



Worksite: _____ Instructor: _____ Date/Time: _____

Topic C161: Concrete Construction

Introduction: Concrete is one of the most important building materials in use today. It is used in almost every type and size of architectural structure. Hardened concrete is durable, needs little maintenance, and can be used in many ways. However, working with concrete, concrete trucks, and concrete equipment can present hazards to personnel who are careless or ignorant of proper work procedures and use of equipment.

Keep fingers clear from pinch points when attaching and using the chutes.

Concrete Pumps, Buckets, and Buggies:

- Concrete buggy handles shall not extend beyond the wheels on either side of the buggy.
- No workers are permitted to ride on, or hang on concrete buckets during movement.
- No personnel are allowed to work under concrete buckets while being swung, lowered, or elevated into position.
- Ensure that the signalman and pump operator maintain visual contact, and know the correct hand signals for safe operation of the equipment.
- Make sure that all workers are aware when the pump and pump hose is being moved. Do not hang or swing on the pump hose.

Working around Cement Trucks:

- Use steps and handholds to climb on the truck for service, washing, etc. Never place any part of your body in the rotating drum of the truck
- Use two workers to attach the chutes together to prevent injury to the hands and arms. Keep fingers clear from pinch points when attaching and using the chutes. Lock chutes to prevent swing when moving the truck.
- Do not walk backward when guiding a truck, and always keep visual contact with the driver.

Forming, Shoring, Jacks, and Lifting Units:

- Shoring and tilt ups should be secured for at least two times the weight of the material.
- Paint the ends of forming stakes and pins for visibility to prevent trip and fall hazards.
- Ensure sufficient bracing is used on forms to support the load of concrete.
- Using blocking to support the load in any position if the jack/lifting unit malfunctions.
- When you work on standard forms more than six feet above a lower level, you must use appropriate fall protection (personal fall-arrest, safety-net, or positioning-device systems) or work from a platform.

Concrete Dust, Silica, and Chemicals:

- Cement mixtures and aggregates contain silicates which may be a health hazard when inhaled. When batching, cutting, drilling, grinding, or chipping concrete wear a dust mask or respirator.
- Contact with wet concrete, mortar, or cement mixtures can cause skin irritation, severe chemical burns, or serious eye damage. Use appropriate personal protective equipment.

Reinforcing Steel and Wire-Mesh:

- Wear gloves to protect your hands from lacerations and the rust on rebar and wire-mesh.
- Securing the ends or turning wire-mesh over will help to prevent recoiling.
- Whenever you work above rebar that protrudes from the floor, cover the rebar with approved protective caps or troughs that will prevent you from being impaled if you fall. Cap rebar protruding horizontally to prevent injuries.

Power Concrete Trowels: Always read the operators manual prior to using the machine. Never allow untrained employees to operate a concrete power trowel. Powered and rotating concrete trowel machines that are manually guided must be equipped with a control switch that will automatically shut off the power whenever the hands of the operator are removed from the machine.

Conclusion: Concrete construction poses unique hazards to individuals working on job-sites. Follow these guidelines to help ensure a safe and healthful workplace.

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.