

Safety and health alert

18/97 Incomplete roofs - a fall hazard

Incident

A roof plumber with 15 years experience, working on a two storey retirement village at Kallaroo in September 1997, received serious head injuries and a broken wrist when he fell 4 metres through a roof, while fixing valley iron. The roof had been sarked, tile battens installed and on the day of the accident the roof was being loaded with tiles as the roof plumber was completing his work.

The photograph shows the state of the roof when the incident occurred. The plumber fell through the roof near the ridge as shown, while standing on a 550mm length of tile batten. A similar arrangement in the foreground of the photograph is labelled "like situation", but in this case the batten does have some cantilever strength, albeit insufficient to support the full weight of a worker if the skew nailing to the valley board arrangement fails.

Factors

1. The single skew nail attaching the end of the batten to the valley board appears to have been insufficient to support the roof plumber, and the batten fell away.
2. The potential of injury to the roof plumber was particularly high as the fall occurred near the highest point of the roof, about 4 metres from the slab below.
3. Because the roof had edge protection and sarking, the hazard of falling through the roof was less obvious. It is possible that the edge protection and sarking gave an impression of false security, masking the 4 metre fall hazard below.

Recommendations

1. Incomplete roofs always present fall hazards. As each phase is completed, the work should be checked, potential hazards identified and addressed. Part 3, Division 5 of the Occupational Safety and Health Regulations 1996 details Prevention of Falls at Workplaces requirements that must be complied with.
2. Any short length of tile batten of less than 600mm or cantilever of a tile batten greater than 150mm over a roof rafter requires particular attention. This incident highlights the need for the tile industry to develop a suitable fixing detail, to share it within the industry and to actively promote its use.
3. In the interim, trades accessing incomplete roofs should:
 - a. avoid stepping on roof battens, other than where they intersect with roof rafters; and
 - b. never step on a cantilever section of roof batten, even if the end is skew nailed.
4. The Code of Practice on Prevention of Falls at Workplaces – September 1997, released by the WorkSafe Western Australia Commission, also provides advice on managing fall hazards.



Further Information

Further information can be obtained from the WorkSafe internet site www.worksafe.wa.gov.au, or by contacting customer service on 1300 307 877 or email: safety@docep.wa.gov.au.

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