Working at Height Association Limited
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WORKING AT HEIGHT ASSOCIATION
REACHING NEW LEVELS IN SAFETY

Working at Height Association

Fall Prevention Equipment Audit Survey Report

September 2013

Executive Summary

The installer category working group of the Working at Height Association (WAHA), has expressed concern at the deteriorating quality of the installation and design of fall prevention equipment observed during routine inspections. To quantify the problem and determine whether it is indeed widespread and systemic, the group members were asked to provide data based on their inspections over a three-month period, within the last four to five months.

The inspections are mandatory under workplace health and safety laws, and equipment is inspected six-monthly or annually, depending on the state's specific requirements.

The aggregated data is based on inspections that member companies were engaged to do on behalf of a range of clients. Data was collated from four companies operating in the Melbourne, Sydney, Perth, Brisbane and Adelaide markets. The inspections were performed on a vast array of different installations and whilst the inspections were performed by some companies on their own installation work, the vast majority was performed on work by other companies, illustrating a high degree of variance in the quality of installations.

Equipment surveyed

The equipment surveyed is used for fall protection once a facility needs to be routinely maintained. The categories of equipment surveyed were:

- fixed ladders; both step and rung type (note : this survey excludes portable ladders)
- anchor points
- horizontal static lines
- vertical ladder lines, used for climbing fixed ladders

Buildings and clients surveyed

The buildings surveyed were commercial or industrial, completed and operational. These consisted of single-storey and multi-storey buildings, office blocks, industrial warehouses and retail sites. The occupants were private and public companies, and state government and local government. The individual building details and occupants were not provided, since the survey participants compete commercially.

Tasks surveyed

The equipment is used to gain access to, and to work on:

- gutters for cleaning and maintenance
- air-conditioning equipment for routine servicing
- extraction and smoke exhausts for fire services
- window cleaning.

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How the equipment and design was assessed
A simple pass or fail criteria is used to determine whether the equipment is safe and compliant for use. Criteria for determining this is as follows:

Fixed ladders used to gain access to the work areas
These may be used to gain access to an access hatch leading to a roof area, or to gain access from one roof level to another. The ladders were inspected against AS1657 (*Fixed platforms, walkways, stairways and ladders — Design, construction and installation*). If a ladder deviated from any one of the criteria mandated as a "shall" in the standard, then the ladder failed. "Shall" in an Australian Standard indicates that a requirement is mandatory.

Anchor points - used as attachment points for a worker wearing a safety harness
An anchor point system has a data plate at the entry point, which identifies the type of system, number of points, load rating and last inspection date. Anchor points surveyed are either fixed directly to the roof sheeting, fixed to the roof truss, or chemically set into concrete. The anchor points are either rated for fall arrest (15kN) or work positioning (12kN). They may be an energy-absorbing anchor design or ofa design requiring proof-load testing.

There are a number of circumstances and techniques used to manage the risk of a fall during attachment, which include:

- Fall arrest – the user is accessing a part of the structure that may create the risk of a fall off the edge of a building, and then be suspended until they are rescued.
- Fall restraint/work positioning – workers keep themselves in a position where the rope length is controlled so they cannot go over the edge, relying on a high level of user skill.
- Abseil – users descend over the edge of the building to gain access to, say, windows. They slowly descend to the ground, performing tasks on the way down.

Horizontal static lines
Consisting of two end terminations and a series of intermediate anchor points joined by a steel or fibre cable. These are similar to anchor points, but the user doesn't need to disconnect and reconnect between intermediate anchorage points. Static lines are not used for abseil and they carry the same criteria for system identification plates.

Vertical static lines
These are cables that are usually installed vertically on very tall ladders. The user dons a harness, and then attaches to the line with a shuttle. If a user falls whilst up in the air, the shuttle arrests the person's fall to allow for self-recovery or until they can be rescued.

The anchors, horizontal and vertical static lines were assessed against:

1. The series of Australian Standards comprising AS/NZS1891(Industrial fall-arrest systems and devices), and /or
2. Installation instructions from the equipment manufacturers and generally accepted industry practice.

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Installers of the equipment surveyed
The installers of the surveyed equipment were contractors who have participated in the fall protection industry for many years. Most were known to the industry. The corporate structures of the various installation entities include privately owned companies with individual shareholders, sole traders, and portfolio companies of private equity funds. One contracting company has been liquidated and is now a subsidiary of a publicly-listed, top 50 ASX listed company.

Findings
The survey uncovered a high degree of non-conformance across the board which indicates that there is reason for concern. The non-conformance and safety issues are systemic, and require attention.

Up to this time, despite various Standards being created to ensure a high degree of workplace safety, the industry is essentially self-regulated. Whilst self-regulation can work in many industries, WAHA believes that these issues require intervention from government and state regulators. It is not within the authority, jurisdiction or resources of an industry association to police an industry to the extent required to solve these problems.

Structures surveyed
The structures were a combination of new and existing buildings. These were defined as follows:

- New buildings – 34 surveyed – buildings that are occupied, but only completed within the past 12-24 months
- Existing buildings – 119 surveyed – buildings where equipment has been retrofitted.

The statistics are as follows:

Item	No. surveyed	Number passed	% failed	Note
Anchor points	3245	2260	31	
Horizontal static lines	119	41	65	
Vertical static lines	14	2	86	
Fixed ladders	233	14	94	
Layouts/designs checked for WP	86	4	95	

Limitations of this survey
The reports were provided by four of larger participants in the WAHA installer category working group. The data was not audited or verified but there is no reason why the data should not be materially indicative of the actual findings. Even with a 25% margin for error, the results indicate that the issues are serious, systemic and an accident waiting to happen.