MIOSHA Fact Sheet

Construction Safety & Health Division

Scaffold Weather Protection Wind Load Factors

Attaching weather protection systems to scaffolds is a typical work practice during the colder months on construction sites in Michigan. Not only do weather protection systems create a more comfortable working environment, they are also a requisite factor when constructing masonry block walls. Typically, the newly placed masonry units have to be protected from the cold temperatures that are prevalent during the winter months. Keeping the newly placed blocks and mortar at a sufficiently warm temperature allows the mortar to achieve the designed strength that is necessary to ensure structural integrity.

A common practice for maintaining warmer working temperatures is to wrap the scaffold in plastic sheathing, thus creating an enclosure to keep the cold out. While this may be a reasonable and economic method for controlling the atmosphere, it is not without hazards. The stability of the scaffold and structure can be compromised due to the wind, which consequently may expose employees to serious injuries and even death.

Part 12, Scaffolds and Scaffold Platforms - Rule 1212(2) states:

> "Work on or from scaffolds is prohibited during storms or high winds unless a **competent person** has determined that it is safe for employees to be on a scaffold and that the employees are protected by a personal fall arrest system. Wind screens shall not be used unless the scaffold is secured against the anticipated wind forces imposed."

It does not take a lot of wind speed to have a significant impact on a scaffold's stability. There have been several instances in Michigan of scaffolds being overturned in moderate winds when weather protection had been installed without the proper stability considerations included in the scaffold design.

It is imperative that scaffolds with weather protection systems attached be designed by a person who is **qualified** in this type of scaffold construction and with environmental factors in mind. The **potential** wind load that **could** be imposed on a scaffold must be evaluated and determined before constructing the scaffold. The larger the surface area of wind sheathing being used - the greater effect wind will have on the structural stability of the scaffold. In addition, the competent person must inspect the scaffold for deficiencies before each work shift and after any occurrence that affect a scaffold's structural stability.

For additional training and assistance, please contact the Consultation, Education and Training Division at www.michigan.gov/cetrca.

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