

Worksite: _____ Instructor: _____ Date/Time: _____

Topic C324: Heavy Concrete (A)

Introduction: Concrete is a versatile material that is used to build almost anything nowadays. Employers must comply with OSHA standards to protect construction workers from accidents and injuries resulting from improper set-up of forms and shoring, the premature removal of formwork, the failure to support pre-cast panels, the inadvertent operation of equipment, failure to use appropriate fall-protection, and the failure to guard reinforcing steel.

Personal Protective Equipment: When working with concrete, wear protective clothing and equipment appropriate for the task. Important items are gloves, safety glasses, footwear appropriate to the process in progress, a hard hat, and clothing which keeps wet concrete from direct contact with skin. Employees are not permitted to apply a cement, sand, and water mixture through a pneumatic hose unless wearing protective head and face equipment.

When working with concrete, wear protective clothing and equipment appropriate for the task.

Reinforcing Steel: Reinforcing steel for walls, piers, columns, and similar vertical structures must be adequately supported to prevent overturning and collapse. Measures must be taken to prevent unrolled wire mesh from recoiling. Such measures may include securing each end of the roll or turning over the roll. All protruding reinforcing steel, onto and into which employees could fall, must be guarded to eliminate the hazard of impalement.

Capping Rebar: Whenever you work above rebar that protrudes from the floor, cover the rebar with protective caps or troughs that will prevent you from being impaled if you fall. Cap rebar protruding horizontally to prevent scrapes, cuts, or eye injuries.

Climbing Rebar: OSHA permits you to free-climb concrete forms and rebar to reach work areas. The maximum free-climbing height is 24 feet. Upon reaching a work area, you must use a personal fall-arrest system, safety net, or positioning-device system for fall protection. Positioning-device systems are the most appropriate type of personal fall-protection for working on and placing rebar. A positioning-device system enables one person to work on a vertical surface with both hands free and it limits free-fall distance to two feet or less.

Working Under Loads: Employees must not be permitted to work under concrete buckets while the buckets are being elevated or lowered into position. To the extent practicable, elevated concrete buckets must be routed so that no employee or the fewest employees possible are exposed to the hazards associated with falling concrete buckets.

Equipment and Tools: OSHA standards also include requirements for the following equipment and operations: Concrete mixers; Redi-mix Trucks; Concrete pumping systems; Power concrete trowels; Concrete buggies; Concrete buckets; Bull floats; Lockout/tagout procedures, and; Lifting equipment and operations.

Drawings or Plans: Drawings and plans, including all revisions for the jack layout, formwork (including shoring equipment), working decks, and scaffolds, must be available at the jobsite.

General Requirements for Formwork: Formwork must be designed, fabricated, erected, supported, braced, and maintained so that it will be capable of supporting without failure all vertical and lateral loads that might be applied to the formwork.

Construction Loads: Must not be placed on a concrete structure or portion of a concrete structure unless determined, based on information received from a person who is qualified in structural design, that the structure or portion of the structure is capable of supporting the intended loads.

Removal of Formwork: Forms and shores (except those that are used for slabs on grade and slip forms) must not be removed until it is determined that the concrete has gained sufficient strength to support its weight and superimposed loads.

Conclusion: Concrete construction can be accomplished without injury if safe work practices are followed. Workers must receive appropriate training in the operations to which they will be assigned. Please refer to Concrete Construction (Part B) to cover OSHA safety standards relating to other types of concrete work.

Employee Attendance: (Names or signatures of personnel who are attending this meeting)

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.