

Scaffolds - Safeguards

Scaffold safety is a critical aspect of NCC T&D operations, particularly during substation construction, transmission line installation, and maintenance activities. Substandard work practices can significantly increase the risk of scaffolding incidents, which may lead to severe consequences. It is essential that all personnel involved in scaffolding work adhere to required safeguards and best practices to prevent accidents.

General Safety Requirements

To ensure scaffold safety, the following measures must be implemented:

- **Competent Supervision:** A competent supervisor must be appointed for projects involving five or more workers. The supervisor is responsible for overseeing scaffold erection, use, and inspection.
- **Pre-Use Inspection:** No scaffold should be used until it has been inspected and confirmed to meet design requirements.
- **Load Capacity:** Scaffolds must not be overloaded and must be capable of sustaining the intended load.
- **Warning Signs:** A "DANGER" sign must be posted under suspended scaffolds to prohibit unauthorized access.
- **Mobile Scaffolds:**
 - Mobile scaffolds with pneumatic tires must not be supported by the tires during use, erection, or dismantling.
 - Brakes must be applied when a worker is on a scaffold mounted on castors or wheels.
 - Mobile scaffolds with platforms higher than 2.4 meters must not be moved with a worker on board unless the worker uses a fall arrest system and the ground is firm.
- **Access and Egress:** Access to scaffold platforms must be via ladders, stairs, or from ground level, a floor, or a roof.
- **Fall Protection:** Workers must use a full body harness connected to a fall arrest system when:
 - Working on scaffolds at heights of 2.4 meters or more where guardrails cannot be installed.
 - Moving on a mobile scaffold with a platform height exceeding 2.4 meters.
 - Getting on, off, or working on a suspended scaffold.
- **Training:** Workers using fall protection systems must be trained by a competent person.
- **Lifelines:** Lifelines must be suspended independently from the scaffold and tied to a fixed support. They are only permitted if the scaffold has multiple means of support.
- **Platform Maintenance:** Scaffold platforms must be kept free of obstructions, ice, and snow, and treated to ensure firm footing.
- **Masonry Work:** Masonry units must be placed directly on scaffold frames or distributed evenly on the platform without exceeding load limits.
- **Overhead Hazards:** Adequate clearance from overhead wires must be maintained when moving scaffolds.
- **Wind Monitoring:** Multi-point suspended work platforms must not be operated if wind speeds exceed the limits specified in the design drawings.

NCC T&D Project Leaders Key Responsibilities

Project Leaders must ensure:

- **Supervision:** Appoint competent supervisors for scaffolding work.
- **Training:** Provide comprehensive training on scaffold safety, inspection, and fall protection.
- **Inspections:** Ensure scaffolds are inspected before use and periodically as required.
- **Documentation:** Maintain records of inspections, training, and incident reports.
- **Defect Management:** Address and report any scaffold defects immediately.
- **Rescue Planning:** Develop and maintain rescue procedures for scaffold-related emergencies.

Worker Responsibilities

Workers must:

- **Follow Instructions:** Adhere to manufacturer's instructions and safety guidelines.
- **Training:** Participate in scaffold safety and fall protection training.
- **Pre-Use Inspection:** Inspect scaffolds and personal fall protection systems before each use.
- **Hazard Identification:** Apply training to identify and control hazards.
- **Safe Use:** Use scaffolds only when they are safe and within load limits.

- Overhead Hazards: Maintain a safe distance from overhead electrical conductors.
- Movement: Move rolling scaffolds by pushing or pulling at the base, not the upper part.
- Equipment: Secure tools and equipment when moving scaffolds.
- Incident Reporting: Immediately report any scaffold-related incidents or near-misses.

Additional Considerations for NCC T&D Projects

Given the specialized nature of T&D work, additional measures include:

- Environmental Factors: Consider weather conditions (e.g., wind, rain) that may affect scaffold stability.
- Electrical Hazards: Ensure scaffolds are not used near live electrical equipment unless proper precautions are taken.
- Access Planning: Ensure safe access to and egress from scaffolds.
- Emergency Preparedness: Maintain rescue equipment and procedures for scaffold-related emergencies.

Key Takeaways

- Supervision: Appoint competent supervisors for scaffolding work.
- Inspection: Scaffolds must be inspected before use and periodically as required.
- Training: Workers must be properly trained and certified.
- Fall Protection: Use fall arrest systems when working at heights.
- Documentation: Maintain all inspection and training records.
- Defect Management: Address and report any defects immediately.
- Rescue Planning: Ensure rescue procedures are in place and understood by all workers.

For more information, refer to NCC T&D's relevant HSE procedures or consult the HSE Department for expert guidance and training resources.

