



Testimony to DOL

TESTIMONY OF THE
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
ON
THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S
NOTICE OF PROPOSED RULEMAKING ON
WALKING AND WORKING SURFACES AND
PERSONAL PROTECTIVE EQUIPMENT (FALL PROTECTION SYSTEMS)

29 CFR Part 1910
Docket Nos. S-041 and S-057

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16. Abstract (Limit: 200 words) This testimony concerns the views of NIOSH relating to the proposed rule making of OSHA on walking and working surfaces and personal protective equipment, with an emphasis on fall protection systems. Additional data are presented with this testimony which deal with the minimum tread width for stairway design, the fatality and injury rates for exterior building maintenance workers, the occurrence of injuries from falls into shafts, and additional FACE reports on fatalities involving falls at work. The proposed rule would allow fixed stairs with open risers to have a minimum tread depth of 6 inches. NIOSH presents references addressing the selection of appropriate depth for stair treads but does not have any accident data specifically addressing this issue as a causal factor in falls. Statistical reports identified a fatality rate of 56.2 per 100,000 among window cleaners. The average annual fatality rate for all industry sectors combined was 7.8 per 100,000 workers. In reviewing the Bureau of Labor Statistics for injury and fatality data involving falls into shafts a total of 4656 such injuries was reported for 1984 and were from workers involved in motor freight transportation and auto repair.				
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I am Bryan D. Hardin, Deputy Director of the Division of Standards Development and Technology Transfer (DSDTT) of the National Institute for Occupational Safety and Health (NIOSH). With me today are Heinz W. Ahlers, a physical scientist, also in DSDTT, Ronald L. Stanevich, a safety engineer in the Accident Analysis Section of the Division of Safety Research, and Catherine Bell, an epidemiologist in the Data Analysis Section of the Division of Safety Research. NIOSH is pleased to have this opportunity to testify in support of the Occupational Safety and Health Administration's (OSHA's) notice of proposed rulemaking on walking and working surfaces and personal protective equipment (fall protection systems).

NIOSH submitted several exhibits to the docket with our July 9, 1990, comments on this proposed rule. Today, we are submitting additional data. These additional data relate to the minimum tread width for stairway design; the fatality and injury rates for exterior building maintenance workers; the occurrence of injuries from falls into shafts; and additional FACE reports on fatalities involving falls at work.

TREAD WIDTH

The proposed § 1910.25(c)(4) would allow fixed stairs with closed risers to have a minimum tread depth of 8 inches, and § 1910.25(c)(5) would allow fixed stairs with open risers to have a minimum tread depth of 6 inches. NIOSH is submitting today four references addressing the selection of an appropriate depth for stair treads. The authors in all of these reports recommend a minimum depth of 11 inches for stair treads [Fitch et al. 1974; NFPA 1983; Templer 1974; Woodson 1981]. However, NIOSH does not have any accident data specifically addressing the issue of tread depth as a causal factor in falls.

EXTERIOR BUILDING MAINTENANCE

NIOSH reviewed the National Traumatic Occupational Fatalities (NTOF) data base for the number of fatalities among workers identified as window-cleaners on the death certificates for the 1980 to 1985 time period. Using an estimated average annual employment of approximately 8012, we estimate an average annual fatality rate of 56.2 per 100,000. Using NTOF data for the 6-year period from 1980 through 1985, the average annual fatality rate for all industry sectors combined was 7.8 per 100,000 workers. This figure may be an underestimation of the actual rate of deaths in this occupation, as a result of limitations inherent in identifying the decedent's specific occupation using death certificate data. We are providing a description of the NTOF data base (Attachment 1) that describes limitations inherent in death certificates.

NIOSH has examined the Ohio Bureau of Workers Compensation data on rates charged for workers compensation insurance in Ohio for various occupations. The Ohio Bureau of Workers Compensation base rate for exterior building maintenance workers above the one-story level (code 9009) was \$43.65 per one hundred dollars of payroll for the period that began July 1, 1989. This was the highest published base rate for any coded occupation. By comparison to a worker population also exposed to fall hazards, the Ohio base rate for

exterior metal structure erection workers (code 5081) was \$12.71 per one hundred dollars of payroll. Code 9009 includes exterior building cleaning; tuck pointing and caulking; and window washing. Code 5081 includes metal building erection, fire escape erection, greenhouse construction, ornamental iron erection, sheet metal erection, and silo erection. Therefore, assuming worker compensation data is indicative of risk, exterior building maintenance workers are a high-risk profession.

FALLS INTO SHAFTS

OSHA requested information on the hazards associated with automobile lubricating operations using grease pits [55 FR 29224]. NIOSH reviewed the 1984 Bureau of Labor Statistics (BLS) Supplementary Data System (SDS) data base for injury and fatality data involving falls into shafts. The SDS collects information from selected states based on claims filed for workers compensation in those states.

From among the states and industries that participated in the SDS, a total of 4656 injuries and fatalities from falls into shafts were reported in 1984. One hundred sixty-eight incidents are from Standard Industrial Classification (SIC) code 42 (motor freight transportation) and 45 are from SIC code 75 (auto repair). The number of injuries for selected occupations reported include: truck drivers, 175; miscellaneous mechanics, 80; heavy equipment mechanics, 78; auto mechanics, 55; gas station attendants, 27; and vehicle cleaners, 20 (Attachment 2).

FACE REPORTS

Several FACE reports not included in our previous submission are being submitted today (Attachment 3). The FACE reports contain details on the contributing factors involved in the fatalities investigated. Although some contributing factors may be specific to the particular occupation involved in the fatalities, many of the contributing factors may be common to a wide range of industries and occupations. The investigations of fatalities involving skylights [NIOSH 1989], for example, contain a number of guidelines that may be applicable to any floor level openings that are covered by minimally protective surfaces.

Enclosures and/or attachments that are not included are available free of charge from the NIOSH Docket Office (513/533-8450).

REFERENCES

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