25
March
2026

WSH ADVISORY

Collapse/Failure of Structures & Equipment Workplace Fatal Injuries in 2H2025

In the second half of 2025, three workplace fatal injuries occurred due to the collapse or failure of structures or equipment. These incidents took place in diverse work environments, including construction trenching activities, precast component handling, and contact between an overhead travelling crane and a mobile elevating work platform (MEWP).

Structural instability, equipment movement and inadequate controls during high-risk activities pose serious hazards. The WSH Council calls on all companies undertaking similar activities to assess their WSH management system, review their risk assessments, and put in place the necessary control measures to prevent injuries from collapse or failure of structures or equipment.

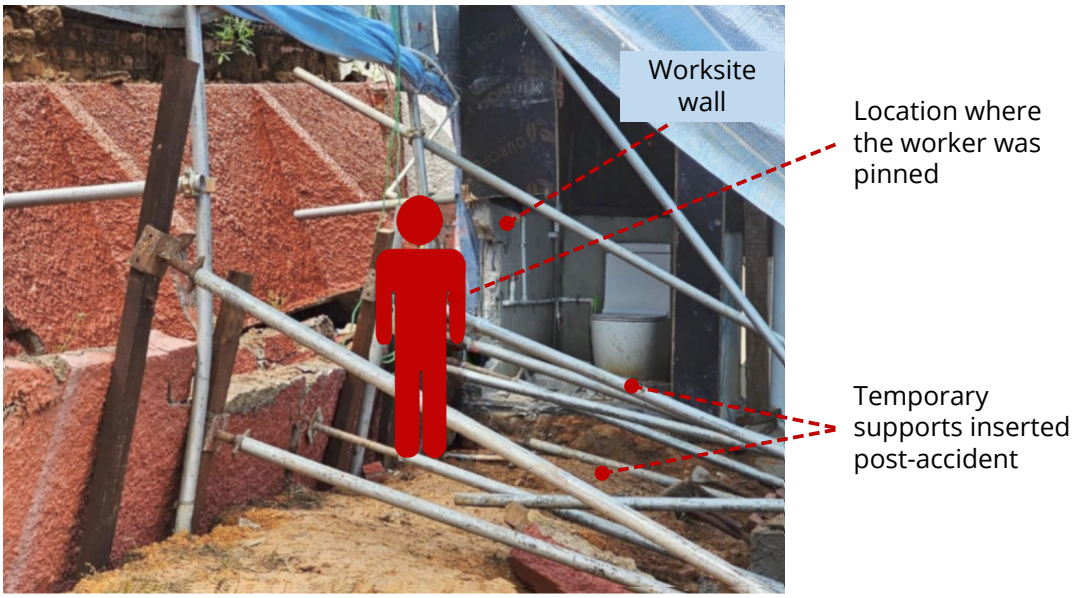
Worker Pinned by Collapsed Wall

On 17 September 2025, a worker was preparing for pipe-laying works at a construction site. While using a hoe to dig a 0.6 m deep trench next to an earth retaining wall, the wall collapsed and pinned him against another wall at the worksite. The worker was extricated and pronounced dead at the scene.

The earth retaining wall was made of bricks and was neither shored nor supported at the time of the accident.

Figure 1: Overview of the accident location.

Figure 2: Close-up of the accident scene.



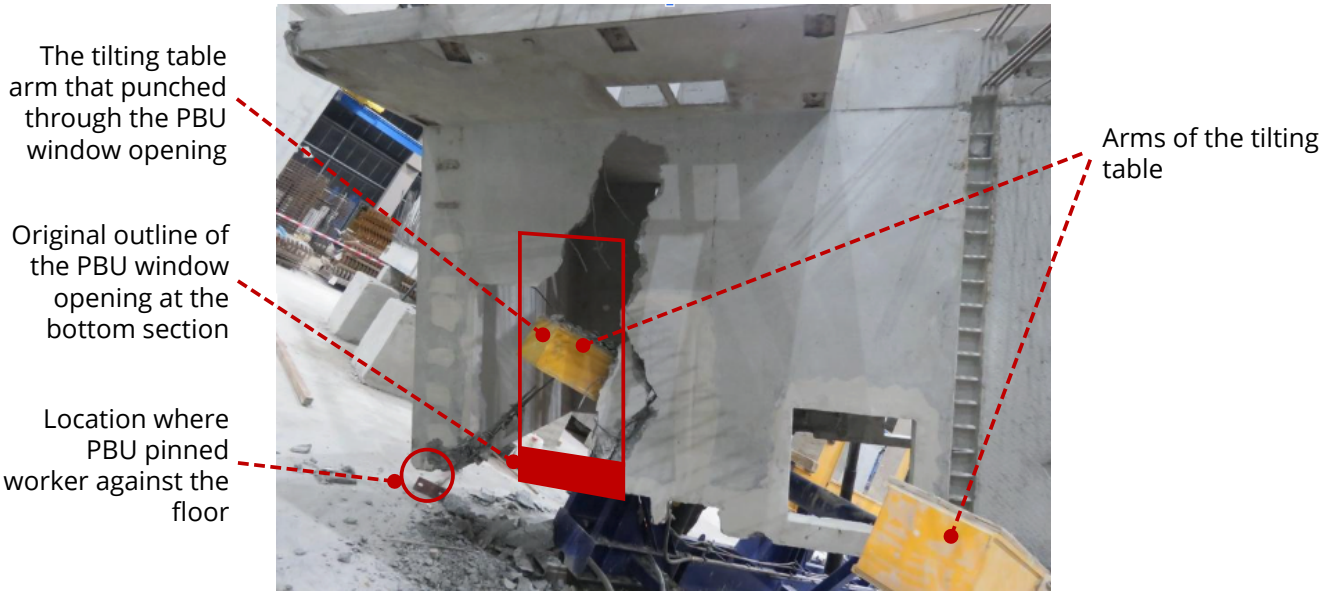
Worker Pinned by Dislodged Prefabricated Unit

On 17 September 2025, two workers were installing bracings to a prefabricated bathroom unit (PBU) at a manufacturing facility that produces precast concrete components. The PBU was seated on the arms of a tilting table when it dislodged and pinned one of the workers to the floor. The worker died at the scene.

One of the contact points at the bottom section of the PBU, which was resting on the tilting table arms, gave way, causing the PBU to dislodge and suddenly drop.

Figure 3: Scene of the accident.

Figure 4: Bottom section of the PBU that gave way.



Worker Falls With Toppled Scissor Lift

On 29 October 2025, a worker was at a workshop checking the pendant controller of an overhead travelling crane (OTC) stowed at the top of the OTC. The worker operated a scissor lift to access the controller at a height of about 6.6 metres. The OTC suddenly moved and struck the scissor lift, causing it to topple. The worker fell to the ground and was sent to the hospital, where he died the next day.

At the time of the accident, the worker was wearing a full-body harness hooked to the scissor lift. The OTC was energised, and its wireless remote controller was with the worker.

Figure 5: Overview of the accident scene.

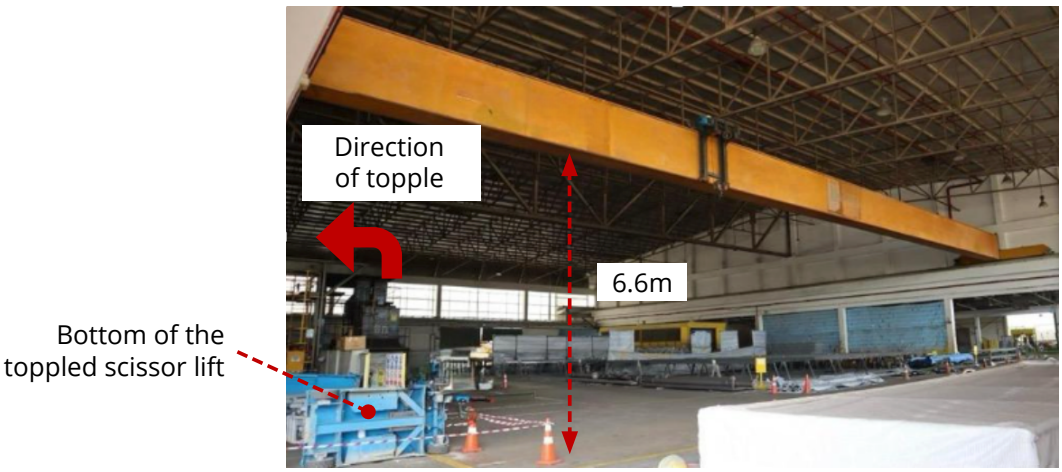
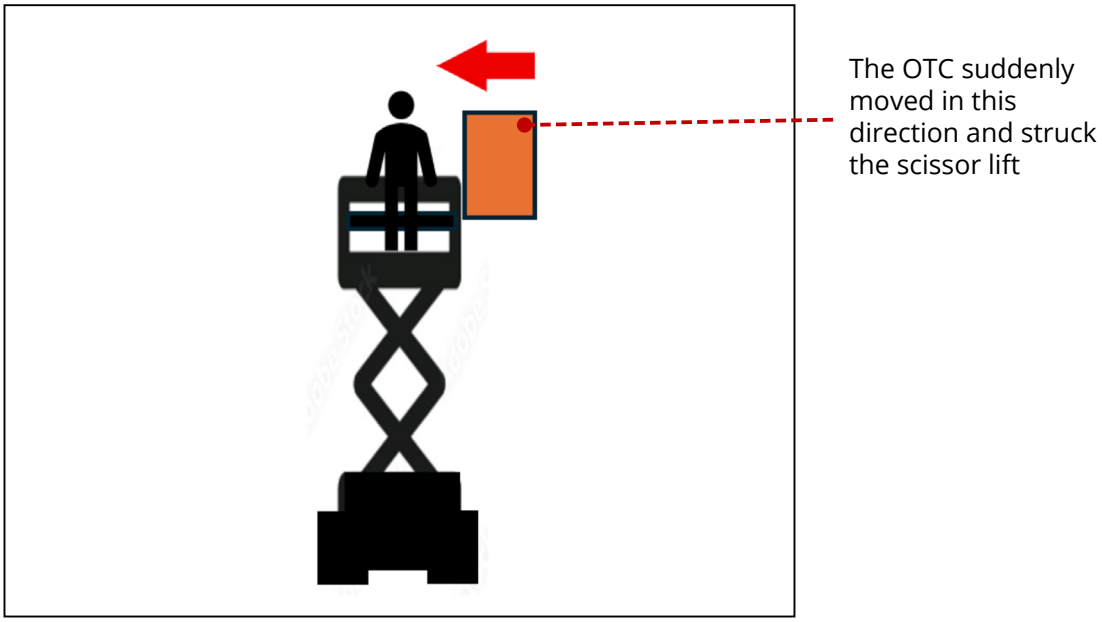


Figure 6: Location where the OTC's pendant controller was stowed.

Figure 7: Direction of the OTC's movement.



What Companies Should Do

Companies should review their WSH management system and consider the following risk control measures to prevent similar accidents:

- **Hazard communication:** Brief workers on the safe work procedures (SWP) and possible onsite hazards associated with the work activities and equipment/machines used. Highlight the importance of following the SWP. Instruct workers to immediately report any unsafe situations to their supervisors.

- **Worker training and supervision:** Deploy only workers who have been trained for the task (including the correct use of suitable tools, equipment and machines) and completed the relevant WSH training.

  Assign a supervisor to:
  - Conduct pre-task toolbox briefings;
  - Verify only authorised workers are allowed to operate equipment such as cranes and scissor lifts;
  - Coordinate operations to avoid incompatible work activities and potentially unsafe equipment/ machine interaction; and
  - Oversee the workers and ensure SWPs are followed.

- **Emergency response plan (ERP):** Develop procedures for responding to worksite emergencies. Conduct drills to familiarise workers with the ERP so that they will be able to evacuate and act quickly in an emergency. Ensure first aid and/or rescue equipment are readily available and in good working condition.

Specific Recommendations for Trenching Activities

Trenching involves the removal of soil over relatively long distances and can weaken neighbouring structures or result in cave-ins/slope failure if improperly managed. Companies carrying out similar activities should review their risk assessments and implement site-specific control measures to prevent soil or structural collapse during construction works.

- **Pre-work site survey:** Conduct a worksite survey to assess the soil condition and stability of neighbouring structures. Perform soil testing and obtain a stability profile to better understand the soil characteristics. Record the condition of neighbouring structures before starting work.

- **Remove unstable structures:** If a potentially unstable structure is identified, consider adjusting the work sequence where practical, to first demolish/remove the structure before starting the trenching activity.

- **Stabilise the structure:** If the potentially unstable structure cannot be removed, install temporary supports (e.g. shoring, props or other protective system) to prevent a sudden collapse as the work progresses.

> Excavations or trenches that are less than 1.5 metres deep should be examined by a Competent Person, who should prepare a Method Statement covering all stages of the work, from start to backfill. This should include the construction of a suitable soil protective system where necessary.

- **Site monitoring:** Conduct regular inspections of the worksite during the trenching activity to detect early warning signs (e.g. soil movement, shifting of neighbouring structures, new/larger cracks) of a potential collapse. Use monitoring devices (e.g. inclinometers, settlement markers) to measure soil and/or structural movement. Define the maximum deviation that can be tolerated beyond which the trenching activity must stop, and corrective action taken (e.g. more supports) before resuming work.

For more information, refer to the WSH (Construction) Regulations 2007, Building Control Regulations 2003, SS 562: 2010 Code of Practice for Safety in Trenches, Pits and Other Excavated Areas, SS EN 1997-1: 2010 (2018) + A1:2018 Eurocode 7: Geotechnical Design – General Rules, SS EN 1997-2: 2010 (2020) Eurocode 7: Geotechnical Design – Ground Investigation and Testing, and WSH Council's Guide to Excavation for Trenches – Guidance for Site Supervisors.

Specific Recommendations for Handling Prefabricated Module Units

The handling of prefabricated modules involves the use of heavy and specialised equipment such as tilting tables. Incorrect placement or structural failure of the module can result in unexpected movements during its handling. Companies involved in module handling works should review their risk assessments and implement the necessary control measures to prevent module dislodgement.

- **Pre-handling risk assessment:** Identify possible hazards associated with lifting, placing, rotating, and repositioning of prefabricated modules. Consider risks such as module stability, structural integrity, and worker proximity during handling.

- **Suitable handling equipment:** Confirm that specialised equipment used (e.g. a tilting table) is designed for the module's dimensions and rated for its weight.

- **Module structural integrity:** Ensure each module unit complies with the Building and Construction Authority's Code of Practice on Buildability and, for PBUs, the Performance Requirements for PBU. Verify each module is structurally sound and free from visible defects and damage before handling it.

- **Safe module handling:** Handle the module unit only after its concrete has sufficiently cured. Develop safe work procedures for lifting and placement onto the arms of the tilting table. Avoid placing the module unit on its structurally weaker points. Alternatively, strengthen the weaker points with bracings or reinforcements before placing the module. Apply locking or restraint mechanisms to the module to prevent unintended movement during handling or rotation.

- **Demarcated hazard zones:** Clearly mark out danger areas around the module handling equipment with signs, floor markings and/or physical barriers. Restrict access to trained and authorised workers and only after checking that the risk controls are in place and effective.

For more information, refer to the WSH Council's Code of Practice on WSH Risk Management, SS 567: 2011 Code of Practice for Factory Layout – Safety, Health and Welfare Considerations, SS 677: 2021 Design and Execution of Precast Concrete Slabs and Walls for Buildings, the Building and Construction Authority's Prefabricated Prefinished Volumetric Construction (PPVC) Information Kit, Code of Practice on Buildability for the requirements and acceptance framework for PBUs, and Good Industry Practices – Prefabricated Bathroom Unit.

Specific Recommendations to Prevent Possible Interaction between an Overhead Travelling Crane and a Mobile Elevating Work Platform

Preventing accidental movement of equipment or machines is key to ensuring a safe work environment. Companies carrying out similar activities should conduct a work activity risk assessment and implement the necessary control measures to prevent unplanned equipment/machine movement.

- **Safe work procedures (SWP):** Develop and implement SWP for overhead travelling crane-related tasks such as inspection, testing, cleaning, repair or maintenance. The SWP should detail the specific instructions for each worker involved in the task, including pre-work checks and control measures necessary to prevent accidental crane movement.

  Examples of SWP include:
  - De-energising the crane and applying lock-out tag-out (LOTO) to its energy source before carrying out the crane-related task.
  - Instructing MEWP operators to maintain a safe distance from the crane's path of travel.
  - Communicating any re-energisation of the crane to all workers in the vicinity before it takes place.

- **Safe controller storage:** Store the overhead travelling crane's pendant controller securely at the ground level to eliminate the need for workers to access the controller at the top of the OTC. Restrict access to the crane's wireless remote controller(s) to authorised personnel only and store them securely when not in use.

- **Use of technology:** Consider installing proximity sensors on the scissor lift to detect and alert operators to overhead structures/objects that can result in a possible collision.

For more information, refer to the WSH (Work at Heights) Regulations 2013, the Ministry of Manpower's Safety Circular on Safe Use of Mobile Elevating Work Platform (MEWP), SS 616: 2016 Code of Practice for Safe Use of Mobile Elevating Work Platforms, WSH Council's Code of Practice for Working Safely at Heights, Guide for Safe Use of Mobile Elevating Work Platforms, Guide to Safe Use of Overhead Travelling Cranes, Gantry Cranes, Jib Cranes and Hoists, 6 Basic WSH Rules for Safe Use of MEWPs, and poster on Safer Workplaces Through Presence Detection.

Under the WSH Act, first-time corporate offenders may be sentenced to the maximum fine of $500,000 whilst individuals can either be sentenced to the maximum fine of $200,000 and/or an imprisonment not exceeding 2 years. Read more on the WSH Act penalties.

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