines provide information and guidance on particular topics
	relevant to the construction industry. The CIC expects all industry
	stakeholders to adopt the recommendations set out in relevant
	Guidelines where applicable.

Codes of	Codes of Conduct set out the principles for all relevant industry
Conduct	participants to follow. Under the Construction Industry Council
	Ordinance (Cap. 587), the CIC is tasked to formulate codes of
	conduct and enforce such codes. The CIC may take necessary
	actions to ensure compliance with the codes.

We encourage you to share your feedback with us. Please take a moment to fill out the Feedback Form attached to this publication for us to further enhance this publication for the benefit of all concerned. With our joint efforts, we believe our construction industry will develop further and will continue to prosper for years to come

Purpose

The aim of this "Practical Reference Guidance on Lifting Operation (PRG)" is to provide a technical-based guidance to the stakeholders who may perform lifting operation in their project. Under section 6A of the Factories and Industrial Undertakings Ordinance (Cap. 59), the proprietor of an industrial undertaking has a duty to ensure, so far as is reasonable practicable, the health and safety at work of all persons employed by him at the industrial undertaking. This type of performance-based legislation requires the duty holders to conduct risk assessment to identify the hazards inherent in the process and develop appropriate precautions for remedy, including provision and maintenance of a safe system of work.

This PRG is written in a process-based approach so as to narrow down the scope of work of the duty holders based on the "Stakeholder Model". The purpose is to confine its application to the process of lifting operation. Readers should note that it is not feasible for CIC to develop a PRG for each and every lifting task due to various variable factors. Readers can nevertheless model on this PRG to develop their own system of work in lifting to fulfill their legal duty under section 6A of the Factories and Industrial Undertakings Ordinance (Cap. 59). Stakeholders' complied with this reference should not be deemed as complied with statutory requirements.

There are altogether 4 PRGs published, covering lifting operation, work-above-ground, erection and dismantling of scaffold or platform and electrical work.

This publication focuses on the process of **Lifting Operation**. It provides a step-by-step guidance for the industry stakeholders to develop a safe system of work for lifting before commencement the work. This PRG, for the purpose of widening its applicability to different lifting processes, is based on type of operation instead of task, after taking considering the various types of lifting tasks involved which concern use of different types of LALG, different work environment, different natures of load, etc.

This PRG, unlike other guidance documents for safety at work, emphasizes not only on the ways how the work should be safely carried out, but also on the ways how the work should be safely carried out by respective persons who are playing respective roles at a designated level in a project organisation.

1. Usage of Practical Reference Guidance

This PRG is specially prepared for those who will / are involved in lifting operation. Such lifting operation needs to be controlled by a well established safe system of work which is actually a legal requirement under section 6A of the Factories and Industrial Undertakings Ordinance (Cap. 59).

This PRG is modeled on the five steps in a safe system of work given in the guidebook "Safe Systems of Work" (Labour Department, 2004) and provides practical guidance for the stakeholders at tactical level to draw up safe work procedures as required by law.

At tactical level, the project- in-charge can follow the step-by-step guidance to call up risk assessment team, develop safe system of work, deploy suitable lifting equipment and competent lifting team members to take up respective post during lifting to reduce, so far as is reasonable foreseeable, any risk inherent in the lifting operation.

At operational level, the PRG provides guidance to those in supervisory functions on safety inspection and document checking.

At behavioural level, the PRG provides guidance on proper work procedures for workers to follow and to reduce human errors at work.

2. Practical Reference Guidance on Lifting Operation

2.1 Principle

The PRG adopts the Six-step Approach to ensure that the hazards are eliminated or the risk minimized through a systematic way that include:

- 1. Assessing the task;
- 2. Identifying the hazards;
- 3. Defining safe methods;
- 4. Implementing the system;
- 5. Monitoring the system; and
- 6. Reviewing the system

The PRG aims to help the construction industry stakeholders to propose the responsibilities of each respective stakeholder in a construction project according to their designated roles and functions. The proposal makes reference to the construction industry in following ways:

- For project controller at strategic level (i.e. developer / client) to demonstrate safety commitments and draw up tendering documents and contract specifications;
- For company directors at strategic level to draw up job specifications for project staff before deployment;
- 3. For project-in-charge at tactical level to draw up project safety plan;
- For project supervisors at operation level to execute the supervision plan; and
- For operators at execution level to understand their rights and responsibilities in execution of the works.

2.2 Six-step Approach

The ten steps involved in the recommended six-step approach are listed as followings:

- 1. Preparation of lifting plan in pre-lifting operation
- 2. Conduct of risk assessment to define safe lifting method
- 3. Establishment of safe lifting procedures
- 4. Selection of suitable lifting appliances and lifting gear (LALG)
- Inspection, testing and examination of lifting appliances and lifting gear
- 6. Assurance of competence of lifting team
- 7. Training of safe lifting procedures
- 8. Implementation of safe lifting procedures
- 9. Monitoring on adherence of safe lifting procedures
- 10. Review of safe lifting procedures

2.3 Safety Roles and Responsibilities of stakeholders at different levels

Safety is never a single person responsibility. It is an integrated science requiring inputs from different people with different safety roles and responsibilities. Different people at different levels have to jointly exercise their functions and contribute their knowledge / experiences in accordance with their respective roles and responsibilities.

A. Client / Developer

1. Preparation of lifting plan in pre-lifting operation

Strategic Level:

The client / developer should take part in pre-lifting planning and allocate sufficient time and resources to the appointed contractor to prepare the lifting plan. They should also take up the responsibility of selecting and appointing competent contractor to undertake the lifting operation. During the pre-lifting operation, they should convene design out risk review meeting with the contractor and designer, if so appointed, to check compliance of the design out risk lifting.

- Conduct of risk assessment to define safe lifting method
 N/A
- Establishment of safe lifting procedures N/A
- Selection of suitable lifting appliances and lifting gear(LALG)
 N/A
- Inspection, testing and examination of lifting appliances and lifting gear N/A
- Assurance of competence of lifting team
 N/A
- 7. <u>Training of safe lifting procedures</u> N/A
- 8. <u>Implementation of safe lifting procedures</u>
 N/A
- Monitoring on adherence of safe lifting procedures N/A
- Review of safe lifting procedures
 N/A

B. Client's Representative

1. Preparation of lifting plan in pre-lifting operation

Strategic Level:

The client's representative, acting on behalf of the client, should advise the client on selection and appointment of a competent contractor to carry out lifting operation and advise the client on the requirements and standards set in the contract for lifting. They should also participate in the design out risk meeting to give advice on the design out risk to the designer and contractor.

2. Conduct of risk assessment to define safe lifting method

Tactical Level:

The client's representative, acting on behalf of the client, should advise the client on selection and appointment of a competent contractor to carry out lifting operation and advise client on the requirements and standards set in the contract for lifting. They should also participate in the design out risk meeting to give advice on the design out risk to designer and contractor.

Operational Level:

The supervisory staff should participate in risk assessment meeting and provide feedback on associated hazards and workability of control measures

3. Establishment of safe lifting procedures

Tactical Level:

The client's representative should review the safe lifting procedures submitted by the contractor and countersign the procedures to confirm that legal requirement and contract specifications are met.

4. Selection of suitable lifting appliances and lifting gear

Tactical Level:

The client's representative should review the appropriateness of the lifting equipment to ensure they are in compliance with the legal requirement and contract specifications and endorse the deployment of them.

Operational Level:

The supervisory staff should provide feedback on the suitability and appropriateness of the lifting equipment deployed.

Inspection, testing and examination of lifting appliances and lifting gear N/A

6. Assurance of competence of lifting team

Tactical Level:

The client's representative should review the criteria of competence for lifting team members against the contract specifications and endorse the lifting team members.

7. Training of safe lifting procedures

Tactical Level:

The client's representative should review the safety training plan to check that it is in line with the contract specifications and approve the training plan.

Operational Level:

The client's representative should having supervisory roles and participate in the safety training to understand safe lifting procedures.

8. Implementation of safe lifting procedures

Tactical Level:

The client's representatives should review and monitor the precautions in the permit to lift to ensure that they adhere to the legal requirement and contract specifications.

9. Monitoring on adherence of safe lifting procedures

Operational Level:

The client's representative should conduct inspection to ensure adherence of safe lifting procedures and to suspend work that would create imminent risk of bodily injury.

10. Review of safe lifting procedures

Tactical Level:

The client's representative should participate in review meeting and provide views on feedback from front line lifting team members.

C. Designer

1. Preparation of lifting plan in pre-lifting operation

Strategic Level:

The designer can be an architect / engineer / surveyor / interior designer and any person who specifies a design or specifies a particular method of work or material. Different designers of specific expertise may be involved. The designer contributes to or has the responsibility to plan and manage pre-lifting design through design out risk for lifting and/or drawing up of the specifications of any part of the project works. He / she should participate in the design out risk meeting and communicate with the client and contractor on residue risk design and its mitigation measures.

Conduct of risk assessment to define safe lifting method N/A

3. Establishment of safe lifting procedures

N/A

Selection of suitable lifting appliances and lifting gear N/A

Inspection, test and examination of lifting appliances and lifting gear N/A

6. <u>Assurance of competence of lifting team</u>

N/A

7. Training of safe lifting procedures

N/A

8. Implementation of safe lifting procedures

N/A

9. Monitoring on adherence of safe lifting procedures

N/A

10. Review of safe lifting procedures

N/A

D. Main Contractor

1. Preparation of lifting plan in pre-lifting operation

Strategic Level:

The main contractor at head office level should make decision on how the legal requirement and contract specifications should be followed. He / she should participate in design out risk meeting and provide sufficient supports and resources for project staff to carry out the work and to set up responsibility and accountability system to ensure that the lifting plan and procedures are strictly adhered to.

2. Conduct of risk assessment to define safe lifting method

Tactical Level:

The main contractor should set up responsibility and accountability structure in the project organization to ensure that the lifting plan and procedures are strictly adhered to. The project-in-charge should establish a risk assessment team consisting of project staff from different levels and convene risk assessment meeting on a regular basis and when situation warrants. The project-in-charge should also incorporate inputs from design out risk meeting by the client, designer and senior management at head office into the risk assessment.

Operational Level:

The supervisory staff should participate in risk assessment meeting and provide feedback on associated hazards and workability of control measures.

Behavioural Level:

The workers involved in lifting operation should participate in risk assessment meeting and provide feedback on associated hazards and workability of control measures.

3. Establishment of safe lifting procedures

Tactical Level:

The main contractor should endorse the safe lifting procedures prepared by the safety personnel according to the resolution of the risk assessment team. He / she should also provide sufficient resources for implementation of the safe lifting procedures and set up safety in-house rules to ensure that the safe lifting procedures are strictly followed.

4. Selection of suitable lifting appliances and lifting gear

Tactical Level:

The operation-in-charge should provide sufficient resources to deployment of suitable and appropriate lifting equipment.

Operational Level:

The supervisory staff should provide feedback on the suitability and appropriateness of the lifting equipment deployed.

Behavioural Level:

The workers in the front line should provide feedback on the suitability and appropriateness of the lifting equipment deployed.

5. <u>Inspection, test and examination of lifting appliances and lifting gear</u> Tactical Level:

Main contractor should appoint a competent examiner for testing and examination of lifting appliances and lifting gear and a competent person for inspection of lifting appliances and lifting gear before use and on weekly basis.

Operational Level:

The appointed competent examiner should test and examine the lifting appliances and lifting gear in accordance with the legal and contractual requirements, and issue a certificate by the competent examiner in the approved form stating that the lifting appliance and Lifting gear are in safe working condition, otherwise the appliance or gears shall not be used. Any damage found during the testing and inspection in lifting appliance and lifting gear should be reported to site safety personnel and the owner.

The appointed competent person should inspect the lifting appliances and lifting gear as required by law and the contract and issue a certificate by the competent person in statutory form stating the lifting appliances and lifting gear. It is in a safe working condition, otherwise the lifting appliance and lifting gears cannot be used. If any damage is found during the inspection. They should report to the safety personnel on the work site and their owners.

Behavioural Level:

The front line lifting members should ensure that the lifting gear is inspected by a competent person before use.

6. Assurance of competence of lifting team

Tactical Level:

The main contractor should appoint crane operator to operate the crane, appoint lifting supervisor to supervise the lifting operation, appoint rigger and signalman to assist in lifting operation.

Operational Level:

The supervisors should assess the suitability of the competence of the lifting team members and provide feedback on suitability of their competence for discussion.

7. Training of safe lifting procedures

Tactical Level:

The main contractor should ensure that the lifting team members are trained up for the necessary competence and the safe lifting procedures. He/she should endorse the safe lifting training plan and provide sufficient time and resources for the safety training.

Operational Level:

Those personnel having supervisory roles should participate in the safety training to understand safe lifting procedures.

Behavioural Level:

The front line lifting members should participate in the safety training to understand safe lifting procedures.

8. Implementation of safe lifting procedures

Tactical Level:

The project-in-charge should ensure works are adhered to the endorsed lifting procedures. If works warrants, the application of permit to lift is needed

Operational Level:

The supervisory staff should apply for permit to lift before lifting operation and to ensure lifting operations are carried out under permit to lift.

Behavioural Level:

The front line lifting members should adhere to the safe lifting procedures and carry out lifting operation only under permit to lift.

9. Monitoring on adherence of safe lifting procedures

Tactical Level:

The main contractor should develop disciplinary policy to enforce lifting rules and procedures. The main contractor should ensure an effective inspection program is in place and delegates sufficient authority to front line supervisors to suspend work that create imminent risk of bodily injury. If corrective actions are proposed, the main contractor should endorse the corrective actions promptly for quick remedy.

Operational Level:

All supervisory staff should monitor the adherence of safe lifting procedures and ensure that unsafe lifting equipment is not used.

10. Review of safe lifting procedures

Tactical Level:

The main contractor should establish channel for feedback from front lines and ensure reported hazards are promptly followed up. He / she should also convene review meeting on regular basis or when situations warrant such as change of lifting appliances and lifting gear, change in lifting process or when accident happened.

Operational Level:

The supervisory staff should participate in review meeting and report feedback from front line lifting team members.

Behavioural Level:

The front line lifting team members of the main contractor and subcontractor of any tiers should report hazards to their supervisors for corrective actions. They should not only provide feedback on control measures, but also make suggestions to improve safe lifting.

F Sub-contractor

1. Preparation of lifting plan in pre-lifting operation

The sub-contractor should work with the main contractor to develop a lifting plan.

2. Conduct of risk assessment to define safe lifting method

Tactical Level:

The sub-contractor should set up responsibility and accountability structure in the project organization to ensure the lifting plan and procedures are strictly adhered to. The sub-contractor should establish a risk assessment team consisting of project staff from different levels and convene risk assessment meeting on a regular basis and when situation warrants. The project-in-charge should also incorporate inputs from design out risk meeting by the client, designer and senior management at head office into the risk assessment.

Operational Level:

The supervisory staff should participate in risk assessment meeting and provide feedback on associated hazards and workability of control measures

Behavioural Level:

The workers involved in lifting operation should participate in risk assessment meeting and provide feedback on associated hazards and workability of control measures.

3. Establishment of safe lifting procedures

Tactical Level:

The sub-contractor should endorse the safe lifting procedures prepared by the safety personnel according to the resolution of the risk assessment team. He / she should also provide sufficient resources for implementation of the safe lifting procedures and set up safety in-house rules to ensure the safe lifting procedures are strictly followed.

4. Selection of suitable lifting appliances and lifting gear

Tactical Level:

The subcontractor should provide sufficient resources to deployment of suitable and appropriate lifting equipment.

Operational Level:

The supervisory staff should provide feedback on the suitability and appropriateness of the lifting equipment deployed.

Behavioural Level:

The workers in the front line should provide feedback on the suitability and appropriateness of the lifting equipment deployed.

Inspection, test and examination of lifting appliances and lifting gear Tactical Level:

The sub-contractor should appoint a competent examiner for testing and examination of lifting appliances and lifting gear and a competent person for inspection of lifting appliances and lifting gear before use and on weekly basis.

Operational Level:

The appointed competent examiner should test and examine the lifting appliances and lifting gear in accordance with the legal and contractual requirements, and issue a certificate by the competent examiner in the approved form stating that the lifting appliance and Lifting gear are in safe working condition, otherwise the appliance or gears shall not be used. Any damage found during the testing and inspection in lifting appliance and lifting gear should be reported to site safety personnel and the owner.

The appointed competent person should inspect the lifting appliances and lifting gear as required by law and the contract and issue a certificate by the competent person in statutory form stating the lifting appliances and lifting gear It is in a safe working condition, otherwise the lifting appliance and lifting gears cannot be used. If any damage is found during the inspection. They should report to the safety personnel on the work site and their owners.

Behavioural Level:

The front line lifting members should ensure that the lifting gear is inspected by a competent person before use.

6. Assurance of competence of lifting team

Tactical Level:

The sub-contractor should appoint crane operator to operate the crane, lifting supervisor to supervise the lifting operation, and rigger and signalman to assist in lifting operation.

Operational Level:

The supervisors of the subcontractors of any tiers should assess the suitability of the competence of the lifting team members and provide feedback on suitability of their competence for discussion.

7. Training of safe lifting procedures

Tactical Level:

The sub-contractor should ensure lifting team members are trained up for the necessary competence and the safe lifting procedures. He should endorse the safe lifting training plan and provide sufficient time and resources for safety training.

Operational Level:

For subcontractor of any tiers, those personnel having supervisory roles should participate in the safety training to understand safe lifting procedures.

Behavioural Level:

For subcontractor of any tiers, the front line lifting members should participate in the safety training to understand safe lifting procedures.

8. Implementation of safe lifting procedures

Tactical Level:

The sub-contractor should ensure that works are adhered to the endorsed lifting procedures. If works warrants, the application of permit to lift is needed

Operational Level:

For subcontractor of any tiers, the supervisory staff should apply for permit to lift before lifting operation and to ensure lifting operations are carried out under permit to lift.

Behavioural Level:

For subcontractor of any tiers, all front line lifting members should adhere to safe lifting procedures and carry out lifting operation only under permit to lift.

9. Monitoring on adherence of safe lifting procedures

Tactical Level:

The sub-contractor should develop disciplinary policy to enforce lifting rules and procedures. He should ensure an effective inspection program is in place and delegates sufficient authority to front line supervisors to suspend work that create imminent risk of bodily injury. If corrective actions are proposed, he should endorse the corrective actions promptly for quick remedy.

Operational Level:

For subcontractor of any tiers, all supervisory staff should monitor the adherence of safe lifting procedures and ensure that unsafe lifting equipment are not used.

10. Review of safe lifting procedures

Tactical Level:

The sub-contractor should establish channel for feedback from front lines and ensure reported hazards are promptly followed up. He should also convene review meeting on a regular basis or when situations warrant, such as change of lifting appliances and lifting gear, change in lifting process or when accident happens.

Operational Level:

For subcontractor of any tiers, the supervisory staff should participate in review meeting and report feedback from front line lifting team members

Behavioural Level:

For subcontractor of any tiers, all front line lifting team members should report hazards to supervisors for corrective actions. They should not only provide feedback on control measures, but also make suggestions to improve safe lifting.

F. Safety Personnel

1. Preparation of lifting plan in pre-lifting operation

Tactical Level:

The safety personnel should understand the legal and contractual requirements of lifting operation and assist in preparing the lifting plan.

2. Conduct of risk assessment to define safe lifting method

Tactical Level:

For main contractor and subcontractors, the safety personnel should participate in the risk assessment meeting, and assist in the identification of hazards in the lifting and communication of hazards to the risk assessment team for discussion on control measures to eliminate or reduce the risk at source according to the legal requirement and contract specifications.

3. Establishment of safe lifting procedures

Tactical Level:

For main contractor, the safety personnel who attends the risk assessment meeting should record the resolutions of the meeting and prepares the safe lifting procedures according to the resolutions of the meeting.

4. Selection of suitable lifting appliances and lifting gear

Tactical Level:

For main contractor and subcontractor, the safety personnel should check and provide information on the statutory standards and contract specifications of the lifting equipment in the endorsed safe lifting procedures.

Inspection, test and examination of lifting appliances and lifting gear Tactical Level:

The safety personnel of main contractor or subcontractors of any tiers should ensure inspection, test and examination of lifting equipment are arranged by the owner. After inspection, testing and examination, the safety personnel should file the reports to the competent person and competent examiner and make them available for inspection by relevant persons.

6. Assurance of competence of lifting team

Tactical Level:

For safety personnel of main contractor or subcontractors at any tiers, they should check the legal requirements and contract specifications on competence of the lifting team members and specify criteria for their respective competence requirements.

7. Training of safe lifting procedures

Tactical Level:

For main contractor and subcontractor at any tiers, the safety personnel should prepare safety training plan and identify targets for training. Once the safety training plan has been endorsed by the project-in-charge, the safety personnel should monitor the implementation of the training plan and keep training record updated for future review.

8. Implementation of safe lifting procedures

Tactical Level:

For main contractor and subcontractor of any tiers, the safety personnel should check and verify the precautions entered in the permit to lift to ensure that they are in place before lifting operation commences.

9. Monitoring on adherence of safe lifting procedures

Tactical Level:

For main contractor and subcontractor of any tiers, the safety personnel should conduct inspection to oversee performance of the lifting and follow-up the endorsed corrective actions. If he comes across any dangerous situations, he/she should immediate suspend the work that would create imminent risk of bodily injury. On a regular basis, he should prepare performance data sheet for analysis.

10. Review of safe lifting procedures

Tactical Level:

For main contractor and subcontractor of any tiers, the safety personnel should consolidate feedback from front line for discussions in review meetings. He / she should also participate in review meeting and provide views on feedback from front line lifting team members.

A matrix showing the Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Lifting Operation" is given in Appendix 1 for reference.

Appendix I – Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Lifting Operation"

		Position (Subject to individual organisiation decision and arrangement)	Preparation of lifting plan in pre-lifting operation	Conduct of risk assessment to define safe lifting method	Establishment of safe lifting procedures	Selection of sutiable lifting appliances and lifting gear
	Client / Developer	Project Director, Project Manager, etc.	Ensure design out risk system in place Allocate sufficient time and resources Select and appoint competent designer and contractor Convene design out risk meeting			
Strategic Level (High-level Decision Making)	Client's Representative	Architect, Principle Engineer	Advise on requirements in contract Advise on selection and appointment of contractor Participate in design out risk meeting			
(High-level Decision Making)	Designer	Architect, Engineer	Plan and manage pre-lifting design Communicate residue risk on design Participate in design out risk meeting			
	Main Conractor	Director, Project Director, Contract Manager, etc.	Ensure accountability system in place Provide sufficient time and resources Participate in design out risk meeting			
	Client's Representative	Architect, Resident Engineer		Participate in risk assessment Review solution of residue risk on design B2	Review and comment safe lifting procedures B3	Review and comment the selection of LALG B4
Tactical Level (Line Management Function)	Main Contractor / Subcontractor	Project Manager, Construction Manager, Site Agent, Superintendent, etc.		Set up accountability system Establish risk assessment team Convene risk assessment meeting Decide solution of residue risk on design	Prepare and endorse the safe lifting procedures Set up safety rules and disciplinary policy for enforcement Develop relevant permit-to-work system Provide sufficient resources	Provide sufficient resources D4 / E4
	Main / Subcontractor Safety Personnel	Safety Manager, Safety Officer, Safety Supervisor, Safety Representative	Understand the legal and contractual requirment F1	Participate in risk assessment Assist in identifying hazards Provide advice on control measures Record solutions on risk assessment	Assist the preparation of safe lifting procedures F3	Advice legal standards for LALG F4
	Client's Representative	Inspectorates, Work Supervisors, etc.		Participate in risk assessment Feedback on hazards and controls		Feedback on suitability of LALG B4
	Main Contractor / Sub-contractor	Engineer, Superviser, Foremen, etc.		Participate in risk assessment Feedback on hazards and controls D2 / E2		Feedback on suitability of LALG D4 / E4
Operation Level (Supervising Function)	Competent Examiner / Competent Person	Competent Examiner - RPE Competent Person - Person appointed by the onwer according the regulation				
Behavioural Level (Works Executing Fucntion)	Main Contractor / Subcontractor	Rigger / Signalmen / Operator		Participate in risk assessment Feedback on hazards and workability of controls D2 / E2		Feedback on suitability of LALG D4 / E4

Appendix I – Safety Roles of Respective Stakeholders and their Safety Responsibilities at Respective Level correlating to each step of the "Practical Reference Guidance on Lifting Operation"

Inspection, testing and examination of lifting appliances and lifting gear	Assurance of competence of lifting team	Training of safe lifting procedures		Implementation of safe lifting procedures	Monitoring on adherence of safe lifting procedures	Review of safe lifting procedures
	Review and comment competence of lifting team	Review and comments on training plan	B7	Review and monitor the permit-to-work	Monitor submission of permit to lift Delegate authority for suspension of work	Participate in review meeting Provide views on feedback B10
Appoint competent examiner Appoint competent person Arrange CP / CE to conduct inspection, test and examination of LALG D5 / E5	Appoint crane operator Appoint lifting supervisor to supervise lifting operation Appoint riggers to assist lifting operation Appoint signalman to assist lifting operation	Endorse safe lifting training plan Appoint suitable trainers Provide sufficient time and resources Ensure safety training to all required levels Ensure train up for necessary competence	D7/E7	Ensure adherence of lifting procedures Endorse the permit-to-work system D8 / E8	1. Enforce the disciplinary policy 2. Delegate authority for suspension of work 3. Ensure effective inspection 4. Endorse corrective actions	1. Establish channel for feedback 2. Ensure reported hazards / suspension of work are promptly reviewed 3. Convene review meeting on need basis
Ensure inspection, test and examination schedule in place Ensure reports from CP and CE available for inspection	Ensure the appointment compile with legal standards F6	I. Identify targets for training Prepare training plan Monitor implementation of training plan Keep record of safety training	F7	Ensure adherence of lifting procedures Comment on the details of permit-to-work F8	Conduct inspection Prepare inspection analysis Follow-up endorsed corrective actions Suspend work with imminent risk	Consolidate feedback for discussions Participate in review meeting Provide views on feedback F10
		Attend safety training	B7		Conduct inspection Suspend work with imminent risk Propose corrective actions	Provide views on feedback Report feedback B10
Ensure CP to conduct inspection of LALG D5 / E5	Feedback on suitability of competence D6 / E6	Attend safety training	D7 / E7	Apply permit-to-work before lifting Ensure lifting carry out under permit D8 / E8	Conduct inspection Suspend work with imminent risk Propose corrective actions D9 / E9	Participate in review meeting Report feedback D10 / E10
Competent Examiner 1. Test and examination of LALG 2. Enter results in approved form 3. Deliver reports to owners 4. Report defects detected to owners and LD						
Competent Person 1. Inspect and test functions of LA 2. Enter result in approved form 3. Deliver reports to owner 4. Report defects detected to owner						
Ensure lifting gear is inspected before use B5 / E5		Attend safety training	D7 / E7	Adhere to safe lifting procedures and permit to lift Report to supervisor on hazards if identified Stop work on hazards if identified		Report hazards to supervisor Give feedback Make suggestions for improvement D10 / E10



Feedback Form [Reference Material on Safety Roles and Responsibilities of Key Stakeholders in the Hong Kong Construction Industry - Practical Reference Guidance On Lifting Operation]

Thanks for reading this publication. To pursue improvement in our future versions, we appreciate your valuable suggestions.

(Please put a " ✓ " in the appropriate box)

1. As a whole, I feel that the publication is:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Informative					ū	
Comprehensive						
Useful						
Practical						
2. Does the publication enable you to	Yes		No No Con		Comment	
understand more about the Safety Roles and Responsibilities of Key Stakeholders on Lifting Operation?						
3. Have you made reference to the publication	Quite Of	ten	Sometimes	N	lever	
in your work?						
4. To what extent have you incorporated the	Most		Some	١	None	
recommendations of the publication in your work?						
5. Overall, how would you rate the	Excellent	Very Good	Satisfactory	Fair	Poor	
publication?						
6. Please give any other comments and suggestions (use separate sheets if necessary).						
Personal Particulars (optional)* :						
Name : Mr. / Mrs./ Ms./ Dr./ Prof./ Ir / Sr ^						
Company :						
Tel :						
Address :						
E-mail :						

Please send this feedback form to:

CIC, Construction Safety - Industry Development

E-mail: enquiry@cic.hk

Address: 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Hong Kong

Fax No : (852) 2100 9090

^{* 1.} The information you provide to the Construction Industry Council ('CIC'), including any personal data as defined in the Personal Data (Privacy) Ordinance ('Ordinance'), will be used solely for purposes related to the activities of the CIC.

^{2.} The CIC will not transfer your personal data to any third parties without your prior consent.

^{3.} It is not obligatory for you to supply the CIC with personal information in this form.

^{4.} You are also entitled to request access to and correction of any errors in your personal data. If you wish to do so please write to the CIC at 38/F COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon.

[^] Circle the appropriate option.