

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
FY 2013 Strategic Goals for the Oil and Gas Extraction Sector Program

Mission Statement:

The mission of the National Institute for Occupational Safety and Health research program for the oil and gas extraction sector is to reduce occupational diseases and injuries among workers in this industry through a focused program of research and prevention. The program strives to fulfill its mission through high quality research, practical solutions, partnerships, and carrying out research to practice (r2p).

Background of the Program:

- Companies in the oil and gas extraction industry operate and/or develop oil and gas field properties as a part of upstream oil and gas activities, sometimes referred to as exploration and production. Such activities may include exploration for crude petroleum and natural gas, drilling and completing wells, and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. Establishments in this sector include those operating on their own or for others on a contract or fee basis. The North American Industry Classification System (NAICS) codes for this group are: 211 (Oil and Gas Extraction), 213111 (Drilling for Oil and Gas for contract or fee), and 213112 (Support Activities for Oil and Gas Extraction).
- Top problems or gaps:
 - Need for comprehensive surveillance (illness and injuries)
 - Accurate workforce estimates
 - Data on nonfatal injuries (completeness of reporting, scope, quality)
 - Misclassification of those working on a contract or fee basis (industry)
 - High rate of injury among small oil and gas companies
 - Highway motor vehicle safety, including:
 - Seat belt use
 - Non-collision crashes
 - Identification of risk factors for chemical exposures
 - Training for employees new to the industry or new to their employer
 - Fatigue
 - Need for effective hazard communication at worksites
 - Economic assessment of investment in automated or mechanized technology
 - Need for social marketing to improve safety and health behaviors
 - Identification of methods for reaching workers with information
- The following are a few of the emerging issues in the oil and gas extraction industry:
 - Historically, increased drilling activity has corresponded with increases in the rate of fatal injuries in this sector. In this time of high demand for oil and gas and shortages of trained workers, this sector is encouraged to find ways to train new employees in order to maintain a safe work environment.
 - Employees in this industry often work 8 or 12-hour shifts, for 7 or 14 days in a row. However, the current shortage of trained workers has led to instances of employees working more than 14 days without a day off. Strategies for reducing worker fatigue need to be identified, implemented and evaluated.
 - The widespread use of horizontal drilling has led to an increase in hydraulic fracturing operations in the oil and gas extraction industry. There is a need to quantify the safety and health hazards associated with hydraulic fracturing.
- Relevant Priority Populations
 - Limited English proficiency

- Aging workforce
- Workers new to the industry
- Workers employed by small oil and gas extraction companies
- Other applicable Program Portfolio areas
 - Sectors Programs
 - Transportation, Warehousing, and Utilities
 - Cross-Sector Programs
 - Communications and Information Dissemination
 - Engineering Controls
 - Hearing Loss Prevention
 - Musculoskeletal Disorders
 - Personal Protective Technology
 - Prevention Through Design
 - Respiratory Diseases
 - Small Business Assistance and Outreach
 - Surveillance
 - Traumatic Injury

Strategic and Intermediate Goals and Performance Measures:

The current strategic goals for developing new projects related to the oil and gas extraction sector program are below. These goals will be further developed and expanded with input from the NORA sector council and other research partners.

Strategic Goal 1 (09PPMIOSG1): Decrease transportation-related fatalities to oil and gas extraction workers.

Intermediate Goal 1.1 (09PPMIOIG1.1): Oil and gas extraction companies will adopt recommended interventions and practices to reduce transportation-related fatalities.

Activity/Output Goal 1.1.1 (09PPMIOAOG1.1.1): Develop a cooperative strategy to reduce transportation-related fatalities in collaboration with partners in industry, transportation, and public health.

Activity/Output Goal 1.1.2 (09PPMIOAOG1.1.2): Evaluate the impact of motor vehicle safety recommendations on industry practices.

Activity/Output Goal 1.1.3 (09PPMIOAOG1.1.3): Evaluate the impact of motor vehicle safety messages and products on worker behavior.

Activity/Output Goal 1.1.4 (09PPMIOAOG1.1.4): Conduct research on fatigue-related fatalities and prevention strategies.

Strategic Goal 2 (09PPMIOSG2): Reduce contact injuries to oil and gas extraction workers.

Intermediate Goal 2.1 (09PPMIOIG2.1): Industry will employ engineering and process controls to reduce contact injuries on drilling and workover rigs.

Activity/Output Goal 2.1.1 (09PPMIOAOG2.1.1): Conduct research to describe the risk factors for contact injuries on drilling and workover rigs.

Activity/Output Goal 2.1.2 (09PPMIOAOG2.1.2): Conduct research on engineering and process controls to reduce contact injuries on drilling and workover rigs.

Activity/Output Goal 2.1.3 (09PPMIOAOG2.1.3): Complete cost-benefit analyses on the adoption of engineering and process controls on drilling and workover rigs.

Activity/Output Goal 2.1.4 (09PPMIOAOG2.1.4): Disseminate research findings and recommendations; evaluate their acceptance and effectiveness.

Strategic Goal 3 (09PPMIOSG3): Reduce injuries due to falls among oil and gas extraction workers.

Intermediate Goal 3.1 (09PPMIOIG3.1): Industry will utilize NIOSH findings, recommendations and materials to reduce fall hazards on drilling and workover rigs.

Activity/Output Goal 3.1.1 (09PPMIOAOG3.1.1): Conduct research to identify ways to reduce worker exposure to fall hazards on drilling and workover rigs.

Activity/Output Goal 3.1.2 (09PPMIOAOG3.1.2): Identify strategies for increasing the use of fall protection through social marketing research.

Activity/Output Goal 3.1.3 (09PPMIOAOG3.1.3): Develop recommendations and educational materials to promote the use of fall protection among oil and gas extraction workers.

Activity/Output Goal 3.1.4 (09PPMIOAOG3.1.4): Disseminate research findings and recommendations; evaluate their acceptance and effectiveness.

Strategic Goal 4 (09PPMIOSG4): Reduce injuries to oil and gas workers resulting from fires and explosions.

Intermediate Goal 4.1 (09PPMIOIG4.1): Industry will utilize NIOSH findings, recommendations and materials to reduce hazards related to fires and explosions on drilling and workover rigs.

Activity/Output Goal 4.1.1 (09PPMIOAOG4.1.1): Conduct research to describe the risk factors for fire and explosion-related injuries on drilling and workover rigs.

Activity/Output Goal 4.1.2 (09PPMIOAOG4.1.2): Conduct research on engineering and process controls to reduce fire and explosion-related injuries on drilling and workover rigs.

Activity/Output Goal 4.1.3 (09PPMIOAOG4.1.3): Disseminate research findings and evaluate their acceptance and effectiveness.

Activity/Output Goal 4.1.4 (11PPMIOAOG4.1.4): Develop recommendations and educational materials to reduce fire and explosion-related injuries among oil and gas extraction workers.

Strategic Goal 5 – Retired FY12

Strategic Goal 6 (09PPMIOSG6): Identify risks and reduce occupational-related disease and illness from chemical exposures among oil and gas extraction workers.

Intermediate Goal 6.1 (09PPMIOIG6.1): Industry will utilize NIOSH research findings, recommendations and educational materials to reduce chemical exposures among oil and gas extraction workers.

Activity/Output Goal 6.1.1 (09PPMIOAOG6.1.1): Work with partners to improve surveillance for chemical hazards, exposures, and related illnesses among oil and gas extraction workers.

Activity/Output Goal 6.1.2 (09PPMIOAOG6.1.2): Identify the most prevalent chemical hazards among oil and gas extraction workers and their known prevention measures.

Activity/Output Goal 6.1.3 (09PPMIOAOG6.1.3): Conduct in-depth field investigations to identify and quantify the scope and magnitude of chemical exposures (along with possible controls) and their potential impacts on worker health.

Activity/Output Goal 6.1.4 (09PPMIOAOG6.1.4): Develop educational materials to promote the recognition of chemical hazards and measures to prevent exposure among oil and gas extraction workers.

Activity/Output Goal 6.1.5 (09PPMIOAOG6.1.5): Evaluate educational materials and measures for acceptance and effectiveness among workers in the oil and gas extraction industry.

Strategic Goal 7 (11PPMIOSG7): Decrease occupational fatalities in the oil and gas extraction industry.

Intermediate Goal 7.1 (11PPMIOIG7.1): Industry will utilize NIOSH findings to identify strategies to reduce fatalities in the oil and gas extraction industry.

Activity/Output Goal 7.1.1 (11PPMIOAOG7.1.1): Analyze available surveillance data to identify research and prevention priorities and the sub-groups of workers that may be at increased risk of fatal injury.

Activity/Output Goal 7.1.2 (11PPMIOAOG7.1.2): Analyze available surveillance data to identify risk factors for occupational fatality.

Activity/Output Goal 7.1.3 (13PPMIOAOG7.1.3): Work with partners to improve surveillance for occupational fatalities among oil and gas extraction workers.

Intermediate Goal 7.2 (11PPMIOIG7.2): Industry will utilize NIOSH training materials to reduce occupational fatalities in the oil and gas extraction industry.

Activity/Output Goal 7.2.1 (11PPMIOAOG7.2.1): Identify training materials commonly used in oil and gas extraction, and identify existing training gaps and needs.

Activity/Output Goal 7.2.2 (11PPMIOAOG7.2.2): Determine, through evaluation, the most appropriate content to include in training materials for oil and gas extraction workers (such as primary language, reading level, cultural considerations), including variations by geographic location.

Activity/Output Goal 7.2.3 (11PPMIOAOG7.2.3): Develop, test, and implement training materials designed to reduce occupational fatalities in oil and gas extraction.

Activity/Output Goal 7.2.4 (11PPMIOAOG7.2.4): Identify the barriers to adopting the training materials developed.

Activity/Output Goal 7.2.5 (11PPMIOAOG7.2.5): Evaluate the effectiveness of the training materials in improving the knowledge, attitudes, and practices of oil and gas extraction workers.

Intermediate Goal 7.3 (11PPMIOIG7.3): Research the effectiveness of the methods used to disseminate training materials to workers in the oil and gas extraction industry.

Activity/Output Goal 7.3.1 (11PPMIOAOG7.3.1): Determine, through evaluation, the most effective methods for delivering training materials to oil and gas extraction workers.

Activity/Output Goal 7.3.2 (11PPMIOAOG7.3.2): Disseminate findings throughout the oil and gas extraction industry through means such as websites, articles, presentations, information booths, safety conferences, symposiums and public meetings.

Activity/Output Goal 7.3.3 (11PPMIOAOG7.3.3): Evaluate the effectiveness of these dissemination methods and identify the barriers to utilizing the methods.

Activity/Output Goal 7.3.4 (13PPMIOAOG7.3.4): Conduct social marketing research to understand the most effective methods for reaching workers employed by small oil and gas companies.

Intermediate Goal 7.4 (11PPMIOIG7.4): Employers will incorporate effective interventions to prevent occupational fatalities associated with fatigue.

Activity/Output Goal 7.4.1 (11PPMIOAOG7.4.1): Identify risk factors for occupational fatalities associated with fatigue among oil and gas extraction workers.

Activity/Output Goal 7.4.2 (11PPMIOAOG7.4.2): Develop and evaluate interventions to reduce risk factors for occupational fatalities associated with fatigue.

Activity/Output Goal 7.4.3 (11PPMIOAOG7.4.3): Implement and promote effective interventions to reduce risk factors for occupational fatalities associated with fatigue.

Activity/Output Goal 7.4.4 (11PPMIOAOG7.4.4): Develop and coordinate partnerships to disseminate information on methods to prevent occupational fatalities associated with fatigue.

Strategic Goal 8 - Retired FY13

Strategic Goal 9 – Retired FY13

Program related References & Websites:

NIOSH O&G Program Portfolio
www.cdc.gov/niosh/programs/oilgas/

NORA O&G Sector Council
www.cdc.gov/niosh/nora/councils/oilgas/default.html

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