

Victorian Tower Crane Consultative Committee (VTCCC)

The aim of the VTCCC is to discuss relevant Tower Crane industry matters to improve and promote safety and common operational quality standards.

Minutes from Extraordinary Meeting held 8am, Thursday 8 August 2013

Venue: CFMEU Training Facility: 1-7 Wharf Road, Port Melbourne.

In response to a recent ETU notice, Alert Number 46, regarding fall protection for tower cranes the VTCCC has prepared the following industry communication with contribution from VTCCC members representing VCSA, CFMEU, tower crane companies, engineers, and WorkSafe. ETU was in attendance by invitation from WorkSafe.

Industry has been made aware of potential fall from height issues on some tower crane sections. This communication aims to inform interested parties on considerations that should be made to aid in controlling the risks associated with persons, namely tower crane operators, accessing the crane cabin via tower sections from the ground or from elevated walkways.

The focus of discussion has been around corrective actions in the tower sections. Corrective actions should be considered in two categories – permanent corrective actions and temporary corrective actions.

Permanent Corrective Actions

Permanent corrective actions are actions that can be completed on tower sections that are not currently installed on tower cranes. This includes tower sections that will be installed in the future on already standing cranes. The intent of the permanent corrective action is that it will be completed on the ground to minimize any working from height risks.

Permanent corrective actions should include the following design criteria:

- Close out of platforms (penetrations) that have openings greater than a 300mm diameter circle or a 225mm square
- Installation of midrails around the perimeter of the tower section
- Installation of handrails around the perimeter of the tower section
- Installation of toeboards in new platform areas to outer platform perimeter, excepting points that may interfere with jumping e.g. flipper contact points.
- Consideration should be made to allow for the climbing operation (i.e. flippers) and any utilities that need to pass through the tower section (i.e. electrical or water).
- Professional engineer or manufacturer approval regarding the structural impact of the corrective action

One example of a permanent corrective action concept is shown in Figure 1 and Figure 2, provided by John Stella of Constructioneering.

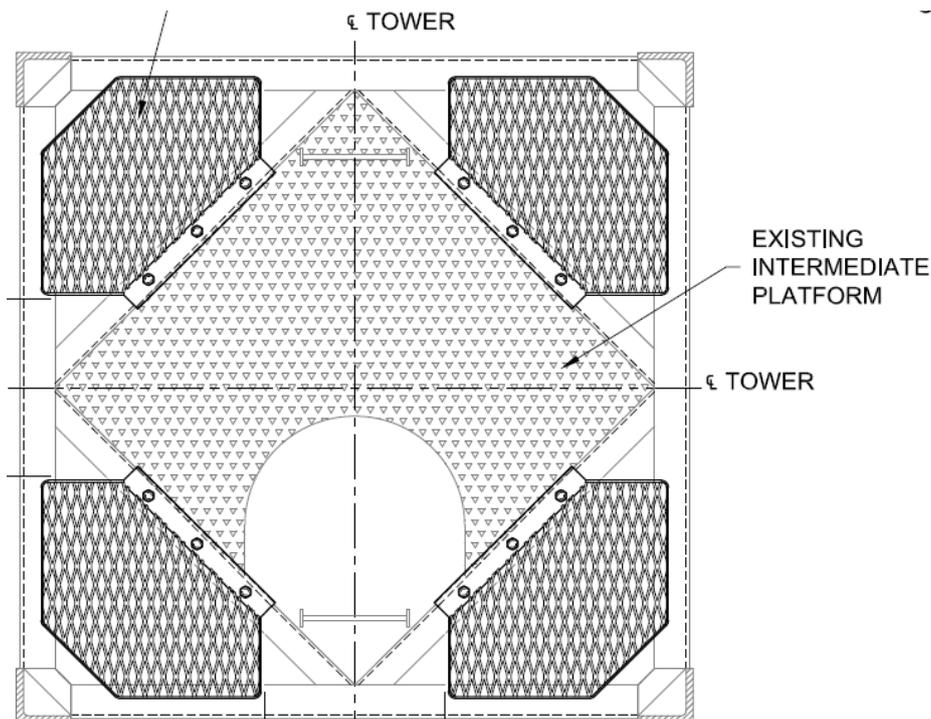


Figure 1: Top View of Tower Platform Area

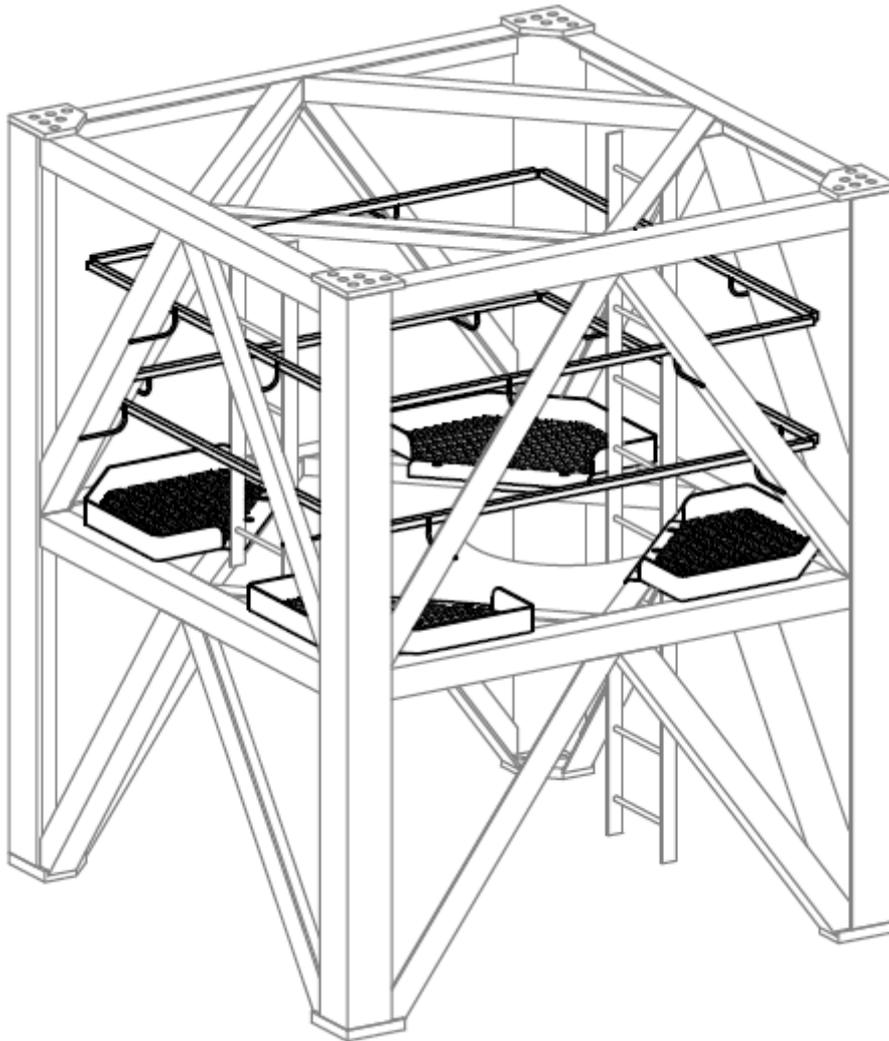


Figure 2: Isometric view of tower platform showing inclusion of handrail, midrail, toeboard, and platforms

Alternative corrective actions are acceptable as long as the design criteria are met.

Permanent corrective actions need to be completed on any tower sections that will be installed or erected after 1 September 2013. Individual consideration can be discussed with the industry if corrective actions cannot be completed due to limitations or unforeseen circumstances. Access ladders that are installed in the corner of a mast platform or where a risk of a fall from the ladder and over the handrail is identified (small tower sections) then ladder cages or additional fall protection controls should be installed.

Temporary Corrective Actions

Temporary corrective actions should be considered for all tower sections already in use on-site. Alterations should be made to any tower sections that a crane driver uses to access the cabin. For tower cranes that are accessed from a platform walkway above the ground floor, the alterations do not need to be completed on tower sections below the access point. For example, if a walkway to the crane is installed on the 7th floor of a building, temporary corrective action does not need to be completed on the tower sections below the 7th floor of the building. If the tower crane is free standing and the crane operator accesses the tower section from the ground then corrective actions need to be considered for all tower sections.

Temporary corrective actions need to address the same design criteria for permanent corrective actions without introducing new, more potential fall from height risks. Industry consultation should be sought for the acceptance of temporary corrective actions. Implementation timing will need to be agreed upon based on the design solution.

Walkways or Bridges

To minimize tower crane access risks, both temporary and permanent, the placement of the walkway or bridge to gain access to the tower crane from the building should be installed at the highest practicable floor, thus minimizing the number of tower sections the crane operator has to climb whilst utilising lower order risk controls. This will also reduce the need for the amount of working at heights required by other persons to install the temporary corrective solutions. Building walkways or bridges should, wherever possible, provide access to the tower section at the same level as the tower section platform. Wherever this is not possible an intermediate platform inside the tower is to be provided to facilitate safe access. The walkways should be engineered solutions.

Other work that is performed on the crane or in the tower sections (i.e. rigging, electrical, or plumbing) should be performed by personnel who have been adequately trained in working from heights and have the appropriate PPE for the tasks to be performed. This may include a system utilizing harness and double lanyards with shock absorption attached to proofed anchorage points.

All exceptions to this generic guide should be communicated in consultation with the appropriate industry representatives.

These corrective actions only apply to cranes that have been identified as having fall protection issues.

The next regularly scheduled meeting will be on Thursday, 8.00am 19 September 2013, to be held at the CFMEU Training Centre, 1-7 Wharf Road, Port Melbourne.

These minutes were drafted by Brandon Hitch, Crane**Safe** GM
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