# Technical Proposal and Performance Assessment Scoring System for Major Construction Plant

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#### **Background**

- There is increasing concern on plant safety in HA sites -
  - The boosting of construction projects in HKSAR and Macau leads to an acute demand on the construction plant and their operatives in the market;
  - There was a recent serious accident happened in HA piling site -

"On 6/3/2012 in the piling site for PRH at Po Heung Street Tai Po, a crook of an oscillator being repaired at the bored pile flew out resulting in injury of two workmen."



#### **HA Working Groups on Plant Safety**

In 3/2012 Steering Committee on Safety of Plant on HA Sites chaired by DD(DC) was formed. The following three working groups were also formed -

- In 3/2012, Working Group for Safety of Plant on HA sites formed chaired by CQS (succeeded by CQS/2).
- In 4/2012, Working Group on Safe Plant Operation Tendering and PASS Aspects was formed, chaired by CA/P.
- In 5/2012, Sub-group on Aged Piling Plant was formed, chaired by CSE/1.



### Working Group on Safe Plant Operations - Tendering and PASS Aspects

Explore "quick wins" method to -

- 1. Encourage deployment of good plant to HA sites during tender stage
  - Review the scoring system of the technical proposals for HA tenders (e.g. complex building and piling contracts) and develop objective assessment criteria/guidelines of plant and allot suitable weightings.



## Working Group on Safe Plant Operations - Tendering and PASS Aspects (ctd)

- 2. Drive good plant deployment and performance in HA sites during construction and maintenance stages -
  - Enhance Performance Assessment Scoring System (PASS, PilingPASS and DemolitionPASS) and develop objective criteria and suitable weightings to assess the deployment and performance of construction plant in HA sites.

Architects, Structural Engineers, Quantity Surveyors, Site staffs, etc. were invited to join the working group to explore means to achieve the above objectives.



### Working Group on Safe Plant Operations - Tendering and PASS Aspects (ctd)

After reviewing and discussion, the working group proposed -

1. Revise the scoring criteria of the technical proposals and assessment criteria of complex building and piling contracts to encourage the contractor to deploy better plant to our sites since at the time of review, the tenderers are only required to submit a schedule of plant for the tenders but without emphasizing the age and maintenance requirements.



### Working Group on Safe Plant Operations - Tendering and PASS Aspects (ctd)

2. Establishing an individual sub-section under Safety Section in PASS/PilingPASS/DemolitionPASS system to encourage and reflect the performance and maintenance of construction plant in HA sites, since at the time of review, there is only "little" weightings and considerations to assess the plant performance and maintenance.



#### **DCMBI P07/13**

On 28 March 2013, "Guidelines on Technical Proposals for Building and Piling Tenders of Complex Contracts and Revised Performance Assessment Scoring System (PASS), PilingPASS and DemolitionPASS for Enhancement of Safety of Plant" was promulgated via DCMBI P07/13, which comprises -



#### **DCMBI P07/13 (ctd)**

1. Templates for marking scheme of Technical Proposals - Contractor's Plant and Equipment for complex building contracts and complex piling contracts. Higher scores are suggested to be alloted to younger plant. PTs shall make reference to the following sample templates with suitable adjustment on project basis.

 Highlights of the key areas of the changes, assessment guidelines and score sheets of PASS, PilingPASS, DemolitionPASS on safety of plant.



#### **SUMMARY**

Building	Piling	Demolition
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Tendering - Project team to specify plant types and their requirement (e.g. age and maintenance schedule) required for technical proposal scoring

Construction – PASS to monitor plant deployment, age of plant, breakdown rate and certification by establishing individual subsection under Safety Section. Will be triggered for CRC discussion if Grade "E" is given on any item.

Mobile crane (excluding crawler crane);

Truck-mounted crane;

Tower crane;

Derrick crane (use for installing and dismantling tower cranes);

Material hoist;

**Gondolas** 

**Crawler Crane**;

Oscillator/ Rotator;

**Reverse Circulation** 

Drill;

**Mobile Crane** 

(excluding crawler

crane);

Pile Driver;

**Hydraulic Hammer**;

**Piling Rigs** 

**Mobile Crane** 

(excluding crawler

crane);

Crusher;

Breaker;

Backhoe/Excavator;

**Saw-cut Plant** 



# THANK YOU

