

SPECIAL Report



NATIONAL ROOFING CONTRACTORS ASSOCIATION

September 28, 2001

Dear Member,

NRCA is pleased to announce that the Occupational Safety and Health Administration (OSHA) has favorably clarified the definition of mechanical equipment as it relates to the agency's fall-protection standard. Effective October 17, 2000, OSHA allows the use of a wide variety of roofing equipment outside the warning-line system.

Background

In 1994, OSHA released its Subpart M fall-protection standard, replacing the old standard that had existed since 1980. The 1980 standard only allowed non-mechanical equipment, such as wheelbarrows and mopcars, to be used outside warning lines or when safety monitors were present. Mechanical equipment, such as roof cutters, felt layers and spud machines, was not allowed outside warning lines unless workers were protected with guardrails or personal fall-arrest systems.

Wheelbarrows and mopcars were excluded from OSHA's definition of mechanical equipment because OSHA agreed that their use does not require employees to move backward or generate significant momentum.

In the preamble of its 1980 standard, Federal Register Vol. 45, No. 222, on page 75,623, OSHA stated the greatest hazards when using mechanical equipment occur at the points of turnaround (perpendicular to the direction of equipment movement) where an employee's attention is no longer on the [fall] hazard but rather on the effort required to turn the equipment around (cf. Ex 2:82, 120, 191). At these turnaround points, employees are in danger of losing their balance because of the sometimes awkward motions necessary to turn the mechanical equipment and the need to step backward toward the roof edge as workers try to line up the machine for the next run. For these reasons, OSHA decided to limit the use of mechanical equipment to inside warning lines.

Since the promulgation of OSHA's 1980 fall-protection standard, many new roof systems have been used in the roofing industry, including single-ply, spray polyurethane foam and metal, to name a few. Mopcars only are used for some built-up and modified bitumen roofing applications, making wheelbarrows the only nonmechanical equipment allowed to be used outside warning lines or when safety monitors are used.

This created an obvious problem for roofing contractors because the equipment used to install many new roof systems could not be used outside warning lines when safety monitors were present. This forced contractors to either disregard the requirement or apply the roof system by hand, which in many instances was impossible and more dangerous. As a result, many contractors have received OSHA citations.

When OSHA issued its revised Subpart M fall protection standard in 1994, it kept the provision for wheelbarrows and mopcarts as the only equipment that could be used outside warning lines or when safety monitors are used. Because of this, OSHA inspectors were citing contractors for using equipment such as glue wands and brooms outside warning lines.

NRCA, assisted by Chicago-based safety consultant Janet Flury, of Safety Check Inc., petitioned OSHA to provide an interpretation for the use of roofing equipment, other than wheelbarrows and mopcarts, that could be used outside warning lines.

A comprehensive list of equipment, including pictures and descriptions for each use, was submitted to OSHA for review.

Outcome

On Oct. 17, 2000, OSHA issued its interpretation, as follows:

The following equipment does not fall under the definition of “mechanical equipment” as defined in Subpart M. **This equipment *can be used or placed outside warning lines as long as a safety monitor is present.*** Otherwise, safety nets, personal fall-arrest systems or guardrails must be used.

- ¾ horsepower air compressor (not on wheels)
- Porter cable reciprocation saw
- Dewalt ½” impact wrench
- Electric deck saw
- Milwaukee screw gun
- Black and Decker screw gun
- Push lugger
- Hilti hammer
- Skill worm drive
- Bosch hammer
- 36” broom
- Nail gun
- Garlock hydraulic roof hoist
- wheelbarrow
- puddle pumps
- Liester gun
- Metabo hammer
- Hilti screw gun
- Metabo cordless
- Makita cordless
- AEG hammer
- mop cart
- deck saw
- ax
- framing nail gun
- Makita heat gun

The following equipment does fall under the definition of mechanical equipment. **However, component parts, such as hoses and/or attachments, *can be used outside warning lines, as long as a safety monitor is present.*** Otherwise, safety nets, personal fall-arrest systems or guardrails must be used.

- Power washer: Only the hose is allowed outside the warning lines. The power washer unit must remain within a warning line.

•Power roller glue machine: Only the roller attachment is allowed outside the warning lines. The main unit must remain within a warning line.

The following equipment meets the definition of “mechanical equipment” and is *prohibited* outside warning lines or when using safety monitors low sloped roofs.

- Garlock cutter
- Spud machine
- Four-wheel cart
- Hot dispenser (lugger)
- Felt machine
- Hand rhino
- Roof blower
- Roof vacuum
- Snow blower

The following equipment meets the definition of “mechanical equipment”. OSHA requests more information about how each operates and is used on the roof.

- Saramatic
- 110-gallon lugger
- Draggin Wagon
- Accutrac
- Primer pump
- SFS machine
- Pushcart

Conclusion

NRCA is pleased with OSHA’s clarification addressing equipment that can be used outside warning lines or where safety monitors are present. NRCA will continue to work with OSHA to expand this list and clarify the equipment for which OSHA needs additional information. **Please forward any information that could assist.** This list is only valid in states under federal OSHA’s jurisdiction; state-plan states decide individually whether to adopt them. NRCA will inform these states of OSHA’s findings and ask for similar clarifications.

Please feel free to contact me at (800) 323-9545, Ext. 238, if you have any questions. A copy of this special report also is posted on NRCA’s Web site at www.nrca.net.

Sincerely,



Tom Shanahan, CAE

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