

28 March 2024

To : All Authorized Persons
Registered Structural Engineers
Registered Geotechnical Engineers
Registered Inspectors
Registered General Building Contractors
Registered Specialist Contractors
Registered Minor Works Contractors

Dear Sir/Madam,

**Qualified Supervision
of Building Works Involving Mobile Plants and Tower Cranes
by Adopting Smart Site Safety System**

Further to my Circular Letter dated 30 March 2023 appealing to you to adopt the Smart Site Safety System¹ (SSSS) in your construction contracts to uplift site safety performance, this Circular Letter announces the new mandatory requirement on the adoption of two measures of SSSS, namely the unsafe acts/dangerous situation alert system for mobile plant operation danger zone (Mobile Plant Alert System²) and unsafe acts/dangerous situation alert system for tower crane lifting zone (Tower Crane Alert System³), to provide qualified supervision of building works involving the use of mobile plants⁴ and/or tower cranes.

/Implementation ...

¹ [https://www.cic.hk/files/page/51/RM%20Smart%20Safety%20\(Eng\).pdf](https://www.cic.hk/files/page/51/RM%20Smart%20Safety%20(Eng).pdf)



² The system will alert the mobile plant operator and any site personnel encroaching the mobile plant danger zone perimeter of the risk of being run over or hit by the plant moving components. The automated warning system shall include adequate number of sensors installed on the mobile plant chassis and movable superstructures to ensure full 360° coverage around the mobile plant danger zone perimeter. The danger zones of the mobile plant operation shall be determined by the safety officer employed pursuant to the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations (Safety Officer) according to risk assessment but in no case shall the extent of the danger zones be less than 2m from any part of the mobile plant.

³ The system will alert tower crane operator and any site personnel encroaching upon the tower crane loading/unloading danger zone perimeter of the risk of being hit by the moving load under the crane hook. The automated warning system shall include adequate number of sensors installed on or around the tower crane to ensure full coverage of all loading/unloading areas danger zone perimeter at all floor levels involved. The loading/unloading danger zones of the tower crane operation shall be determined by the Safety Officer according to risk assessment but in no case shall the extent of the danger zones be less than 7m radius from the crane hook. The minimum clearance between the load being lifted and the loading/unloading area activating the automatic warning system shall be determined by the Safety Officer according to risk assessment but in no case be less than 3m.

⁴ “Mobile plant” generally includes all mobile plants and not limited to excavators, crawler cranes and mobile cranes.

Implementation

2. With effect from 1 July 2024, BD will impose conditions under item 6 of section 17(1) of the Buildings Ordinance (BO) upon granting the first approval of superstructure plans or major revision of superstructure plans requiring the registered contractor (RC) to provide qualified supervision of building works involving the use of mobile plants and tower cranes by adopting the Mobile Plant Alert System and Tower Crane Alert System if the estimated cost of building works exceeds \$30 million. The relevant responsibilities and duties of the authorized signatory (AS), AS's representative and the technically competent persons under the RC's stream will also be stipulated in the conditions. For details, please refer to the condition available in the Common Conditions and Requirements in BD website⁵.

3. Upon application for consent for commencement and carrying out of the superstructure works, a declaration by the authorized person (AP) on whether the estimated cost of building works of the project exceeds \$30 million is required to be submitted under regulation 10 of the Building (Administration) Regulations. For a project exceeding \$30 million, the same conditions referred in paragraph 2 above will be imposed upon granting the consent for the commencement and carrying out of the superstructure works. Failure to submit a declaration may lead to refusal of the consent application under section 16(3)(b) of the BO.

4. Notwithstanding that the conditions for qualified supervision as set out in paragraphs 2 and 3 above are imposed on the RC, the authorized persons, registered structural engineers and registered geotechnical engineers are reminded of their responsibilities and duties set out in Tables 4.1, 4.2 and 4.3 of the Code of Practice for Site Supervision 2009 (2021 Edition) for overseeing the full implementation of the supervision plan regarding the RC's stream.

5. For other smart safety devices under SSSS listed in paragraph 2 of my Circular Letter dated 30 March 2023, you are strongly encouraged to adopt them in your construction projects as far as practicable. The list of SSSS products currently available under the Construction Innovation and Technology Fund (CITF) Pre-approved List⁶ provided at the CITF website is relevant.

Yours faithfully,



(LAI Ho-cheong)

Assistant Director/New Buildings 2
for Building Authority

c.c. The Real Estate Developers Association of Hong Kong

⁵ <https://www.bd.gov.hk/en/resources/codes-and-references/common-conditions-and-requirements/index.html>



⁶ <https://www.citf.cic.hk/?route=funding&funding=33&lang=1>

