Steel Erection Plan

Purpose

Our Company must meet the requirements of OSHA’s Steel Erection standard (29 CFR 1926, Subpart R). This Steel Erection Plan for Construction is our company’s policy to protect our employees from the hazards associated with steel erection activities.

Those activities could include:

- Hoisting, laying out, placing, connecting, welding, burning, guying, bracing, bolting, plumbing and rigging structural steel, steel joists, and metal buildings;
- Installing metal decking, curtain walls, window walls, siding systems, miscellaneous metals, ornamental iron, and similar materials; and
- Moving point-to-point while performing these activities.

Administrative Duties

This written safety plan is kept at the main office.

Controlling Contractor

Each steel erection jobsite has a controlling contractor, and our company is the controlling contractor for most jobsites. Before starting steel erection we ensure that work is done in accordance with the OSHA guidelines.

Overhead Hoisting Operations

Our company is concerned for the safety of employees that must work under loads. Prior to the movement of suspended loads, we will pre-plan routes to ensure that no employee is required to work directly below the load except:

- 1. Employees initially connecting steel, or
- 2. Employees necessary for the hooking or unhooking of a load.

When an employee must work under a suspended load, the following rules will apply:

Materials being hoisted must be rigged to prevent unintentional displacement; Hooks with self-closing safety latches or their equivalent must be used to prevent components from slipping out of the hook; and all loads must be rigged by a qualified rigger.
Hoisting and Rigging
When our Company is involved in hoisting and rigging operations, we follow the requirements of OSHA's steel erection regulation and the general requirements for cranes in 29 CFR 1926.550, except Section 1926.550(g)(2). Those requirements are a part of the steel erection rule.

Pre-Shift Visual Inspection of Cranes
Prior to every shift, we require the competent person to visually inspect each crane that will be used for steel erection operations on that shift. Our company's procedures for inspecting a crane prior to a shift are found in our crane safety plan.

Crane and Rigging Operations
The crane operators are responsible for those operations under their direct control. Whenever there is any doubt as to safety, our foremen has the authority to stop and refuse to handle loads until safety has been assured.
A qualified rigger must inspect the rigging prior to each shift in accordance with 29 CFR 1926.251. The headache ball, hook, or load is never used to transport personnel except when using a personnel platform as provided in another section of this written safety plan. Our company's crane safety latch policy is that all hooks must have a working safety latch in place at all times (unless the steel erector has a site specific plan that details why this is not feasible, and what safety precautions are being taken).

Structural Steel Assembly
Structural stability will be maintained at all times during the steel erection process.

Walking/Working Surfaces
Because of the possibility of becoming a trip hazard, shear connectors (such as headed steel studs, steel bars, or steel lugs), reinforcing bars, deformed anchors, or threaded studs will not be attached to the top flanges of beams, joists or beam attachments so that they project vertically from or horizontally across the top flange of the member until after the metal decking, or other walking/working surface, has been installed. When we use shear connectors in the construction of composite floors, roofs, and bridge decks, our employees will lay out and install them after the metal decking has been installed, using the metal decking as a working platform. Shear connectors will not be installed from within a controlled decking zone.
Slip Resistance of Skeletal Structural Steel
All workers will not be permitted to walk the top surface of any structural steel member installed after July 18, 2006 that has been coated with paint or similar material unless we have documentation or certification from the paint manufacturer that the coating has achieved a minimum average slip resistance of .50 using the methods described in the OSHA regulations at 29 CFR 1926.754(c)(3).

Falling Object Protection

Securing Loose Items Aloft
All materials, equipment, and tools, which are not in use while aloft, will be secured against accidental displacement.

Protection from Falling Objects Other Than Materials Being Hoisted
The controlling contractor has the responsibility of barring other construction processes below steel erection unless overhead protection for the employees below is provided.

Fall Protection

General Requirements
Except for connectors and employees working in controlled decking zones, any employees engaged in a steel erection activity who is on a walking/working surface with an unprotected side or edge more than 15 feet above a lower level will be protected from fall hazards.

Perimeter Safety Cables
On multi-story structures, perimeter safety cables will be installed at the final interior and exterior perimeters of the floors as soon as the metal decking has been installed.

Connectors
Each connector who is on a walking/working surface with an unprotected side or edge more than two stories or 30 feet above a lower level, whichever is less, must be protected from fall hazards.
Controlled Decking Zone (CDZ)

A controlled decking zone may be established in that area of the structure over 15 and up to 30 feet above a lower level where metal decking is initially being installed and forms the leading edge of a work area.

Criteria for Fall Protection Equipment

All guardrail, safety net, personal fall arrest, and positioning device systems, and their components will conform to the criteria in OSHA's fall protection standard at 29 CFR 1926.502.

Perimeter safety cables will meet the criteria for guardrail systems in Section 1926.502. Appendix G to the Steel Erection rule contains the requirements of Section 1926.502.