North Carolina

State OSHA Annual Report (SOAR)

Fiscal Year 2012



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PART I - STRATEGIC MANAGEMENT PLAN OVERVIEW

Outcome Goals

On October 1, 2008, North Carolina began its third five-year planning cycle as documented in the Strategic Management Plan. The five-year plan includes two primary outcome goals:

- Reduce the rate of workplace fatalities by 5%
- Reduce the rate of workplace injuries and illnesses by 15%

Outcome Results

- The North Carolina occupational injury and illness case rate for total recordable cases (TRC) in the baseline year of FY 2008 was 3.6 and in FY 2011, the most recent statistical year available, it was 3.3. This represents an 8% reduction.
- In FY 2011, the total days away, restricted and transferred (DART) rate was 1.6 which was below the baseline rate of 1.7 for FY 2008. This is a 6% reduction in the DART rate.
- The TRC rate in construction was 3.7 in FY 2008 and 2.8 in FY 2011. This represents a 24% reduction.
- In manufacturing, the TRC rate was 4.2 in FY 2008 and 3.7 in FY 2011. This is a 12% reduction.
- The total number of fatalities in FY 2012 was 35 which is below the baseline total of 47 resulting in a 26 % reduction.

State Demographic Profile

Sector	Establishments	Employees
Total Private Industry	249,020	3,153,391
Total Public Sector	6,188	421,029

Areas of Emphasis

North Carolina's strategy for reducing injuries, illnesses, and fatality rates is based on addressing specific areas that have an impact on the overall rates. The areas of emphasis in the current Strategic Management Plan include:

- Construction
- Logging and Arboriculture
- Sawmills, Veneer, Manufactured Homes, and other Wood Products Manufacturing
- Long Term Care
- Exposures for Health Hazards (Asbestos, lead, isocyanates, silica, hexavalent chromium)
- Food Manufacturing

Strategic Activity to Support Outcome Goals

- Improve safety and health programs through compliance, consultative, and training intervention
- Expand safety and health recognition programs
- Develop partnerships and alliances in the areas of emphasis
- Implement Special Emphasis Programs (SEPs) for selected industries with specific intervention guidelines.

Goal Setting Process

- Evaluate injury, illness, and fatality data
- Secure input from stakeholders
- Establish five-year outcome goals
- Select areas of emphasis and strategies to impact achievement of outcome goals
- Create a committee in each special emphasis area made up of division employees with a committee chair to manage the areas of emphasis in the Strategic Management Plan as described in Administrative Procedure Notice (APN) 19G
- Determine level of activity for each emphasis area
- Share progress in achieving goals with staff on a monthly basis
- Evaluate the process
- Alter strategies if necessary

Factors Affecting Achievement of Outcome Goals and Strategic Activity Goals

- Funding
- Resources, including trained division personnel that provide division intervention
- Fluctuation in work force of affected employers
- Strategies employed

Fatality Totals	2008	2009	2010	2011	2012	2013
Total	47	41	44	54	35	
Construction	17	11	18	17	10	
Manufacturing	4	13	6	5	5	
Public Sector	6	2	2	5	1	
Logging/Arboriculture	3	1	3	2	2	
Hispanic	11	9	7	15	9	
Overall Rate	.001330	.000837	.001134	.001376	TBD	

Injury and Illness Rate	2008	2009	2010	2011	2012	2013
TRC (All)	3.6	3.4	3.3	3.3	TBD	
DART(All)	1.7	1.6	1.7	1.6	TBD	
Public Sector TRC	4.7	4.5	4.3	4.3	TDB	
Public Sector DART	2.2	2.1	1.9	1.9	TDB	

Intervention Statistics	2009	2010	2011	2012	2013
Inspections	5,196	4,500	4,276	4,149	
Inspection Goals	4,950	4,467	4,457	4,245	
Consultation	1,186	1,213	1,273	1,242	
Consultation Goals	1,000	1,000	1,050	1,050	
Trained	13,173	11,578	10,803	9,758	
Training Goals	20,000	11,900	10,400	10,400	
Compliance Activity	2009	2010	2011	2012	2013
Serious Violations	5,239	4,761	4,732	4,889	
Willful Violations	1	23	10	22	
Average Serious Penalty	627	1,165	1,310	1,148	
Followups	47	110	153	203	

PART II - REVIEW OF SPECIFIC OUTCOME GOALS/AREAS OF EMPHASIS FY 2009 - 2013

1.1 Reduce Construction Industry Fatality Rate Statewide by 5% by the end of FY 2013

Great safety and health strides have been made in the construction industry but with 24 baseline fatalities and a rate of .01020, this industry has been a leader in workplace deaths and can have a significant impact on the state's overall outcome goal of reducing the rate of workplace fatalities. The 10 fatalities in FY 2012 was less than half the base line total of 24.

Strategies for Achieving Specific Outcome Goal

- Conduct OSH compliance, consultative, and training interventions
- Maintain strong working relationships with construction industry groups through partnerships, alliances and other outreach efforts
- Identify high fatality, high activity counties for special emphasis
- Provide Hispanic outreach personnel to conduct construction training in Spanish
- Establish partnership agreements at high visibility construction sites
- Develop Spanish language publications and training materials
- Promote recognition programs such as building/sub-contractor STAR and SHARP
- Conduct consultative blitzes in targeted counties
- Inspect all cranes operating on construction sites
- Utilize Labor One Training Unit for on-site training as requested
- Analyze statistical data to confirm viability of inspection targeting process

Outcome	Baseline	2009	2010	2011	2012	2013
Fatalities	24	11	18	17	10	
Rate	.01020	.00400	.00720	.00850	.0006	
Hispanic	N/A	7	6	8	4	
Activity	2009	2010	2011	2012	2013	Total
Inspections	1,698	1,270	1,366	1,444		
Goals	1,440	1,320	1,310	1,075		
Consultation	229	186	152	173		
Goals	140	150	150	150		
Trained	2,703	2,394	1,669	1,963		
Goals	7,500	2,500	2,500	2,500		

1.2 Decrease Fatality Rate in Logging, and Arboriculture by 5% by the end of FY 2013

The State had success in reducing the number of fatalities in logging and arboriculture. Experience has shown that a reduction in OSH activity can translate into an increase in the number of injuries and fatalities in this industry. The first state Special Emphasis Program for logging was initiated in FY 1994 in response to 13 logging fatalities in FY 1993. In FY 2012, the total number of fatalities and the fatality rate were both below the baseline rate.

Strategy for Achieving Specific Outcome Goal

- Increase employer and employee awareness of regulatory requirements and safety and health work practices
- Change employer and employee behavior to improve job safety and health through education, consultation, and compliance interventions
- Establish and maintain strong working relationships with industries, associations, groups, and key individuals through alliances and other outreach efforts
- Encourage development of meaningful safety and health programs with site specific safety training
- Focus training events and outreach to specific problem areas such as tree felling

Outcome	Baseline	2009	2010	2011	2012	2013
Fatalities	4	2	6	2	2	
Rate	.01688	.01640	.02754	.0177	.0173	
Activity	2009	2010	2011	2012	2013	Total
Inspections	83	73	74	107		
Goals	75	75	75	75		
Consultation	16	15	16	18		
Goals	15	55	15	15		
Trained	0	50	138	86		
Goals	75	25	25	25		

2.1 Reduce the Injury and Illness Rate in Sawmills, Veneer, Manufactured Home, and Other Wood Products Manufacturing (NAICS 321) by 15% by the end of FY 2013

The baseline DART rate of 3.3 for this industry was higher than the industry average rate of 1.9. However, the DART rate has decreased during this strategic planning cycle.

Strategy for Achieving Specific Outcome Goal

- Provide OSH compliance, consultation and training interventions
- Develop and maintain alliances with industry trade groups
- Expand recognition programs such as Carolina STAR and SHARP programs in NAICS code 321
- Evaluate employer's safety and health program
- For sites with an effective safety and health program, conduct focused inspection of identified hazards in the industry including electrical, machine guarding, and use of hazardous materials

Outcome	Baseline	2009	2010	2011	2012	2013
DART	3.3	2.5	2.6	2.6	TBD	
Activity		2009	2010	2011	2012	2013
Inspections		164	73	104	84	
Goals		100	100	100	80	
Consultation	n	91	86	85	93	
Goals		30	50	70	70	
Trained		0	18	11	12	
Goals		20	20	20	20	

2.2 Reduce the DART Rate in Long-Term Care (LTC) Facilities by 15% by the end of FY 2013

While progress has been made in this industry group during previous planning cycles, the baseline rate of 4.8 is still more than twice the overall DART rate. For this reason, this emphasis area has been carried over from the previous strategic plan. The current SOAR documents a reduction in the DART rate from the baseline.

Strategy for Achieving Specific Outcome Goal

- Conduct OSH compliance, consultation, and training interventions
- Develop and maintain alliances in the LTC sector
- Advance ergonomics guidelines during OSH interventions
- Address elements of long term care intervention contained in OPN 132D including bloodborne pathogens, tuberculosis, ergonomics, and slips, trips, and falls

Outcome	Baseline	2009	2010	2011	2012	2013
DART	4.8	5.3	5.1	4.5	TBD	
Activity	2009	2010	2011	2012	2013	Total
Inspections	132	118	130	83		
Goals	60	60	60	60		
Consultation	38	45	67	49		
Goals	20	20	25	25		
Trained	39	67	82	108		
Goals	75	75	75	75		

2.3 Conduct Emphasis Inspections, Training, and Consultation Activity in Establishments Where Employees Might be Exposed to Health Hazards Such as Lead, Silica, Asbestos, Hexavalent Chromium and Isocyanates

The State has established a special emphasis program to address health hazards in the work place. The current health hazards include lead, silica, asbestos, hexavalent chromium, and isocyanates. Tracking mechanisms have not been developed to allow for the establishment of specific outcome measures in this area of emphasis. The State will continue to monitor the progress of Federal OSHA in developing reliable outcome measures for health issues. A reduction in illnesses relating to the emphasis health hazards could influence the primary outcome goal of reducing the overall injury and illness rate by 15% during the five-year cycle of the strategic plan.

Strategy for Affecting Overall Outcome Goals through Elimination of Health Hazards

- Conduct OSH compliance, consultation and training interventions
- Develop specific hazard alerts, training materials and industry guides for selected health hazards
- Provide consultative support on chemicals identified in health hazards SEPs
- Research and review site specific data sources that could be used to identify employers having or potentially having health hazard exposures
- During interventions and inspections, identify workplace activities where health hazards may be present

Activity	2009	2010	2011	2012	2013	Total
Inspections	210	203	284	207		
Goals	200	200	200	200		
Consultation	185	147	171	131		
Goals	50	75	100	100		
Trained	906	659	546	752		
Goals	500	700	700	700		

Hazard	Samples	Overexposure	Inspections	Surveys
Silica	18	4	65	77
Lead	15	2	37	20
Asbestos	0	0	67	11
Cr(VI)	18	1	16	10
Isocyanates	8	0	33	11
Totals	59	7	218	129

Activity for Specific Hazards

2.4 Reduce the DART Rate in Establishments in Food Manufacturing (NAICS 311) by 12% by the end of FY 2013

The strategic planning process is intended to allocate limited resources in those areas of emphasis with above average injury and illness rates in an attempt to impact the overall State injury and illness rate. The food manufacturing DART rate was 3.5 in FY 2007 which was more than the overall industry DART rate of 1.9. For this reason, food manufacturing was added to the current Strategic Management Plan that began on 10/1/2008. The baseline rate for this industry was 4.3 which represents the three-year average DART rate for the period 2005-2007. The first year of the five-year cycle for this SEP was a planning year. Intervention relating to the strategic plan began on 10/1/09. Operational Procedure Notice 140B establishes the special emphasis program (SEP) for food manufacturing facilities and specific inspection guidelines.

Intervention Strategy

- Special attention will be given to the OSHA recordkeeping process at each site visited
- Facilities will be evaluated for accumulation of combustible dust
- Confined spaces programs will be reviewed
- Electrical issues will be addressed especially during wet processes
- Ergonomics programs will be reviewed and processes evaluated
- Chemical use will be evaluated in terms of compliance with hazard communication standard requirements
- Machinery will be inspected to assure proper guarding is in place
- Screening, for coverage under process safety management requirements, will be conducted
- Potential exposure to hexavalent chromium, when welding on stainless steel and other activity, will be examined
- Inspect additional company sites on targeting schedules when company history dictates

Outcome	Baseline	2009	2010	2011	2012	2013
DART	4.3	2.9	3.0	3.1	TBD	

Activity	2009*	2010	2011	2012	2013	Total
Inspections		77	65	55		
Goals		60	60	50		
Consultation		25	13	14		
Goals		10	10	10		
Trained		9	84	55		
Goals		25	25	25		

*Planning year with no intervention specifically related to the strategic plan

2.5 Develop/Sustain Partnerships and Alliances Supporting OSHNC Mission

Developing and sustaining partnerships and alliances are a viable strategy for supporting the outcome goals associated with specific areas of emphasis described in the Strategic Management Plan. Partnerships and alliances with companies and associations allow the department to leverage resources and to promote employee safety and health.

Partnerships are usually developed in conjunction with high-visibility construction projects. The success of a partnership is measured, in part, by a reduction in injury and illness rates. On-site verification is a component of measuring progress towards established goals. Partnerships are performance based and can be terminated if progress is not made. Ongoing partnerships include Barnhill Contracting Company/Balfour Beatty - Justice Center, Flatiron Construction Corporation/Lane Construction Corporation - Yadkin River Bridge Project and Raleigh-Durham Road Builders - Western Wake Freeway.

An alliance is a program enabling organizations committed to safety and health to work with the OSH Division to prevent injuries, illnesses and fatalities in the workplace. Alliances typically focus on specialized industry outreach and training. In FY 2012, one new alliance was signed with the North Carolina Home Builders' Association (NCHBA). This alliance, focuses on residential builders, and was established to support the Construction SEP and compliment the already existing Carolina's AGC alliance. Current alliances include Carolinas AGC, Forestry Mutual Insurance Company, Lamar Advertising Company, N. C. Forestry Association, N. C. Home Builders Association, N. C. State University/Industrial Extension Service, N. C. Utility Contractors Association, and the Safety and Health Council of North Carolina.

Strategy for Affecting Outcome Goals through Partnerships and Alliances

- Pursue partnerships and alliances in areas of emphasis or other areas that advance achievement of established goals and objectives
- Establish construction partnerships at high visibility sites
- Formalize partnership agreements with specific outcome measures
- Conduct OSH verification inspections quarterly at partnership sites
- Prepare partnership evaluations yearly and when project is completed
- Establish specific training and education goals and safety and health promotion goals for each alliance

Activity	2009	2010	2011	2012	2013
Partnerships	4	4	5	3	
Alliances	12	12	9	8	
Total	16	16	14	11	

PART III - SPECIAL ACCOMPLISHMENTS

- 1. The State's total recordable case rate was the lowest in program history at 3.3 for FY 2011, which is the most current year available.
- 2. The number of statewide fatalities decreased to 35 in FY 2012 which is a 26% reduction from the baseline total of 47.
- 3. A total of 141 growers received Gold Star Grower designation.
- 4. ETTA offered 275 hours of formal training and 297 hours of continuing education to internal personnel to include courses in accident investigation, arc flash, spray booths, scaffolds, maritime, trenching & excavation, prologger, heat stress, work zone safety, mold, GHS hazard communications, carbon monoxide toxicology and CPR/first aid.
- 5. Thirteen OSH personnel attained the OSH Construction Safety Specialist Program (OCSS) certification. To be eligible for this program, the employee must be recommended by their supervisor and/or bureau chief. This program focuses on advanced construction topics to include, but not limited to excavations and trenching, cranes and derricks, fall protection, steel erection, electrical safety, scaffolding, residential construction (i.e.; frames, trusses, and roofing), health hazards, concrete and masonry and material handling equipment (i.e.; loaders, bulldozers) and work zone safety. Each course contains a field portion with an emphasis on OSH inspection procedures.
- 6. Three OSH personnel attained the Manager of Environmental Safety and Health (MESH), Construction MESH, and/or Public Sector MESH status as a result of receiving 100 hours of safety and health training. This certification is offered in collaboration with the NC State Industrial Extension Service and the North Carolina Safety and Health Council.
- 7. ETTA completed the design and development of a new accident investigation course. The course was made available to all OSH staff and the AG's Office in April 2012.
- 8. ETTA started a new initiative to redesign all internal training courses, offering a portion of each course on-line. This will improve training efficiency, maximize classroom hands-on activities and allow CSHOs to begin core course training immediately upon hire. Completion of the first newly redesigned course is expected in the Fall of 2013.
- 9. A hazard alert on heat stress, in support of the heat stress initiative, was published and

distribute to employers by division staff.

- 10. Two hazard alerts on struck-by hazards were mailed to 4,400 target employers.
- 11. A new industry guide on public safety diving was written and published in cooperation with the NC Public Safety Diving Association.
- 12. Five new posters were developed for the following hazards; heat-related illness, two struck-by, big 4 in construction, and fall protection.
- 13. Brochures on the top 10 serious citations, construction toolbox talks and the Star program were updated.
- 14. 32 PowerPoint presentations that are used externally were reviewed and revised as needed.
- 15. 706 changes needed in agency publications were identified due to the hazard communication rule changes. Those changes are actively being made as the publications are reprinted.
- 16. 66,913 publications were distributed to employers and employees across the state.
- 17. 4,594 standards inquiries were answered by the standards section.
- 18. 49 Field Information System documents were updated, which primarily includes new rules, operating procedures, FOM updates, MOUs, CPL, new forms and letters.
- 19. The NCDOL library loaned 2802 safety videos (including 303 in Spanish) and received 2180 information requests.
- 20. 640 persons attended the 2012 Annual Carolina Star Safety Conference.
- 21. A total of 9 safety and health professionals participated in Special STAR Team Member Program training.
 - \circ Raleigh Class 3
 - \circ Winston-Salem Class 6
- 22. Eight (new) Star sites were recognized during FY 2012 raising the total to 147 Star Sites.
 - Carolina Star 96
 - Building Star 25
 - \circ Public Sector Star 18
 - \circ Rising Star 8
- 23. A total of 2,701 workplaces (Gold & Silver) were recognized at 30 events by the Safety Awards Program.
 - o Gold 2,230

- \circ Silver 471
- \circ Million Hour Safety Award 77 (As of 11/15/12)
- 24. Effective March 1, 2012, the Safety and Health Achievement and Recognition Program (SHARP) was offered to certain public sector employers.
- 25. A total of 66 new SHARP sites were recognized in FY 2012 bringing the total number of SHARP sites to 111. This includes three public sector sites.
- 26. A task group completed work on the construction SHARP program.
- 27. A heat stress initiative was conducted in the summer of 2012 that included training, publications, consultation and compliance activity. Operational Procedure Notice 141 was prepared to provide guidance to compliance personnel who conducted heat stress related inspections.
- 28. The Employment Discrimination Bureau (EDB) Operations Manual was revised.
- 29. The Memorandum of Understanding between OSH and EDB was revised and provides that EDB will conduct investigations relating to claims of discrimination or retaliation against any employee for exercising any right protected under the OSHACT of NC.
- 30. OSH addressed the issue of violence in the workplace with the issuance of citations to a 251 bed state psychiatric hospital where attacks on hospital employees were documented.
- 31. The Compliance bureau assisted the NIOSH Health Evaluations and Technical Assistance Branch in preparing an informational flyer and cooperated with investigations conducted under the Fatality Assessment and Control Evaluation (FACE) Program.
- 32. The Agricultural Safety and Health Bureau produced a DVD that demonstrates proper housing for migrant and seasonal farm workers.
- 33. The Planning, Statistics and Information Management (PSIM) Bureau completed the Public Sector Survey (collection of calendar year 2011 injury and illness data) of 3,145 employers with a 100% response rate and a 100% clean rate.
- 34. PSIM completed an analysis of data collected from the 2008, 2009, and 2010 Public Sector Surveys, resulting in updated, established target rates for employer specific categories.
- 35. PSIM analyzed public sector inspection activities for FY 2007 2011.
- 36. PSIM analyzed private sector site specific inspection activities for FY 2007 2011. This five year statistical analysis completed by the PSIM Bureau documented a 42.97 % DART rate reduction for employers participating in the Site Specific Targeting Program that included 903 establishments.

- 37. PSIM completed the FY 2011 Occupational Fatalities Comparison Report.
- 38. PSIM analyzed and verified fatality data for the Communications Division's annual press release.
- 39. PSIM received, researched, and processed 1,280 requests for revisions/changes to the private and public sector databases, which helps to enhance the accuracy of these site databases and the OSHNC Targeting System.
- 40. Various targeting schedules were updated and assignments released by PSIM including:
 - SST Schedule
 - Public Sector Schedule
 - General Industry Schedules (Safety and Health)
 - ASH Schedule
 - Health Hazards Schedules (Asbestos, Lead, and Isocyanates)
 - Fatality Reinspection Schedule
 - Communication Tower Schedule
 - o NEP Schedule Added Process Safety Management Covered Chemical Facilities
 - o NAICS 321 (Wood Products) Schedule
- 41. PSIM revised the lead, asbestos, and isocyanates/health hazards targeting schedules.
- 42. PSIM staff members continued as active Strategic Management Plan Committee members and participated in all meetings, discussions, and activities, which were essential functions directly related to the success of the OSH Strategic Management Plan goals.
- 43. The collection of ODI data by PSIM for calendar year 2011 was officially concluded in October 2012 with a 99% response rate and a 100% clean rate. Three survey mailings and over 1,000 phone calls were made to 3,298 survey participants resulting in only 24 non-responders, which were referred to the Compliance Bureau.
- 44. PSIM compiled and analyzed OSHNC data for the OSH Annual Program Statistics Report (FY 2010 – 2011).
- 45. PSIM continued organization, coordination and management of two large projects contracted with outside vendors to convert all OSHNC inspection files from 1973 through 1996 currently stored on microfiche, microfilm, and closed inspection files through FY 2011 to imaged documents and to upload those files into the current document management system.
- 46. PSIM received 630 disclosure requests in FY 2012 and processed 636 requests (537 from FY 2012 and 99 from previous years) during this fiscal year, which resulted in a 100% response rate.
- 47. A total of 84 OSH discrimination investigations were completed by the Employment Discrimination Bureau in FY 2012.

- 48. A total of 115 OSH compliance inspections were conducted in agricultural/migrant housing by the Agricultural Safety and Health Bureau.
- 49. A total of 44 action requests were processed by the OSH Division to address opportunities for improvement identified by customers, division employees and as a result of internal and federal OSHA audits.
- 50. The OSH complaint desk processed 2,296 complaints/referrals.
- 51. The OSH Lab completed 674 equipment calibrations.
- 52. The Compliance Bureau and the Budget Management Division continued to refine the procedures for OSHNC penalty collection. This includes the 31 day project that tracks penalty collection and takes specific action 31 days after the pass due date.

PART IV - SUMMARY

North Carolina has developed a Strategic Management Plan with outcome goals that are consistent with federal OSHA activity. As well as specific outcome measures, the plan includes activity goals for each major component of the state program. The plan's areas of emphasis are managed by a specific committee. Strategies can be altered and activities increased or decreased to enhance program performance. Any changes to the Plan are documented annually, and submitted to federal OSHA as part of the 23(g) grant application process.

A review of statistical and program information indicates that after four years of the five year Strategic Management Plan, the State is making adequate progress in meeting the five year goals included in the plan. Fatality rates have decreased in two areas of emphasis, construction and logging/arboriculture. The total recordable case rate for all industries including government is 3.3 and 3.1 in the private industry only. This is a reduction from the baseline numbers of 3.6 and 3.8. The most recent DART rate was 1.6 which is a reduction from the base line rate of 1.7.

Overall program activity is also impressive including 4,149 inspections and 1,242 consultative interventions in FY 2012. This level of activity compares favorably to other states either federal or state plan states. Cutbacks in personnel and the need to maintain vacant positions because of budget cuts have had an impact on training activity, as well as inspection totals in comparisons to the first year of the plan. A fully staffed Consultative Services Dureau did meet their activity goals for the year.