

2/07/2019

Formwork collapse during concrete pour

25 May 2019

Incident overview

During a concrete pour at a multi-storey building under construction, the formwork collapsed, placing three workers on the deck at risk of falling up to six metres onto broken reinforcement and support frames. The workers avoided injury by grabbing onto and climbing up the reinforcement mesh and debris.



Image: Construction site showing where the collapse occurred.

The investigation

- SafeWork NSW Inspectors responded to the incident.
- SafeWork NSW has commenced an investigation to determine the cause and circumstances of the incident.

2/07/2019

Safety Information

Businesses are reminded of their duty to identify hazards and manage risks to health and safety in accordance with the provisions of the [Work Health and Safety Act 2011](#) and [Work Health and Safety Regulation 2017](#).

Businesses must consider all 'reasonably practicable' control measures to manage the risk of a formwork collapse.

These include:

- A 'competent person' must design the formwork to retain its shape and withstand loads such as reinforcing, concrete and any associated materials and the dynamic loads imposed by pouring, agitating, the movement of people or environmental factors such as wind and rain.
- Install the formwork in accordance with the design and instructions from the designer - formwork should be rigid, watertight, braced and tied together to maintain position and shape during construction.
- Check variations to the design and ensure they are verified in writing by the designer, engineer or other competent person.
- Don't mix components from different formwork systems unless a competent person (eg engineer), has authorised the component use.
- Put measures in place (eg bracing), to prevent vertical support feet, on inclined surfaces, from slipping.
- Before loading with weight, ensure a competent person (eg an engineer with experience in structural design -certifying engineer) inspects and certifies completed formwork and its supporting structures meet the design specifications and are structurally sound.
- Place concrete in accordance with the specified sequence and pour rate in order to maintain the stability of the formwork.
- Monitor formwork as it is being loaded to check for signs of potential failure or collapse and to ensure vertical and horizontal movements do not exceed specifications.
- Provide all workers with information and training specific to the formwork system, including:
 - details of the formwork system, tasks, activities and components
 - design intention regarding installation, use, movement, alterations and dismantling
 - control measures to minimise identified risks
 - how to inspect materials used in the formwork system

Further information

- [Formwork information page](#) (templates, videos and other information)
- [Erection and dismantling formwork webinar](#)
- [Formwork and falsework guidance material](#) (Safe Work Australia)
- [Code of practice for formwork](#) (Worksafe Queensland)
- [Working at heights information page](#)
- [Code of practice for preventing falls in housing construction](#)
- [Code of practice for managing the risk of falls at workplaces](#)
- [Australian standard – Formwork for concrete](#)

The information contained in this publication is based on knowledge and understanding at the time of writing. No conclusions should be drawn from the information in this publication about the cause of the incident or the culpability of any party.
