Slips Trips Falls & Falls from Height

Recent Inspection Observations & Fatal Accidents



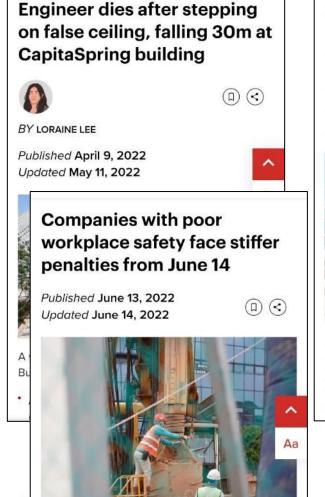
Goh Chin Keong, OSH Inspectorate

14 July 2022

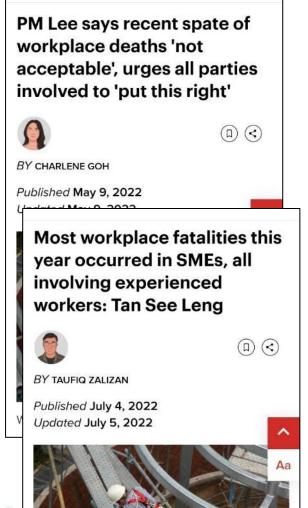




WSH in the news...











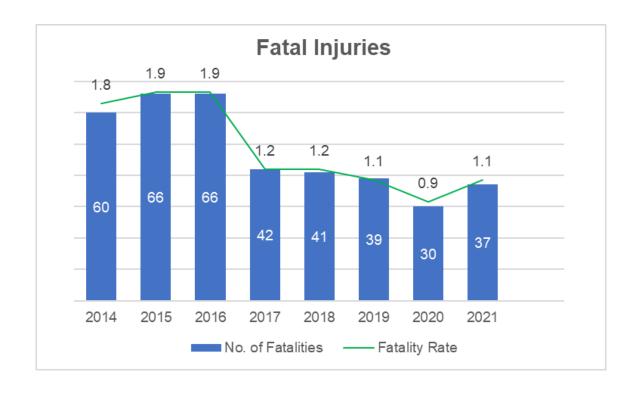


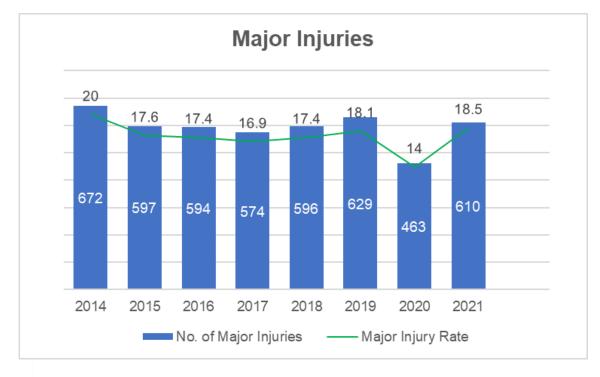
Workplace Safety and Health Report



Fatal & Major Injuries since 2014

Published figures up to 2021



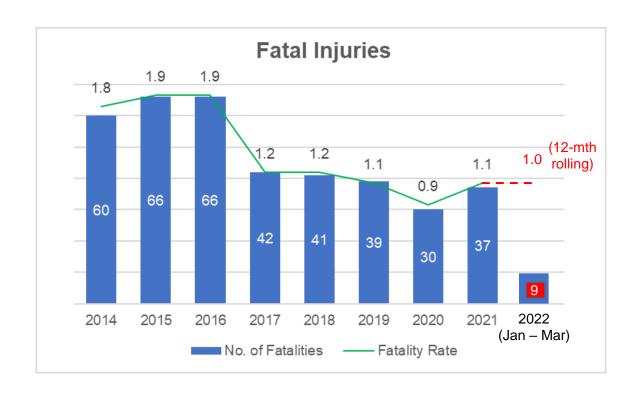


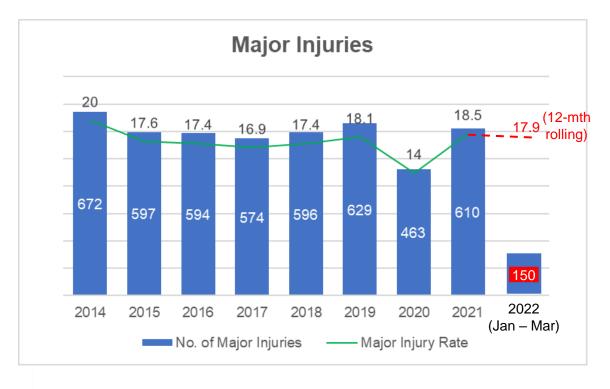




Fatal & Major Injuries since 2014

Published figures up to 1Q 2022



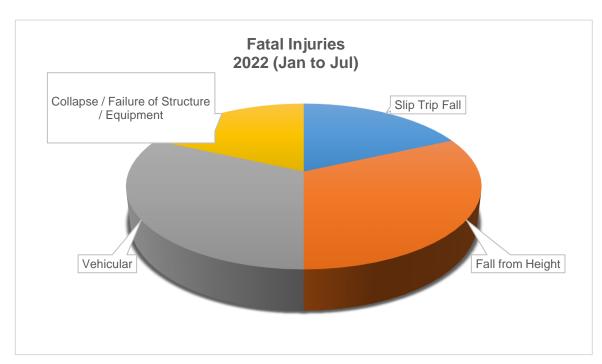


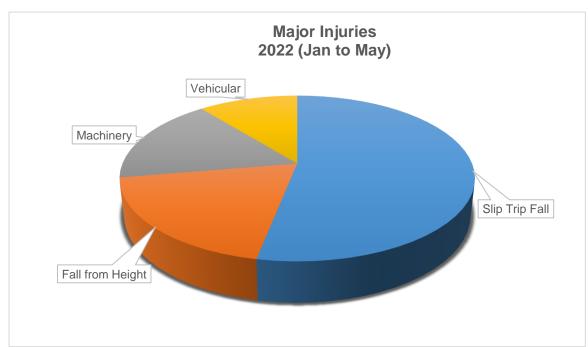




Top 4 Contributors to Fatal & Major Injuries

STF + FFH contributed more than 50%















Fragile Surfaces – 3 fatal cases in 2022



Renovation company owner fell through ceiling board

On 2 May 2022, the sole proprietor of a renovation company was surveying the 2nd floor of a shophouse, where the wooden flooring had been removed, exposing the floor beams and the false ceiling board of the 1st floor. He fell between the exposed floor beams, through the false ceiling board and landed about four metres below. He was sent to the hospital where he passed away.

No fall prevention or protection measures were implemented.

False ceiling board under the exposed floor beams



Expose beams

Overview of the 2nd storey of the shophouse.

Engineer dies after falling through false ceiling

On 8 April 2022, an engineer was on a maintenance catwalk performing inspections at the maintenance level of a building. One of the grating covers of the catwalk above the false ceiling had been removed as part of the inspection works. The engineer stepped on a false ceiling panel below the catwalk opening. The panel gave way, causing her to fall about 30 metres to her death.

The engineer was not wearing fall arrest equipment.

Opening in walkway

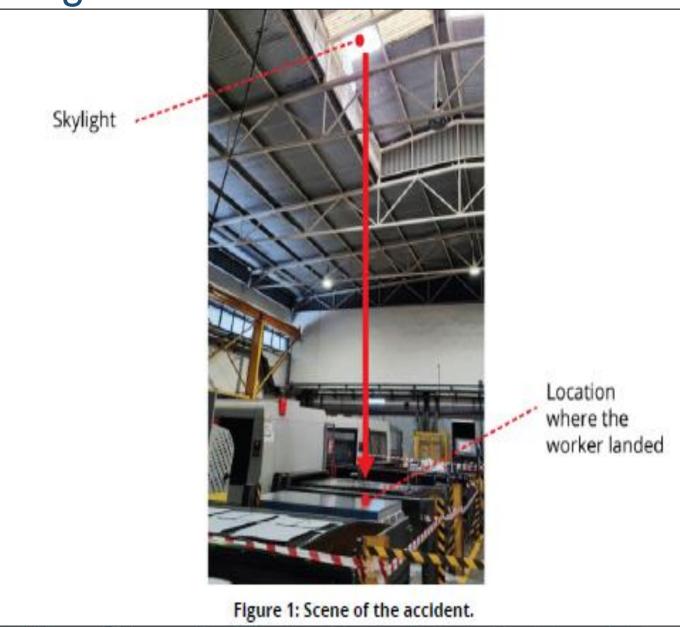


Removable grating cover

False ceiling panels

Fragile Surfaces – 3 fatal cases in 2022

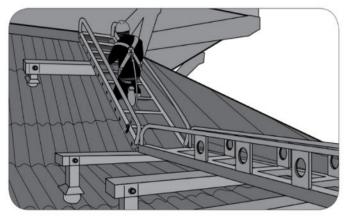




Recommendations



- · Pre-start Assessments
- Identify, mark and communicate the locations of fragile surfaces to workers



- Use safe
 work method
 eg roof
 ladders,
 crawl boards,
 gangways etc
- ...refer to established guidelines

Ladders – 2 fatal cases in 2022



Worker dies after falling from a ladder

On 21 April 2022, a worker suffered head injuries after falling about 1.2m from an A-frame ladder while trying to hang items to the top of a tentage. He passed away two days later.

The worker was wearing slippers when using the ladder, and the floor was wet from rain.



Location where
worker was found.

Recommendations



- •Pre-start Assessments
- Use the right ladder
- Ladder to be secured
- •Buddy to hold the ladder
- •3 point contact
- ...refer to established guidelines



Roofs & High Levels – 2 fatal cases in 2022

Worker slipped and fell off roof

On 24 May 2022, a worker was carrying out repair works on a sloping roof of a residential building when he slipped and fell about 20 metres to the ground. He was sent to the hospital where he passed away.

Preliminary investigations revealed that the worker was not wearing fall arrest equipment at the time of accident.



Location from where the worker fell

Worker fell off open side of landed residence

On 2 March 2022, a worker was doing inspection and painting works at a newly constructed threestorey 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.



Likely location of the worker before he fell

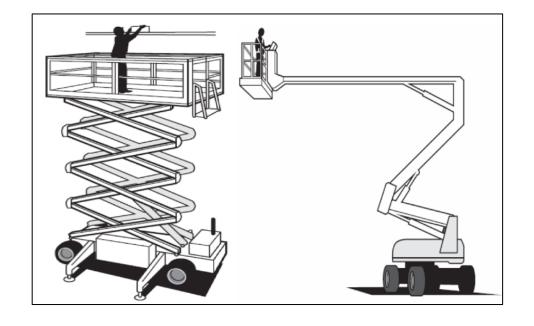
Second storey ledge with open side



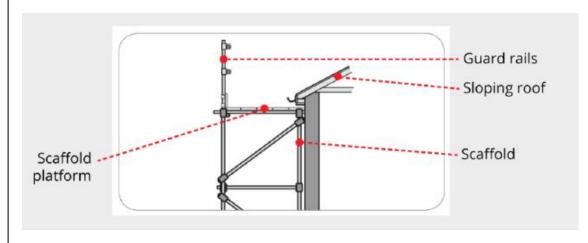
Roofs & High Levels – 2 fatal cases in 2022

Recommendations

- Pre-start Assessments
- •Use proper access equipment



Physical barriers to open sides;



- (if barriers not possible) Fall restraint;
- (if barriers & fall restraint not possible) Fall arrest
- ...refer to established guidelines





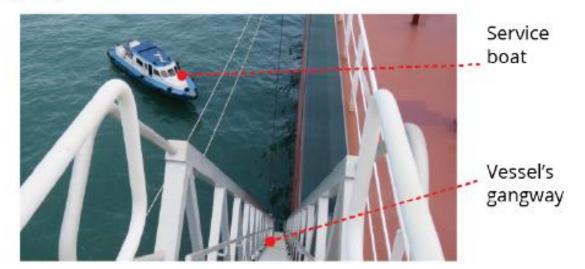


Slip Trip Fall – 4 fatal cases in 2022

Worker fell into sea while boarding service boat

On 17 May 2022, a worker had just crossed a gangway from a marine vessel to a service boat when he lost his balance and fell into the sea. The worker's body was later found on 21 May 2022.

Preliminary investigations revealed that the worker was wearing a life jacket and carrying a backpack containing equipment at the time of accident.



Recommendations

- Pre-start Assessments
- Housekeeping
- Proper footwear

When working near waters

- •Safe manner of transfer
- Life vests
- ...refer to established guidelines

















Open Sides and Openings

Reg 8(2) of WSH (Work at Height) Regulations

.... every open side or opening into or through which a person is liable to fall more than 2 metres shall be covered or guarded by effective guard-rails or barriers to prevent fall.









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Fall Restraint & Fall Arrest

Reg 8(5) of WSH (Work at Height) Regulations

Where it is **not reasonably practicable to comply** with paragraph (2), **or where** a cover, guard-rail or **barrier is removed under paragraph (3),** or during the **installation, alteration or removal of the covers, guard-rails or barriers**—

(a) **a travel restraint system shall be used** to prevent a person falling into or through the open side or opening referred to in paragraph (2); or

(b) where it is not reasonably practicable to comply with sub-paragraph (a), a fall arrest system shall be used.







Unsafe Work Procedures

S12(3)(b) / S14(4)(b) of WSH Act

Duty (on Employer / Principal) to ensure that **adequate safety measures** are taken in respect of any machinery, equipment, plant, article or **process**...









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Unsafe use of Ladders

Regs 18(3) & 18(4) of WSH (Work at Height) Regulations

- (3) The **surface** upon which any ladder (except for fixed ladders) rests or bears upon when used by a person shall
 - (a) be **stable**;
 - (b) be level and firm; and
 - (c) be of **sufficient strength to safely support** the ladder and any person and load intended to be placed on it.
- (4) Every ladder in a workplace shall be so positioned as to ensure its stability during use.













MINISTRY OF MANPOWER

Tripping Hazards

Reg 27 of WSH (Construction) Regulations

.... ensure ... all passageways, stairs, platforms and other means of access or places of work ... are **kept free from debris** or protruding objects or any other obstruction **that could cause tripping**. Reg 24(1)(a)(iii) of WSH (General Provisions) Regulations

All goods, articles and substances ... are stored, stacked or placed ...so as not to interfere with the unobstructed use of passageways ...









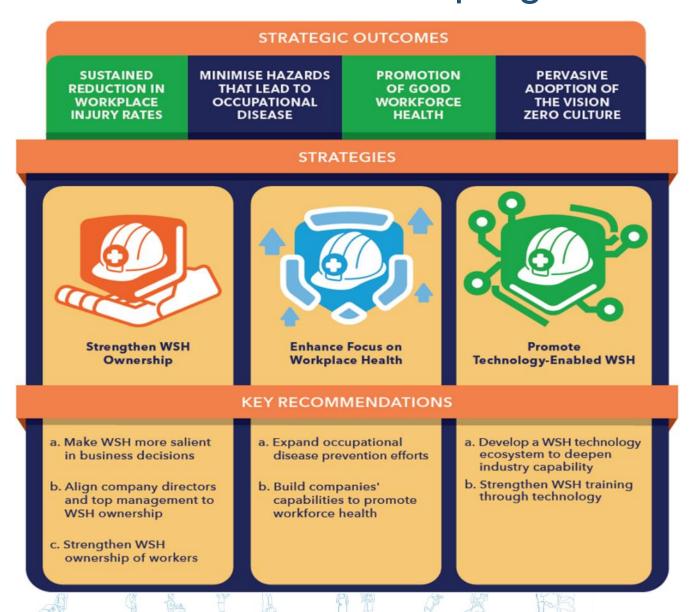






Leaders must inculcate a progressive WSH Culture





- Set proactive leading WSH indicators and work towards them
- Walk the ground to understand processes and communicate need to prioritise WSH
- Take stock of effectiveness of WSH management system and control measures

Leaders must inculcate a progressive WSH Culture





- a. Make WSH more salient in business decisions
- Align company directors and top management to WSH ownership
- c. Strengthen WSH ownership of workers

- Set proactive leading WSH indicators and work towards them
- Walk the ground to understand processes and communicate need to prioritise WSH
- Take stock of effectiveness of WSH management system and control measures





"For a long time, people were saying that most accidents were due to human error and this is true in a sense, but it's not very helpful. It's a bit like saying that falls are due to gravity."

Professor Trevor Kletz



THANK YOU

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