

SITE SAFETY SEMINAR FOR WORKS CONTRACTS AND PROPERTY SERVICES CONTRACTS (15.12.2011)

Surprise Safety Inspection Programme (SSIP) **突擊安全檢查計劃**

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Background

1. To strengthen the commitment of and resource input by contractors at source on OSH
2. to raise vigilance and further enhance site management / physical conditions through surprise site visits by independent occupational safety and health inspectorates.
3. to Capital Works New Works Contracts (contracts under HASAS(New Works-NW))
4. expect to roll out from March 2012 onwards

Implementation

1. Surprise Safety Inspection (SSI) will be conducted by professional safety inspectorates appointed by Occupational Safety & Health Council (OSHC)
2. in a quarterly basis
3. SSI is independent from safety audits under HASAS (NW)
4. SSI will adopt sampling strategy and target on high risk activities and areas of concern; and
5. check the compliance of the contractors related to occupational safety and health (OSH) requirements

Key Features

1. SSI- conducted based on objective checklist with a marking scheme.
2. Proposed assessment criteria & scoring system of SSIP:
 - no partial compliance for each checklist item &
 - non-fully compliance item be treated as non conformance item.
3. The contractor representatives (resident site staff of Housing Department whenever practicable) accompany the inspectorate throughout SSI.

Key Features

4. Non-conformance items shown on the inspection checklist will be acknowledged by the contractor representatives in presence of site staff of Housing Department.
5. In the initial stage, subject to trial run on ongoing projects, SSIP will be introduced as a “standalone” system in order to gather substantive data for score analysis and facilitate contractors to get acquainted with the system.

Procedures

1. SSI will be carried out WITHOUT prior notice (including Housing CM, site staff, contractor, ASA, OSHC Safety Audit Management Office, SI, etc.)
2. SSI will adopt sampling strategy:
 - target on high risk activities and areas of concern.
 - target may change where necessary and will inform relevant parties in advance.
3. SSI will check the compliance of all contractors (including main contractor, subcontractors, & nominated subcontractors) related to OSH requirements.

Procedures

4. Initial stage, SSI will focus on

High Risk Activities (Critical Pass Item, Part B of HASAS(NW) Ver 1.5)

1. *Fall from Height*
2. *Falling Objects*
3. *Lifting Operations*
4. *Housekeeping*
5. *Electrical Supply System*

Areas of concern

1. *Excavation (civil projects)*
2. *Work in Confined Spaces*

Procedures

- SSI generally completed not more than half day (4 hours including open and closing meeting). May be longer for mega site or where considered necessary

Procedures

Inspection Schedule

- SI not be notified in advance of which contract will be inspected until they get the sealed envelope which contain the contract information, namely the name of contractor and site address, before they depart from their office on the date of inspection.
- SSIP in-charge officer will plan ahead of the schedule of visits to various contracts under HASAS based on the contract period as well as the progress of work on site. The inspection schedule will be arranged such that it fulfills PASS assessment schedule.

Sampling Logistics

1. necessary stationary and equipment, namely measuring tape, digital camera and telescope
2. A short open meeting (about 10 minutes) with site representatives and HA site staff for arrangement of site inspection
 - recorded in HA site diary as proof of inspection with date and time
 - contractor produces necessary supporting document, mainly inspection, test and exam records, etc.

Sampling Logistics

3. Site representatives (including nominated subcontractors when available) must accompany throughout the inspection and will be kept informed of any non-conformance (NC) items observed
should be supported with photos or evidence of related site personnel (e.g. name or trade or work carried out by the personnel failed to follow safety measures)
4. Verification of NC items should be completed before leaving the site.
5. SSI is a planned inspection which will have areas for inspection focus



Sampling Logistics

6. Closing meeting (not more than 30 minutes) will be done with site representatives (including nominated subcontractors) and HA site staff for rounding up the results of safety
7. Contractor's representative will need to acknowledge with the results on non conformance items in the presence of Housing site staff with a copy of the Surprise Safety Inspection Checklists (SSIC) which will be used as reference and record for the SSI inspection

Sampling Logistics

8. SI will take photographs and collect evidence for verification of compliance of OSH requirements (including interviewing of related personnel to the contract, checking of records and supporting document, obtaining copy of supporting record and document, etc)
9. SI will advise contractors and their employees or representatives for improvement or enhancement of OSH performance either verbally on site and/ or in writing where appropriate.

Sampling Logistics

10. SSI Management Office will report to HA (CM of project) about the result of SSI in form of a summary of inspection result with a copy of the inspection checklist copied to site staff (CTO of project) and contractor. A copy of the result will also be sent to ASA for reference in future audit.

(Details please refer to Flowchart)

Focus on Inspection

1. General site boundary all around the site- site entrance, vehicles, passenger passageway for general access, egress including those that will affect the general public (protection of falling objects, safe lifting operation, measures of fall protection.)
2. Storage areas at G/F or basement (floor & lift shaft opening, safe means of access and egress, falling objects, housekeeping, storage of façade, pre-cast formwork, lifting areas or loading areas, etc)
3. Associated structure of building/ temporary structure such as excavation, slope work/road work, falsework for footbridge or access road, drainage system (confined space access and egress), etc.

Focus on Inspection

4. Focus on working platforms in particular during the installation of electrical, fire and air conditioning services and the finishing stage
5. Focus on lifting operations
 - ◆ Tower cranes- concreting, lifting of formwork, façades, etc
 - ◆ Mobile cranes- lifting of equipment and building materials, suspension of load for assembly, etc. in normal transportation, bore piling work, tower crane erection and dismantling work, etc.
 - ◆ Lifting operation involving electric chain block, winches, etc for curtain wall erection (e.g. shopping centre), lift installation, etc.

Focus on Inspection

6. Inspection on working floors
 - 1) top floor & its 3 to 4 floors immediately below;
 - 2) floors where the tower cranes supports are mounted on;
 - 3) floors where the tower cranes were previously mounted on;
 - 4) floors with passenger hoist landings;
 - 5) floors where material hoist is transporting materials;
 - 6) floors where gondolas are landing and anchored;
 - 7) floors where there are loading platforms;

Focus on Inspection

- 6. Inspection on working floors
- 8) G/F- 2/F;
- 9) floors where there are access and egress to the bamboo scaffolds;
- 10) floors where most work activities are in progress such as plastering, floor tile laying, etc..
- 11) High level locations where it is not safe for access and inspection can be done with the help of telescope.

P.S. *The list is NOT exhaustive* and particular floor, area, equipment or plant, etc may be inspected where the Safety Inspector considered it is necessary.

Target Areas

Target Area 1: Activities and precautions involving falls from height

- 1) Workplace where risk of person falling a distance, including maintenance, cleaning & repair, has to be identified & appropriate control measures implemented (e.g. access points to fragile surfaces, stairs, lift shaft & floor openings, roof edges, etc).
- 2) Access & egress/equipment for such purposes, is of good & sound construction, well maintained, regularly inspected & properly used.
- 3) Erection / dismantling / altering of scaffolding or working stage for structure of building, plant or temporary structure should be identified & safety practices adopted (e.g. method statement).
- 4) Use of equipment/aid related to working at height including ladders, trestles, mobile tower scaffold & mechanical elevated working platforms etc.

Target Areas

Target Area 2: Activities and precautions involving materials fall from height

- 1) Steps to have good housekeeping to prevent displacement or fall of objects.
- 2) Steps taken to ensure scaffolding materials, tools or other objects and materials are properly lowered in a safe manner by means of a lifting appliance or lifting gear.
- 3) Steps to prevent scaffolding materials, tools or other objects and materials from being thrown, tipped or shot down from a height where they are liable to cause injury to persons on or near a site.
- 4) Precautions shall be taken to protect workers employed at a site and the public from falling materials or flying debris.

Target Areas

Target Area 3: Activities and precautions involving housekeeping

General

- 1) daily jobsite cleanup program
- 2) disposal of rubbish
- 3) individual cleanup duties for all workers
- 4) materials piled, stacked, or otherwise stored to prevent tipping and collapsing
- 5) materials stored away from overhead power lines
- 6) work and travel areas kept tidy, well-lit, and ventilated
- 7) signs posted to warn workers of hazardous areas

Target Areas

Target Area 3: Activities and precautions involving housekeeping

Specific

- 1) keep stairways, passageways, and gangways free of material, supplies, and obstructions at all times.
- 2) Lower debris by means of a chute or other approved devices.
- 3) projecting nails removing or bending and projecting objects protection

Storage

- 1) storage areas should be at least 1.8 metres (6 feet) from roof or floor openings, excavations/any open edges where material may fall off
- 2) pile bagged material more than 10 bags high unless the face of the pile is supported by the walls of a storage bin or enclosure.



Target Areas

Target Area 4: Activities and precautions involving lifting operations by lifting appliances

Lifting plant operation

- 1) Lifting appliance with valid statutory certificates
- 2) lifting gear with valid statutory certificates and indication of safe working load
- 3) use the lifting gear inspected by competent person
- 4) operators, signalers and slingers with valid certificates
- 5) lift material with sling legs forming an angle less than 45 degrees to vertical
- 6) mobile crane properly extend the outriggers if provided during lifting operation

Target Areas

Target Area 4: Activities and precautions involving lifting operations by lifting appliances

Lifting work safe behaviour

- 1) rig the material properly before lifting operation
- 2) lift load (including material) routing across workers
- 3) use of guide rope sling for holding the loading object

Target Areas

Target Area 5: High Risk Activity of Concern – Electrical supply system

- 1) Provision of safe electrical supply system (General Safe Practice such as appropriate signage/notice displayed to warn electrical hazard and live parts; and appropriate notice for treatment of electrical shock and resuscitation, in both English and Chinese, displayed in areas where electricity is used.)
- 2) Safety provision of temporary distribution boards of securely mounted supports and with suitable main switches; and generators of properly earthed with exhaust fumes properly discharged.
- 3) Appropriate earth leakage protection devices provided to electrical supply system.
- 4) Provision of reduced voltage systems used for portable and hand-held tools and temporary site lighting.

Target Areas (Areas of Concern)

Work in Confined Spaces (Civil work project/ Near completion NW)

- 1) Conduct risk assessment by competent person on work in confined space before commencement with developed procedure and arrangement such as Permit-to-Work (PTW)
- 2) Provision of competent workers worked in confined spaces and being supervised
- 3) Provision of safety equipment and rescue equipment to support the confined space work

Confined space work safe behaviour

- 1) Follow the defined procedure and arrangement of confined space such as PTW.
- 2) Proper use of safety equipment
- 3) Proper use of emergency rescue equipment

Assessment Criteria and Scoring

1. There will be no partial compliance for each checklist item for SSIC.
2. Non-fully compliance item will be treated as non conformance (NC) item.
3. Not applicable item will be applied to non existence of such activities or plant or equipment. It will only be applied to those conditions where the part of the structure or machine or plant that is totally suspended and cordoned off and prevented from access.
4. Results will be in term of percentage of score with total Conformance (C) items over total applicable items.

(Details please refer to SSI Checklist)



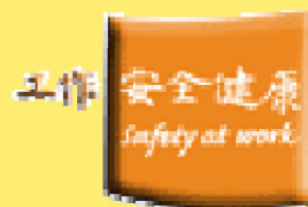
To Sum Up

- To keep the momentum of good safety performance of Housing Authority contracts in implementation of safety management system with continuous improvement through various means including the new SSIP.
- To show the commitment and determination of Housing Authority to provide good quality of housing which is built safely.

Way Forward

- The scores from SSIP shall eventually be linked to the Integrated Pay for Safety, Environment and Hygiene Scheme as an incentive for contractor to tighten vigilance in their day-to-day work.
- SSIP scores can also be subsumed into HASAS (New Works) and PASS.

Thank you



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