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SCIC 2026:
Fire Statistics and Case Studies

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Scope

- Annual Fire Statistics for 2025
- Case Studies of Fire Incidents

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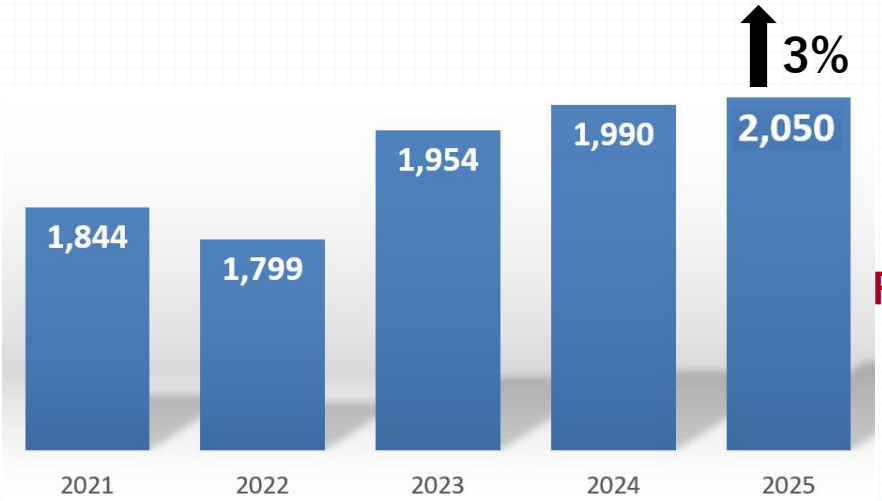
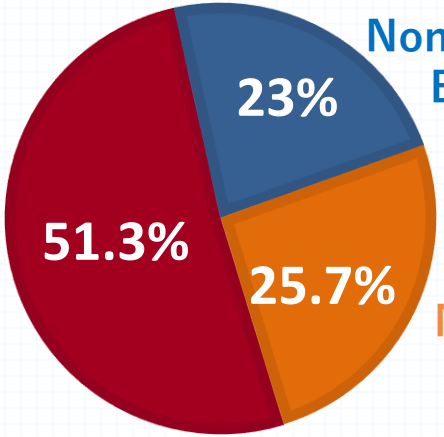
Annual Fire Statistics for 2025

Total Fire Calls



Breakdown of Fire Calls (2025)



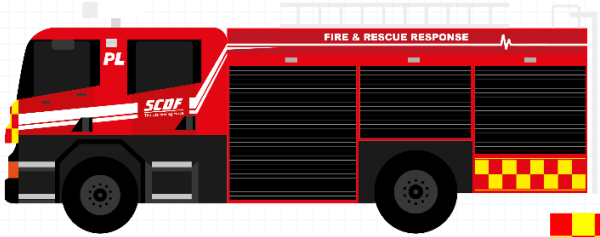
Non-residential Buildings (471)

Residential Buildings (1051)

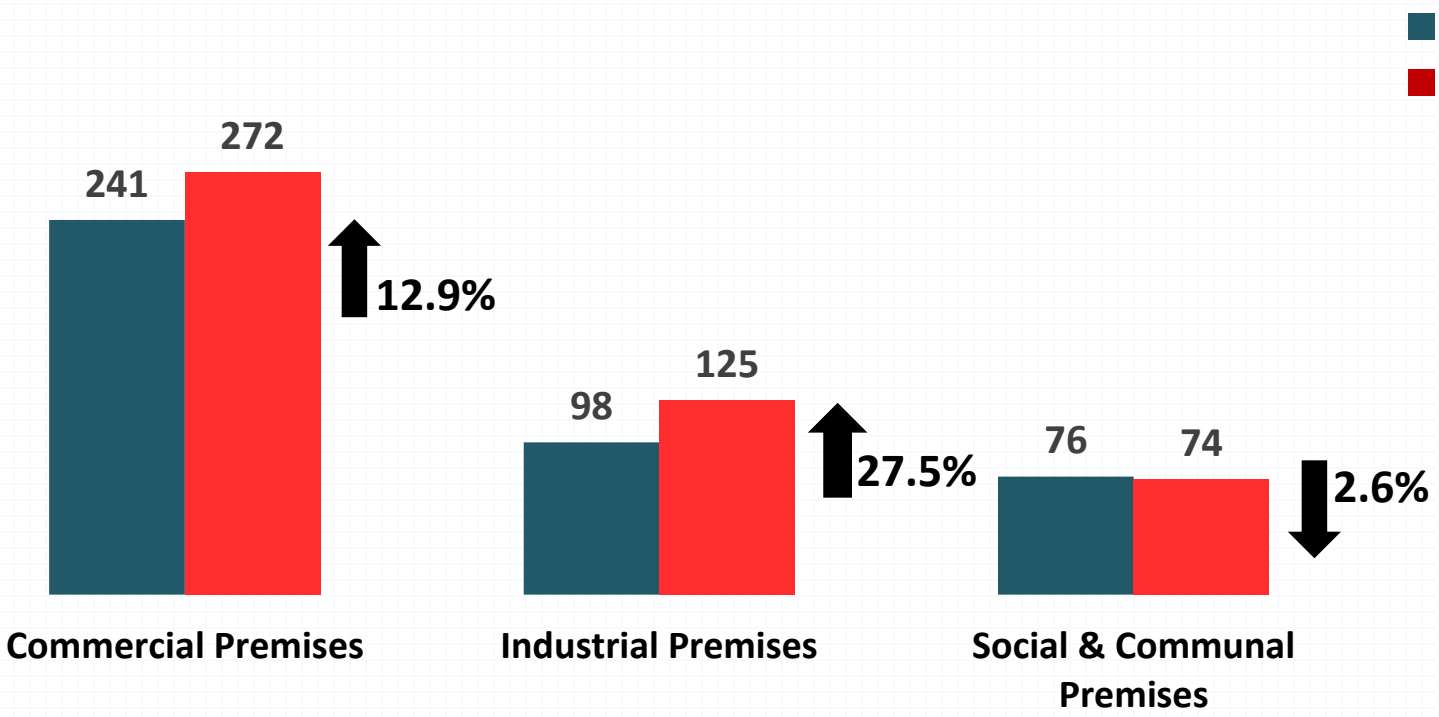
Non-building Premises (528)

94 Fire Injuries

6 Fatalities



Breakdown of Fires at Non-Residential Buildings



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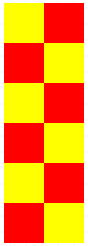


Case Studies

Case 1: Chemical and Sawdust Fire

Fire involved:

Mixtures of waste chemical and sawdust at a section of an industrial processing facility.



Method of extinguishment:

Fire was extinguished by SCDF using hose line jets from fire appliances.

Cause of fire:

Electrostatic discharge during mixing activity.

Injuries:

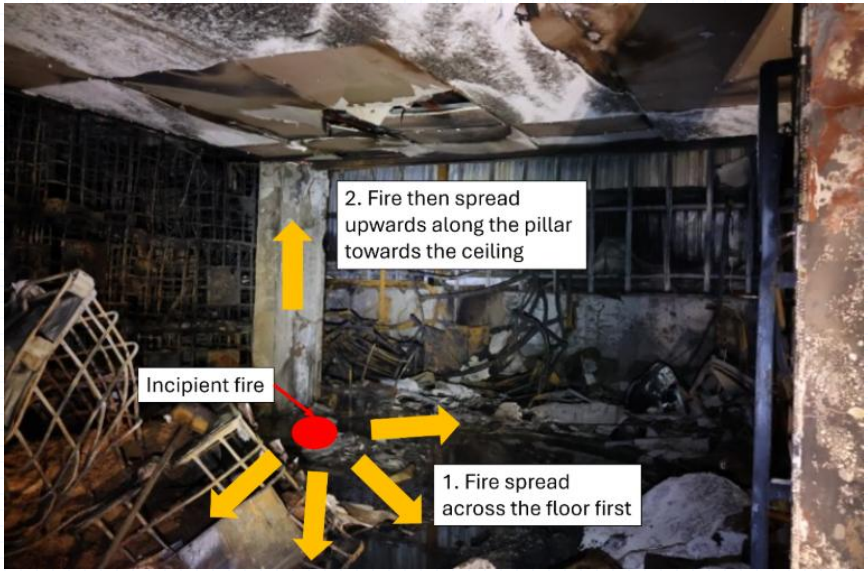
Two casualties sustain burn injuries.

Case 1: Chemical and Sawdust Fire



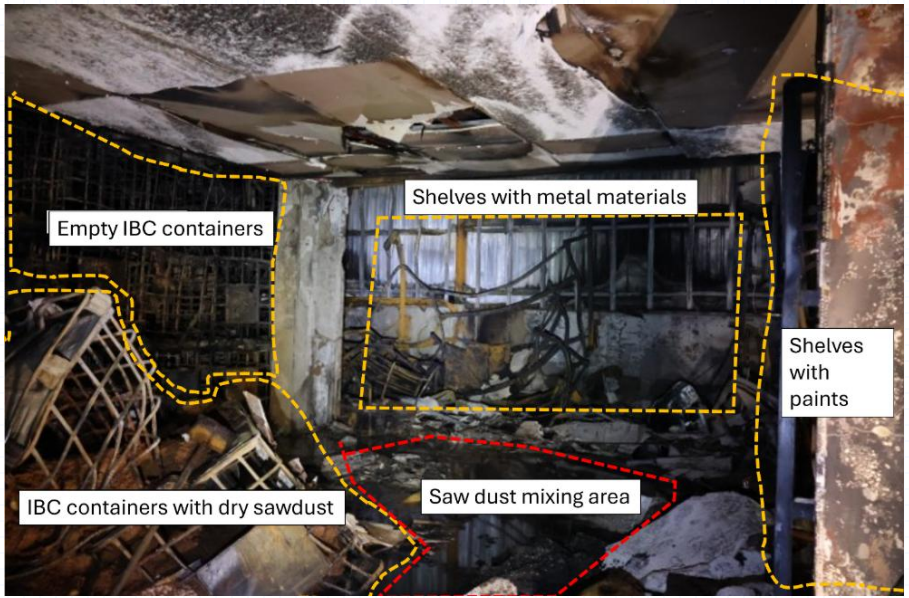
- The workers were mixing sawdust with waste chemicals from the IBC.
- The waste chemical, already soaked into some sawdust, would be poured onto a floor overlaid with fiberglass, where it would be mixed with dry sawdust before being transferred into the mixer.
- A shovel was used for the preliminary mixing while the ingredients were on the floor.

Case 1: Chemical and Sawdust Fire



- A fire then broke out during the preliminary mixing process while the shovel was being used.
- The same shovel was used to strike the area of fire in an attempt to extinguish it, but the fire spread across the working area.

Case 1: Chemical and Sawdust Fire





Case 1: Chemical and Sawdust Fire

Key Takeaway(s):

- **Proper mixing environment:** An excavated pit or grounded metal bins should be used for large or small quantities respectively.
- **Ventilation:** Avoid mixing indoors or in areas with low ventilation, as this prevents the dispersal of potentially flammable fumes.
- **Non-flammable surroundings:** The mixing area should be kept clear of other flammable materials, such as paint, to minimise the risk in the event of a fire.

Case 2: Spontaneous Combustion of Li foils

Fire involved:

Contents of a mixing pit comprising lithium foil scraps and other waste materials in a warehouse of a waste management facility.

Method of extinguishment:

Fire was extinguished by SCDF crew using hose line jets, a foam monitor, and an unmanned firefighting machine from fire appliances.

Cause of fire:

Spontaneous combustion of lithium foils





Case 2: Spontaneous Combustion of Li foils





- Workers were throwing mylar bags into the mixing pit. The excavator had then dug into the area with the mylar bags before a forklift dumped ash into the pit (baseness on witness' statements).
- Soon after the ash was deposited into the pit, white smoke began rising from it. This was followed by an explosion, with sparks ejected from the mixing pit.



Case 2: Spontaneous Combustion of Li foils

Key Takeaway(s):

- **Check the type of waste involved:** Always check on the type of waste involved prior to mixing, as different waste materials may have varying flammable, toxic, or reactive properties.

- **Refer to the MSDS:** If necessary, refer to the Material Safety Data Sheet (MSDS) for guidance on the specific properties and safe handling requirements of the materials.

Case 3: Machinery Fire

Fire involved:

A section of the texturing machine of a manufacturing facility.

Method of extinguishment:

Fire was extinguished by SCDF using hose line jets from fire appliances.

Cause of fire:

Electrical origin at the texturing machine





Case 3: Machinery Fire



- A fire broke out inside a machine in the production room.
- On-duty engineer noticed an "orange light" from his position at the back tables, investigated and confirmed it was a fire, then immediately alerted his supervisor
- They tried to put out the fire but were unsuccessful and evacuated before the arrival of SCDF.

Case 3: Machinery Fire

Key Takeaway(s):

- **Regular maintenance and checks:** Ensure that all machinery used is subject to regular maintenance and inspections, to ensure it remains in safe and proper working condition.

Thank You