

**North Carolina Department of Labor  
Division of Occupational Safety and Health  
Raleigh, North Carolina**

Field Information System

Operational Procedure Notice 121A

**Subject:** Steel Erection Standard

**A. Purpose:**

This notice establishes North Carolina's policy for Steel Erection effective January 18, 2002, when North Carolina enacts OSHA's revised Steel Erection Standard, Subpart R of 29 CFR 1926, "Occupational Safety and Health Standards for the Construction Industry."

**B. Scope:**

This policy applies to construction activity throughout North Carolina.

**C. References:**

- *North Carolina Register*, January 2, 2002, 13 NCAC 07F .0201 "Construction."
- 29 CFR 1926, "North Carolina Occupational Safety and Health Standards for the Construction Industry," with amendments through February 1, 2001.
- Federal Register, Vol. 66, No. 12, January 18, 2001, pages 5196-5280, Final Rule: Safety Standards for Steel Erection.

**D. Action:**

OSHNC agencies shall conduct training and outreach activities, consultative services, technical assistance and compliance inspections in accordance with the guidelines contained in this OPN.

**E. Effective Dates:**

OPN 121, dated May 11, 1999 is hereby rescinded. This OPN shall be in effect the date it is signed, and remain in effect until rescinded by the Director. North Carolina adopts verbatim OSHA's new Subpart R of 29 CFR 1926. However, during the initial 60 days (until March 19, 2002), NCDOL will not enforce the new steel erection standard in its entirety, on general schedule inspections. During this interim period, NCDOL will emphasize consultation, outreach, and education to assist the industry in training employees on the new requirements. Although NCDOL will not initially enforce all of the new steel erection standards, NCDOL will enforce the standards if violations are associated with unprogrammed activity (fatalities, accidents, complaints, referrals). Additionally, during this interim enforcement period, 1926.760(a)(1) will be used to address any employee engaged in steel erection activity, other than "connectors," exposed to an exterior fall hazard of 25 feet or more, or an interior fall hazard of 30 feet or more. Finally, 1926.760(b)(1) will be enforced for any "connector" who is not using a fall protection system 30 feet or more above the lower level or two stories, whichever is less. (These fall protection threshold height requirements are equivalent to those requirements, which were in effect prior to January

18, 2002). On March 19, 2002, OSHNC consultation, training, and outreach efforts will continue, but the new threshold height requirements will be enforced.

## **F. Discussion:**

The new standard addresses the hazards that have been identified as the major causes of injuries and fatalities in the steel erection industry. These include hazards associated with working under loads; hoisting, landing and placing decking; column stability; double connections; landing and placing steel joists, and falls to lower levels.

North Carolina state-specific modifications to the new OSHA Subpart R have been proposed as described in the "Notice of Text" published in the *NC Register* dated January 2, 2002. These proposed state-specific standards shall not be enforced until promulgated at completion of the legislative rulemaking process, which is not likely to occur before August 2002. In the interim period between January 18, 2002 and promulgation of the North Carolina-specific modifications of the new standard, NCDOL will permit shop-installed shear connectors provided the associated hazard(s) are abated on the construction site.

Employees shall be protected from fall hazards of six (6) feet or more to a lower level exacerbated by tripping hazards of shear connectors (*including, but not limited to headed steel studs, steel bars or steel lugs*), reinforcing bars, deformed anchors, or threaded studs attached to the top flanges of steel members such as girders, joists, beams, and beam attachments). Such hazard abatement/ protection from falls may be accomplished by any of the following:

- (1) Shear connectors that project vertically or horizontally across the top flange of a member not being welded or installed until the metal decking or other walking/working surface is in place (field-installed shear connectors).
- (2) All employees working on members with shop or pre-installed shear connectors shall be protected from fall hazards greater than six (6) feet by suitable, as defined in 1926.32(s), fall protection systems, including guardrail systems, personal fall arrest systems, or safety nets.
- (3) Shop or pre-installed connectors that project vertically from or horizontally across the top flange of the member shall be covered by a temporary decking, metal or wood box until the metal decking, or other suitable walking/working surface, is installed or until final construction covers the shear connectors.

Signed on Original  
Laura Kewitt  
Safety Compliance Officer

Signed on Original  
Jack R. Forshey  
Standards Supervisor

Signed on Original  
John H. Johnson  
Director

January 23, 2002  
Date of Signature