

## New API Industry Standards for Shale Development

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**Background:** The American Petroleum Institute (API) is the only national trade association representing all facets of the oil and natural gas industry whose mission is to promote safety across the industry globally and to influence public policy in support of a strong, viable U.S. oil and natural gas industry. For more than 95 years, API has led the development of petroleum and petrochemical equipment and operating standards. These represent the industry's collective wisdom on everything from drill bits to environmental protection and embrace proven, sound engineering and operating practices and safe, interchangeable equipment and materials.

**Activities:** In support of increased use of hydraulic fracturing, new editions of API's hydraulic fracturing standards have been developed to provide the latest technical direction for operators working to continuously improve well integrity, groundwater protection, and environmental safety. API's standards for shale development have worked alongside robust state regulations to ensure safe and responsible energy development with hydraulic fracturing for over 65 years.

Dubbed ANSI/API RP 100-1 and 100-2, the new standards provide detailed specifications for pressure containment and well integrity, as well as environmental safeguards, including groundwater protection, waste management, emissions reduction, site planning, and worker training. Their release follows publication of ANSI/API Bulletin 100-3, which outlines community engagement guidelines to assist operators in communicating effectively with residents and stakeholders to pursue mutual goals for community growth.

**Results:** This presentation will provide an overview of the developed international standards that emphasize three core principals of integrity, safety and environmental responsibility, and effective communication. Key focus areas of the presentation outline how the standards address well integrity and fracture containment, environmental aspects associated with well construction and fracturing operations, and what local communities and other key stakeholders can expect from operators.

The new standards have been made accessible to the public on API's website and shared with regulators at every level of government. API's voluntary standards serve as an important source of information for state regulators, who finalized an estimated 82 groundwater-related rules for oil and gas production, including hundreds of discrete rule changes, from 2009 to 2013 alone. These efforts have allowed America's energy sector to achieve a track record of proven safety while growing our economy and cutting U.S. carbon emissions to near 27-year lows.

API first began publishing standards in 1924 and currently publishes nearly 700 standards and technical publications. 130 of them have been incorporated into U.S. regulations with over 430 citations, and 240 of them have been cited over 4130 in state regulations. They are also the most widely-cited industry standards by international regulators. The program is accredited by the American National Standards Institute (ANSI), the same body that accredits similar programs at several national laboratories.