

6 NYCRR Parts 52, 190, 550-556, 560, and 750  
HIGH-VOLUME HYDRAULIC FRACTURING

REVISED RURAL AREA FLEXIBILITY ANALYSIS

The proposed revised rulemaking will modify the Department of Environmental Conservation's (Department) existing regulations and promulgate new regulations related to the use of high-volume hydraulic fracturing (HVHF). HVHF involves the fracturing of wells utilizing more than three hundred thousand gallons of water as the base fluid for fracturing operations and is proposed to be used in natural gas wells permitted by the Department. Also included in the proposed rules are updates to the Department's oil and gas and State Pollutant Discharge Elimination System (SPDES) regulations.

Type and Estimate of the Number of Rural Areas Affected. The proposed revisions and additions to the Department's regulations will apply to the use HVHF statewide; however, two formations likely to be initially targeted for production are the Marcellus and the Utica Shales. The prospective region for the extraction of natural gas from the Marcellus and Utica Shales has been roughly described as an area extending from Chautauqua County eastward to Greene, Ulster and Sullivan counties, and from the Pennsylvania border north to the approximate location of the east-west portion of the New York State Thruway between Schenectady and Auburn. According to 2010 Census figures, all of these nearly 30 counties, except for portions of Erie, Monroe, Onondaga, and Albany counties, would be considered rural areas. The updates to the Department's oil and gas and SPDES regulations will apply statewide.

Compliance with the Revised Rules. These proposed revised requirements are applicable to HVHF activities statewide, and would not result in any disproportionate impact on the regulated community in rural areas. The proposed rules will apply to any well operator who intends to utilize HVHF to produce natural gas

from wells permitted by the Department. This will, for the most part, involve large national and international corporations and the well operator's ability to comply with the proposed rules is not expected to be affected by the fact that a well is located in a rural area.

The proposed revised rules include recordkeeping and reporting requirements for well operators related to: well construction; private water well testing; and well completion reporting, when an operator proposes to use HVHF. The proposed revised changes to the Department's existing oil and gas regulations which include: a new reporting requirement to re-fracture an existing well; the need to file an interim completion report and enhanced minimum plugging requirements, will apply statewide. The capital required to secure the requisite percentage of mineral rights needed to obtain a permit from the Department, and to drill a natural gas well with or without the use of HVHF, is substantial. Therefore, the Department does not expect public or private sector interests in rural areas to be adversely affected by the proposed changes to the Department's existing oil and gas regulations. Moreover, the costs associated with notifying and receiving approval to re-fracture a well or to submit an interim completion report are expected to be minimal. Enhancement of the Department's minimum plugging requirements will also not adversely affect the regulated community, as the regulations provide only minimum standards and the Department regularly requires more stringent plugging procedures depending on site-specific circumstances. Therefore, due to current Department and industry practices, the costs associated with plugging a well by the either public or private sector in rural areas will not substantially change as a result of the proposed regulations.

Another sector of the regulated community that will be impacted by the proposed rules are mineral rights owners involved in compulsory integration proceedings administered by the Department. Compulsory integration, governed by Environmental Conservation Law (ECL) Article 23, Title 9, is the process by which the Department addresses un-leased mineral rights in a proposed spacing unit surrounding the well established by the Department-issued permit to drill. In situations where a mineral rights owner elects to participate in the

costs of developing a well where HVHF will be used, the proposed revised rules will increase the costs of participation. In such cases, the cost of complying with the proposed revised rules will still fall largely on the well operator since the well operator is required by the ECL to control at least sixty percent of the mineral rights in the spacing unit that would be produced before the well operator may apply for a permit to drill. The new application, reporting and operating requirements proposed to be added as a new, revised Part 560 to 6 NYCRR will impact mineral rights owners. However, these requirements have been identified by the Department as necessary measures to ensure HVHF wells are drilled and operated properly and to ensure all waste generated during well construction, hydraulic fracturing and production are handled appropriately.

The proposed revised rules also contain testing, monitoring and recordkeeping requirements for operators of publicly owned treatment works (POTW). Therefore, POTW operators in rural areas may be affected by the proposed revised rules, to the extent that such POTWs accept wastewater associated with wells where HVHF was utilized. In general, POTWs must have a DEC approved pretreatment or mini pretreatment program for accepting any HVHF wastewater and must notify DEC if they plan to receive wastewater at their facility before acceptance. POTWs are required to perform a headworks analysis to ensure they can handle the wastewater without upsetting their system or causing a problem in the receiving water. While there are costs associated with the headworks analysis and securing DEC approval of such, this may be offset by the disposal fee that the municipality may impose for allowing disposal of the HVHF wastewater at their facility. Small businesses that operate privately owned industrial treatment facilities are not required to take any affirmative actions under the proposed revised rules. However, small businesses that operate such treatment facilities may elect to accept wastewater from HVHF operations for disposal, and will be subject to similar requirements and costs. Therefore, the costs associated with complying with the proposed revised rule will not vary across the state or in rural areas, since the decision to accept wastewater from HVHF wells is voluntary.

Although the Department does not expect the proposed revised rules to adversely affect the regulated community in rural areas, the proposed rules will indirectly impact the ability of rural areas to respond to activities associated with the approval of HVHF. Indirectly the proposed rules may require local governments to respond to additional complaints about water well quality as well owners are made aware of water well testing required by the proposed rules. Approval of HVHF is also expected to increase local traffic and in some areas, increase the local population. As a result, local governments may experience increased demand on local services, such as emergency response and local road maintenance. The 2011 rdSGEIS contains a detailed analysis of the socioeconomic impacts associated with approval to utilize HVHF and proposed mitigation measures.

With respect to professional services in rural areas, the proposed revised rules may require the regulated community to hire professionals to assist in compliance activities required by the regulations. The additional stormwater requirements and requirements for disposal of HVHF wastewater are two examples where the proposed revised rules may require well operators to hire experts. However, the ability of a well operator to comply with the proposed revised rules is not expected to be affected by the fact that a well is located in rural areas.

Local governments are not required to take any affirmative actions under the proposed rules. However, local governments may proactively retain professional services to assist with emergency response and traffic control in certain circumstances, where approval of HVHF leads to impacts in those areas of local government.

Costs. The recordkeeping, reporting and compliance requirements included in the proposed revised 6 NYCRR Part 560 and the Part 750-3, would promulgate the application requirements and mitigation measures identified by the Department in the SEQRA process. Therefore the costs of complying with the proposed revised regulations pertaining to HVHF will not differ substantially from the costs of complying with the

SGEIS. Cost projections from the Independent Oil and Gas Association of New York (IOGA) for complying with the 2011 rdSGEIS range from \$400,000 to \$1,700,000 for the first well drilled on a well pad. The Department conducted its own limited cost assessment, and found that, with respect to at least two categories of cost estimates, IOGA's estimates were excessive. Unfortunately, despite repeated requests by the Department to industry to provide additional cost of compliance information, industry has refused to provide the Department with any additional cost information.

Public entities will incur minimal costs under this revised proposal as the public sector is not the focus of the proposed revised rules. This is no different than the public entities' role with respect to other industries, and public entities may be able to use increased tax and other revenue generated through HVHF activities to offset any increased burden on services it provides.

Apart from the provisions in the proposed revised rules related to HVHF, the proposed revised changes to Parts 550-556 will raise the minimum requirements to plug and abandon a well under the Department's jurisdiction. There have been occasions where local governments have drilled self-help wells, or wells meant to supply oil or gas to local buildings. There also exists the possibility that abandoned wells may exist on public lands. However, as described above, the proposed revisions to Part 555 would still specify minimum standards and the proposed revisions to Part 555 would not raise the cost of plugging a well above that which is often already required by current Department practices. The costs associated with the new reporting requirements contained in the proposed changes to 6 NYCRR Parts 550-556 are expected to be minimal.

Minimizing adverse impact. The regulated community, which is the main focus of the proposed revised rules, is well operators who plan to drill wells and utilize HVHF to facilitate production of natural gas. Although natural gas wells will be located in rural areas, the proposed revised rules will not have an adverse impact on private or public members of the regulated community in rural areas due to the location of the well.

With respect to indirect costs on local governments in rural areas, the proposed revised rules contain some measures to mitigate potential impacts, such as the need for well operators to submit a transportation plan to the Department prior to issuance of a drilling permit. A transportation plan would assist localities in planning for HVHF operations to allocate resources and initiate a dialogue with well operators. Supporting industries, such as waste haulers and water haulers, who provide a service to well operators will have minimal costs to comply with the rules, with costs limited to paperwork requirements (e.g. tracking waste from an HVHF well pad to a destination for disposal or reuse).

Rural Area Participation. The Department participated in outreach to the regulated community through the initial rulemaking process, including the solicitation of comments from affected industry. Additionally, the proposed use of HVHF in New York has been the subject of substantial public outreach and input over the last several years through the SEQRA process. During scoping sessions, before and after issuance of the 2009 draft SGEIS, prior to issuance of the 2011 rdSGEIS, and since the issuance of the 2011 rdSGEIS, the Department received over 66,000 individual public comments on these documents, from postal mail, electronic submissions, and speakers at public hearings in several of the potentially affected rural areas. The Department has had multiple interactions affected rural areas, which provided additional opportunities for affected rural areas to participate in the rulemaking process. Through this proposed revised rulemaking, the Department will provide for an additional public review and comment period.