

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

Raleigh, NC

Field Information System

Operational Procedure Notice 140C

Subject: Special Emphasis Program for Food Manufacturing Facilities

A. Purpose and Scope.

This Operational Procedure Notice (OPN) describes the North Carolina Department of Labor (NCDOL) Occupational Safety and Health (OSH) Division's Special Emphasis Program (SEP) for inspections of establishments in NAICS 311, Food Manufacturing. This SEP covers all employers/sites in North Carolina in NAICS Sector 311 – Food Manufacturing. The goal of this SEP is to reduce the number of hazards existing within NAICS 311 facilities and to reduce the number of injuries suffered by employees working at these sites. The SEP will include interventions from the Compliance Bureaus, the Consultative Services Bureau and the Education, Training and Technical Assistance (ETTA) Bureau.

B. Special Emphasis Program History.

NCDOL's injury and illness data for NAICS 311 for the calendar years 2003 through 2007 identified a significant number of hazards in the following hazard categories: machine guarding, electrical hazards, combustible dust, walking/working surfaces, hazard communication, ergonomics and process safety management. In response to this information, the food manufacturing industry was added to the division's 5-year strategic management plan for FFYs 2009 - 2013. During the 2009 federal fiscal year, NCDOL researched different ways to work toward the elimination of these hazards and reduce injuries. Formal SEP activity was implemented beginning with the 2010 federal fiscal year. This SEP is continued in the division's 5-year strategic management plan for FFYs 2014 - 2018.

C. Background and Discussion.

North Carolina is a world leader in the production of food products including: fruits, vegetables and animal products such as poultry and pork. Employers covered by NAICS 311 employ a significant number of the employees working in the state.

Increased competition in this industry sector, in the US and worldwide, has required employers in this sector, which has traditionally been labor intensive, to respond and develop manufacturing processes that are more efficient. The nature of the operations in many of the facilities within this industry sector requires employees to work in close proximity to operating equipment and rapidly moving conveyors and other material transport systems.

As a result of these changes, injury statistics from 2003 to 2007 from the US Bureau of Labor Statistics showed that injury rates for the NAICS 311 industry in North Carolina were higher than injury rates for other industry sectors in the state. Both the total recordable case (TRC) rate and the days away, restricted, or transferred (DART) rates for NAICS 311 facilities were higher than the rates for all private industry in the state and higher than the rates for all manufacturing in the state.

The Bureau of Labor Statistics (BLS) data for calendar year 2009 again showed the national total recordable case (TRC) rate and the days away, restricted or transferred (DART) rate for the NAICS 311 industry group continued to be higher than the rates for all private industry and for manufacturing as a group. The food manufacturing DART rate was double the DART rate for private industry.

2009 National BLS Data	Total Recordable Case Rate	DART
All private industry	3.6	1.8
All manufacturing (NAICS 31, 32, 33)	4.3	2.3
Food Manufacturing (NAICS 311)	5.7	3.6

The statistics for North Carolina showed the same trend. The TRC rate and the DART rate for food manufacturing industry were both higher than the TRC and DART rates both for all private industry and the manufacturing sector as a whole in the state.

2009 N.C. BLS Data	Total Recordable Case Rate	DART
All private industry	3.1	1.6
All manufacturing (NAICS 31, 32, 33)	3.5	1.9
Food Manufacturing (NAICS 311)	4.6	2.9

Since 2009, the North Carolina injury and illness rates for NAICS 311 continued to increase through 2011 and returned to 2009 levels in 2012. However, the incidence rates remain higher than the private industry and manufacturing rates in North Carolina. As a result, this SEP continues as part of the 2014-2018 strategic management plan.

2010 N.C. BLS Data	Total Recordable Case Rate	DART
All private industry	3.1	1.6
All manufacturing (NAICS 31, 32, 33)	3.7	2.0
Food Manufacturing (NAICS 311)	4.8	3.0

2011 N.C. BLS Data	Total Recordable Case Rate	DART
All private industry	3.1	1.5
All manufacturing (NAICS 31, 32, 33)	3.7	2.0
Food Manufacturing (NAICS 311)	4.8	3.1

2012 N.C. BLS Data	Total Recordable Case Rate	DART
All private industry	2.9	1.5
All manufacturing (NAICS 31, 32, 33)	3.4	1.9
Food Manufacturing (NAICS 311)	4.2	2.6

D. **Program Procedures.**

NAICS 311 food manufacturing assignments will be generated through fatalities, accidents, complaints, referrals, site specific targeting (SST) and general industry schedule criteria. The assignments have priority based upon the schedule in FOM Chapter II.E.

E. **Compliance Inspection Procedures.**

1. **General.**

- a. Compliance activities conducted under this SEP will include both programmed (the general industry schedule and the SST schedule assigned from the OSH Division's Targeting System) and unprogrammed (FATCAT, accidents, complaints, and referrals) inspections.
- b. Unless the site is exempt as detailed in E.2.b. below, unprogrammed, partial-scope inspections conducted at NAICS 311 sites under this SEP will be partially expanded to include a review of the issues and standards listed in E.3.a. below.
- c. Any unprogrammed, partial-scope inspection conducted at NAICS 311 sites may also be expanded to a full-comprehensive inspection based on the procedures listed in FOM Chapter II.C.

2. **Pre-Inspection Preparation.**

- a. District supervisors will consider the objectives of this SEP and the processes and hazard categories expected at individual sites to determine whether to assign specific inspections to individual CSHOs or to assign an inspection as a team inspection. Individual inspections may be assigned as joint safety and health inspections when appropriate.

If there are any questions as to whether an employer/site is covered by this SEP, a full listing of NAICS 311 industry categories is found in the U.S. Office of Management and Budget, NAICS manual, United States [current edition] [www.census.gov/eos/www/naics/].

- b. CSHOs assigned to conduct unprogrammed, partial-scope inspections [FAT/CATs, accidents, complaints, referrals, etc.] must:
 - i. Review the site listing on the OSH Targeting System to determine if a Consultative Services Bureau (CSB) or Education Training and Technical Assistance Bureau (ETTA) exemption has been issued for the employer/site. If the site has an exemption, the CSHO will refer to FOM Chapter III, paragraph D.3.h., Exemptions from Compliance Inspections for guidance regarding exemptions to be applied to the current inspection.

In general, if a site has an exemption from general schedule compliance inspections, an expansion of the unprogrammed, partial-scope inspections required by E.1.b. will not be implemented. The CSHO will complete the assigned unprogrammed inspection.
 - ii. Review the inspection history for the specific site.

- A. If the site has received a programmed, comprehensive safety or health inspection within the preceding three years (or two years for SST

assignments), the partial expansion of the current unprogrammed inspection required under E.1.b may not be required. The CSHO will review the inspection file for the earlier inspection and confer with the district supervisor to determine which, if any, of the elements listed in E.3.a. should be addressed during the current unprogrammed inspection. The history of the prior programmed inspection must be documented in the OSHA-1 Narrative for the current inspection.

- B If the site has received an expanded unprogrammed, partial-scope inspection within the past three years and the elements listed in E.3.a were addressed in that inspection, the CSHO will conduct the assigned unprogrammed, partial-scope inspection but will not expand the current inspection as required by E.1.b. The history of the prior unprogrammed inspection must be documented in the OSHA-1 Narrative for the current inspection.
- c. CSHOs assigned to conduct site inspections under this SEP will familiarize themselves with the following documents as appropriate:
 - i. NCFOM Chapter XVII – Ergonomics Inspection Procedures.
 - ii. CPL 02-00-135 – Recordkeeping Policies and Procedures.
 - iii. CPL 02-02-069 – Enforcement Procedures for Occupational Exposure to Bloodborne Pathogens.
 - iv. CPL 03-00-008 – NEP: Combustible Dust Explosion Prevention Program.
 - v. CPL 02-00-100 (CPL 2.100) – Application of the Permit-Required Confined Spaces (PRCS) Standard, 29 CFR 1910.146.
 - vi. CPL 02-02-045 (CPL 2-2.45A) – Process Safety Management of Highly Hazardous Chemicals -- Compliance Guidelines and Enforcement Procedures. .
 - vii. CPL 02-02-038 (CPL 2-2.38D) – Inspection Procedures for Hazard Communication.
 - viii. CPL 02-02-074 – Inspection Procedures for Chromium (VI) standards.
 - ix. CPL 02-02-076 – NEP: Hexavalent Chromium.
 - x. OPN 135 –Special Emphasis Program for Exposures to Health Hazards [most current revision].
- d. In addition to the program documents listed above, ETTA has developed industry-specific Industry Data Reports (IDRs) for several industry segments within NAICS 311 that describe the processes and identify the hazards common to these segments. The IDRs are accessible under the FIS link on the OSH One Stop Shop.

3. **Inspection Process.**

- a. Unless the site is exempt per E.2.b., CSHOs will evaluate the following safety and health program issues during all compliance inspections (programmed and unprogrammed) inspections conducted at NAICS 311 sites under this SEP. The compliance inspections (programmed and partially-expanded unprogrammed) cover all portions of the employer's operations at the site.
 - i. **OSHA Recordkeeping.** Federal studies of the OSHA Data Initiative statistics have identified instances of under-reporting of OSHA recordable cases by employers in high hazard industries including employers in the food manufacturing industry sub-sector. During each inspection conducted under this SEP, CSHOs will evaluate the employer's recordkeeping process by completing the following:

- A. Review and evaluate the site's OSHA 300 and 300A forms for the preceding three calendar years and the OSHA 300 for the current year per the requirements of 29 CFR Part 1904 – Recording and Reporting Occupational Injuries and Illnesses and CPL 02-00-135 – Recordkeeping Policies and Procedures. Discuss any apparent discrepancies with the employer's OSHA 300 record keeper or the appropriate member of management.
- B. Record the data from each OSHA 300 and 300A forms for entry on the OSHA-1.
- C. During employee interviews, question employees regarding work-related injuries they have had and/or their knowledge of work-related injuries involving other employees within the past three [3] calendar years. Where the incidents appear to meet the OSHA recordability criteria, ensure the incidents are properly recorded on the appropriate OSHA 300 log. Discuss any apparent discrepancies with the employer's OSHA 300 record keeper or the appropriate member of management.

Note: Appendix A of this OPN contains an employee questionnaire that can be used to record the employees' responses.

- ii. **Combustible Dust.** NAICS 311 sites may contain organic dusts including, but not limited to: flour, sugar, grains, and animal feeds. CSHOs will evaluate the facility to determine if potentially combustible dust concentrations exist and the employer's processes and procedures for preventing or controlling the hazard. This assessment must include an evaluation of the dust collection systems in place at the facility. CSHOs will use CPL 03-00-008 – NEP Combustible Dust Explosion Prevention Program when conducting inspections related to combustible dust.
- iii. **Confined Spaces.** Many NAICS 311 sites contain permit-required confined spaces including, but not limited to: silos, bins, below-ground pits, and limited-access spaces within production equipment that pose the potential for employee entrapment and serious injury. CSHOs will evaluate the employer's policies, procedures, and work practices for compliance with the requirements of 29 CFR 1910.146 – Permit-Required Confined Spaces. Guidance is available in CPL 02-02-100 (CPL 2.100) – Application of the Permit-Required Confined Spaces (PRCS) Standard, 29 CFR 1910.146.
- iv. **Electrical.** Electrical hazards at NAICS 311 sites can be aggravated by the presence of wet-process areas and the industry's sanitation standards that require the use of chemical products that may corrode electrical enclosures and equipment. CSHOs will evaluate the condition of electrical equipment such as panels, cabinets, motor control centers, conduits, etc.; evaluate the appropriate use of GFCIs; and evaluate the use of water-proof receptacles and enclosures. CSHOs will also evaluate electrical work practices for compliance with the requirements of 29 CFR 1910.147 – The Control of Hazardous Energy.
- v. **Ergonomics.** Many production processes at NAICS 311 sites require the performance of repeated and sustained manual handling and manual exertion work tasks. CSHOs will evaluate the employer's policies, procedures, and work practices to determine if they effectively eliminate and control ergonomic risk factors. CSHOs will review the employer's OSHA 300 forms to identify musculoskeletal disorders (MSDs) such as repetitive motion injuries, cumulative trauma disorders, etc. CSHOs

will calculate the annual MSD incident rate for the three calendar years preceding the inspection to determine if the rates are increasing or decreasing. Where rates are increasing and/or the employer's policies, procedures, and work practices are not effective, CSHOs will refer to FOM Chapter XVII – Ergonomics Inspection Procedures for guidance.

- vi. **Hazard Communication.** CSHOs will evaluate the employer's use of chemicals in the work environment for compliance with 29 CFR 1910.1200 – Hazard Communication. CSHOs will use CPL 02-02-038 (CPL 2-2.38D), Inspection Procedures for the Hazard Communication Standard, as guidance.
- vii. **Hexavalent Chromium.** For sanitation purposes, food manufacturing process equipment is made from stainless steel so that it can be cleaned without rusting. Additionally, the equipment is welded to prevent food from gathering in areas where the equipment would otherwise be bolted together. Employees who perform welding on this equipment as part of in-plant repairs or perform other activities to install new process equipment or lines may be exposed to hexavalent chromium.

Hexavalent chromium is covered under the most current revision of OPN 135 – Special Emphasis Program for Exposures to Health Hazards. Additionally, the NCDOL is using, in part, the US OSHA CPL 02-02-076 - NEP for Hexavalent Chromium and CPL 02-02-074 – Inspection Procedures for Chromium (VI) Standard. Since potential hexavalent chromium exposures are an emphasis area for the OSH Division, CSHOs conducting NAICS 311 inspections will need to address this potential hazard.

The CSHO will verify with the employer during the opening conference and with employees during interviews, whether work activities/tasks are performed at the facility that may produce employee exposure to Chromium (VI) [specifically welding on stainless steel equipment or components]. If it is determined that no activities with the potential for Chromium (VI) exposure are performed, the CSHO will document this in the Narrative portion of the OSHA-1.

If activities/tasks are identified that may involve employee exposure to Chromium (VI) are identified, the CSHO will:

- A. Determine when the tasks creating these exposures are performed [scheduled routine maintenance versus non-routine/unplanned repairs; which shifts; etc.]
- B. Request copies of the employer's initial exposure monitoring results and any subsequent air monitoring results for Chromium (VI).
- C. Evaluate the air monitoring results and discuss with the district supervisor if there is a need to conduct further inspection activity for Chromium (VI) in accordance with 29 CFR 1910.1026, the most current revision of OPN 135, CPL 02-02-74 and CPL 02-02-076.

If employees have performed work tasks that may have created an exposure to Chromium (VI) and no exposure monitoring has been performed, the CSHO will either conduct air monitoring for Chromium (VI) or make a referral to a Health Compliance Officer (HCO) for sampling. If the sampling indicates a work exposure in excess of the Action Level or Permissible Exposure Level for Chromium (VI), the CSHO or HCO will discuss with the district

supervisor the need to conduct further inspection activity for Chromium (VI) in accordance with 29 CFR 1910.1026, the most current revision of OPN 135, CPL 02-02-74, and CPL 02-02-076.

- viii. **Machine Guarding.** Accidents resulting from employee contact with or entrapment in moving machine parts have resulted in serious injuries, including deaths at several NAICS 311 sites. CSHOs will:
- A. Evaluate the employer's process for the inspection and evaluation of new and/or rebuilt machinery to identify and correct hazards before the machinery is released for routine operation. This will include a review of the documentation of this activity.
 - B. Evaluate the employer's process for preventative maintenance/periodic self-inspection of production, facility, and shop machinery to identify and correct hazards. This will include a review of the documentation of this activity.
 - C. Evaluate the employer's control of hazardous energy during machine maintenance and repair activities for compliance with the requirements of 29 CFR 1910.147 – Control of Hazardous Energy.
 - D. Conduct a focused walk-through inspection of the employer's site to evaluate the guarding of machinery hazards. The inspection should include all production areas, equipment rooms and any maintenance or fabrication shops. This inspection should include, but not be limited to:
 1. Conveyors.
 2. Points-of-operation guarding, including: in-running nip-points, cutters, shears, saws, presses, lathes, etc.
 3. Mechanical transmission devices: gears, shafts, pulleys and belts, etc.
 4. Robotic equipment.
- ix. **Process Safety Management.** NAICS 311 sites with large refrigeration or freezer processes are likely to have hazardous chemical products in sufficient quantities to place them under the scope of 29 CFR 1910.119 – Process Safety Management of Highly Hazardous Chemicals. The two products most likely to be found in amounts above the threshold quantity (TQ) at these sites are anhydrous ammonia (10,000 lbs. TQ) used for refrigeration and chlorine (1,500 lbs. TQ) used for water treatment.
- A. CSHOs will interview the appropriate management representative to determine:
 1. If any process at the site uses hazardous chemicals at or above the threshold quantities listed in Appendix A of 29 CFR 1910.119.
 2. If any process at the site uses a flammable liquid or gas as defined in 29 CFR 1910.119(a) in quantities of 10,000 pounds or greater (excluding the quantity maintained in an atmospheric storage tank).
 - B. If the results of the screening interview indicate that highly hazardous chemicals listed in 29 CFR 1910.119 are present at or above the threshold quantity or if a flammable liquid or gas is present in a quantity at or above

10,000 pounds, CSHOs will determine if the employer has developed and implemented a process safety management program.

1. If CSHOs confirm or suspect a site may be covered by 29 CFR 1910.119, they will consult with their district supervisor or bureau chief regarding a referral for a process safety management inspection of the site.
2. If CSHOs have any questions regarding 29 CFR 1910.119, they should contact a PQV team member, the division's process safety management coordinator, their district supervisor or bureau chief.

Note: The screening process for evaluating coverage under the process safety management standard is contained in Appendix B of this OPN.

- b. **Medical Records.** During the evaluation of the employer's OSHA recordkeeping or ergonomics program, it may be necessary for CSHOs to access and obtain copies of employees' medical records. Medical records are deemed to be confidential documents and are regulated by the US Health and Human Services Standards for the Privacy of Individual Identifiable Health Information (HIPAA). 45 CFR 164.512(b)(1)(V) states that an employer (or its health care provider) can disclose and use confidential employee health information when conducting or evaluating workplace medical surveillance; to evaluate whether an employee has a work-related illness or injury; or to comply with OSHA requirements under 29 CFR, Parts 1904 through 1928; 30 CFR, Parts 50 through 90; or under state law having a similar purpose. An Employee Medical Release Form and a HIPAA letter from NCDOL Legal Affairs are located in the Forms folder under the FIS link on the OSH One Stop Shop.

Medical records, as defined in the FOM definitions, must be obtained and maintained in accordance with the requirements of FOM Chapters III, XIII, and XVI. CSHOs are reminded that all copies of employees' medical records obtained from employers or other sources are to be separated, coded, and maintained in accordance with FOM Chapters III and XVI.

- c. **Inspection Exemptions.** If during the conduct of an unprogrammed, partial-scope inspection at a NAICS 311 site, a CSHO is advised the site is covered by a current compliance inspection exemption issued by the Consultative Services Bureau [CSB] or Education Training and Technical Assistance Bureau (ETTA), the CSHO will complete the inspection for the purpose of the assignment [FATCAT, complaint, referral, etc.] but will contact the district supervisor before implementing the partial expansion of the inspection required by Section E.1.b above. The district supervisor will determine the specific coverage of any exemption that exists and will determine if the partial expansion is to be implemented or not on a case-by-case basis. The reasons for not partially expanding the current unprogrammed inspection must be documented in the OSHA-1 Narrative for the current inspection.

F. **Outreach.**

The Education, Training and Technical Assistance Bureau and the Consultative Services Bureau will conduct outreach in accordance with the goals set forth in the NCDOL Occupational Safety and Health Division's Strategic Management Plan, including but not limited to, marketing of services offered, educational workshops and hazard related publications. The Consultative Services Bureau will focus efforts in NAICS 311 to increase requests and surveys. Surveys will focus on the hazards described in section E.3 of this OPN.

G. **Recording and Tracking.**

There are no specified IMIS codes identified for the Food Manufacturing SEP since all inspections performed under the SEP are identified by the NAICS 311 Subsection code entered on the OSHA-1.

Inspections conducted under the Food Manufacturing SEP may also cover topics addressed by other SEPs and/or focus issues such as combustible dust; exposure to health hazards such as asbestos, chromium (VI), isocyanates, lead, or silica; or ergonomics that have specific IMIS codes assigned. Where these focus issues or SEPs are covered by an inspection, the specific IMIS codes identified for these topics will be entered in the OSHA-1 for that inspection.

H. **Program Evaluation.**

BLS data will be used to determine the effectiveness of this industry emphasis. This statistical data is reviewed annually by the state with outcome results included in both the State OSHA Annual Report (SOAR) and the Federal Annual Monitoring and Evaluation (FAME) Report. State activity is tracked on a monthly basis and is reported on the performance indicator report.

I. **Effective Date.**

OPN 140B 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
Rodger Griffin
SEP Team Leader

Signed on Original
Allen McNeely
Director

8/13/2014
Date of Signature

Appendix A: Employee Questionnaire - Work-related Injuries and Illnesses

NAME: _____ JOB TITLE: _____

DEPARTMENT: _____ LENGTH OF SERVICE: _____

ADDRESS: _____ TELEPHONE: _____

HAS YOUR EMPLOYER INFORMED YOU HOW TO REPORT WORK-RELATED INJURIES OR ILLNESSES?

YES: ____ NO: ____

WHAT IS THE REPORTING PROCESS?

DID YOU EXPERIENCE A WORK-RELATED INJURY OR ILLNESS DURING THE PAST THREE YEARS?

YES: ____ NO: ____ IF YES: DATE OF INJURY: _____

DESCRIBE THIS INJURY OR ILLNESS:

DID YOU REPORT THIS INJURY OR ILLNESS TO YOUR EMPLOYER? YES: ____ NO: ____

DID YOU RECEIVE MEDICAL TREATMENT FOR THIS INJURY / ILLNESS? YES: ____ NO: ____

WHO PROVIDED THIS TREATMENT? _____

DESCRIBE THE TREATMENT RECEIVED?

DID YOU MISS ANY TIME FROM WORK AS A RESULT OF THIS INJURY / ILLNESS OR MEDICAL TREATMENT? YES: ____ NO: ____

HOW MANY DAYS DID YOU MISS FROM WORK? _____

WERE YOU ABLE TO PERFORM ALL OF THE DUTIES OF YOUR JOB AND/OR WORK A FULL WORK SCHEDULE FOLLOWING THIS INJURY / ILLNESS OR MEDICAL TREATMENT? YES: ____ NO: ____

DETAILS OF RESTRICTIONS:

ARE YOU AWARE OF ANY WORK-RELATED INJURIES OR ILLNESSES EXPERIENCED BY ANY OF YOUR CO-WORKERS? YES: ____ NO: ____

DETAILS OF THESE INCIDENTS:

Appendix B: Screening Process for Coverage under Process Safety Management

I. Basic Screening (Non-PQV Trained CSHOs):

- A. Initiate any inspection activity through normal channels: (FATCAT, complaint, referral, SST, follow-up, general schedule, SEP, etc.)
- B. Ask if the employer has a Process Safety Management Program. If the response is “no”, ask the employer about the use of the following at this site:
 - 1. Is there an ammonia refrigeration system in operation at this site? What is the quantity of ammonia used or stored at this site? [Does this quantity approach or exceed 10,000 pounds?]
 - 2. Is chlorine used for water treatment or any other processes at this site? What is the quantity of chlorine used or stored at this site? [Does this quantity approach or exceed 1,500 pounds?]
 - 3. What flammable liquids are used or stored at this site? What is quantity of flammable liquids are used or stored at this site? [Does this quantity approach or exceed 10,000 pounds?]
 - 4. Are any of the chemicals listed in 1910.119 Appendix A, used or stored at this site? Which chemicals and in what quantities?
- C. If there is ANY indication of possible process safety management coverage at this site, CSHOs will contact their district supervisor or a PQV team member to determine if a referral for a process safety management inspection is to be made.

II. PQV Team Member (Process Safety Management Trained CSHO):

- A. Give the non-trained CSHOs a list of information for chemicals/amounts to obtain from the employer at the site.
- B. After the post-inspection consultation with the CSHOs, gather the other information as required. (This may be accomplished through a follow-up telephone discussion with the employer’s representative.)
- C. Coordinate with the district supervisor or bureau chief to select most appropriate PQV team leader for a process safety management inspection at the site based on workload, abilities, availability, etc.

III. Division Resources:

- A. **PSM Coordinator:** Howard Laurie, Office (910) 251-2678 / Cell (910) 617-7461
- B. **Supervisors/Facilitators:** Lafayette Atkinson, Nicole Brown, Bruce Miles, Lee Peacock and Jennie Cagle.