

Hearing Testimony and Documentary Evidence

Department of Labor "OSHA"
Docket # OSHA-3007-0072
RIN # 1218-AB80



Notice of Intent to Provide Testimony and Written Submittal

November 30, 2010

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To Whom it May Concern,

I am writing to share my concerns and comments with the United States Department of Labor Occupational Safety and Health Administration proposed rule changes to 29 CFR Part 1910, *Walking-working Surfaces and Personal Protective Equipment) Fall Protection Systems*). This is Docket No. OSHA-2007-0072, RIN # 1218-AB80.

I am the founding partner of Vertical Access LLC, a professional services company specializing in inspections, investigations, documentation and quantification of existing conditions, primarily on building facades. While our specialty is investigations of monumental historic buildings, we also work on other types of structures, including civil structures such as bridges and dams as well as industrial sites. With 19 years of experience on a variety of structures, we have a perfect safety record with no recorded lost days of work or injuries. Other, similar companies work in heavy industries such as petroleum and chemical refineries, as well as in wind energy, entertainment and signage.

As a general note, in my opinion, the current proposed regulations do not appear to adequately address the full breadth of the increased use of Industrial Rope Access (IRA) systems in the United States over the last 15-20 years. This is reflected in the proposed language wherein any work accomplished on rope is termed "Rope Descent", which is not fully representative of the breadth and scope of work possibilities that IRA techniques are capable of undertaking when used by trained personnel. I would like to suggest that OSHA modify this language in the proposed rules to reflect OSHA's recognition of these work possibilities that go beyond building maintenance using double rope systems for fall protection and work positioning. It should also be noted that a key component of IRA is the ability to ascend as well as descend the working line while maintaining fall protection

at all times. Another distinguishing feature of IRA is the ability to self-rescue oneself or fellow workers, as needed, with no additional personnel, under most scenarios.

Furthermore, the proposed regulations appear to rely much too heavily on the specific set of guidelines developed under ANSI/IWCA I-4.1, a consensus-based group representing the window cleaning industry. I strongly suggest that OSHA also consider other consensus-based organizations that have solicited input from a variety of other practitioners of IRA techniques. These include SPRAT, the Society of Industrial Rope Access Technicians (www.sprat.org), IRATA, the International Rope Access Trade Association (www.irata.org), ASTM E-06, the American Society of Testing and Materials (www.astm.org), ANSI Z-359.1, the American National Standards Institute (www.ansi.org), California OSHA, the New York City Department of Buildings, Division of Cranes and Derricks and the British Health and Safety Executive, the UK equivalent of OSHA.

While there are many specific changes and improvements in the proposed language that I agree with and applaud, there are several with which I take exception, based on real-world experiences along with standards and guidelines that are used nationally (SPRAT) and internationally (IRATA) in some very harsh environments and challenging conditions.

These two areas of contention are raised in 1910.27, **Scaffolds (including rope descent systems)**, as follows:

§ 1910.27 **Scaffolds (including rope descent systems).**

- (a) Scaffolds. Scaffolds, other than rope descent systems, used in general industry must meet the requirements for scaffolds in part 1926 (Safety and Health Regulations for Construction) of this chapter.
- (b) Rope descent systems. (1) The use of a rope descent system is prohibited for heights greater than 300 feet (91 m) above grade unless the employer can demonstrate that access cannot otherwise be attained safely and practicably.
 - (2) When rope descent systems are used, employers must:
 - (i) Use equipment in accordance with the instructions, warnings, and design limitations set by manufacturers and distributors.
 - (ii) Train employees in accordance with § 1910.30;
 - (iii) Inspect all equipment used in rope descent systems each day before use and remove damaged equipment from service;
 - (iv) Use proper rigging, including sound anchorages and tiebacks, with particular emphasis on providing tiebacks when counterweights, cornice hooks, or similar non-permanent anchorages are used;
 - (v) Use a separate, independent personal fall arrest system meeting the requirements of subpart I of this part;
 - (vi) Ensure that all lines are capable of sustaining a minimum tensile load of 5,000 pounds (2,268 kg);
 - (vii) Provide for prompt rescue of employees in the event of a fall;
 - (viii) Ensure ropes are effectively padded where they contact edges of the building,

- anchorage, obstructions, or other surfaces which might cut or weaken the rope;
- (ix) Provide for stabilization at the specific work location when descents are greater than 130 feet (39.6 m);
 - (x) Secure equipment, such as tools, squeegees, or buckets by a tool lanyard or similar method to prevent equipment from falling; and,
 - (xi) Protect suspension ropes from exposure to open flames, hot work, corrosive chemicals, or other destructive conditions.

My primary issues have to do with the 300' height prohibition and the requirement to tie back suspension lines every 130', vertically

Lumping "scaffolds" (which, I assume in this instance, refers to suspended scaffolds or "swing stages") with industrial rope access strikes me as a mistake, in that they are completely different means and methodologies of work positioning. For example, while a 30' or 40'-long suspended scaffold platform presents quite significant wind resistance accompanied with substantial mass, the sail effect on a single person suspended on a rope is reduced to near zero, in conditions that would be dangerous on a suspended scaffold. Furthermore, descents on rope can be easily controlled at a greater rate of descent, removing the worker from harm in the event of increases in wind velocity or change of direction. In instances when a swing stage is "parked" at ground level, it can also be difficult to adequately control the suspension and power lines under high wind conditions, without dismantling the system temporarily.

I am interested in learning how these hard and fast limits were derived, and by whom? Are these extracted from limits placed on suspended scaffolds, and if so, what is the justification for doing so?

In support of this letter, and in an effort to demonstrate the safety of IRA techniques, I include several pages from the IRATA Work and Safety Analysis 2007 report by Dr. C.H. Robbins, published in June, 2008. This, and other reports may be found on line here: http://irata.associationhouse.org.uk/default.php?cmd=210&doc_category=166. It should be noted that IRATA is an international IRA trade group with substantially larger membership and a longer history than its United States-based counterpart, SPRAT, which lacks a system for collecting this sort of member data as rigorously as IRATA.

In closing, I would like to request the opportunity to speak at the public hearing scheduled for January 18, 2011, in Washington, DC. I do intend to submit additional substantiating materials by the December 21, 2010 deadline.

Sincerely,



Kent Diebolt, for Vertical Access LLC



Work and Safety Analysis 2007

Report by
Dr C H Robbins

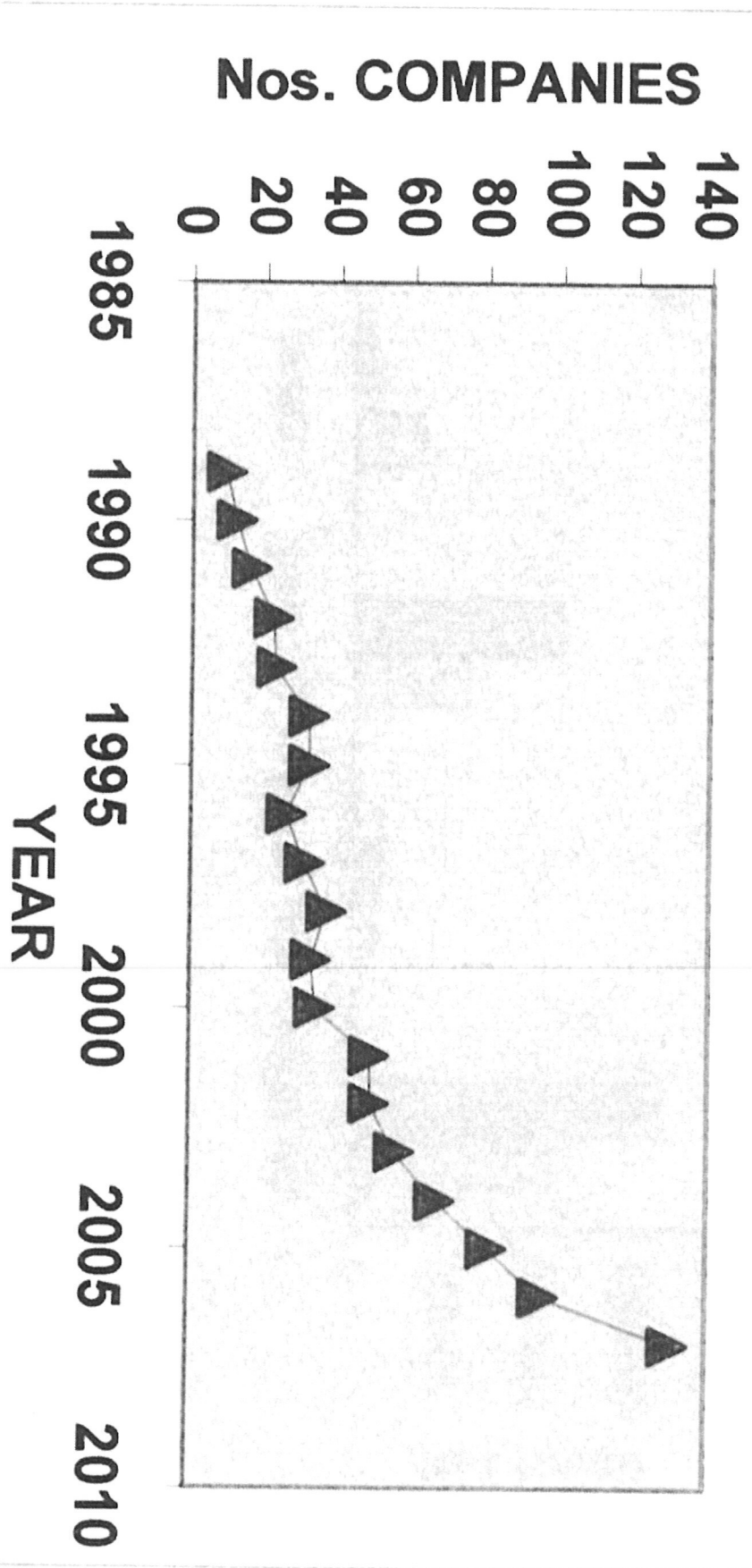
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ATA MEMBERSHIP

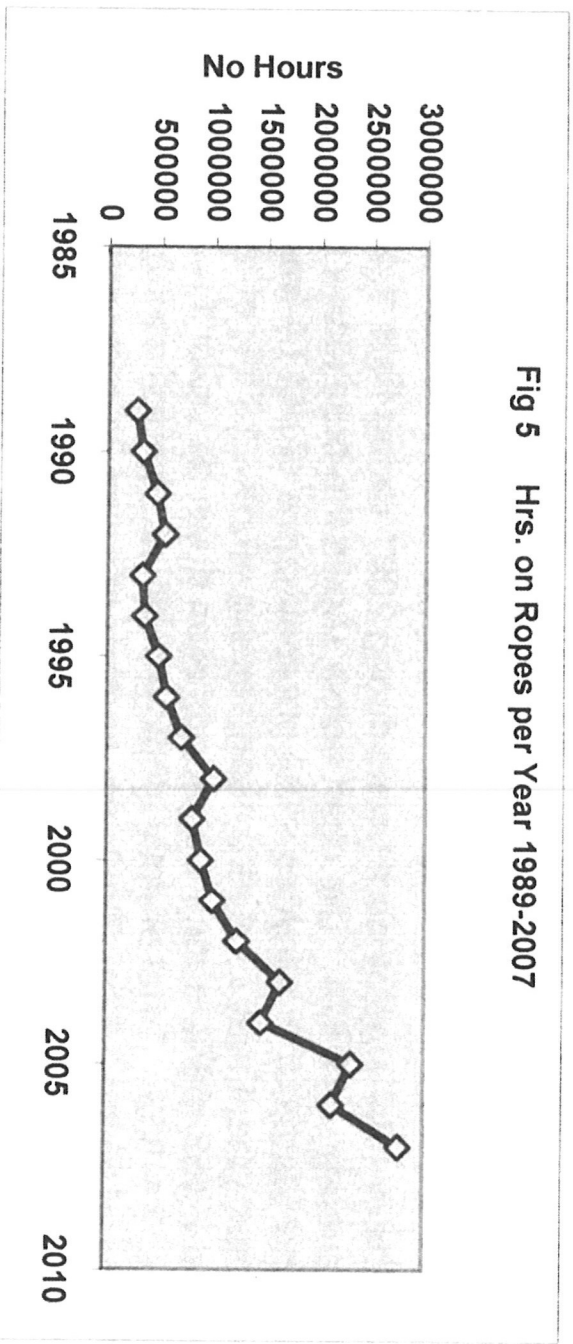
al number of companies registered to April 2008 was 130, an increase of 35 over the number of companies registered for the previous year. The graph below shows the increase in membership since 1985.

Fig.1 IRATA MEMBER COMPANIES



Taking only the hours on rope data from previous years the graph below (Fig 5) shows an almost identical trend to that of the number of IRATA member companies in Fig 1.

Fig 5 Hrs. on Ropes per Year 1989-2007



This relationship is confirmed by plotting Hours on Rope against Number of Companies (Fig 6 below). The trend line gives an average of about 23,000 hours per annum per company.

Fig 6 Hrs. on Ropes - v - No of IRATA Companies

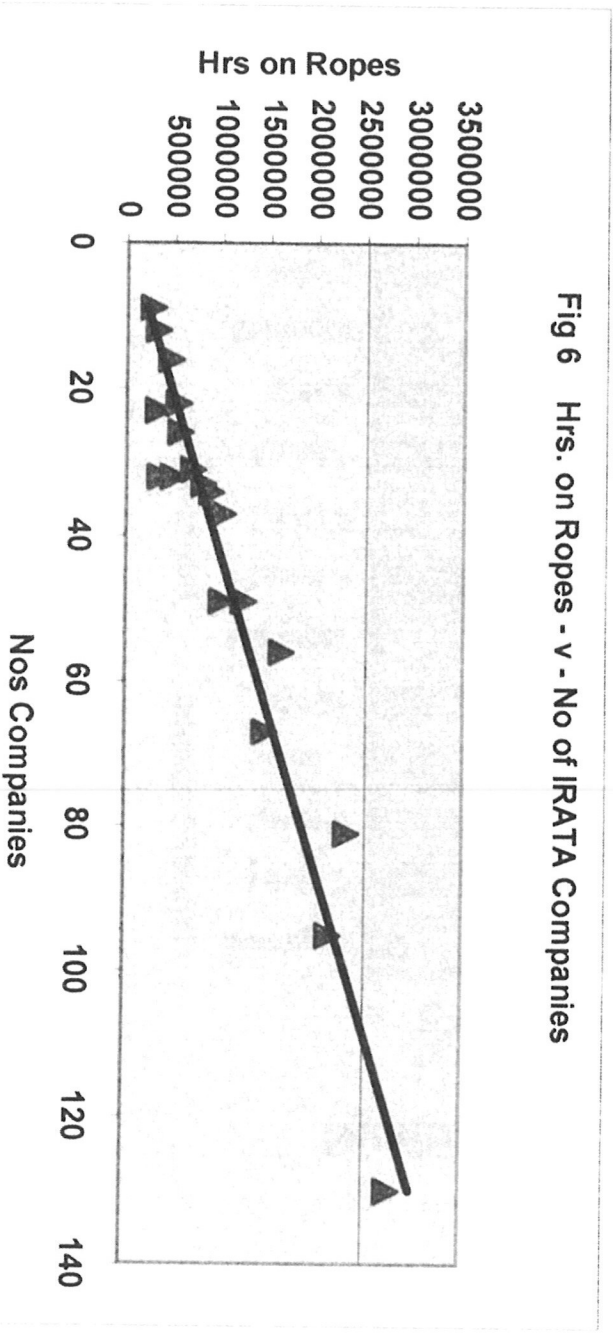


Fig 22 Graph of Total Incident Rates 1989-2008
(with moving average line)

