

# INDUSTRY WORKS TO PROTECT PUBLIC HEALTH



The increase in production of resources from unconventional shales using the process of hydraulic fracturing has generated scrutiny from some policymakers and advocates who continue to cite health concerns. The most commonly expressed concern is that pollution of air and water from industry operations will lead to health problems for residents of all ages.

## POSITION:

Health and safety are core values of this industry. We are committed to protecting the safety and health of our employees, our contractors and the people of the communities in which we operate. The industry assesses all legitimate health concerns and communicates its findings, ensuring that public health is adequately protected. The industry also provides research, scientific analysis and guidance on health issues regarding exploration and production operations and public health. Careful review of the science shows that the current, robust standards and stringent state and federal regulations already exist to protect public health.

## BACKGROUND:

Oil and natural gas development offers an extensive range of health benefits to society, including, but not limited to feedstock for the pharmaceutical industry; reduction of air pollutants and greenhouse gas emissions when combined with technological advancements in power generation; and, powering the health care industry via electricity for equipment, materials for prosthetics, compounds used in drugs and more.

A review of scientific literature and research does not show conclusive or consistent evidence that supports the claim that exposure to oil and natural gas development activities results in adverse health effects. In fact, studies that review air measurements around oil and natural gas operations show that air quality is protective to health.

- A recent report by the Colorado Department of Public Health and Environment (CDPHE) evaluated research, air monitoring data and public health trends, and concluded that oil and natural gas activities in Colorado were meeting the air quality standards that are protective of health.<sup>1</sup>

- A similar peer-reviewed study, conducted by the Texas Commission on Environmental Quality (TCEQ), that looked at years of collected air quality measurements arrived at a similar conclusion: air quality in the Barnett shale region is at levels that are protective of health despite ongoing oil and natural gas development activities.<sup>2</sup>

Worker health is important to the industry. A long-term (over 33 years) surveillance study on oil and natural gas workers found that those who work on and near oil and natural gas sites, and who are directly exposed to the activities show no increased risk of cancer among the 20,000 employees in the study.<sup>3</sup>

While oil and natural gas operations are still a source of emissions, the industry conducts routine monitoring to ensure that emissions from oil and natural gas activities remain at levels that are far below federal levels of health concern.

## FAST FACTS:

- » The oil and natural gas industry uses real-time data to improve operations and develop standards and guidance documents that are consistent with current knowledge of industry activities and are designed to protect communities by incorporating large and redundant safety factors.
- » The industry employs numerous protective measures to safeguard worker and community health such as setbacks that are designed to keep community exposures under air quality standards and using green completions to reduce emissions.
- » The oil and natural gas industry acknowledges community concerns and communicates extensively with scientists, other industry experts and the public to continue to raise awareness regarding programs that are in place that are designed to manage exposures.

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## STANDARDS AND GUIDANCE DOCUMENTS:

- » API RP 100-1 *Well Integrity and Fracture Containment* - contains recommended practices for onshore well construction and fracture stimulation design and execution as it relates to well integrity and fracture containment. These practices ensure the protection and isolation of groundwater and that produced fluids are isolated and contained.
- » API RP 100-2 *Managing Environmental Aspects Associated with Exploration and Production Operations Including Hydraulic Fracturing* - contains recommended practices for onshore well construction and fracture stimulation design and execution as it relates to well integrity and fracture containment. The standard includes recommendations on baseline groundwater sampling, storage and management of fluids and chemicals, air emissions, and noise and visual resources.
- » API BULL 100-3 *Community Engagement Guidelines* - serves as a gold standard for good neighbor policies that address community concerns, enhance the long-term benefits of local development and ensure a two-way conversation regarding mutual goals for community growth.

## REFERENCES:

1. McMullin, T., Bamber, A., Flores, J., & Vigil, D. (2017). Oil and Gas Health Information and Response Program.
2. Ethridge, S., Bredfeldt, T., Sheedy, K., Shirley, S., Lopez, G., & Honeycutt, M. (2015). The Barnett Shale: From problem formulation to risk management. *Journal of Unconventional Oil and Gas Resources*, 11, 95-110.
3. Wood, E., Glass, D., Del Monaco, A., Vander Hoorn, S., & Sim, M. (2013). Health Watch Fourteenth Report Melbourne. *Australia: Monash Centre for Occupational and Environmental Health (MonCOEH), Department of Epidemiology and Preventive Medicine, Monash University.*