

16
March
2022

WSH ALERT

FATAL ACCIDENT

Worker fell off open side of landed residence

On 2 March 2022, a worker was doing inspection and painting works at a newly constructed three-storey house when he fell off an open side. The worker was likely on the second storey ledge when he fell. He was wearing a pair of slippers and not equipped with personal fall prevention equipment. The worker was sent to the hospital where he passed away.



Overview of accident scene.

Likely location of the worker before he fell

Second storey ledge with open side

about 1m

Recommendations

Working at heights is an inherently hazardous work activity. To prevent similar accidents, consider implementing the following measures:

- **Safe work platform:** Use a proper work platform (e.g. scaffold, mobile elevated work platform) for workers to work safely at height.
- **Fall prevention:** If it is not possible to use a work platform, use a travel restraint system to prevent workers from working too close to open sides.
- **Fall protection:** If work near an open side must be done, provide each worker with a personal fall arrest system with a secure anchor point.
- **Safe Work Procedure (SWP):** Develop a SWP for the task and provide supervision to ensure workers are following the SWP.
- **Permit-to-Work (PTW):** Implement a PTW system for any work where a person could fall more than 3 metres.
- **Proper footwear:** Provide and ensure workers put on the correct footwear (e.g. safety shoes with non-slip soles).

For more information, please refer to WSH (Work at Heights) Regulations 2013, WSH Council's [Code of Practice for Working Safely at Heights](#) and [Work at Heights Toolkit for Supervisors](#).

* Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 10 March 2022. This may be subject to change as investigations are still on-going. Please also note that the recommendations provided here are not exhaustive and they are meant to enhance workplace safety and health so that a recurrence may be prevented. The information and recommendations provided are not to be construed as implying liability on any party nor should it be taken to encapsulate all the responsibilities and obligations under the law.

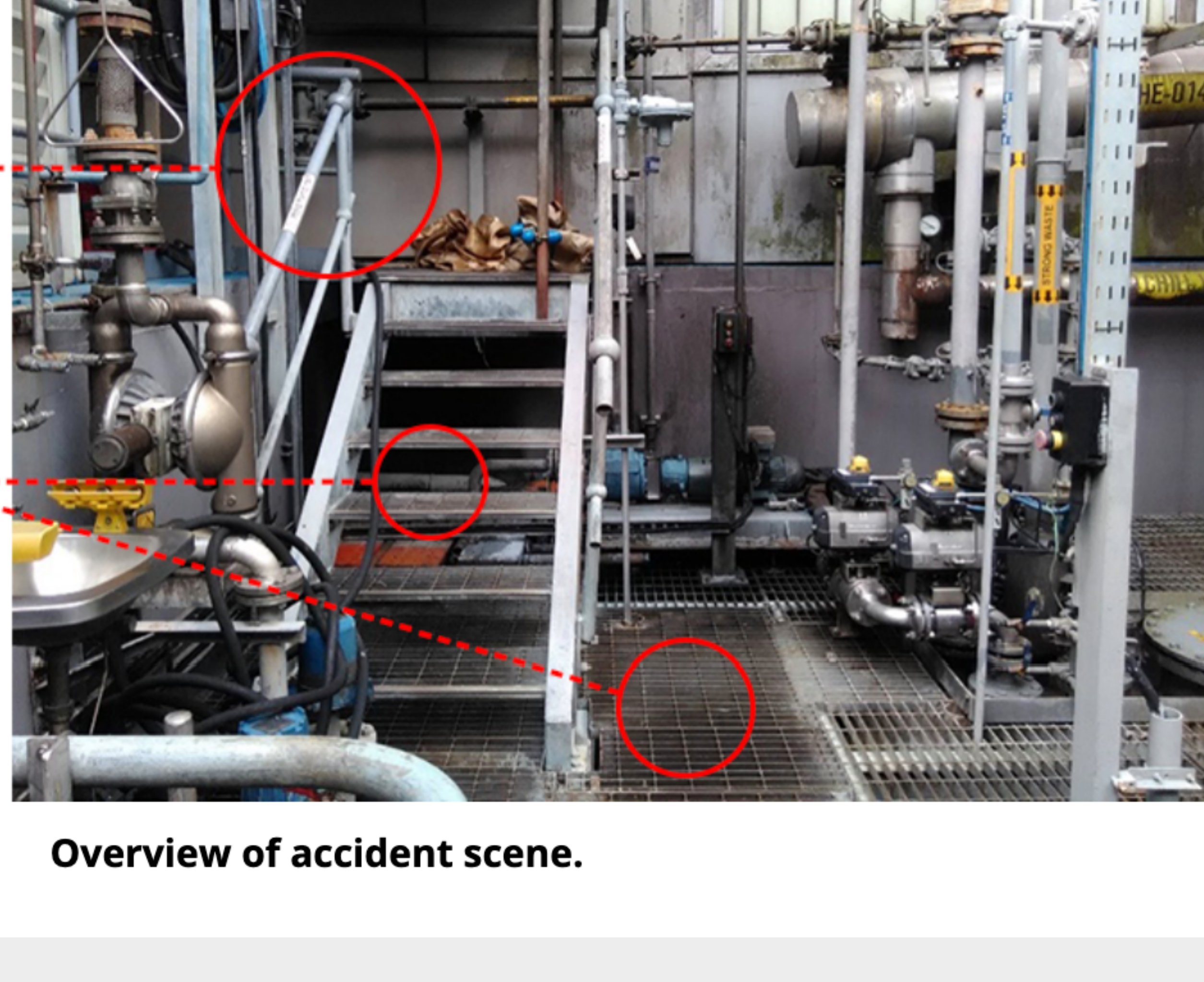
SERIOUS ACCIDENT/ INCIDENT

Flash fire during hot work

A group of workers was carrying out hot work when a flash fire broke out. Two of the workers suffered burns and were conveyed to the hospital. They have since recovered.

Investigations revealed that there was a leak at the strainer beneath one of the waste tanks. This resulted in the accumulation of flammable gas in the area, which was ignited during hot work.

There was a previous near-miss incident involving the strainer. The strainer had leaked as the solvent in the waste tank corroded the O-ring in the strainer cover. The O-ring was replaced, but the valve handle seal which could have been corroded by the solvent, was not identified and replaced, resulting in a new leak occurring.



Overview of accident scene.

Location of hot work

Location of injured workers

Recommendations

Fires can result in explosions, severe injuries and loss of lives. To prevent similar accidents, consider the following measures:

- **Near-miss (NM) reporting:** Follow up on all NM incident reports to identify the root cause of the incident, and implement measures that address the root cause of the incident. In this case, it was the use of materials in the tank strainer that could have been corroded by the solvent in the tank.
- **Management of Change (MOC):** Measures identified through NM reporting need to be managed. MOC assessment includes assessing the scope for change. This includes systemically identifying and replacing incompatible seals used plantwide.
- **Hot work permit:** Conduct gas checks and implement other control measures to prevent fires and explosions, before issuing any hot work permit.
- **Gas detectors:** Install fixed gas detectors at strategic locations near hot work. Equip at least one of workers carrying out hot work with a portable gas detector.
- **Training:** Ensure workers are familiar with the Safe Work Procedures before starting work. Otherwise, provide the workers with refresher training.
- **Personal protection:** Provide all workers performing works involving flammable substances with suitable Personal Protective Equipment such as fire-retardant clothing.

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Bore Piling Machine Toppled

An operator was moving a bore piling machine. As the operator was turning the chassis, the machine toppled sideways. Investigation revealed that the machine's crawlers were not extended before it was moved, reducing its stability.

No workers were injured in this incident.



Overview of accident scene.

Bore piling machine

Chassis of the machine

Recommendations

Unsafe use of heavy construction machines can result in multiple fatalities. To prevent similar accidents, consider the following measures:

- **Pre-use check:** Confirm that the machines are in good working condition and free of defects before starting work.
- **Fully extend crawlers:** Most machines require their crawlers to be fully extended before operations. Crawlers are designed to be retracted for the transportation of the machines on vehicles. Ensure the Safe Work Procedure (SWP) includes the need to fully extend the machine's crawlers before operation.
- **Worker training:** Allow only workers who are trained, competent and authorised to operate specific heavy construction machines. Conduct toolbox briefings to ensure operators and workers are aware of the SWP and possible on-site hazards.
- **Work supervision:** Conduct checks to confirm the risk controls listed in the risk assessment for the work activity are in place. Provide supervision to ensure that heavy construction machines are used according to the SWP.
- **Use of technology:** Consider working with manufacturers to install a safety interlock to ensure the machine can be operated only if its crawlers are fully extended.

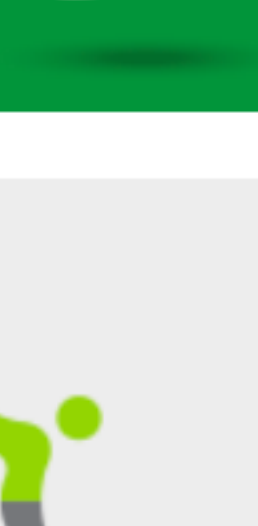
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Workplace injuries tend to rise around this time of year. Remain vigilant against risks and prevent accidents.

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Workplace Safety and Health

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