

# CONSTRUCTION INTEGRITY ALERT #1 – AVOIDING PITFALLS OF SUBSTANDARD MATERIALS

## INTRODUCTION

A construction project involves the use of over a thousand types of materials and components, which should comply with the contractual requirements and specifications (e.g. structural strength, durability). Safety-critical materials (e.g. concrete, steel reinforcement) and components (e.g. fire-resisting doorsets) are usually subject to regular inspections and tests as their quality would affect public safety. For materials which are not safety-critical, very often they are subject to minimal controls (e.g. type approval before use, proof of compliance with contractual requirements by quality documents). Site supervisory staff have discretion to determine whether non-critical materials shall be subject to further test or checking upon delivery. From the corruption prevention perspective, the lack of testing requirement on non-critical materials may create room for abuse by unscrupulous contractors/subcontractors/suppliers, such as using substandard / non-conforming materials without being detected.

## COMMON CORRUPTION / MALPRACTICE

- 🔥 Unscrupulous contractors/ subcontractors / suppliers submit compliant quality documents and material samples for approval, but replace the approved brand / model by substandard ones during the course of work for saving cost or avoiding delay.
- 🔥 Site supervisory staff connive at the above malpractice.

The malpractice will also bring disrepute to the organisations concerned when it has come to light. Project clients will need to bear substantial costs for rectification (e.g. replacing the substandard materials) or maintenance (e.g. the accelerated wear and tear due to substandard materials) arising from the use of substandard materials.

## RECOMMENDED PREVENTIVE MEASURES

To address the issue, an organisation which needs to undertake construction projects should have the good practices below in place –

- (a) establish a risk-based mechanism to select materials/components for testing and checking and determine the frequency and sampling size, having regard to their nature, value, implication on public safety and health, and quantities in use (on the basis of an individual project or the organisation as a whole);
- (b) develop a mechanism to monitor and regulate the performance of suppliers (e.g. reporting suppliers of substandard materials/components, developing a blacklist of underperforming suppliers, preventing the engagement of blacklisted suppliers);
- (c) adopt corruption prevention safeguards stipulated in “Corruption Prevention Guide for Construction Industry” –
  - Chapter 2.2.1 for conducting site supervisions
  - Chapter 2.2.2 for control of materials;
  - Chapter 3 for conducting tests on materials and completed works; and
- (d) explore the use of Digital Works Supervision System (DWSS) to keep quality and inspection records of materials.



## FURTHER ADVICE



For enquiry, please contact the Corruption Prevention Advisory Service (hotline: 2526 6363 email: [cpas@cpd.icac.org.hk](mailto:cpas@cpd.icac.org.hk)) or visit its designated website at <https://cpas.icac.hk> for on-line corruption prevention resources.