



GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT

3 KAI SHING STREET, KOWLOON, HONG KONG

**Sample Specifications for
Engagement of Independent Registered Lift Engineer for Lift Maintenance Audit**

January 2016

DISCLAIMER

Please read the following terms and conditions carefully before using these sample specifications. By using these sample specifications you agree to abide by the terms and conditions set out below.

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NOTES TO RESPONSIBLE PERSONS FOR LIFTS FOR ADOPTING THESE SAMPLE SPECIFICATIONS

These sample specifications serve to assist responsible persons for lifts ("responsible persons" hereafter), e.g. building owners and management agencies, to engage independent registered lift engineers for lift maintenance audit.

Responsible persons may consider using some of the terms and conditions contained in these sample specifications for preparation of their own procurement documents for engaging independent registered lift engineers for lift maintenance audit.

This document is not meant to suit the needs of all responsible persons, and therefore should not be indiscriminately adopted. Responsible persons must carefully consider their own circumstances, needs and budget, and adjust the specifications according to their own desired performance levels. Circumstances to consider may include specific user requirements on the methodology of the audit, the content of the audit report, and the availability of professional representatives acting on behalf of the owners, to name but a few.

[Note: The text in *italic* shall be inputted by the responsible persons for lifts to suit their own needs.]

PARTICULAR SPECIFICATIONS FOR ENGAGEMENT OF INDEPENDENT REGISTERED LIFT ENGINEER FOR LIFT MAINTENANCE AUDIT

1. General

- 1.1 This Contract is to employ an independent registered lift engineer to carry out audit on the quality of lift maintenance works carried out by the current registered lift contractor. The audit shall involve identifying any shortfall in the lift maintenance works and advising the corresponding best practices for improvement.
- 1.2 The audits and the associated inspections shall be carried out in accordance with the requirements stipulated in the latest edition of the Code of Practice for Lift Works and Escalator Works issued by Electrical and Mechanical Services Department, Government of the Hong Kong Special Administrative Region.
- 1.3 This Contract shall be governed by and construed in all respects according to the laws for the time being in force in Hong Kong.

2. Sites of the Works

- 2.1 The lifts involved in the audit under this Contract are summarized in the table below.

| Location ID | Address |
|---------------------|---|
| <i>XXXXXXXX-XXX</i> | <i>ABC Building, ABC Street, Kowloon Bay, Kowloon</i> |
| <i>XXXXXXXX-XXX</i> | <i>ABC Building, ABC Street, Kowloon Bay, Kowloon</i> |
| <i>XXXXXXXX-XXX</i> | <i>ABC Building, ABC Street, Kowloon Bay, Kowloon</i> |
| <i>XXXXXXXX-XXX</i> | <i>ABC Building, ABC Street, Kowloon Bay, Kowloon</i> |
| <i>XXXXXXXX-XXX</i> | <i>ABC Building, ABC Street, Kowloon Bay, Kowloon</i> |

3. Standards and Specifications

- 3.1 The Contractor shall make reference to the latest edition/version of following statutory requirements, site safety regulatory requirements, codes of practice, circulars, technical standards, publications and specifications in carrying out the Works:
 - (a) Lifts and Escalators Ordinance (Cap.618), and other subsidiary legislation(s)
 - (b) Electricity Ordinance (Cap.406), and other subsidiary legislation(s)
 - (c) Occupational Safety and Health Ordinance (Cap.509), and other subsidiary legislation(s)
 - (d) Factories and Industrial Undertakings Ordinance (Cap.59), and other subsidiary legislation(s), including but not be limited to Construction Site (Safety) Regulation
 - (e) Code of Practice on the Design and Construction of Lifts and Escalators issued by Electrical and Mechanical Services Department, Government of the Hong Kong Special Administrative Region

- (f) Code of Practice for Lift Works and Escalator Works issued by Electrical and Mechanical Services Department, Government of the Hong Kong Special Administrative Region
- (g) Code of Practice on the Design and Construction of Buildings and Building Works for the Installation and Safe Use of Lifts and Escalators issued by Building Authority, Government of the Hong Kong Special Administrative Region
- (h) Code of Practice for Safety at Work (Lift & Escalator) issued by Labour Department, Government of the Hong Kong Special Administrative Region
- (i) Code of Practice for the Electricity (Wiring) Regulations published by Electrical and Mechanical Services Department, Government of the Hong Kong Special Administrative Region
- (j) Code of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment issued by Fire Services Department, Government of the Hong Kong Special Administrative Region
- (k) General Specification for Lift, Escalator and Passenger Conveyor Installation in Government Buildings of the Hong Kong SAR, issued by the Architectural Service Department, Government of the Hong Kong Special Administrative Region
- (l) Testing and Commissioning Procedure for Lift, Escalator and Passenger Conveyor Installation in Government Buildings of the Hong Kong SAR, issued by Architectural Service Department, Government of the Hong Kong Special Administrative Region
- (m) Circulars on Lifts and Escalators issued by Electrical and Mechanical Services Department, Government of the Hong Kong Special Administrative Region
- (n) Guidelines on Safety of Lift Shaft Works issued by Construction Industry Council
- (o) Electricity supply rules of the relevant power supply companies
- (p) ISO 9386-1:2000, Power-operated lifting platforms for persons with impaired mobility – Rules for safety, dimensions and functional operation – Part 1 : Vertical lifting platforms
- (q) BS6440:1999, Powered Lifting Platforms for Use by Disabled Persons
- (r) ASME A18.1:2008, Safety Standard for Platform Lifts and Stairway Chairlifts
- (s) Relevant National/International Standards and Codes of Practice

4. Scope of the Works

- 4.1 The scope of the Works for this Contract shall include, but not be limited to the following items in accordance with this Particular Specification:-
- (a) The Contractor shall conduct the lift maintenance audit for the lifts as included in Clause 2.1. All procedures and reporting format shall follow the requirements as set out in these Particular Specifications.
 - (b) The lift maintenance audit for all the lifts as included in Clause 2.1 shall be carried

out and completed within XX months.

- (c) The Contractor shall plan and arrange his manpower and provide any materials/tools/measuring instruments properly calibrated required for the whole Works to be completed within the specified duration as stated in Clause 4.1(b).
 - (d) The Contractor shall liaise and coordinate with the Employer and prepare a works programme for their approval.
 - (e) It shall be the Contractor's responsibility to coordinate and schedule his work with the respective management and maintenance personnel of the concerned premises.
 - (f) The Contractor shall prepare lift maintenance audit report separately for the lifts audited within a specified period after the completion of audit as agreed with the Employer.
- 4.2 At the commencement of the Works, the Contractor shall discuss with the Employer about specific detailed requirements of the Works and submit a proposal detailing how the audit is to be carried out, sample reporting format of the audit and a works programme for approval. The Contractor shall agree with the Employer on the works proposal before carrying out the Works.
- 4.3 The Contractor shall perform lift maintenance audit for the lifts as included in Clause 2.1 and prepare an audit report according to the requirements below:-
- (a) The lift maintenance audit shall generally cover, but not be limited to, the following areas:
 - (i) Assessing conditions for critical components and parameters, e.g. ropes, door locks, door gaps, levellings, by examination and measurement. Observation, site measurement and photo taking shall be made by random sampling.
 - (ii) Assessing quality of equipment maintenance by the current registered lift contractor against that of market norm.
 - (iii) Assessing adjustment/performance quality, e.g. riding quality and door adjustment performance, against that of market norm.
 - (b) The Contractor shall propose the items to be audited for a particular lift so as to reflect the maintenance quality of the lift. In general, the Contractor may follow those items listed in Appendix XIV of the "Code of Practice for Lift Works and Escalator Works" issued by Electrical and Mechanical Services Department, Government of the Hong Kong Special Administrative Region. Nevertheless, the following critical items, whichever applicable, must be included in the items to be audited:-
 - (i) Suspension ropes, compensation ropes/chains and their anchorages
 - (ii) Lubrication of lift components
 - (iii) Brake operations
 - (iv) General conditions of safety gears and overspeed governors
 - (v) Car door and landing door operation

- (vi) Levelling
- (c) The assessment on lift maintenance quality shall be based on visual inspection, sampling check, operation testing and performance measurement on site as appropriate, and good trade practice shall be followed. The Contractor shall arrange an independent registered lift engineer with qualifications satisfying Clause 1.2 to conduct such assessment. The quality of maintenance of any particular item shall be assessed and rated in the audit report on the following basis:
 - (i) Equipment condition
 - (ii) Equipment maintenance quality against market norm
 - (iii) Adjustment/performance quality against market norm
- 4.4 Whenever necessary, the contractor may invite the assistance of the current registered lift contractor carrying out the maintenance to escort the site inspection. The Employer will offer assistance to the Contractor by providing the contact details of the current registered lift contractor carrying out the maintenance to the Contractor. Nevertheless, the Contractor shall coordinate between relevant parties, e.g. property management and other maintenance contractors involved, on site. The associated costs shall be borne by the Contractor.
- 4.5 The Contractor shall prepare an audit report summarizing the assessment results, findings and recommendations after completion of all the audits for approval by the Employer. The final report shall generally include the following items:-
 - (a) Summary of the quality ratings of different items audited of all the lifts with presentation in a statistical manner
 - (b) Evaluation of the overall quality of lift maintenance works based on the quality ratings
 - (c) Identification of shortfall in the lift maintenance works
 - (d) Conclusion of recommendations for improvement of lift maintenance works
 - (e) Prioritization of the recommendations with justifications
 - (f) Assessment of feasibility of implementation of the recommendations
 - (g) Suggestion of long term enhancement measures

The format and content of the audit report shall be proposed by the Contractor for approval by the Employer. Photos and/or drawings shall be included in the reports for easy understanding of any particular issue.
- 4.6 During the course of the Works, the Employer may call for progress meetings with the Contractor as required for progress reporting and feedback of comments.

5. Qualifications of Independent Registered Lift Engineer

- 5.1 The qualifications of the independent registered lift engineer shall be as follows:

- (a) Registered lift engineer under The Lifts and Escalators Ordinance (Cap.618) AND shall NOT be employed under the registered lift contractor currently carrying out the lift maintenance works, during the whole course of audit
 - (b) Possess a minimum of five (5) years relevant experience in the Lift and Escalator Industry;
 - (c) Possess a valid Construction Industry Safety Training Certificate (also known as "Green Card");
 - (d) Good command of both written and spoken English and Chinese.
- 5.2 The Contractor shall submit the curriculum vitae (CV) of the independent registered lift engineer to the Employer for approval.