



Oil and Gas Extraction Program PPOP

What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) Oil and Gas Extraction Safety and Health Program works with partners in industry, trade associations, professional organizations, academia, and labor. The program focuses on efforts to:

- Reduce worker fatalities, with an emphasis on motor vehicle crashes
- Characterize physical and chemical exposure hazards
- Develop and evaluate engineering controls to improve worker safety and health

What do we do?

- Analyze surveillance data and conduct epidemiologic studies to identify leading causes of death and injury.
- Characterize exposures to hazardous agents, such as chemicals, minerals, and noise to better understand the hazards and risks.
- Develop and evaluate engineering controls for the workplace.
- Investigate possible mechanisms of disease in oil and gas workers through laboratory research.
- Communicate and distribute information to raise awareness of hazards and promote NIOSH recommendations.

What have we accomplished?

- Published research article describing the [US research needs related to fatigue, sleep, and working hours among oil and gas extraction workers](#).
- Published a series of [nine research articles](#) and a NIOSH science [blog](#) on animal studies examining the toxicological response to breathing in fracking sand and diesel exhaust.
- Contributed to the hazard alert [Minimizing Risk During Fluids Transfer](#), published by the National Service, Transmission, Exploration & Production Safety (STEPS) Network, to raise awareness of the hazards associated with fluid transfer activities and identify protective measures for workers and employers.
- Coordinated the webinar, [“COVID-19 Vaccine Updates for the Oil & Gas Industry,”](#) providing updates on COVID-19 vaccines to 170 registrants in the oil and gas industry.
- Partnered with Occupational Health & Safety Magazine to give the webinar [“Oil and Gas: Using Data to Understand and Address Safety and Health Issues,”](#) demonstrating how NIOSH uses data to drive science.
- Hosted the [Spring Health and Safety Summit 2022](#) providing state-of-the art knowledge on the control of workers' exposures to noise and heat in the oilfield to 180 participants.

What's next?

- Publish a series of articles highlighting cardiac events, heat stress, and substance use cases in the oil and gas industry.
- Publish results from hydrocarbon exposure studies during oil and gas extraction activities.
- Publish results from the NIOSH survey of oil and gas extraction workers including information on driving behaviors, working hours, hazardous substances, personal protective equipment, and company safety policies.
- Design a dust-control system for blending hoppers to reduce exposures to silica at hydraulic fracturing sites.
- Develop a hazard alert regarding Welding Fume Hazards & Controls.



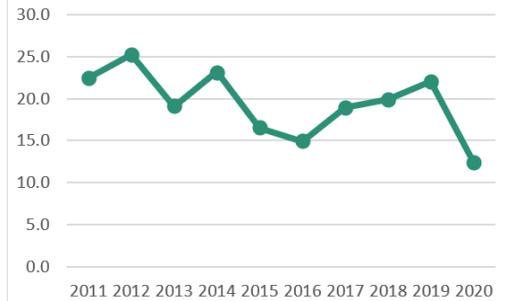
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

“Mention of any company or product does not constitute endorsement by the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.”

At-A-Glance

The Oil and Gas Extraction Program conducts research, forms partnerships, and develops and communicates practical solutions to improve safety and health in the oil and gas extraction industry. This snapshot shows recent accomplishments and upcoming work.

Oil and gas extraction fatality rate (per 100,000 workers)



Source: BLS [2020] Census of Fatal Occupational Injuries. Washington, DC: U.S. Department of Labor Statistics, <https://www.bls.gov/cew/>.

Fluid Transfer Transport Hazard Alert

HAZARD ALERT **HAZARD ALERT** **HAZARD ALERT** **HAZARD ALERT** **HAZARD ALERT**

MINIMIZING RISK DURING FLUIDS TRANSFER
for the Oil and Gas Industry

Between 2016 and 2020
12
FATALITIES

Gases and vapors pose a hazard in the oil and gas industry. Hazardous levels of gases and vapors can be present during produced fluid transfer (vacuum loading and off-loading operations).

Hydrocarbon gases and vapors (HGVs), hydrogen sulfide (H₂S), potential flammable and explosive atmospheres, and associated oxygen displacement can surround the truck during transfer. Workers should be trained in the hazards and safe operations of this process. Controls should be developed and implemented by all employers engaged in the production, transport, and receipt of produced fluids.

HAZARDOUS GASES & VAPORS
PRODUCED FLUID

UNSEEN HAZARD

Source: National Steps Network

COVID-19 Vaccine Updates for the Oil & Gas Industry

ENERGY WORKFORCE & TECHNOLOGY COUNCIL

OSHA, CDC Webinar: COVID-19 Vaccine Updates for the Oil & Gas Industry

Source: Energy, Workforce, & Technology Council

To learn more, visit

<https://www.cdc.gov/niosh/programs/oilgas/>
June 2022