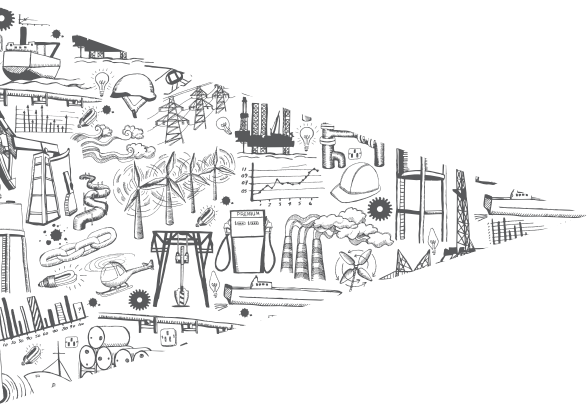


Hot Topic

Oil & Gas Update



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Secretary of Energy Advisory Board Shale Gas Production Subcommittee issues 90-Day Report on recommendations to reduce environmental impact and improve safety of shale gas production

On March 31, 2011, President Barack Obama stated that recent innovations have given the United States the ability to tap large shale gas reserves. In order to facilitate this development, President Obama directed the Secretary of Energy to form a subcommittee of the Secretary of Energy Advisory Board - the Shale Gas Production Subcommittee (Subcommittee) - to recommend, within 90 days of its first meeting, immediate steps that can be taken to improve the safety and environmental performance of fracturing.

On August 11, 2011, the Subcommittee issued a draft report (Draft Report) providing recommendations to reduce the environmental impact from shale gas production and asking the public for comments on the Draft Report. Subsequently, on August 18, 2011, focusing exclusively on the production of natural gas (and some liquid hydrocarbons) from shale formations with hydraulic fracturing stimulation in either vertical or horizontal wells, the Subcommittee issued its 90-Day Report (Report) in fulfillment of its charge from the Secretary of Energy.

In its Report, the Subcommittee acknowledges that the US shale gas resources have the potential to provide several benefits to the country and that natural gas provides a quarter of the country's total energy. Since 2001, shale gas production has risen from being less than 2% of the total US natural gas production to being almost 30% of the total US natural gas production.

However, as indicated in the Report, as shale gas output has risen, public concern and debate about such production has also increased. The Subcommittee identified four primary areas of concern - possible water pollution, air pollution, disruption of the community during production and potential for adverse impact on communities and ecosystems. To address concerns regarding the environmental impact from shale gas production, the Subcommittee set forth a list of nine recommendations and findings in its Report as follows:

1. **Improve public information about shale gas operations:** The Subcommittee recommends the creation of a portal to link the sources of public information available on shale gas development. This portal would then be available for public use in analyzing shale gas operations.
2. **Improve communication among state and federal regulators:** The Subcommittee encourages the continued support of the State Review of Oil and Natural Gas Environmental Regulation, a not-for-profit organization "whose purpose is to accomplish genuine peer review of state regulatory activities," and the Ground Water Protection Council's project to expand the Risk Based Data Management System, a system which allows the exchange of information between states with respect to "defined parameters of importance to hydraulic fracturing operations."

3. **Improve air quality:** The Subcommittee indicates that steps should be taken to reduce emissions of regulated pollutants and methane. The Subcommittee notes in its Report that inadequate data is available with respect to the amount of methane and other air pollutants that are emitted by the activities of a shale gas operator in a particular area. The Subcommittee recommends that a subset of producers in various basins should be requested to design and implement measurement systems to gather information with respect to methane and other air emissions. The Subcommittee also recommends initiating a federal interagency assessment to consider the greenhouse gas footprint throughout the natural gas production lifecycle and evaluating it against other fuels. The Subcommittee further recommends that the oil and gas industry and regulators increase efforts to reduce air emissions through the use of available technologies and practices.
4. **Protect water supply and quality:** Water use in shale gas production goes through various stages and the Subcommittee recommends adopting a method of managing water quality that would focus on measurement and public disclosure of information on the flow and composition of water at these different stages.
5. **Disclose fracturing fluid composition:** The Report states that there has been much debate about the disclosure of reporting the composition of fracturing fluid, which is “the slurry prepared from water, sand, and some added chemicals for high pressure injection into a formation in order to create fractures that open a pathway for release of oil and gases in the shale.” The Subcommittee notes in its Report that it shares the view that the risk of fracturing fluid leaking into drinking water sources is remote. However, in light of public concern, the Subcommittee recommends that regulatory entities develop rules requiring disclosure of fracturing fluid composition, with an exception for information that is proprietary in nature.
6. **Reduce diesel fuel use:** The Subcommittee recommends reducing the use of diesel in shale gas production and replacing diesel with natural gas or electric power where available.
7. **Manage short-term and cumulative impacts on communities, land use, wildfire and ecologies:** The Report notes that the combination of the various activities involved in shale gas development may have a cumulative impact on communities and ecosystems. The Subcommittee recommends that efforts be made on a regional scale to prepare for the impact of shale development.
8. **Organize for best practice:** The Subcommittee also recommends establishing an organization focused on the continuous development of best practices (i.e., through the creation of standards and assessment of compliance). The Subcommittee notes in its Report that the two areas that should receive priority attention are best practices with respect to air (i.e., reduction of pollutants and methane emissions from shale gas operations and establishment of an emission measurement and reporting system) and water (i.e., casing and cementing with respect to well completion, minimizing water usage, and limiting vertical fracture growth).
9. **Research and development:** The Subcommittee notes in its Report that much of the research and development in this area may be performed by the oil and gas industry. However, the Subcommittee recommends that due to the magnitude of the increase of shale gas in the nation’s energy mix, the federal government should consider sponsoring some research and development with respect to unconventional gas.

States have experienced (and are expected to continue to experience) significant development pressures in new areas where unconventional gas is now technically and economically accessible due to changes in drilling and development technologies. With the increased development pressures and the rapid increase of new technologies, continued monitoring is necessary to determine whether the recommendations included in the Report may be included in future legislation. The Subcommittee is scheduled to issue a 180-day final report in November 2011.

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