Singapore Institution of Safety Officers

# Accident Sharing and Prevention (ASAP) Program

## "Working on a Table"

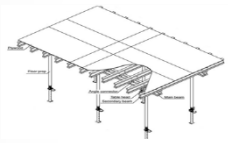
**INCIDENT SHARING**

**Excerpts from WSH Alert on 10 August 2016- "Accident Notification: Worker and Table Formwork Fell off Building Under Construction"**https://www.wshc.sg/wps/portal/!ut/p/a1/04_Sj9CPykssy0xPLMnMz0vMAfGjzOJ9_E1MjByDDbzdPUIMDRyNfA08QsyNDYPdjYAKIoEKDHAARwNC-sP1o_ApcQ4zhirAY0VBboRBpqOiIgBf-iIU/dl5/d5/L2dBISEvZ0FBIS9nQSEh/?action=publicViewBulletin&bulletinID=BU201612130000010931

Around 0950hrs on 9 Dec 2016, a worker and the table formwork, which he was carrying out works from, fell off the edge of the building under construction. He was pronounced dead at the scene by attending paramedics.

Working at height or near edge of building are high risk activities which requires proper planning and resources such as fall protection and fall prevention devices to eliminate any fall hazards.

What is a Table-form/flying-form? A table form/flying form is a large pre-assembled formwork and falsework unit, used specially for concrete pouring of the suspended floor slab. It offers mobility and quick installation for construction projects with regular plan layouts or long repetitive structures,.



Formwork activities requires workers to undergo proper training to handle the formwork and to be familiar with the component of the formwork. If the formwork is not used properly, it could lead to the failure of the formwork structure itself and cause damages to property or even cause fatality to the user or to other people in the vicinity.

Safe system

- Decking with non-slip surfaces can be used to enhance safety.
- Interconnected truss members provide a stable working platform.
- Repetitive nature of work ensures quick familiarity of safety procedures.
- Falsework units can be assembled at ground level minimizing work-at-height risks
- Table formwork systems can include standard health and safety features such as guard rails.
- Formwork erection and handrails on the ground, except for infilling works at height
- Handrails attached to perimeter tables during the entire building process

Other considerations

- The system requires enough space around the new construction to fly the table unit beyond the building line on everyday use.
- The supporting slab must be capable of carrying high loads at bearing locations.

**Communication**

Skill set of handling formwork materials has to be identified with the workers and proper training has to be given as the formwork materials comes with various design and makes.

Communication of safe work practices on handling formwork and work-at-height are crucial to the workers performing this task.

Proper supervisory plays an important role to ensure the workers under their charge are competent and have been provided with the resources required to perform this task.

**Pointers to Share**

- **Formwork Design and Safety**
- **Work Near Edge of Building**

**Formwork Design and Safety**

Formwork is a specialized work which requires the work force to undergone certain training to perform the work efficiently and safely.

Formwork comes in different materials and sizes; the component of the formwork is complicated which requires certain competency to the user to assemble and dismantle the formwork. Any missing part or insufficient component of the formwork would compromise the integrity of the formwork and can cause the formwork to be unbalanced and collapse. Props, bracing, foot ties, adjustable base plate height are important components of the formwork which will make the formwork stable and hard to shift from its position.

Most of the formwork is designed by the Professional Engineers and the use of this formwork might not be suitable for all locations. Consultation with the professional engineer is important to pre-determine the use of the formwork and the method.

**Questions can be asked before the activity in the toolbox talk:**

- **Is the work involving work-at-height?**
- **If yes, has the work location been surveyed for the potential risks involving working at height?**
- **Have the Fall Prevention and Protection resources been provided?**

This is a guide to help Employers/Supervisors to conduct effective sharing during tool box talk.

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### CON'T..

**Questions can be asked before the activity in the toolbox talk:** (Con't)

- Is the work force trained in WAH and the intended work activities?
- Is the PTW for WAH obtained?
- Was the relevant SWP communicated to the work force?
- Did the Risk Assessment address the risks involved in the work and are all the control measures in place?

**IMPORTANT POINTS**

- Training and Competency
- Fall Prevention Plan
- Provision of Resources
- Supervision

**Work near Edge of Building**

Work near edge of building pose fall hazards which requires to be eliminated through Fall Prevention Plan.

A rigid barrier provided could have prevented the table formwork from tipping off the edge and fall with the victim.

The Fall Prevention Plan should have addressed the Formwork erection and dismantling activities and should have provided the control measures to avoid any fall incident.

The supervisory overseeing the activities should have communicated the SWP of the erection and dismantling of the Formwork to the work crew and provide the relevant resources such as training on work-at-height, fall prevention and fall protection devices to the work crew prior to commencement of the work activities.

Reference to :

http://www.wshc.sg

https://www.wshc.sg/files/wshc/upload/cms/file/20130131-55%20Safety%20Requirements%20for%20Formwork%20Structures.pdf

http://www.mom.gov.sg/~/media/mom/documents/press-releases/2014/annex%20a-%20advisory%20for%20professional%20engineers%20on%20formwork%20safety%20(180114).pdf?la=en

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