

WSH Bulletin

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Overturning of tableforms at multiple construction worksites

Three incidents of tableforms overturning and falling from height occurred between 30 July and 6 August 2021 at three different construction worksites. They resulted in some property damage and could have led to the loss of lives.

The first incident occurred on 30 July. A tableform erected between the 5th and 6th storey of a building under construction overturned and fell to the ground level while it was being repositioned on-site.

The second happened on 3 August with a tableform erected at the top storey of a multi-storey carpark being constructed. It overturned and fell to the ground level when it was lifted into position and released from the lifting gears.

The third incident occurred on 6 August where a tableform similarly overturned and fell off a building under construction. It was struck by another tableform that had been tangled with a third tableform being lifted. The tableform fell on an empty lorry.



Incident scene
(30 July)



Incident scene
(3 August)



Incident scene
(6 August)

Occupiers, employers, principals and tableform manufacturers and suppliers should adopt the following risk control measures to prevent similar incidents:

Safe tableform erection, lifting and repositioning

- Use method(s) recommended by tableform manufacturers for safe erection, lifting and repositioning of tableforms/formworks.
- If other methods are needed due to site constraints, a new method statement must be co-developed with and endorsed by the manufacturer before proceeding with site-

specific Risk Assessment (RA) and development of a Safe Work Procedure (SWP). The RA and SWP must be communicated to workers before work.

This is because unapproved methods, especially tableforms with high height-to-breadth aspect ratios, are prone to instability during repositioning, which can result in overturning.

Safe tableform installation

- Deploy only trained and competent workers for the tableform work.
- Ensure that workers are familiar with the SWP before starting work. Otherwise, provide refresher training for the workers.
- Provide on-site supervision to workers to ensure compliance with the SWP.
- Secure the tableform/formwork structure with tie-backs once it is in position and before the lifting gears are released to prevent overturning.

Safe tableform lifting

- Establish and implement a lifting plan to ensure lifting operations can be carried out safely.
- Such a plan, amongst other things, must indicate how the tableform/formwork structure is to be rigged before the lift. Use only rigging points recommended by the manufacturer. Consult the manufacturer if the recommended rigging points are not suitable due to operational or site constraints.

Unsafe lifting of tableform/formwork structures can potentially create a chain reaction. For instance, a collapsing structure can strike other nearby materials or structures and cause them to cascade down.

Refer to Part IX: Formwork Structures of the Workplace Safety and Health (Construction) Regulations 2007 and Singapore Standard SS 580: 2020 Code of Practice for Formwork for legislative requirements and best practices for the safe erection, use, transfer, alteration and dismantling of formwork structures.

Design for Safety (DfS)

Developers should ensure that DfS review meetings are attended by temporary works designers to address temporary works issues such as formwork design risks.

Temporary works designers should eliminate design risks via design enhancements. If the risks cannot be eliminated via design, they must provide precautionary measures and clear instructions/warnings to the affected stakeholders who will be performing the works.

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