



CONSTRUCTION
INDUSTRY COUNCIL
建造業議會



GUIDELINES ON THE ADOPTION OF THE PAY FOR SAFETY SCHEME

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Preface

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

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

Alerts	Reminders in the form of brief leaflets produced quickly to draw the immediate attention of relevant stakeholders the need to follow some good practices or to implement some preventative measures in relation to construction site safety.
Reference Materials	Reference Materials for adopting standards or methodologies in such ways that are generally regarded by the industry as good practices. The CIC recommends the adoption of these Reference Materials by industry stakeholders where appropriate.
Guidelines	The CIC expects all industry participants to adopt the recommendations set out in such Guidelines and to adhere to such standards or procedures therein at all times. Industry participants are expected to be able to justify any course of action that deviates from those recommendations.
Codes of Conduct	Under the Construction Industry Council Ordinance (Cap 587), the CIC is tasked to formulate codes of conduct and enforce such codes. The Codes of Conduct issued by the CIC set out the principles that all relevant industry participants should follow. The CIC may take necessary actions to ensure the compliance with the Codes.

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

Abbreviations

AP	Authorised Person
BQ	Bills of Quantities
CIC	Construction Industry Council
DevB	Development Bureau
HKCA	Hong Kong Construction Association
HKHA	Hong Kong Housing Authority
LD	Labour Department
MC	Main Contractor
OSHC	Occupational Safety & Health Council
PFSES	Pay for Safety and Environment Scheme
PFSPMS	Pay for Safety Performance Merit Scheme
PFSS	Pay for Safety Scheme
Integrated PSE&H Scheme	Integrated Pay for Safety, Environment and Hygiene Scheme
RC	Registered Contractor
REDA	The Real Estate Developers Association of Hong Kong
RGE	Registered Geotechnical Engineer
RSA	Registered Safety Auditor
RSE	Registered Structural Engineer
RSO	Registered Safety Officer
SoR	Schedule of Rates
SP	Supervision Plan
SPP	Safety Partnering Programme jointly organised by the REDA and HKCA
TCP	Technically Competent Person

1. Purpose

- 1.1 This publication promotes good practice recommended by the Construction Industry Council (CIC) on the adoption of the Pay for Safety Scheme (PFSS) in construction contracts for both public and private projects.
- 1.2 The intention of the PFSS is to develop a fair and equitable environment for the contracting parties under a construction project to manage site safety matters.
- 1.3 In this publication, the general principles and measures have been provided as guidance for stakeholders in the construction industry to take concerted efforts in improving site safety performance by adopting the PFSS.
- 1.4 The CIC recommends that the construction industry as a whole pay heed to and consider adopting PFSS as good practice. It is understood that construction projects can be significantly different in size, scope and nature. As such, the recommendations or examples as stipulated in this publication would not necessarily be covering all types of projects or all forms of contracts. In this connection, the Employer or any associated project participants should fully consider the suitability and implementation details when adopting the PFSS in their works. Adjustments to safety related items, contractual provisions, or the implementation arrangements might be necessary in order to suit the requirements of each construction project.

2. Definitions

Authorised Person (AP)	It means a person whose name is on the authorised persons' register kept under Section 3(1) of the Buildings Ordinance, Chapter 123.
Employer	In relation to construction works, means any person or entity that directs the Main Contractor under a construction contract and is obliged to pay for the services/ works provided by the Main Contractor in compensation.
Main Contractor (MC)	In relation to construction work, means any person or firm engaged in carrying out construction work by way of trade or business, either on his own account or pursuant to a contract or arrangement entered into with another person, including the private sector, the Government of the Hong Kong Special Administrative Region or any public body. This includes the registered contractor appointed for a private sector project.
Technically Competent Person (TCP)	It means a person possessing academic or professional qualifications and experience of building works or street works that satisfy the requirements set out in the Code of Practice for Site Supervision issued by the Buildings Department for a particular type of site supervision or management tasks.
Registered Contractor (RC)	It means a registered contractor whose name is for the time being on any of the registers of general building contractors, specialist contractors or minor works contractors maintained under Section 8A of the Buildings Ordinance, Chapter 123.
Registered Geotechnical Engineer (RGE)	It means a person whose name is for the time being on the geotechnical engineers' register kept under Section 3(3A) of the Buildings Ordinance, Chapter 123.

Registered Safety Auditor (RSA)	It means a person registered as a safety auditor under the Factories and Industrial Undertakings (Safety Management) Regulation (Chapter 59AF).
Registered Structural Engineer (RSE)	It means a person whose name is for the time being on the structural engineers' register kept under Section 3(3) of the Buildings Ordinance, Chapter 123.
Registered Safety Officer (RSO)	It means a person registered as a safety officer under regulation 7 of the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations (Chapter 59Z).
Supervision Plan (SP)	It means a plan setting out the plan of safety management of building works or street works prepared in compliance with the technical memorandum issued under Section 39A of the Buildings Ordinance.

3. Introduction

- 3.1 Construction works entail a variety of high-risk activities. Responsible Main Contractors should adopt safe work practices and provide necessary precautionary measures to ensure construction sites under their control and supervision are in good and secure conditions to protect the safety of workers and the public.
- 3.2 The Main Contractor generally becomes responsible for the safety of all those on a construction site following the award of a contract, and remains so until contract completion. As such the Main Contractor in tendering for all work on that site must allow for the cost of equipment, working practices and supervision necessary to ensure a safe working environment. This responsibility also covers the employees of sub-contractors, consultants and others who lawfully enter the site.
- 3.3 In a competitive tendering environment, the assessment process leading to contract award should not unfairly result in a disadvantage to those tenderers who properly allow the cost of meeting their safety obligations, as compared with those who do not include an adequate allowance for safety in their tender price.
- 3.4 To improve or to rectify the situation so as to recognise the work done for site safety by the Main Contractor, the principles of “Pay for Safety” have been developed. The general principles and safety related items are illustrated in this Guidelines for the construction industry stakeholders to understand and follow so as to improve the site safety performance.

4. Guiding Principles and Benefits in adopting PFSS

4.1 Guiding Principles

- (i) The principle of a “pay-for-safety” scheme is that safety and health at work should begin with the one who pays. The Employer should provide the financial cost for the Main Contractor’s effort to protect the safety of workers and should forms part of the Construction Contract.

- (ii) The intention is that each tenderer for a specific construction project will receive the same pre-priced safety items, and thus separating the safety and health provisions from competitive tendering. The PFSS should include those measures that could help promoting the implementation of a safety management system, and the necessary safety measures and provisions under a contract. The amount set aside for safety should be realistic and reasonable estimates necessary for the Main Contractor to carry out its safety obligations.

- (iii) It is estimated that in a typical construction site the cost for such safety items would be between 0.5% and 2.0% of the total project sum. This should provide for the Main Contractor to actively allocate adequate attention and resources on the provision of site safety measures such that the associated payment could be realised during the interim payment process.

- (iv) There are different types of PFSS and they are highlighted below for ease of reference:
 - (a) Some PFSSs may include the use of a safety checklist to audit the safety performance of the Main Contractor and to certify payment to the Main Contractor on those audited items.

 - (b) The payment claims of some of the PFSSs may be made monthly in respect of the items as the Works progress.

 - (c) Some of the PFSSs may announce safety performance targets annually for participating Main Contractors and achievement of these targets will be awarded Milestone Payments

(for the Employer's voluntary adoption) under the Scheme.

- (v) To summarise, the pre-priced rates for the safety items and the method of payment should be reviewed for different projects with respect to their types, natures, complexities and sizes.

4.2 Benefits

- (i) The merit of "pay-for-safety" principle is not only on the monetary term that it provides to the Main Contractors, but more importantly the message that it propagates for the establishment of a safety management system on construction sites. The success in carrying out the safety management system in public works contracts by that time when it was not a statutory requirement was attributed to the PFSS, which in parallel also induced positive influence to the construction industry in general.
- (ii) Apart from the ease of implementation, the PFSS is not a system which is totally new to the industry practitioners. Safety in construction sites is mainly concerned with works safety and labour safety. The elements of works safety are embodied in the protocol of the Supervision Plan (SP), which require, in private projects, the Authorized Person/ Registered Structural Engineer/ Registered Geotechnical Engineer/ Registered Contractor (AP/RSE/RGE/RC) to provide adequate Technically Competent Persons (TCPs) under each of their supervision stream to carry out statutory duties for routine safety/ quality supervision of building works or street works under the Buildings Ordinance with the aim of ensuring site safety as well as work quality. In exercising such control, the Employer or its representative could include the PFSS's monitoring mechanisms into the project progress meetings with Main Contractor's representative, together with those site inspections and follow-up actions that are currently in place as a site management practice. Adequate resources should be provided such that the performance of PFSS related / contractual duties should not affect the carrying out of statutory duties by supervisory personnel particularly those TCPs who have to carry out full time supervision under the SP.

5. Samples of Safety Related Items

5.1 Some safety related items as shown below can be considered to be payable under the PFSS. It is reiterated that construction projects could significantly vary in size, scope and nature. As such, the Employer or any associated project participants should determine the suitability and implementation details when considering the adoption of the following items and the associated method of payment in order to suit the requirements of each construction project.

(i) Major areas for public works contracts which are payable under the PFSS

(a) Provision and Updating of Safety Plan

One of the most crucial elements that the Main Contractor has to bear in mind when implementing the safety management system is the Safety Plan. The Safety Plan provided by the Main Contractor has to meet the site constraints and characteristics (i.e. site specific items) and should cover all the components of the safety management system. Periodic updating of the Safety Plan is required. Hazard analysis and risk assessment for the work activities should be conducted as well and be reviewed from time to time.

(b) Provision of Safety Officers

Sufficient and competent Registered Safety Officers shall be employed for the contract for the justification of payment under this item.

(c) Provision of Safety Training and Workshop to Workers

There is a proverb saying "Prevention is better than Cure." Many accidents could in fact be avoided if precautionary measures have been taken by the workers before they start off work, and they maintain awareness on the hazards and risks associated with their works. In achieving this, proper safety training for the workers is required. Also, safety workshop to discuss and explain construction method with pictorial working procedures for easy understanding by workers is necessary. There could be financial subsidy under the PFSS payment when the Main Contractor provides site safety training for the workers.

- (d) Arrangement and Attendance of Site Safety Committee meetings
- Effective communication is the clue to good site safety management. The “Site Safety Committee” and the “Site Safety Management Committee” are the two site safety committees that have to be formed. The former Committee is established for the Main Contractor and his sub-contractors (including the representatives from workers). The latter Committee acts as a bridge to facilitate communication between the Employer and the Main Contractor. Payment will only be granted if regular meetings are conducted and remedial measures / action items required by the safety committees are accomplished successfully.
- (e) Arrangement and Attendance of Weekly Safety Walks
- This is the most essential portion of the PFSS which contributes the major portion of payment under the PFSS. The safety performance of the Main Contractor has to be monitored, controlled and justified on construction sites. Joint inspections with the representatives from the Employer and the Main Contractor shall be organised on a weekly basis to assess the site safety performance, to diagnose defects and deficiencies for improvement. The Main Contractor has to rectify the defects and deficiencies within reasonable time frame agreed with the Employer. The Main Contractor will not receive any payment for that week if he fails to complete the remedial actions / improvement measures. This acts as a very powerful measure for the Employer to motivate the Main Contractor to take prompt actions to rectify the demerits.
- (f) Other Possible Items
- Subject to the characteristics of each project, the Employer or its representatives might consider to include other safety related items such as “Silver Card Compliance”, “Safe Working Cycle”¹, “Site Safety Cycle”², “Subsidy for participating in Safety Campaigns”, “The Safety

¹ Note: The term “Safe Working Cycle” is illustrated in “Construction Site Safety Handbook” published by REDA and the HKCA and shown on the website of HKHA: http://sitesafety.housingauthority.gov.hk/HKHASSW/FAQ.aspx?p_id=24&m_parentid=5

² Note: The term “Site Safety Cycle” is shown in “Environment, Transport and Works Bureau, Technical Circular (Works) No. 19/2005 - Environmental Management on construction Sites” issued by the Government of the Hong Kong Special Administrative Region

Climate Index Survey”, “Work-Safe Behaviour Programmes”, “Model Workers Award”, “Model Sub-contractor Award / Model Front-line Supervisor Award” “Considerate Contractors Site Award Scheme”, etc. in the contract to encourage the Main Contractor to take further steps in strengthening safety at construction site. Provision of safety bulletin board to update and publicise the safety information on site can be considered.

- (ii) Major characteristics for private projects which are payable under the PFSS
 - (a) The measurement rules and criteria should be stated in the preamble section of the Bills of Quantities (BQ) or Schedule of Rates (SoR).
 - (b) When calculating the amount of the pre-priced items in the BQ, one should be aware that the categories, segments, amount and rates used should be comparable with the size, nature, duration and complexity of the project and in-line with the relevant ordinances, codes of practice, Factories and Industrial Undertakings Ordinance and its subsidiary legislation, technical memorandums, etc.
 - (c) The quantity required for registered safety officers, registered safety auditors, technically competent persons, safety walks, meetings and safety plan reviews and updates should be measured on a monthly basis as the works continue.
 - (d) The number of risk assessments, safety plans, safety audits, safety reports and safety induction trainings required should be measured on a monthly basis (or other alternative periods as specified under the contract) as the works proceed.
 - (e) The number of training sessions required for safety and induction might be counted on a per person basis and should be measured as the works proceed.
 - (f) If the Main Contractor fails to comply with its safety obligations, the work done for safety obligations would not be measured.

(iii) Current Examples

- (a) The PFSS was introduced by Government's Works agencies from 1995 onwards, as an initiative to improve construction site safety in public works projects. Currently, the PFSS was under the Pay for Safety and Environment Scheme for public works contracts. The PFSS provides an equitable means to pay to the Main Contractors for their efforts in implementing site safety measures at construction works as specified under the contract. A penalty of no payment under PFSS will be enforced if the Main Contractors fail to conform to their obligations. The downward trend in the accident rate of public works projects since the implementation of the PFSS illustrates the effect of a combination of incentives, motivation, commitment, empowerment and partnership in fostering a strong safety culture in the construction industry³. The Government is planning to revise the current Guidelines by inclusion of the Pay for Safety Performance Merit Scheme (PFSPMS) as Extension of the Existing System of the Pay for Safety Scheme (PFSS) or the Pay for Safety and Environment Scheme (PFSES).
- (b) The Hong Kong Housing Authority (HKHA) has implemented the PFSS in all Building Contracts since 2000 to remove site safety items from the realm of competitive tendering. The said scheme was expanded to become an Integrated Pay for Safety, Environment and Hygiene (PSE&H) Scheme and extended to all other types of New Works contracts in 2003 (after consultation with Hong Kong Construction Association (HKCA) and Occupational Safety and Health Council (OSHC)). Main Contractors are paid only if they have executed their obligations well, thus creating a positive working incentive. To provide further incentives for contractors to fulfill their obligations, enhancements with more performance-driven emphasis have been incorporated into the PFSS under HKHA new works contracts over the

³ Reference: Practice Note for Authorised Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) 298 (ADV-29), "Construction Site Safety – Pay for Safety Scheme", Buildings Department, 2006

years⁴. Payment criteria for safety audit performance have been revised and critical pass items⁵ are introduced.

- (c) The successful experience in the application of PFSS in public works projects has set a very good example about the significance of Employer's commitment to site safety by paying safety related items through contractual conditions. It has substantially improved the safety performance of Main Contractors working on government works projects and HKHA's construction and maintenance projects.
- (d) To encourage the adoption of PFSS in the private sector, The Real Estate Developers Association of Hong Kong (REDA) and the HKCA have jointly launched the "Safety Partnering Programme" (SPP) in 2005. The SPP is a partnering programme jointly organised by the REDA and the HKCA which provides leadership, guidance and resources on the part of private sector construction sites. It aims to facilitate the workforce of the participating sites to create and maintain a safe and healthy environment at work. All participating sites are required to implement the PFSS in the manner as described in the "Contractual Provisions for the Pay for Safety Scheme" published by the REDA and the HKCA. There are three other guidance documents, namely "Construction Site Safety Manual", "Construction Site Safety

⁴ Note: Enhancements with more performance-driven emphasis incorporated into the PFSS under HKHA new works contracts over the years include the following:

- Extending the integrated PSE&H Scheme to Building Services Nominated Sub-contracts in 2006.
- Incorporating the Silver Card – accreditation scheme for workers of specific trades engaged in high-risk operations who have satisfactorily completed an advanced safety training course. Payment made corresponds to compliance level attained.
- Incorporating safety audit performance, according to score banding, into the payment – indicating the level of satisfactory performance achieved.
- Incorporating safety performance – fatal accidents will result in reduced payment under PFSS.
- Introducing rewards for innovative and functional safety installations / measures.
- Allowing subsidies for contractors engaging in major safety campaigns.
- Uplifting of payment with redistribution of payment items to realign focus in terms of resource, management, KPIs, awareness and innovation.

⁵ Note: Critical pass items are high-risk items such as working at height, housekeeping, protection against falling objects and lifting operations, etc.

Handbook” and “A Practical Guide to Construction Site Safety Management” published for the SPP. Participating firms under the SPP are expected to attend a series of training modules which supplement and illustrate on areas not wholly touched on the reference materials. Details can be found in the “Contractual Provisions for the Pay for Safety Scheme” published by REDA and the HKCA. Participants who joined the training modules will seize the concepts and comprehend the best practices from these four reference documents. While joining the SPP is in a voluntary basis, the participating parties have to confirm their commitment by allocation of financial resources in the contract between the Employer and the Main Contractor for the implementation of the safety management system and practices⁶.

⁶ Reference: Contractual Provisions for the Pay for Safety Scheme, published by REDA and the HKCA.

6. Conclusions

- 6.1 The initiative of PFSS is to flourish a fair and equitable environment for the contracting parties under a construction project to handle site safety issues.

- 6.2 The general principles for different types of PFSS are included in this publication. It is intended to encourage stakeholders, practitioners and professionals in the construction industry to consider adopting PFSS as good practice to improve site safety performance and overall construction works efficiency.

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10. http://www.housingauthority.gov.hk/hdw/en/aboutus/events/greenestate/sec4_6_1.html#1 (Providing background on the commencement year of the Integrated PSE&H Scheme by the HKHA).
11. http://sitesafety.housingauthority.gov.hk/HKHASSW/FAQ.aspx?p_id=24&m_parentid=5 (Illustration of the term “Safety Work Cycle” by the HKHA).



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1. As a whole, I feel that the publication is:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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