

PARTICULAR SPECIFICATION PS.G08

Site Safety

Particular Specification for Site Safety

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PART 1 - PARTICULAR SPECIFICATIONS ON SITE SAFETY

Note : Particular Specification clauses hereinafter referred to in this Appendix shall mean the Particular Specification clauses under this Appendix.

1 General

- (1) The Contractor shall ensure as a priority in all activities connected with the Works, the safety and health of all persons on or adjacent to the Site.
- (2) The Contractor shall provide and employ on the Site only such personnel who have received adequate training including safety and health training relevant to their tasks and adopt safe working practices at all times and shall ensure his sub-contractors comply with this requirement.
- (3) The Contractor shall not allow any person to work on the Site who has repeatedly breached safety requirements. A notice of such sanction shall be displayed at a prominent place on the Site.

2 Legislation, Regulations and/or Codes of Practice

- (1) The Contractor shall keep one set each of the following legislation, regulations and/or codes of practice on the Site including, but not limited to :-

Legislation

- the Factories and Industrial Undertakings Ordinance
- the Construction Sites (Safety) Regulations
- the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations
- the Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations
- the Factories and Industrial Undertakings (Woodworking Machinery) Regulations
- the Factories and Industrial Undertakings (Abrasive Wheels) Regulations
- the Factories and Industrial Undertakings (Confined Spaces) Regulations
- the Factories and Industrial Undertakings (Dangerous Substances) Regulations
- the Factories and Industrial Undertakings (Protection of Eyes) Regulations
- the Factories and Industrial Undertakings (Cartridge-Operated Fixing Tools) Regulations

- the Factories and Industrial Undertakings (Electricity) Regulations
- the Factories and Industrial Undertakings (Suspended Working Platforms) Regulations
- the Factories and Industrial Undertakings (Noise at Work) Regulations
- the Dangerous Goods Ordinance (Section 6)
- the Electricity Ordinance (Part VII)
- the Electricity (Wiring) Regulations
- the Builders' Lifts and Tower Working Platforms (Safety) Ordinance
- the Occupational Safety and Health Ordinance
- the Occupational Safety and Health Regulations
- the Boiler and Pressure Vessel Ordinance

Codes of Practice, Guides and others

- "Code of Practice for Scaffolding Safety", published by the Labour Department, where applicable
- "Code of Practice for Safe Use of Mobile Cranes and Tower Cranes", published by the Labour Department, where applicable
- "Code of Practice on Safety and Health at Work for Industrial Diving", published by the Labour Department, where applicable
- "Code of Practice on Safety at Work (Lift and Escalator)", published by the Labour Department, where applicable
- "A Guide to the Factories and Industrial Undertakings Ordinance (Section 6A & 6B) - Know Your General Duties" published by the Labour Department
- "A Guide to the Construction Sites (Safety) Regulations" published by the Labour Department
- "A Guide to Construction Safety Management" published by the Labour Department
- "Guidance Notes for the Electrical Products (Safety) Regulation" published by the Electrical and Mechanical Services Department
- other safety and health related legislations, codes of practice and guides relevant to the execution of the Works.

- (2) The Contractor shall display advisory and warning signs, labels and/or posters for the promotion and enhancement of safety and health and notices concerning the availability of the legislation and documents stated above at prominent locations around the Site including site offices, workshops and canteens.
- (3) All legislations and documents referred to in this Clause shall be kept in both Chinese and English insofar as available.

3 Safety Plan

The Contractor shall in accordance with SCC 49 prepare and submit to the Architect six copies of the Safety Plan signed by a senior management representative from the Contractor's headquarters, the site agent and the Safety Officer. For the purposes of signing the Safety Plan and attending the Site Safety and Environmental Committee and the Site Safety and Environmental Management committee as specified hereinafter, the qualification requirements of the Contractor's senior management representative shall not be lower than the specified qualification requirement for the Technical Staff as stipulated in the Contractor Management Handbook – Appendix 2C for the Building Category. The Safety Plan shall contain details of the following 14 key elements of a safety management system:-

- safety policy
- safety organisation
- safety and health training
- safety rules and regulations
- safety committees
- safety and health inspections
- job hazard analysis
- personal protective equipment
- accident/incident investigation
- emergency preparedness
- safety promotion
- health assurance programme
- evaluation, selection and control of sub-contractors
- process control programme

Details shall contain, without limitation, the following:-

(1) Safety Policy

A policy statement setting down in clear and unambiguous terms the management's approach and commitment to communicate, implement and maintain health and safety for those involved in the Works and others who may be affected by the Works; it shall:

- (a) be signed by the managing director of the Contractor, or the managing directors of companies of the consortium, partnership or joint venture comprising the Contractor,
- (b) declare that safety and health are given priority in all aspects of the Works and in discharging its contractual obligations,
- (c) state the Contractor's commitment to comply with relevant statutory and contractual obligations regarding safety and health and the means by which the Contractor will supervise, monitor and audit the safety assurance system to achieve due compliance,
- (d) identify the key senior personnel for overall co-ordination and implementation of the policy,
- (e) state the general responsibilities and duties of the Contractor's employees and sub-contractors in upkeeping safety and health,
- (f) state the safety targets to be achieved,
- (g) be communicated to all levels of persons involved in the Works, and
- (h) be dated, reviewed periodically and revised.

(2) Safety Organisation

The safety organisational structure and the manpower resources to implement the management's commitments; it shall:

- (a) define clearly the safety and health responsibilities of staff at all levels including those of sub-contractors,
- (b) describe the arrangements for a regular communication and reporting system on safety and health amongst all levels from top management down to labour force and vice versa,
- (c) list the names and telephone numbers of the senior management representative, site agent, Safety Officer and Safety Supervisors administering and ensuring compliance with the Safety Plan, together with their disciplines and the geographical area of the Works under the supervision of each Safety Supervisor, revised and re-issued at any time necessary to reflect accurately the current arrangement for safety supervision,

- (d) state the powers vested in the safety staff which would enable them to take urgent and appropriate action to make safe the Site and the Works and to prevent unsafe working practices or other infringements of the Safety Plan or statutory regulations,
- (e) state the name of the personnel responsible for updating the Safety Plan, and
- (f) maintain and upkeep a register of first aiders, competent persons and examiners required under the relevant legislations and persons responsible for conducting different levels of safety training.

(3) Safety and Health Training

Procedures established to ensure that all staff working on the Site, and in particular those joining the Site to work for the first time or staff transferred to new assignments are given proper general safety and health training as well as job-specific training relevant to their duties; a programme shall be developed to identify and review the training need which shall contain the frequency, coverage and application of training ranging from safety management training to tool box talks and to check that the knowledge covered in the safety trainings are applied by the Contractor's staff.

(4) Safety Rules and Regulations

- (a) Arrangements for safety rules and regulations including those specific rules laid down by clients to be documented, reviewed, amended and communicated to all appropriate levels of staff working on the Site including means and disciplinary action to ensure that they are implemented and enforced,
- (b) Arrangements for method statements and permit-to-work systems to be implemented for high risk activities carried out on Site including the provisions of details such as persons identified by job titles who will be authorising the issue of permits; these activities should include, but not limited to hot work, electrical work, slope works, confined spaces work, release of flammable/toxic liquid or gas etc.,
- (c) Specific rules and regulations laid down by the client for Works to be carried out within premises that are occupied, partially occupied and/or controlled by the client, and
- (d) Rules and regulations to protect authorised visitors and prevent entry of unauthorised persons to the Site.

(5) Safety Committees

The objectives, powers, functions, terms of reference, membership, frequency of meetings, agenda and distribution of minutes of meetings of the safety committee.

(6) Safety and Health Inspections

Arrangements to establish procedures for the identification, recording and reporting of hazardous conditions and their rectification; they shall include:

- (a) planning and review of the frequency, coverage and extent of inspections conducted by safety staff, supervisory staff and senior management,
- (b) developing a comprehensive safety inspection checklist for use in safety inspections to record irregularities or hazards identified and a scheme for them to be reported and prompt corrective actions to be taken by the appropriate staff, and
- (c) developing a preventive maintenance programme for the workplace, electrical installations and equipment, plants (fixed and mobile) and equipment (including emergency equipment), in particular lifting plant and equipment to ensure that statutory tests, examinations, and inspections are carried out at required intervals and for such records to be made available for inspection by the Architect.

(7) Job Hazard Analysis

Arrangements for identification of potential hazards and assessment of health and safety risks associated with Works are carried out by trained safety personnel for the development of safe working procedures and method statements to ensure the satisfactory elimination, reduction or control of such risks before work starts; they shall include:

- (a) procedures for the recording and regular review of the risk assessments and the developed safe working procedures and method statements to ensure that the risk control measures contained therein are suitable and relevant to the Works being undertaken; these should include those prepared by sub-contractors, and
- (b) means to ensure that the risk control measures contained in the risks assessments, safe working procedures and method statements are clearly written down and communicated to those supervising and carrying out the Works and that their implementation are being regularly monitored.

(8) Personal Protective Equipment

Procedures for the identification and selection of suitable personal protective equipment and their issue, including the means and frequency by which personal protective equipment will be inspected, tested and maintained and records kept and the standard below which the equipment will be removed from the Site and replaced; they shall include:

- (a) means to ensure that proper and, where appropriate, mandatory use by all persons on the Site,
- (b) arrangement to ensure that information, instruction and training in the safe use, storage and maintenance of such equipment are provided, and
- (c) arrangement to ensure adequate supply and for replacement.

(9) Accident/Incident Investigation

Procedures for the prompt reporting, recording and investigation of accidents/incidents including dangerous occurrences occurred on Site; they shall include:

- (a) the keeping of accidents statistics and their analysis with a view to identifying trends and developing measures for prompt implementation against recurrences, and
- (b) means to communicate accident statistics, recommendations against recurrences and lessons learnt from previous accidents to all persons working on the Site.

(10) Emergency Preparedness

Arrangements for the establishment of procedures to deal with emergency situations on the Site (e.g. any situation requiring rescue) prior to arrival of the Police, the Fire Services Department or Marine Department and procedures during tropical cyclones, thunderstorm warnings, landslip warnings and heavy rainstorm warnings, outbreak of a fire, etc., they shall include:

- (a) means to communicate the emergency procedures to all personnel on the Site and to promote their emergency awareness,
- (b) the organisation and training of emergency and/or rescue teams,
- (c) checklists on steps to be taken during emergency,
- (d) means of receiving and communicating adverse weather information to site staff,
- (e) emergency equipment to be provided and their locations,
- (f) drills and exercises to test the preparedness for emergency actions which shall be carried out at not less than 6 months intervals or as stated in the Contract,
- (g) the first aid personnel and facilities, including arrangements for transporting the injured, and
- (h) arrangements for the review and regular updating of emergency procedures and telephone list.

(11) Safety Promotion

Methods of promoting and maintaining safety awareness and developing a safety and health culture amongst all persons on the Site; they shall include:

- (a) the display of the company safety policy, accident statistics, safety signs and posters and the showing of safety videos and films,
- (b) procedure for the selection of appropriate safety promotion items for displaying on Site,
- (c) the conduct of talks and campaigns and distribution of safety bulletins or newsletters drawing attention to particular special safety issues and emergency procedures, and
- (d) procedure to recognize and commend those site personnel, teams, sections or sub-contractors with good safety performance.

(12) Health Assurance Programme

The programme shall contain:

- (a) arrangements for pre-job and regular medical examinations of workers exposed to health hazards,
- (b) arrangements for the identification, assessment, regular monitoring of health hazards and the reduction of exposure through technological and administrative control measures; they shall include:
 - (i) arrangement to ensure that all persons at the Site are aware of the health risks associated with their work and those in their vicinity and are fully informed of the necessary precautions in controlling the risks,
 - (ii) procedures for the selection, provision, training and supervision on the use of suitable personal protective equipment to supervisors and workers, in particular to those working in an environment potentially hazardous to health,
 - (iii) the seeking of outside specialist assistance for assessment and monitoring of health hazards where necessary, and
 - (iv) the provision of welfare facilities on the Site.

(13) Evaluation, Selection and Control of Sub-contractors

Arrangements for the evaluation, selection and control of sub-contractors working on the Site; they shall include:

- (a) provision to each sub-contractor with a copy of the Safety Plan and the list of safety obligations and requirements which must be met for incorporation into the sub-contract agreement before works commence for ensuring compliance,
- (b) means to ensure that only sub-contractors with satisfactory safety performance will be employed and procedures for evaluating the safety performance of sub-contractors employed on the Site at regular intervals,
- (c) the timely provision of adequate safety and health information to suppliers of materials to the Site for their compliance,
- (d) means by which safety procedures and method statements proposed by sub-contractors, whether directly employed or not, will be reviewed for compliance with the Safety Plan and the statutory regulations,
- (e) arrangements to ensure that machinery and other plants used on Site by sub-contractors are appropriate to the nature of the task and that they are properly operated and maintained,
- (f) the safety co-ordination system established to liaise between various sub-contractors, and
- (g) ensure that sub-contractors' workers have received proper training appropriate and relevant to the type and level of work to be undertaken.

(14) Process Control Programme

The programme shall contain:

- (a) The formulation of policy on the review of accident control and hazards elimination measures during the conception and design stages, the setting of parameters for processes and materials to take into account of any change in Site conditions and the development of a regular monitoring mechanism, and
- (b) Arrangements and means for the effective implementation of accident control and hazards elimination measures described in the Safety Plan to ensure safety and health in the execution of the work processes, they shall include safety rules, regulations safe working procedures, and in particular method statements and permit-to-work systems incorporating the findings of risk assessments conducted for identified high risk processes including, but not limited to the following:-
 - Housekeeping
 - Traffic control and transportation
 - Fire prevention measures and fire fighting equipment
 - Excavation
 - Working in confined spaces
 - Hand dug caissons
 - Diving
 - Hot work

- Electrical equipment and installations
- Welding/cutting operations
- Personal protective equipment
- Conveyance, handling and use (blasting) of explosives
- Lifting operations involving cranes and hoists etc.
- Manual handling
- Scaffolding and working platforms
- Ladders and accesses
- Hand tools and portable power driven tools
- Use and storage of hazardous substances including chemicals
- Working over water or adjacent to water
- Working at height
- Structural steel erection
- Floor and wall openings and stairways
- Lighting
- Protection against falling objects
- Protection against lightning
- Demolition
- Tunnelling

- (c) The risk assessment should also identify whether there are works that cannot be done safely by a person working alone. In general, a co-worker system shall be put in place in the following situations:-
- (i) Temporary access equipment for working at height, including portable ladders or trestles that cannot be safely handled by one person.
 - (ii) The plant, substances and goods cannot be safely handled by one person.
 - (iii) Working near or over water, or electrical work at or near exposed live conductors.
 - (iv) There is risk of violence.

4 Safety Organisation

The Contractor shall provide to the Architect's Representative at monthly intervals an updated safety organisation chart containing a complete list of all sub-contractors, whether directly employed by the Contractor or not, on the Site and the Works and the name of the Safety Supervisor for each such sub-contractor, insofar as the employment of a Safety Supervisor is expressly set out in the Contract or in the absence of such requirement then by any enactment or statutory requirement. The list shall also include the names of the Safety Officer and Safety Supervisors, and the names of Safety Representatives and the respective labour groups or teams they belong. Telephone numbers of these safety staff shall also be shown on the chart.

5 Safety Officer

- (1) "Safety Officer" means a person registered as a safety officer in accordance with the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations (FIU(SO&SS)R) and employed by the Contractor to carry out the duties of a Safety Officer as specified in the Contract and duties specified in the FIU(SO&SS)R.

- (2) The Contractor shall employ at least one Safety Officer who shall be approved by the Architect. If the total number of workers employed on the Works or in connection with the Contract whether in the employ of the Contractor or his sub-contractor is equal to or more than 50, the Safety Officer shall devote the whole of his time to this Contract in the discharge of his duties. Where the number of workers thus employed exceeds 200, then the number of full-time Safety Officer to be provided shall be:

<u>Total no. of workers</u>	<u>Minimum no. of full-time Safety Officer</u>
201 to 700	2
701 to 1200	3
1200 and above	4

If the total number of workers employed is less than 50, the Safety Officer may be engaged part time for this Contract but with sufficient presence on the Site to perform the duties of a Safety Officer. The time thus spent on Site shall be not less than **12** hours per week excluding attendance of the Site Safety and Environmental Management Committee meeting and the Site Safety and Environmental Committee meetings.

- (3) The Contractor shall not commence any construction work on the Site without the appointment of the required number of Safety Officer(s) unless expressly permitted by the Architect in writing.
- (4) The duties of the Safety Officer shall be solely directed towards safety and health matters. In addition to the duties stipulated in the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations, the Safety Officer shall:
- (a) carry out safety inspections and prepare inspection reports,
 - (b) supervise and monitor implementation of the Safety Plan,
 - (c) ensure that sub-contractors and all persons working on the Site are made aware of and comply with the Safety Plan, and
 - (d) carry out internal safety audits for the Safety Plan at intervals of not less than once every six months, which format, scope and programme are to be proposed and agreed with the Architect. In this respect, the internal safety audits can be carried out either by the Safety Officer or a Registered Safety Auditor (RSA).
- (5) The Safety Officer shall maintain a safety diary which shall record all matters related to safety and health, including Safety Supervisors' reports, details of safety inspections and audits, accidents, dangerous occurrences, safety related incidents, etc. The Safety Officer shall check to ensure that all unsafe situations are promptly rectified and the dates of their completion duly recorded in the safety diary. The safety diary shall be made available for inspection by the Architect upon request and copy thereof shall be submitted to the Architect upon request.
- (6) The Contractor shall empower the Safety Officer to order any person working on the Site to suspend any unsafe operation or to take urgent action to make safe the Site or the Works or to disallow any practice which may infringe the Safety Plan or any statutory safety requirement.
- (7) The Safety Officer shall carry out comprehensive safety inspections on all activities on the Site at weekly intervals. The safety inspection shall identify any unsafe operation or potential hazards using a check-list agreed by the Architect's Representative. The Safety Officer shall give prior notice to the Architect's Representative of the date and time of the weekly inspection and shall allow the Architect's Representative to attend the inspection.

- (8) If the Safety Officer is unable to perform his duties for any reason, the Safety Officer shall be replaced as soon as practicable but in any case within 14 days. The Safety Officer shall not be replaced without consent by the Architect.
- (9) The Safety Officer shall be clearly identified on the Site by wearing an armband or a safety helmet appropriately marked in Chinese and English.

6 Safety Supervisors

- (1) "Safety Supervisor" means a person employed by the Contractor or his sub-contractors on the Site to carry out the duties of a Safety Supervisor as stipulated in the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations. The Safety Supervisor shall carry out safety inspections on all active parts of the Site for which he is responsible at least at daily intervals using an appropriate comprehensive checklist agreed by the Architect. All completed safety checklist shall be signed by the Safety Officer to ensure prompt follow-up actions have been taken on unsafe situations.
- (2) The Contractor shall employ at least one Safety Supervisor to be present full time on Site. Where the number of workers employed on the Works or in connection with the Contract whether in the employ of the Contractor or by his sub-contractor exceeds 50, the number of Safety Supervisors to be provided shall be increased by one for every additional 50 workers.
- (3) Notwithstanding the requirements stated in sub-clause no. 6(2) above, each sub-contractor of the first tier (directly employed by the Contractor) engaging 20 persons or more in the activities for which he is responsible shall provide at least one full-time Safety Supervisor to oversee the safety of his own activities.
- (4) Safety Supervisor shall have at least three years' experience on construction work and have completed an appropriate training course provided for safety supervisors.
- (5) Safety Supervisors shall be clearly identified on the Site by wearing an armband or a safety helmet appropriately marked in Chinese and English.

7 Safety Representatives

- (1) In addition to the Safety Officer and Safety Supervisors, the Contractor shall appoint the foreman or ganger of each labour group or team working on the Site to act as Safety Representatives. The Safety Representative shall be responsible for ensuring that the directives from the Contractor, the Safety Officer and Safety Supervisors on safety and health matters are duly carried out, safety practices are adopted and protective clothing and equipment are used by the work force at all times on the Site. Normally, each gang of workers shall have one Safety Representative. He shall be made aware of his responsibilities and the group of workers on the Site whose activities he is required to supervise. Every worker working on the Site shall be made aware of the roles of the Safety Representatives and from which Safety Representative he may seek advice or receive instructions on safety and health matters.
- (2) Safety Representatives shall be clearly identified on the Site by wearing an armband or a safety helmet appropriately marked in Chinese and English.

8 Safety Training

- (1) The Contractor shall regularly review the training needs of all persons employed on the Works or in connection with the Contract and prepare a long-term training programme. Each month the Contractor shall submit a proposed training programme to be provided in the next month for the Architect's approval. It shall contain the topics, dates, venues, the target participants of the proposed training and the names and qualifications of the trainers.
- (2) All persons carrying out construction work including general workers, skilled workers, foremen, gangers, drivers and plant operators, who are employed on the Works or in connection with the Contract whether in the employ of the Contractor or his sub-contractors must have completed the mandatory basic safety training course for the construction industry under the Factories and Industrial Undertakings (Amendment) Ordinance 1999 and hold the relevant valid certificate which shall be referred to hereafter as the Labour Department Recognised Green Card (LDRGC).
- (2)(A)(i) In addition to clause 8(2) above, skilled workers of specific trades set out below in this sub-clause who are employed on the Works or in connection with the Contract whether in the employ of the Contractor or sub-contractors of all tiers shall attend the relevant Safety Training Course for Construction Workers of Specified Trades (also known as the Silver Card Course) organized by the Construction Industry Council Training Academy (CICTA) :
 - painter and decorator
 - carpenter
 - demolition worker (building)
 - plumber
 - bar bender and fixer
 - plasterer and tiler
 - bamboo scaffolder and metal scaffolder
 - curtain wall installer
 - construction materials rigger
 - lift mechanic (installation and maintenance)
 - tower crane worker (erecting, dismantling, telescoping & climbing)
 - tunnel worker

Any other recognized courses as notified by the Architect.

- (2)(A)(ii) If the Contractor intends to employ or permit the employment of any skilled workers of trades specified in sub-clause (i) but do not possess the Silver Card that is relevant to the trade and work in which he/she is working on the Site for the execution of the Works, he shall arrange within 2 working days of such skilled workers commencing work on the Site to attend the course specific to the trade and work in which he/she is employed under the Contract. A skilled worker who passes the test at the end of the course will be awarded with a Construction Industry Silver Card (Silver Card). For the purpose of this Contract, this course shall be referred to hereafter as the "trade specific advanced safety training" course.
- (3) The Contractor shall also ensure that all card holders will carry their LDRGC and Silver Card whilst working on the Site.

- (4) The Contractor shall pay a token allowance as specified in relevant item in the Bills of Quantities to each skilled worker of a specific trade set out in clause 8(2)(A)(i) above after he or she has successfully completed a Silver Card Course and received a Silver Card. If a skilled worker of a specific trade set out in clause 8(2)(A)(i) above has completed a revalidation course and received a revalidated Silver Card, the Contractor shall pay a token allowance as specified in relevant item in the Bills of Quantities to the skilled worker. The skilled worker is responsible for the payment of the course fee. However, the token allowance will not be paid if the course is attended:
- (i) before the skilled worker starts works on the Site; or
 - (ii) after the skilled worker has left the Site.

At the end of each month, the Contractor shall prepare and submit a certified monthly statement of workers who have successfully completed the trade specific advanced safety training course to the Architect using the proforma attached in Part 2 of this Particular Specification. Copies of the Silver Card, the original receipts signed by workers for the receipt of the token allowance and a certified payroll record indicating the trades and salaries of the workers shall be made available for inspection if requested by the Architect.

- (5) The Contractor shall only arrange skilled workers to attend the trade specific advanced safety training course that is relevant to the trades and works in which he/she is employed under the Contract. The Architect has a right to disapprove the payment on the trade specific advanced safety training to a skilled worker if he/she is found on the Site and not working for the trades and works in which he/she has received the training.
- (6) (a) All persons employed on the Works or in connection with the Contract whether in the employ of the Contractor or his sub-contractors 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 should 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 | |
| (iv) | Emergency procedures and first-aid facilities | 15 mins. |
| (v) | Reporting of accidents and injury compensation procedures | 10 mins. |
| (vi) | Questions and answers | 5 mins. |
| | total | <u>10 mins.</u>
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's Representative for approval. The talk shall be carried out within 2 working days of any such employee commencing work on the Site. Thereafter, he/she 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., CICTA or other approved training organisations.
- (7)
- (a) The Contractor shall provide tool box talks at a frequency of one talk per worker on Site every two weeks commencing from the date of commencement of the Works subject otherwise to any change in frequency as may be approved by the Architect. The Contractor shall also ensure that the topic of every talk given to a worker is relevant to his/her trade and the work that he/she will perform under the Contract and a worker shall attend no more than one talk on the same topic in any two-month period.
 - (b) The Contractor shall propose the topics of the tool box talks at a frequency specified in sub-clause (a) having regard to the activities of the Site and the prevailing safety concern at that time. They shall be submitted with the proposed monthly training programme to the Architect for his approval. The Architect has the right to disapprove the training programme when the proposed topic is considered not relevant to the trade of the workers or the prevailing work activities. Moreover, the Architect can request the Contractor to review the topics to cater for special safety concern. For workers undertaking scaffolding work including truss-out bamboo scaffolds, demolition work and works in confined spaces, they should be provided with suitable tool box talks prior to the commencement of these works. Workers not having attended the concerned tool box talks shall not be allowed to undertake these works.
 - (c) The content of the tool box talks shall be based on training kits published by the Hong Kong Construction Association Ltd. (HKCA). Where such a proposed topic is not amongst one of those published by HKCA kits, the Contractor shall then develop training kits to a similar standard for approval by the Architect's Representative.
 - (d) The Contractor shall ensure that "tool box talks" are conducted by Safety Officers or Safety Supervisors or gangers who are competent trainers and have received training on safety training techniques organised by the Hong Kong Construction Association Ltd., CICTA or other approved training organisations.
 - (e) Payment for this item shall be made on a per worker per talk basis based on a frequency of one talk per worker every two weeks subject otherwise to any change in frequency approved by the Architect and the Architect being satisfied that the talks have been conducted in accordance with this clause. Any tool box talks conducted in excess of the specified frequency and without approval from the Architect shall be deemed to have been borne by the Contractor in the rates inserted elsewhere in his tendered price for the Contract.

- (8) (not used)
- (9) (not used)
- (10) The Contractor shall prepare attendance records on site specific induction training and tool box talks which shall include the topics and dates of the talks, the names of the trainers, names and trades of the persons receiving the talks and their signatures.
- (11) The Contractor's site agent or Safety Officer shall certify the accuracy of attendance records on site specific induction training and tool box talks before they are submitted to the Architect for payment. If requested by the Architect, the Contractor shall give at least 24-hour notification on the time and venue of each tool box talk to be held, so that the Architect could arrange his/her staff to take attendance record for measurement.
- (12) The Contractor shall ensure that all site management and supervisory staff, who are employed on the Works whether employed by the Contractor or sub-contractors of all tiers, shall attend, if they have not done so, and complete the basic training commensurate with their duties, as follows:-
- (a) The term “site management staff” means persons engaged in the senior or managerial posts such as project managers, site agents, sub-agents, superintendents and site engineers. The basic training required to be attended by site management staff shall include :-
- (i) Appropriate training course such as the Occupational Safety Management Course run by OSHC/CICTA or other approved training organizations. The course should cover amongst others: safety legislation in Hong Kong, safety management system, risk assessment, safety plan and safety auditing, and
- (ii) Basic Accident Prevention Course run by OSHC/CICTA or other approved training organisations.
- (b) The term “supervisory staff” means gangers and foremen. The basic training required to be attended by supervisory staff shall include:-
- (i) Appropriate training course such as the Safety and Health Supervisor (Construction) Course run by OSHC or the Construction Safety Supervisor Course run by CICTA or other approved training organizations. The course should cover amongst others: safety legislation, safety management and training techniques, principle of accident prevention, safety at work and safety inspection technique on construction sites.
- (13) The Contractor shall keep on Site records of all safety training received by his staff including those on refresher training and make them available for inspection by the Architect's Representative upon request.

8A Risk Assessment

The Contractor shall carry out, review and submit to the Architect risk assessments for works scheduled to start at least for the next two months. The works should be broken down into jobs/tasks for hazard identification and evaluation of the level of risk by competent persons. The documentation shall contain the hazards identified, the likelihood and consequence of the hazards occurring, the level of risk thus evaluated, the proposed risk mitigation/control measures and the anticipated residual risks, and identify the respective risk controller. The results of such risk assessments and documentation shall be endorsed by the Safety Officer and the site agent. In addition, they shall be incorporated into the Safety Plan or relevant safety working procedures or method statements. In addition, the Contractor shall also maintain an updated register of all risk assessments carried out, and update the relevant safety checklist based on the safety measures recommended in each new risk assessment.

9 Site Safety and Environmental Committee

- (1) The Contractor shall establish a Site Safety and Environmental Committee which shall be responsible for ensuring the implementation of the Safety Plan, reviewing and monitoring the effectiveness of the safety and health measures taken and seeking the co-operation and commitment of staff at all levels.
- (2) The Site Safety and Environmental Committee shall be chaired by the site agent with members comprising a senior management representative from the Contractor's headquarters, the Safety Officer, all Safety Supervisors, selected Safety Representatives and other staff of the Contractor or sub-contractors as may be considered necessary. It shall meet at monthly or more frequent intervals discussing all matters relating to the implementation of the Safety Plan. The first meeting shall be held no later than 30 days after the date for commencement of Works. The Contractor may invite any other party such as the Labour Department, Marine Department, Fire Services Department, Police or representatives of utility undertakers to attend the meeting and provide advice as necessary.
- (3) The Contractor shall give an advance notice of every Site Safety and Environmental Committee meeting to the Architect's Representative who will attend the meeting in person or nominate a representative to attend the meeting as an observer.
- (4) The following items shall, amongst others, be discussed at the Site Safety and Environmental Committee meeting :
 - (a) Review of the Safety Plan
 - update risk assessment for the work scheduled at least for the next two months,
 - review and establish safety and health provisions, safe working procedures and method working procedures and method statements,
 - update the emergency and rescue procedures,
 - discuss and reconcile any discrepancies between the Safety Plan prepared by the Specialist Contractor and that of the Contractor,

- (b) Update of the safety organisation chart and review of the adequacy of safety personnel,
 - (c) Review of the safety performance of sub-contractors,
 - (d) Any unsafe practices and conditions identified during safety inspections/audits and any follow up action,
 - (e) Advisory/warning letters issued by Marine Department and Labour Department and any Improvement/Suspension Notices received,
 - (f) Review of accident frequency rates and statistics of the Contractor and sub-contractors and identification of trends,
 - (g) Details of the Contractor's accident and dangerous occurrence experience,
 - (h) Safety and health training undertaken in the previous month and the proposed training programme for the following month,
 - (i) Details of safety promotional activities, and
 - (j) Safety co-ordination between various sub-contractors working in close proximity to each other.
- (5) Minutes of the Site Safety and Environmental Committee meeting shall be prepared by the Contractor and copied to the Architect's Representative within 10 working days of the meeting. One copy of the minutes in Chinese and English if necessary, shall be posted at a prominent place on the Site.

10 Site Safety and Environmental Management Committee

- (1) The Architect shall establish a Site Safety and Environmental Management Committee to monitor the adequacy of the Safety Plan and ensure its implementation on Site by the Contractor, and to enhance communication between the Architect and the Contractor on safety and health matters. The Site Safety and Environmental Management Committee shall be chaired by the Architect or his Representative and shall meet monthly or more frequently intervals. The first meeting shall be held no later than 30 days after the date for commencement of Works.
- (2) The Contractor shall provide all necessary assistance required for the proper functioning of the Site Safety and Environmental Management Committee and shall be represented on the Committee by a senior management representative from the Contractor's headquarters, the site agent, the Safety Officer and Safety Supervisors. The Contractor shall act without delay upon the decisions or recommendations made by the Committee on matters of safety and health. The above arrangements are entirely without prejudice to and do not relieve the Contractor from any contractual or legal obligation with respect to safety and health. Where a Specialist Contractor is directly employed, a senior management representative from the Specialist Contractors' headquarters, site agent, Safety Officer and Safety Supervisors shall also attend this meeting.
- (3) Prior to every meeting of the Site Safety and Environmental Management Committee, the Contractor shall arrange an inspection of the Site by those who are to attend the meeting and/or any other members nominated by the Architect. This inspection shall be taken as one of the weekly safety walk.

- (4) The following items shall, amongst others, be included in the agenda of each SSEMC meeting:-
- (a) Review of the Safety Plan
 - update risk assessment for the work scheduled at least for the next 2 months
 - review and establish safe working provisions, safe working procedures and method statements,
 - update the emergency and rescue procedures
 - discuss and reconcile any discrepancies between the Safety Plan prepared by the Specialist Contractor and that of the Contractor,
 - (b) Update of the safety organisation chart and review of the adequacy of safety personnel,
 - (c) Review of safety performance of sub-contractors,
 - (d) Any unsafe practices and conditions identified during safety inspections/audits and any follow up action,
 - (e) Advisory/warning letters issued by Marine Department and Labour Department and Improvement/Suspension Notices,
 - (f) Public concern/complaint,
 - (g) Review of accident frequency rates and statistics of the Contractor and sub-contractors and identification of trends,
 - (h) Details of the Contractor's accident and dangerous occurrence experience,
 - (i) Safety and health training undertaken in the previous month and the proposed training programme for the following month,
 - (j) Details of safety promotional activities,
 - (k) Contractor's monthly safety report,
 - (l) Safety co-ordination between various sub-contractors including Specialist Contractor working in close proximity to each other and,
 - (m) Reports on safety audits conducted by internal or external safety auditors and action plans prepared by the Contractor.
- (5) The Architect may invite any other parties, such as Labour Department, Marine Department, Fire Services Department, Police, representatives from utility undertakers and the departmental Safety Advisory Unit to attend the Site Safety and Environmental Management Committee meeting and provide advice as necessary.
- (6) The Architect or his Representative shall prepare the minutes of the Site Safety and Environmental Management Committee meeting for distribution to all attending parties within 10 working days of the meeting. The minutes of each meeting shall be signed by the Architect or his representative and the site agent.

11 Weekly Safety Walk

- (1) The Contractor should arrange a weekly safety walk attended by the Contractor's Safety Officer and site agent or his delegate and the Architect's nominated site representative to inspect the Site checking that safety and health conditions are being maintained on the Site. It shall include, but not be limited to:-
 - (a) Checking scaffolding in current use to be in compliance with the approved "Code of Practice for Scaffolding Safety" issued by the Commissioner of Labour,
 - (b) Checking that the temporary lighting and electrically powered hand-held tools and equipment are all rated at 110V CTE (centre-tapped to earth) in compliance with Particular Specification clause no. 15(13), and
 - (c) Checking that site tidiness and cleanliness are conducive to avoiding accidents and injury.

Weekly safety walks conducted under this clause are entirely without prejudice to and do not relieve any of the Contractor's responsibility to carry out regular inspections to upkeeping safety and health conditions on Site required by the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations.

- (2) The Contractor shall prepare and agree with the Architect's Representative a comprehensive check-list for use during safety walk and site inspections. It shall contain a table listing out the deficiencies identified during the walk/inspection with the proposed rectification measures, the names of the persons responsible for taking any necessary rectification measures and the corresponding completion dates. More than one comprehensive checklist may need to be prepared by the Contractor to suit the variety of works at various portions of the Site.
- (3) Immediately after the safety walk, the comprehensive checklist shall be agreed and signed by the Safety Officer and the Architect's nominated site representative and a copy kept by the Architect's Representative. The Contractor shall take prompt action to rectify those deficiencies identified during the walk and shall report the status of actions taken at the forthcoming SSMC meeting.

12 Sub-contractors

- (1) The Contractor shall provide each sub-contractor with sets of site rules and regulations, safe working procedures and safety obligations to ensure compliance.
- (2) The Contractor shall, for contracts where more than two contractors are working in close proximity, establish a safety co-ordination system to liaise amongst the sub-contractors and to maintain a safe working environment.

13 Reporting

- (1) In addition to the requirements of the General Conditions of Contract Clause No. 27, the Contractor shall complete any other forms as the Commissioner for Labour may require including, but not limited to, forms requesting supplementary information used by the Labour Department for the purpose of accident analysis. Copies of such forms should be made available for inspection by the Architect upon request.
- (2) Further to sub-clause (1) above, the Contractor shall notify the Architect immediately of any accident occurring on the Site involving dangerous occurrence or death or serious personal injury. The initial notification may be made verbally. A written notification with details shall be made within 24 hours of the occurrence of the accident.
- (3) The Contractor shall then investigate the incident/accident and complete any further report as may be required by the Architect on the detailed cause of the accident or dangerous occurrences, measures to prevent recurrence and complete standard forms provided by the Architect to enable the Employer to prepare an up-to-date database on site accident statistics.
- (4) The Contractor shall submit a monthly report for consideration at the meeting of the Site Safety and Environmental Management Committee. It shall be prepared by the Safety Officer and duly endorsed by the site agent, to the Architect containing the following information:
 - (a) all accidents involving dangerous occurrence, death, personal injury irrespective of severity or damages to properties in or adjacent to the Site,
 - (b) results of any Labour Department's inspections, advice, warning, Improvement/Suspension Notices and prosecutions,
 - (c) proposed training programme for the next month and training carried out in the previous month,
 - (d) a list of all competent persons and a summary record of all examination and test certificates required by any legislation or the Contract, and
 - (e) Safety Officer's inspection reports, reports on follow up action taken on irregularities identified during safety inspections (and weekly safety walks), and safety audit reports on the implementation of the Safety Plan
- (5) Within 14 days from the request of the Architect, the Contractor shall submit a written report to explain the high accident rates and to propose measures to improve the safety performance of the Site.

14 Further Safety Measures

- (1) Safety, rescue and health matters shall be given a high degree of publicity on the Site. The Contractor's safety policy statement, emergency procedures and any rescue organisation shall be made known to all persons on the Site. Such information shall include an emergency telephone list including the names and contact telephone numbers (such as mobile phone number and pager number) of at least two key members of the Contractor's emergency organisation, and the telephone numbers of the appropriate divisional police, fire and ambulance stations, utility undertakers, Labour Department's Operation Division and Marine Department. Copies of the above information and safety posters, in Chinese and English languages, shall be displayed at prominent places on the Site. A notice board shall be erected near the entrance of the site for the display of safety posters, up-to-date accident records and the names of the Safety Officer and the site agent.
- (2) The Contractor shall ensure that all tools, plant, equipment and temporary facilities and all other items used in carrying out the Works how-so-ever provided are in a safe, sound and good condition, are capable of performing the functions for which they are intended, and where required by the law or by the relevant codes of practice, are licensed and/or have been issued with the necessary permits for use.
- (3) The Contractor shall establish, implement, maintain and regularly review the safety system of work for working in lift shaft including, but not limited, to the following:-
 - Provision of a structurally sound temporary full height metal gate with lock and key, where key is required for opening the gate from outside of the lift shaft and can be opened from the inside of the lift shaft at any time without the need of key to facilitate emergency escape. In addition, any opening on the gate shall not be greater than 50mm x 50mm in size;
 - Using the lift shaft as storage space is strictly prohibited at any time; and
 - Using the lift shaft for transportation of materials or refuse is strictly prohibited unless the lift installation works are certified by authority as completed for use and exemption is granted from the Architect for such activity to be carried out.
- (4) All sides of working platforms, places, gangways, openings from which a person may be liable to fall for more than two metres shall be provided with at least two guard-rails of adequate strength and toe-boards securely fixed in position. The height of the top guard-rail shall be between 900 mm and 1150 mm. The intermediate guard-rail shall be positioned so that the unprotected gap in between does not exceed 470mm. The toe-board shall be at least 200 mm high.
- (5) Fences and/or nets of adequate strength shall be provided along all edges where workers may be liable to fall into water. If it is not possible to provide such fences and nets, persons working over or immediate adjacent to water shall wear a life jacket or a suitable buoyancy aid or a personal fall arrestor (as is appropriate) when so working.
- (6) If required by the Contract, the Contractor shall provide a suitably equipped and dedicated rescue launch, manned and available whenever work is being carried out on or over water.
- (7) Alcoholic drinks and other substances which may impair judgement shall be prohibited from the Site. The Contractors shall remove any person under the influence of such substances from the Site immediately.

- (8) Personal protective equipment provided by the Contractor for use in confined spaces and for protection against falling from height shall be full-body type safety harnesses with suitable lanyards. Safety belts shall not be permitted except for use as a means of positioning to restrict horizontal movement. The Contractor shall also provide secure anchorages for the attachment of safety harnesses/safety belts.
- (9) Permit-to-work systems shall be implemented to control access to hazardous areas or the carrying out of any hazardous operations including, but not limited to, hot work, electrical work, work in confined space, maintenance of material hoist, area or operation liable to release of flammable or toxic liquid or gas, work in lift shaft, etc.
- (10) All lifting gears including slings, shackles and such like equipment shall be colour coded for identifying lifting gear which require re-inspection or disposal. Details of the colour coding system are given in Part 3 of this Particular Specification.
- (11) All material hoists installed shall be fitted with fail-safe interlocking hoistway gates such that the driving mechanism is operable only when all gates are closed and latched; and hoists shall not be operated manually when one gate is opened. A single channel communication from the user to the operator of the hoist shall also be provided.
- (12) All persons engaged in works with risks of receiving foot injuries including but not limited to pneumatic drilling work and manual handling work shall be provided with safety boots when they are engaged in such works. The cost of provision of safety boots shall be deemed to have been allowed in the Contract Rates. Safety boots shall comply with BS EN 345-Part 1, BS 345-Part 2 or equivalent standards.
- (13) Further to the requirements under the Factories and Industrial Undertakings (Noise at Work) Regulations, the Contractor shall provide approved ear protectors to all persons working on the Site who are exposed to noise levels of 90 dB(A) or above.
- (14) The Contractor shall keep a register of all dangerous substances including those hazardous to health which are delivered to and stored for use on the Works. The register shall include information on:
- (a) their physical and chemical properties,
 - (b) hazards,
 - (c) safe handling and storage,
 - (d) precautionary measures to be taken, and
 - (e) first aid measures,
- extracted from the manufacturers' material safety data sheets.
- (15) Receptacles with full containment on four sides to prevent the falling out of materials shall be used for the lifting and transportation of reinforcement links, stirrups, short pieces of splice or reinforcement U-bars, couplers and the like. The safe working load shall be marked on the receptacle after being tested by a competent examiner. The colour coding system for lifting gear shall also apply to these receptacles.

- (16) The lifting of reinforcement bars should be by the use of wire slings. No cradles should be used for the lifting of reinforcement bars unless they are properly designed and with their safe working load certified.
- (17) Roads and footways below suspended precast concrete/steel segments or the like, shall be closed until such time the segments are secured in their permanent location unless measures are taken to the Architect's satisfaction to prevent the segments from falling in the event of the failure of the equipment used to suspend the segments. The Contractor shall seek approval from the relevant authorities for the closure of the concerned sections of roads and footways. Adequate measures including the use of barricades and warnings shall be provided to ensure that no person shall inadvertently enter the area below any suspended segments.
- (18) Construction vehicles and plant used on Site shall be equipped with audible signals on reversing. Other form of warning signals and/or banksman shall be provided as necessary to guide such reversing movements if audible signals are causing nuisance to nearby residents particularly at night. For quarry operations, no person shall operate or drive any mechanical equipment at or near the edge of any face, side, tip or embankment in a quarry unless a banksman is in attendance.
- (19) Where there are more than one tower cranes operating within the Site and there is a possibility of overlapping crane movements, the Contractor shall develop, implement and maintain a safe system of work to prevent the overlapping of tower cranes lifting operation. The system shall include, but not limited to, the following:
- the provision of a warning system in the form of light and/or sound to alert the crane operator of the approach of cranes in the overlapping area;
 - the appointment of Overlapping Area Lapping Supervisor (OALS) to co-ordinate and control the lifting operation in the overlapping area or the provision of an automatic control device to prevent the occurrence of overlapping situation;
 - the provision of adequate buffer zone on both sides to slow down the slewing movement of cranes so as to prevent a sudden stop which might induce an inertia to the moving load; and
 - regular inspection and maintenance of the warning system and automatic control device.

Appropriate measures shall also be implemented to address the possible overlapping crane movement for a mobile crane movement and a tower crane operating within the Site.

- (20) The Contractor shall actively organise safety promotional activities to promote and enhance the standards of health and safety on the Site. In addition, the Contractor shall also participate in other territory-wide safety promotional campaigns as instructed by the Architect.

15 Electrical Safety

- (1) A Registered Electrical Worker (REW) of the appropriate grade under the Electricity Ordinance (EO) shall be employed by the Contractor throughout the Contract to handle the entire temporary electrical systems and installations on the Site.

- (2) Upon completion of the temporary electrical system (TES) and after each alteration/repair to the existing TES, the Contractor shall arrange his REW/Registered Electrical Contractor (REC) under the EO to complete an individual Work Completion Certificate (WR1) as required by the Code of Practice for the Electricity (Wiring) Regulations (COP) issued by the Electrical and Mechanical Services Department. If a REC is not employed, the Contractor shall then assume the responsibilities of a REC and sign on the WR1 together with the REW employed by the Contractor as per Code No. 19B(d) of the COP. Each of such Certificates shall include a circuit diagram clearly indicating which portion(s) of the TES is/are covered, and, where appropriate, other necessary supporting documents.
- (3) Temporary electrical installations, such as lighting fittings, distribution boards, socket outlets, plugs and cable couplers in outdoor or damp environment shall be of splash-proof type to IP 54 or above.
- (4) The sheath of all electric portable cables shall be of heavy-duty type or otherwise adequately protected against mechanical damage if laid on ground. They shall be hung overhead as far as possible. Ordinary PVC cables, if employed, shall be enclosed in metallic conduits or trunkings and properly maintained.
- (5) The Contractor shall develop checklists for carrying out regular routine inspections and checking and monthly comprehensive checking of the TES. The checklists should be developed by the Contractor and agreed by the Architect's Representative. Comprehensive checking shall include, but not be limited to, checking of temporary generators, functional test of earth leakage circuit breakers, integrity of cables and connections, measurement of earthing resistance and those items listed in Checklists Nos. 3 and 4 of the COP where appropriate. The checklist should be signed by the REW after each inspection and/or checking.
- (6) Adequate precautionary measures should be adopted to ensure safety during inspection, repair and maintenance of the temporary electrical installations including the use of permit-to-work system and/or lock-off system. The Contractor shall establish and review regularly the maintenance programme and logging system for the TES.
- (7) The Contractor shall keep and maintain updated circuit diagrams, WR1 (complete with supporting documents) and records of inspection and checking of the TES by REW/REC in a dedicated file for inspection by the Architect's site supervisory staff upon request.
- (8) During weekly safety walks and when requested by the Architect's site supervisory staff, the Contractor shall open the cover plates of temporary electricity distribution boards for inspection of the conditions of the internal wiring and/or carry out testing immediately. Updated schematic circuit diagram shall also be affixed inside the cover of the temporary distribution boards.
- (9) All temporary electrical distribution boards shall be kept locked and accessible only by authorized persons appointed by the Contractor, e.g. REW and/or general foreman. Legible warning notices (Danger - Electricity) in both Chinese and English, names and telephone numbers of such authorized persons shall be posted on the temporary distribution boards.
- (10) For work carried out in occupied buildings, unless prior approval has been obtained and proper and safe arrangement has been made, the Contractor shall not connect his fixed electric equipment directly to any existing permanent distribution boards. Such connection shall only be made through temporary distribution boards equipped with proper protective devices.

- (11) All arc welding machines and electrode holders shall comply with BS 638 : Part 7, IEC 60974 - 1 (or BS EN60974 - 1) and BS EN 60974 - 11 or equivalent standards. The welding machines should be fitted with no-load voltage reducing device for protection against electric shock at the output side. Welding machines shall be enclosed and the metal casing shall be effectively connected to earth. Cable terminals of the welding machines shall be effectively insulated.
- (12) All hand-held electrical tools and portable equipment (e.g. submersible pumps), whether they belong to the Contractor or his sub-contractors, Nominated Sub-contractor or Specialist Contractors under domestic sub-contract, shall be examined by the REW before they are used on Site. The examination shall include visual inspection for the general conditions of the tools and equipment and also tests for checking the functional, protective conductor continuity, polarity and insulation aspects. After passing the examination, all hand-held tools and equipment shall be registered and recorded. Identification labels showing the registration number, type of the tool, name of the owner and date of examination stamped with the Contractor's company chop shall be affixed to these tools and equipment. Re-examination of the registered hand-held tools shall be carried out at 3-month intervals or each time after repairs to damages.
- (13) Voltage in excess of 110V shall only be used for heavy equipment such as hoists, tower cranes, etc. with an earth leakage circuit breaker installed and in proper function. Portable and hand-held tools and temporary site lighting shall be operated at a voltage of 110V or less supplied from a step-down transformer with its output winding centre-tapped to earth and comply with BS 3535 : Part 2 : 1990 or equivalent. All cables shall be terminated within the transformer enclosure of Class I and IP 55 and the outgoing circuit shall be provided with short circuit protection. In confined and damp environment, the voltage of temporary lighting and hand-held tools shall not exceed 25V.

16. Site Safety Cycle

The Contractor shall practise "Site Safety Cycle" (SSC) to improve and promote the safety and health of the Site. Site Safety Cycle shall begin when there are workers working on the Site, and shall cease by the date of substantial completion of the Works, or at a date proposed by the Contractor and approved by the Architect. The activities for Site Safety Cycle for one day, one week and one month are referred to as the "Daily Cycle", "Weekly Cycle" and "Monthly Cycle" respectively. Details of the activities and the provisions for holding the activities are described below. For simplicity, the Pre-work Exercise and Safety (PES) meeting, Hazard Identification Activity (HIA) meeting and Pre-work Safety Checks of the Daily Cycle are collectively referred to as the "Pre-work Activities".

The Contractor shall arrange Pre-work Activities to be held for attendance by persons employed on the Works (excluding clerical and administrative staff in site office), irrespective of whether they are in the employment of the Contractor or his sub-contractors. For the avoidance of doubt, persons employed on the Works are those persons whose number of man-hours worked on the Site are to be included in the number of man-hours worked for the Contract. The Contractor is encouraged to arrange Pre-work Activities to be held daily, but in any case the frequency of Pre-work Activities for attendance by each person employed on the Works shall be not less than once in a week (commencing on Monday). Where necessary, the Contractor can arrange more than one session of Pre-work Activities to be held in a day in order to suit the large workforce or the different times of arrival of workers at the Site. The Pre-work Activities shall be carried out prior to any work carried out by the persons attending the Pre-work Activities on that day. Furthermore, the number of persons attending the Pre-work Activities in a session shall be governed by the hard-paved area which shall be sized based on the rate for a person specified in sub-clause 5 below.

(1) Daily Cycle

1.1 PES Meeting

- 1.1.1 The Contractor shall arrange and hold PES meetings each about 10 to 15 minutes for all the persons employed on the Works.
- 1.1.2 The PES meeting shall be led by the Site Agent or a senior staff of site management of the Contractor, who has attended the training course on SSC or the Safe Working Cycle of the Occupational Safety & Health Council (OSHC) or Construction Industry Council Training Academy (CICTA), or other relevant training courses notified by the Architect.
- 1.1.3 The first few minutes of PES meeting shall start with a physical exercise set by the Contractor. After that, the leader of the PES meeting shall address the attendees on the prevailing safety and health matters related to the Site, such as common hazards and control measures, general fire and safety precautions, specific safety concerns, general defects and irregularities observed in inspections, accidents or near misses etc.. Besides, the Contractor shall also make use of the PES meetings to announce common safety matters in execution and co-ordination of the Works on the Site among sub-contractors and workers, or presenting awards to workers and/or sub-contractors in recognition of their good safety performance.
- 1.1.4 The Contractor shall maintain a brief record of the run-down programme and a register of the persons attended for each PES meeting. The record and the register shall be kept in the Contractor's site office for ready inspection by the Architect's Representative or his/her staff upon request. The Contractor can use separate sheets for registering attendees in order to save time for taking attendance in the meeting. The Architect's Representative and/or his/her staff shall attend the PES meetings regularly to ensure their quality for certifying payment.

- 1.2 HIA Meeting
- 1.2.1 The Contractor shall arrange and hold HIA meeting of about 10 minutes for the attendees immediately after the PES meeting.
- 1.2.2 To strengthen the communication on the Site, the Contractor shall arrange persons on the Site to take turn to lead the HIA meeting. Such person can be either a foreman, ganger, Safety Officer, Safety Supervisor or Safety Representative who has attended, in addition to the SSC course as mentioned in sub-clause 1.1.2 above, the presentation skill course such as the Occupational Safety and Health Trainer Course of OSHC or the Safety Training Techniques of CICTA or other relevant courses notified by the Architect. The Contractor shall ensure that sufficient persons on the Site have received the training to lead the HIA meetings as soon as the Contract commences.
- 1.2.3 The leader of each HIA meeting shall prepare the training materials before conduction, which shall include, but is not limited to, hazards and control measures specific to the works or trades, special safety concerns, assurance of safety requirements and measures, reprimand of repeated irregularities and malpractice etc.. Besides, the leaders of the HIA meetings shall also encourage workers to give their views in the HIA meetings. Where necessary, Site Agent, Safety Officer and/or Safety Supervisors who are more experienced in provision of training shall provide guidance and assistance to the leaders of HIA meeting before conducting the meeting. The training materials prepared for and the discussion during the HIA meeting shall be recorded in a HIA table, a sample of which is shown in Annex A. The HIA Table shall be kept in the Contractor's site office for ready inspection by the Architect's Representative or his/her staff upon request.
- 1.2.4 Subject to the agreement of the Architect's Representative, the Contractor can alternatively arrange the HIA meetings to be held in small groups according to the trades, work teams or works areas set out by the Contractor for the Site. If so, the Contractor shall ensure that the assigned persons are competent to lead the HIA meetings, whose names and curriculum vitae shall be submitted to the Architect's Representative for approval. The Architect's Representative or his/her staff shall attend the HIA meetings regularly to ensure their quality for certifying payment. The Architect's Representative shall not certify payment for the number of persons who have attended the HIA meeting in a group if the Architect's Representative is dissatisfied with the content and/or the arrangement of the HIA meeting for that group.
- 1.2.5 The Contractor can use the register for the PES meeting for taking attendance of the HIA meeting if the attendees have not split up into small groups. Otherwise, the Contractor shall use separate sheets for registering attendees of individual groups of the HIA meetings, and attach to the register of the PES meeting held on the same day for ready inspection by the Architect's Representative or his/her staff upon request. Furthermore, the Contractor shall complete one HIA table for each HIA meeting held for individual groups pursuant to sub-clause 1.2.4 above.

1.3 Pre-work Safety Checks

1.3.1 The Contractor shall arrange and hold Pre-work Safety Checks for the attendees immediately after the HIA meeting. The Pre-work Safety Checks shall be carried out by foremen, gangers, Safety Supervisors or Safety Representatives of the attendees according to the trades, work teams or works areas set out by the Contractor for the Site. The Pre-work Safety Checks shall include the checking of personal protective equipment worn by attendees before they start working on that day such as safety helmet, reflective vest, ear protectors, eye protectors, safety harness, safety footwear etc.. The Architect's Representative or his/her staff shall attend the Pre-work Safety Checks regularly to ensure the proper checking by the Contractor for certifying payment.

1.3.2 The Contractor shall assign persons who are competent with the relevant knowledge, experience and training to check and ascertain the safety conditions of facilities, machinery, plant and equipment and materials before commencing work on that day. The Contractor shall propose a list of facilities, machinery, plant and equipment to be checked and develop relevant checklists for such checking for the approval of the Architect's Representative. The assigned persons shall use the checklists for Pre-work Safety Checks of facilities, machinery, plant and equipment, and the completed checklists shall be kept at the Contractor's site office for ready inspection by the Architect's Representative or his/her staff upon request.

1.4 Safety Inspection by the Site Agent or his Representative

1.4.1 The Contractor shall arrange the Site Agent or his/her representative to carry out safety inspection of the Site daily, particularly for those areas identified for improvements in weekly safety co-ordination meetings, Weekly Safety Walks, Site Safety and Environmental Management Committee meetings or Site Safety and Environmental Committee meetings pursuant to sub-clause 2.1, 2.2, 3.1 and 3.2 respectively. The Site Agent or his/her representative shall check and ensure that the safety instructions given in PES meetings or HIA meetings have been observed and carried out.

1.4.2 Any unsafe act or unsafe conditions observed during inspections shall be recorded in a diary maintained by the Site Agent, who shall promptly communicate the irregularity to the respective party concerned for follow-up actions. The Site Agent shall check and ensure that the unsafe acts or unsafe conditions are rectified promptly, and the date is duly recorded in the diary after completion. The safety diary shall be made available for inspection by the Architect's Representative and copying thereof upon request.

1.5 Guidance and Supervision during Work

The Contractor shall assign sufficient supervisory staff to be responsible for the safety and health of workers on the Site. The names of the assigned supervisory staff shall be shown in the site safety organization chart posted up in the safety bulletin board pursuant to sub-clause 4.2 below. The assigned supervisory staff shall provide guidance and supervision for the workers under his/her control, and rectify any irregularities, unsafe acts or unsafe conditions for the works on the Site. Guidance and supervision provided shall also include the implementation of safety instructions given in PES or HIA meetings.

1.6 Safety Co-ordination Meeting

The Contractor shall arrange and hold safety co-ordination meeting each day to coordinate safety and health work to be carried out on the Site on the following day. The meeting shall be chaired by the Site Agent or a senior staff of site management of the Contractor, and attended by assigned supervisory staff pursuant to sub-clause 1.5 above where necessary. The meeting shall be used to discuss the findings in safety inspections and/or the matters to be announced in the next PES or HIA meeting. It can also be used for discussion and co-ordination of site safety matters, such as sequence of works, usage times for shared machinery and equipment and works areas, phasing of works at various interfaces, delivery and storage of materials and equipment to the Site etc.

1.7 Daily Cleaning

Detailed requirements are specified in PS.G10 – Particular Specification for Daily Cleaning and Weekly Tidying.

1.8 Checking of the Site after Each Day's Work

The Contractor shall assign designated person to check the safety of the Site after each day's work including, but is not limited to, the following:

- i. all flames and heat sources have been extinguished (particularly for welding and hot-work operations);
- ii. keys have been removed from construction machinery and plant and kept in a safe place;
- iii. all construction plant are parked properly on level and stable ground;
- iv. all machinery and power sources have been turned off;
- v. all openings are properly covered and all edges are provided with fall protection measures;
- vi. all nailed timber, planks and/or sheets are piled and put aside away from main accesses;
- vii. excavated surfaces on soil slopes are provided with temporary protection;
- viii. all temporary works are properly maintained;
- ix. signing, lighting and guarding are provided in accordance with the approved temporary traffic management scheme;
- x. hoarding and/or covered walkways along the periphery of the Site are maintained in proper condition; and
- xi. the Site has been fenced and guarded against unauthorized entry.

The designated person shall, after completion of checking, notify the Site Agent any unsafe conditions or imminent danger that require immediate follow-up actions. The designated person shall also draw the attention of the Site Agent about the minor irregularities to arrange rectification on the following day.

(2) Weekly Cycle

2.1 Weekly Safety Walk

Detailed requirements are specified in Clause No. 11 of this Particular Specification.

2.2 Weekly Safety Co-ordination Meeting

The Contractor shall arrange the Site Agent or a senior staff of the site management of the Contractor together with the Safety Officer, Safety Supervisor and/or supervisory staff of sub-contractors to attend the weekly safety co-ordination meeting chaired by the Architect's Representative. The meeting shall discuss or coordinate safety and health matters including, but is not limited to, safety performance, housekeeping and tidiness of the Site, together with the specific areas of concern, defects and deficiencies observed in Weekly Safety Walks, accidents and near misses occurred on the Site, etc. A brief notes of the meetings shall be prepared by the Contractor and endorsed by the Architect's Representative after the Meeting.

2.3 Weekly Tidying

Detailed requirements are specified in PS.G10 – Particular Specification for Daily Cleaning and Weekly Tidying.

(3) Monthly Cycle

3.1 Site Safety and Environmental Management Committee Meetings

Detailed requirements are specified in Clause No. 10 of this Particular Specification.

3.2 Site Safety and Environmental Committee Meetings

Detailed requirements are specified in Clause No. 9 of this Particular Specification.

(4) Safety Bulletin Board

4.1 The Contractor shall provide a safety bulletin board at the location where Pre-work Activities pursuant to sub-clauses 1.1 to 1.3 shall be held. Subject to the approval of the Architect, additional safety bulletin board can be provided where Pre-work Activities have to be held at more than one location of the Site.

4.2 The safety bulletin board shall be made of recycled materials with a size approximately 6m x 1.5m which can be varied to suit the site condition subject to the approval by the Architect's Representative. The board shall contain, but is not limited to, the following information:

- i. the design by the Contractor on promotion of Site Safety Cycle;
- ii. a chart with names and contact telephone numbers showing the site safety organizational structure from senior site management down to sub-contractors, gangers, foremen, Safety Officer, Safety Supervisors and Safety Representatives according to works trades, work gangs or works areas, together with the emergency teams, first aid personnel etc.;
- iii. accident statistics with breakdown to sub-contractors; and
- iv. a figure showing a worker wearing all the personal protective equipment plus a mirror to cover the full view of the person when standing in front.

The safety bulletin board may contain other safety information related to the Site such as Site plan, safety policies, in-house safety rules and regulations, slogans, colour coding systems for lifting gears, important safety and health issues etc..

4.3 The Contractor shall propose the location for the erection of the safety bulletin board and the hard-paved area pursuant to sub-clause 5 where Pre-work Activities will be held for the approval of the Architect's Representative.

(5) Hard-paved area

- 5.1 The Contractor shall arrange and provide a hard-paved area on the Site for holding Pre-work Activities pursuant to sub-clauses 1.1 to 1.3 above under GS Clause 1.28 "Site accommodation for contractor" in the Specification Preliminaries. The hard-paved area shall be sized based on a rate of 1.5 m² per person multiplied by the maximum number of persons to be arranged for one session of Pre-work Activities. The hard-paved area shall be designed to be able to sustain the load at that area throughout the Contract. Details of construction of the hard-paved area shall be submitted to the Architect's Representative for approval.
- 5.2 Subject to the agreement of the Architect's Representative, the Contractor can arrange Pre-work Activities to be held at more than one location, and the hard-paved areas at each venue shall be sized separately based on the specified requirement given in sub-clause 5.1 above. The hard-paved area can be an open area in front of the site office, or an area inside building structure under construction, or at the main works areas in case of roadworks or mains laying contracts, or near shaft opening for a tunnelling contract, whichever is appropriate. The Contractor shall submit the proposed location and its area for holding Pre-work Activities for the approval of the Architect's Representative within 14 days from the date of commencement of the Works on the Site.
- 5.3 If the proposed location for holding of Pre-work Activities is outdoors, consideration shall be given to provide a cover for the hard-paved area unless otherwise approved by the Architect's Representative that the provision is not necessary. Details of construction of the cover shall be submitted to the Architect's Representative for approval.
- 5.4 The Contractor shall maintain the hard-paved area and the cover throughout the Contract, and shall demolish and reinstate the area to the satisfaction of the Architect's Representative prior to completion of the Works unless otherwise agreed by the Architect.

17. Welfare Facilities for Workers

Immediately after the award of the Contract, the Contractor shall arrange to provide welfare facilities specified below for workers employed on the Works, irrespective of whether they are in the employment of the Contractor or his sub-contractors. The Contractor shall maintain the welfare facilities provided on the Site throughout the Contract, and shall remove the facilities and reinstate the areas after removal of the facility or upon completion of the Works where necessary. The costs for the provisions shall be priced in the Specification Preliminaries under GS Clause 1.28 "Site accommodation for contractor". The sufficiency of provision for the welfare facilities shall be monitored and reviewed in the Site Safety and Environmental Management Committee meetings. The Contractor shall replenish the insufficiency of provision to meet the specified requirements and shall not be entitled to claim the cost of such replenishment after commencement of the Works.

(1) Storage Compartments

The Contractor shall provide storage compartments for use by workers. The storage compartment shall be placed at a location close to the Site entrance to facilitate workers to obtain/place their personal protective equipment such as safety helmet, reflective vest, eye protectors, safety harness etc. when they enter/leave the Site.

The Contractor shall ensure adequate provision of storage compartments taking into account the fluctuation in labour workforce. The Contractor shall determine the dimensions of the storage compartments. To facilitate monitoring and control, each storage compartment shall be designed for use by not more than five persons unless otherwise approved by the Architect's Representative. The Contractor shall propose the number, location and layout arrangement for the placement of storage compartments on the Site for the approval of the Architect's Representative within 14 days from the date of commencement of the Works on the Site. The Architect's Representative shall review regularly the adequate provision of storage compartments on the Site for use by workers throughout the Contract.

(2) Drinking Water Facilities

The Contractor shall provide free drinking water facilities for workers working on the Site throughout the Contract to minimize waste plastic bottles. The drinking water facility can be in the form of a water pot with a cover at the top for water refilling and a tap at the bottom for drawing water, a distilled water drinking fountain or any other form that the Contractor considers appropriate. The drinking water facilities shall be provided indoors and each of which shall have a storage capacity of not less than 20 litres.

The Contractor shall be responsible for maintaining the drinking water facilities in clean and hygienic condition and refilling drinking water to the facilities when empty. The number of drinking water facilities provided on the Site shall be at a ratio of not less than one for every (20) workers. The Contractor shall propose the number, location of placement and the refilling frequency for drinking water facilities provided on the Site for the approval of the Architect's Representative within 14 days from the date of commencement of the Works on the Site. The Architect's Representative shall review regularly the adequacy of drinking water facilities provided by the Contractor throughout the Contract.

(3) Toilet Facilities

The Contractor shall provide toilet facilities for workers working on the Site throughout the Contract, unless otherwise approved by the Architect's Representative that the provision is not necessary. The toilet facilities shall be suitable for use bisexually and placed at convenient locations close to workers' workplace. The toilet facilities shall be either one of the following types:

- (i) wet type with flushing water supply and the toilet waste properly collected and discharged into a sewerage system, septic tank, soakaway system, or in-situ sewage treatment facilities proposed by the Contractor and approved by the Architect 's Representative;
- (ii) chemical type complete with containers for regularly cleaning and removal by specialist contractor.

For connection to a public sewerage system, the Contractor shall obtain approval from the Drainage Services Department prior to making the connection. If a soakaway system is adopted, the Contractor shall carry out in-situ percolation test to prove that the soil shall have sufficient absorption capacity to treat the toilet waste flow. The test results shall be submitted to the Architect's Representative for recording before discharging. If in-situ sewage treatment facility is adopted, the plant shall be equipped with disinfection unit to sterilize the treated effluent before discharging.

The number of toilet facilities provided on the Site shall be at a ratio of not less than one for every (30) workers. The Contractor shall propose the toilet type, number and their locations of placement for the approval of the Architect's Representative within 14 days from the date of commencement of the Works on the Site. The Contractor shall maintain the toilet facilities in clean and hygienic condition. The Architect's Representative shall review regularly the adequacy of toilet facilities provided by the Contractor on the Site and the cleanliness and hygienic conditions of these toilets throughout the Contract.

(4) Hand-wash Facilities

The Contractor shall provide hand-wash facilities in the form of water points and sinks for workers working on the Site throughout the Contract, unless otherwise approved by the Architect's Representative that the provision is not necessary. The number of hand-wash facilities provided on the Site shall be at a ratio of not less than one for every (20) workers. The discharge from hand-wash facilities shall be collected to prevent spillage on the floor, and discharged to a water reception tank or flushing water supply tank for recycling/reusing as appropriate. The Contractor shall propose the number of hand-wash facilities, their locations and the system of how to collect the discharge from the wash-water basin for reuse/recycle on the Site for the approval of the Architect's Representative within 14 days from the date of commencement of the Works on the Site. The Architect's Representative shall review regularly the adequacy of hand-wash facilities provided by the Contractor on the Site and the effectiveness of the discharge collection system throughout the Contract.

(5) Showering Facilities

When the number of workers working on the Site will likely be exceeding (100) in a day for a continuous period of twelve months or more during the Contract, the Contractor shall, in addition to the provision of hand-wash facilities pursuant to clause (4) above, provide showering facilities on the Site unless otherwise approved by the Architect that the provision is not appropriate. The showering facilities shall be provided indoors or inside containers with appropriate drainage connections. The number of showering points provided on the Site shall be at a ratio of not less than two for the first (100) workers, and an additional one for every additional (50) workers.

The Contractor shall provide showering facilities at different locations/rooms for use by male or female workers separately. Each showering point shall be furnished with hot and cold water supply. The Contractor shall be responsible for the water and electricity charges for providing the facilities. Details of installation of the facilities shall be submitted for the approval of the Architect's Representative within 30 days after the commencement of the Works on the Site.

(6) Rubbish Bins

The Contractor shall provide sufficient rubbish bins with covers at strategic locations on the Site for collection and disposal of general wastes generated by workers throughout the Contract. The rubbish bins shall be provided in pairs, one for aluminium cans and plastic bottles and the other for general refuses. The locations for the rubbish bins in pairs shall be placed at convenient locations close to the workers' workplace to facilitate use. The number of paired rubbish bins in pairs provided on the Site shall be at a ratio of not less than one pair for every (20) workers. The size of the rubbish containers shall be of minimum 1 m high and have an opening of at least 0.28 m² at the top for collecting wastes.

The Contractor shall maintain the cleanliness of rubbish bins, and arrange collection and disposal of general waste inside the rubbish bins regularly, but in any case shall be not less than once in every three days. The Contractor shall also make arrangement for collecting papers and packaging on the Site to reduce disposal of wastes to landfills. The Contractor shall propose the number and the location of placement of rubbish bins provided on the Site together with the arrangement for on-site sorting of aluminium cans, plastic bottles and papers for the approval of the Architect's Representative within 14 days from the date of commencement of the Works on the Site. The Architect's Representative shall review regularly the adequacy of rubbish bins provided on the Site by the Contractor and the effectiveness of on-site sorting of general wastes throughout the Contract. The Contractor shall include this requirement to form part of his waste management plan if appropriate.

Monthly Statement of Trade Specific Advanced Safety Training for Skilled Workers (Silver Card)

(for the month of _____)

Department : _____
 Contract Number : SS T320
 Contract Title : Construction of Local Open Space at Chung Yee Street, Kowloon City District
 Contractor : _____

Name of Worker		Trade of Worker	Silver Card		Remarks
in English	in Chinese		Serial No.	Date of Issue	

Prepared by :

Checked by:

(Name of Safety Officer)_____
(Name of Site Agent)

Signature :

Signature :

Date :

Date :

PART 3 - COLOUR CODING OF LIFTING GEAR

1. General

- 1.1 This procedure applies to all slings, shackles and such-like equipment that are required by regulation to be certified.
- 1.2 This procedure will be distributed and shall apply to all contractors who are working on the Site.
- 1.3 This procedure will be distributed to Suppliers. It shall become a condition of purchase that all Suppliers use only certified lifting equipment on the Site. Such equipment will not feature on the Site Lifting Gear Register (the Register) if it is only present on a temporary basis during loading/unloading of plant, equipment or materials.

2. Arrival on the Site

- 2.1 Upon arrival on the Site, all contractors shall ensure that their lifting equipment is properly certified and identifiable (i.e. any stamping is legible). If it is not certified or the stamping is not legible then the equipment shall be quarantined and not used until such time as it is tested and certificates can be provided.
- 2.2 Sub-contractors shall report to the Contractor's Safety Officer (SO) who shall ensure that the certification and stamping are satisfactory, before entering the equipment in the Register and painting the equipment with the appropriate colour (see para. 3.1 below). The Register shall include the due date for re-examination of the equipment.

3. Routine Monitoring

- 3.1 A colour coding system will be in use for months as noted below :-

Jan	-	Feb	-	Mar	Blue
Apr	-	May	-	Jun	Yellow
Jul	-	Aug	-	Sept	Green
Oct	-	Nov	-	Dec	Orange

To be removed from the Site Equipment under quarantine in Main Contractor's Central Yard

Red
White

- 3.2 The Contractor and sub-contractors' foremen are to familiarise themselves with the colour for that month and ensure that personnel in their charge use only equipment painted in the appropriate colour.

- 3.3 On the last working day of each month (except as noted in para. 3.5) the Safety Officer of the Contractor (SO) will issue copies of the updated register to site foremen. The foreman will then check all equipment on their batch for compatibility with the Register. The foremen shall particularly ensure that stamping is still legible and the colouring is appropriate. Any equipment in doubt shall be removed from the working area and delivered to the Contractor's central yard whereupon sub-contractors will be required to have it quarantined, re-certified or scrapped accordingly. The equipment under quarantine shall be painted white by the SO. The SO or Safety Supervisors will supervise this operation and be responsible for it.
- 3.4 During day-to-day operations, it is the responsibility of all concerned to ensure that proper lifting equipment is used. Any irregularity shall be immediately reported to the SO who shall take action as necessary.
- 3.5 On the following days, or as soon thereafter as practical but in any event within 14 days, all lifting equipment shall be inspected by the SO who shall also check the validity of the certificates as stipulated in the FIU (Lifting Appliances & Lifting Gear) Regulations.

The days are	31st	March
	30th	June
	30th	September
	31st	December

Upon satisfactory inspection and certification, SO shall paint the said equipment with the new colour as noted in para. 3.1 and enter in the Register accordingly.

- 3.6 The Contractor's Safety Officer shall be responsible for ensuring that all equipments are painted with the appropriate colour and an updated register of such equipment kept. If routine monitoring (re. paras. 3.3 & 3.4) reveals faults with colour coding then sub-contractors shall inform the Safety Officer who will take the appropriate action. If equipment is obviously faulty then it shall be painted red and the sub-contractor be advised to remove it from the Site immediately.
- 3.7 The colour coding does not evade the Contractor's duty under the Factories & Industrial Undertakings (Lifting Appliances and Lifting Gears) Regulations in examining them every six months by Registered Professional.

4. Completion/Removal from the Site

- 4.1 From time to time, or upon completion of his work, a sub-contractor may require to remove equipment from the Site. Such removal shall be notified to the SO for updating the Register.
- 4.2 Once removed from the Site, if the equipment is then brought back, then it shall be treated as per para.2 above.