

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

**Raleigh, NC**

Field Information System

Operational Procedure Notice 123P

**Subject:** Special Emphasis Program for Construction Activities.

**A. Purpose.**

This Operational Procedure Notice (OPN) establishes a North Carolina Occupational Safety and Health (OSH) Division special emphasis program (SEP) to decrease fatalities related to the construction industry (NAICS 236 - 238). This SEP will also focus on hazards associated with operations that involve tower and mobile cranes. Both efforts will include compliance inspections, consultative activity, education and training and site specific inspection targeting.

**B. Background.**

This SEP was established in Federal Fiscal Year (FFY) 1999 due to a high rate of construction fatalities in North Carolina. In the FFY 1998, construction fatalities accounted for 44.4% of all workplace fatalities in North Carolina. The five counties chosen for the original SEP experienced more than one incident resulting in a construction fatality and accounted for 62.5% of all construction fatalities for FFY 1998. Each year, the SEP has been updated to include counties that have had more than one incident resulting in a construction fatality. Construction fatalities continue to occur, accounting for 41% of all fatalities in North Carolina in FFY 2010, 31% in FFY 2011, 28% in FFY 2012, 21% in FFY 2013, and 43% in FFY 2014. Fatality rates as reported by the Census of Fatal Occupational Injuries showed that the fatality rate for construction is significantly higher than the overall fatality rate for all industries.

2010 – Overall Fatality Rate (3.5) Construction Fatality Rate (9.8)

2011 – Overall Fatality Rate (3.7) Construction Fatality Rate (10.8)

2012 – Overall Fatality Rate (3.5) Construction Fatality Rate (7.5)

In FFY 2006, additional counties were added to the SEP. These counties were identified as High Activity Counties (HACs) due to the specific county issuing greater than 500 residential construction building permits during the previous calendar year based on U.S. Census Bureau Building Permit Data. HAC counties remain in the SEP and are updated each year based on the US Census Bureau Permit Data. In FFY 2013, the selection criteria was amended to include any counties that had issued more residential construction building permits than the state average (based on all 100 counties) instead of the 500 residential permits. This will ensure that OSH Division resources are used in the most efficient manner possible to reduce hazardous activities across the state. Construction related fatalities in SEP counties accounted for 10% of all workplace fatalities for FFY 2014, fatalities in HACs accounted for 13% for FFY 2014, and fatalities in non-SEP counties accounted for 20% for FFY 2014. The statewide fatality rates for construction were consistently at least twice as high as the overall fatality rate for all industries.

North Carolina also experienced 13 crane-related fatalities between FFY 1998 and FFY 2012 and the industry has suffered multiple fatal crane accidents nationwide. Specifically, tower

cranes have come under scrutiny for safe operations because of fatalities and injuries associated with collapses on construction sites. Planning Statistics and Information Management (PSIM) will obtain crane construction information from the Federal Aviation Administration website to provide crane construction activity (mobile and tower cranes) data to assist with the location of crane activity for inspection assignment. The information will be distributed to the bureau chiefs, and then relayed to the district supervisor for assignment.

From FFY 2009 - 2014 the “Big 4” hazards: struck by, caught in, fall from elevation and electrical/shock, accounted for 90% of all construction fatalities. Construction sites with observed hazards as well as activities that would typically be associated with the “Big 4” hazards will be given priority for immediate inspection.

There were a total of 79 construction fatalities in FFY 2009 - FFY 2014 related to these hazards:

- 32 falls = 41% (related conditions: scaffold, roof work, ladders, aerial lifts, scissor lifts, forklift with platforms)
- 27 struck-bys = 34% (related conditions: motor vehicles, cranes, forklifts, off road vehicles)
- 3 caught in/between = .04% (related conditions: excavations, cranes – mobile and tower, heavy equipment)
- 9 electrocutions = 11% (related conditions: overhead power lines, evidence of underground power lines)

C. **Scope.**

Twenty one (21) counties are included in this 2015 federal fiscal year SEP. The multiple fatality counties included in this SEP are: Gaston, Iredell, Mecklenburg, Union, Wake, and Wilkes. The counties included as HAC are: Alamance, Brunswick, Buncombe, Cabarrus, Cumberland, Durham, Forsyth, Guilford, Harnett, Hoke, Johnson, Moore, New Hanover, Onslow, and Pitt. (See section D. below for the county selection and removal criteria.)

The program scope will also include hazards associated with the operation of tower and mobile cranes statewide. This will be an ongoing effort for inspection of mobile cranes, tower cranes and derricks at job or work sites throughout the state. The primary focus will be to increase crane inspection activity, training and outreach efforts, and consultative services in this area. OSH Division personnel will be properly trained in the recognition of hazards associated with the operation of cranes on construction work sites.

Mobile cranes include truck-mounted cranes, crawler cranes, locomotive cranes, wheel-mounted cranes and articulating boom cranes. Tower cranes include hammerhead tower cranes, fixed tower cranes, climber tower cranes, luffing boom tower cranes, self-erector tower cranes and mobile tower cranes.

**D. Selection and Removal Criteria.**

The following criteria will be used to add or delete counties from the SEP.

1. Counties will be added to the SEP when:
  - a. There was more than one incident that results in a construction fatality in the previous federal fiscal year. (A county will not be added when one incident occurs resulting in two or more fatalities.)
  - b. A county issued more residential construction permits than the statewide average.
2. Counties that experienced more than one incident resulting in a construction fatality will remain on the SEP list for at least three consecutive federal fiscal years. The construction SEP Committee will conduct an annual review to add or remove counties from the SEP list on or before June 15<sup>th</sup> of each federal fiscal year. New counties may be added and counties may be recommended to the leadership team for removal if three federal fiscal years have passed and no construction fatalities have occurred in the county for two consecutive federal fiscal years.
3. A high activity county will remain on the SEP list for at least one year. The committee will conduct an annual review of U.S. Census Bureau Building Permit Data for the most recent reporting year on or before June 15<sup>th</sup> of each federal fiscal year. The committee will take the total number of building permits issued and divide it by the total number of counties in North Carolina (100) to obtain an average number of building permits across the state. Any North Carolina county that has more than the statewide average will be listed as a HAC. New counties may be added and counties currently on the list may be recommended to the leadership team for removal if the number of new residential building units has dropped below the state average for the most recent reporting year.
4. The committee will submit their recommendations to the leadership team for approval before the beginning of a new federal fiscal year so that changes can be incorporated in the annual strategic management plan.

**E. Action.**

Compliance Officers (CSHOs) will use the guidance in federal standard interpretation STD 03-11-002 to address problems unique to residential type construction work. This STD describes and clarifies the fall protection measures that are acceptable in North Carolina for compliance with 29 CFR 1926.501(b)(13). Additionally, CSHOs will reference CPL 02-01-057 for citation guidance when inspecting cranes and derricks used in construction.

This OPN provides for special emphasis inspections in accordance with North Carolina General Statutes, NCGS 95-136.1(b)(3) due to a high rate of construction work related deaths. Compliance bureau chiefs and district supervisors will ensure that procedures established in this operational procedural notice are adhered to when scheduling and conducting inspections related to this OPN.

**F. Training and Consultative Activity.**

The Education, Training and Technical Assistance (ETTA) and Consultative Services Bureaus will provide training and consultative efforts in support of this SEP.

**G. Compliance Inspection Activity.**

Each district office will conduct inspections in support of this SEP by prioritizing inspection activity in SEP counties and HACs.

**1. Inspection activity.**

- a. In consideration of the high injury and fatality rate of construction activities, any serious hazards observed in non-SEP counties will be investigated immediately by the CSHO who observes the activity, after consulting with their district supervisor. Any resulting inspections in non-SEP counties will be classified as partial scope, unprogrammed (referral). Construction inspections in SEP counties or HACs will be classified as programmed planned inspections per the definition of programmed planned inspections found in FOM Chapter II, B. 1. Priority will be given to sites with plain sight hazards, crane activity, or the observation of potentially hazardous activities (activities that could potentially expose employees to: fall hazards, struck by hazards, caught by hazards, and/or electrical hazards.). However, any construction site within an SEP county or HAC may be inspected, in accordance with this OPN.
- b. Because of the various municipality and county reporting requirements throughout the state, the locations of active construction sites are often not readily available to the OSH Division. Therefore, when a CSHO observes or receives information regarding an active construction site in an SEP or non-SEP counties, the CSHO and their supervisor will determine if the site should be immediately inspected. Such determination will be based on, but not limited to, the following criteria:
  - The resources available for inspecting the site.
  - Observation of potentially hazardous activities related to fall hazards struck-by hazards, caught in/between hazards, and/or electrical hazards (such as: scaffolding, roofing work, framing, working near power lines, ladder usage, excavations, mobile equipment usage).
  - Stage of construction (such as: substantially complete projects in the finishing “punch list” phase of the project may not be deemed priority for immediate inspection).
- c. The compliance bureau chiefs and supervisors should ensure that a higher percentage of the construction sites inspected are in the counties included in this OPN.
- d. The CSHO will follow the guidance in the most current revision of OPN 96, Focused Inspections in Construction, when conducting any programmed (SEP) construction inspections throughout the state.

H. **IMIS Coding.**

The OSHA-1 form for all inspections conducted in the targeted counties as a result of this SEP will be coded as "STRATEGIC PLAN ACTIVITY" (item 25f) and marked "CONSTRUCTION SEP." Construction inspections conducted in non-SEP counties will not be coded.

I. **Applicable Standards.**

All applicable standards apply; including standards contained in 29 CFR 1926, 29 CFR 1910 and NCGS 95.129(1), commonly referred to as the "General Duty Clause."

J. **Evaluation of Program.**

The bureau chiefs will submit a monthly evaluation report to the assistant director to include the following:

1. East and West Compliance.
  - a. Number of inspections in SEP counties – East.
  - b. Number of inspections in SEP counties – West.
  - c. Number of inspections in HACs statewide.
  - d. Number of construction fatalities statewide.
  - e. Number of construction fatalities in affected counties.
  - f. Number of construction fatalities in high activity counties.
  - g. Fatality rates statewide for affected counties and high activity counties.
2. Consultative Services.
  - a. Description of outreach efforts implemented for construction.
  - b. Number of consultative construction visits conducted.
  - c. Number of construction hazards abated.
  - d. Number of safety and health programs improved or implemented in construction.
3. Education, Training and Technical Assistance.
  - a. Description of outreach efforts implemented in construction.
  - b. Assessment of the impact of outreach efforts in construction.
  - c. Number of training sessions conducted in construction.
  - d. Number of employers and employees affected in construction.
  - e. Standard promulgation recommendations in construction.
  - f. Number of safety and health programs improved or implemented in construction.
4. Planning, Statistics and Information Management.
  - a. Manage the Performance Indicator Report on a monthly basis as it pertains to this OPN.

K. **Effective Date.**

OPN 123O is canceled. This OPN is effective on the date of signature. It will remain in effect until revised or canceled by the director.

Signed on Original  
Bruce Pearson  
Safety Consultant  
SEP Team Leader

Signed on Original  
Allen McNeely  
Director

2/12/2015  
Date of Signature