

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

REVISED SUMMARY OF EXPRESS TERMS

The proposed revised rules include revisions and additions to the Department's oil and gas regulations, regulations on the management of state land and to State Pollutant Discharge Elimination System (SPDES) permitting regulations. High-volume hydraulic fracturing involves the fracturing of wells utilizing more than 300,000 gallons of water as the base fluid.

Mineral Resources.

Several of the changes proposed for the oil and gas regulations are administrative in nature and are necessary to update existing regulations to current Department and industry practices. Included in this category of changes is the language proposed to be added to section 552.2, which will clarify that the expiration of a permit to drill, deepen, plug back or convert a well does not relieve an operator from compliance with the terms specified in a permit when the operator commences operations during the permit term. Definitions will also be added to Part 550 for hydraulic fracturing, hydraulic fracturing fluid, true measured depth, true vertical depth, well spud, and workover.

The proposed rules will modify section 551.6 to remove the blanket bond available to operators who drill multiple wells and will revise section 552.2 to extend the term of a permit to drill, deepen, plug back or convert a well from six months to two years. Section 552.3 is proposed to be modified to allow the Department to re-issue a permit to another operator for a location that has already been permitted by the Department.

Several provisions in the proposed rules will also modernize the Department's regulations to make them consistent with recent statutory changes made to Environmental Conservation Law Article 23. Chapter 386 of the Laws of 2005 made significant changes to the statewide spacing scheme for natural gas wells and the proposed rules will incorporate some of those changes. Statutory statewide spacing provisions were also

adopted by the Legislature in 2008. The proposed rules promulgate these changes related to shale well development.

Additional recordkeeping requirements are included in the proposed rules, including a provision that will require operators to file an interim completion report for any gap in drilling operations lasting longer than thirty days. Enhancements are also proposed for Part 555, which contains standards for the plugging and abandonment of wells under the Department's jurisdiction. Proposed changes to section 555.5 would require operators to obtain well logs prior to plugging to aid in determining the appropriate plugging procedures. The proposed rules will also clarify the density of the fluid that may be utilized between plugs set in the bore hole during plugging of the well and will clarify the reclamation requirements for the land adjacent to the surface location of the well.

A new Part 560 is proposed to address high-volume hydraulic fracturing. Part 560 consists of seven sections, beginning with section 560.1 which makes Part 560 applicable to all wells where high-volume hydraulic fracturing is proposed. Section 560.1 also states that Parts 550-558 will continue to apply to the extent not superseded by Part 560. Proposed section 560.2 contains several definitions related to high-volume hydraulic fracturing including additive, chemical constituent, flowback, and high-volume hydraulic fracturing, as well as definitions related to new setbacks specific to high-volume hydraulic fracturing surface activities.

Section 560.3 will promulgate many of the application requirements specified in the SGEIS, including: the need for a blowout preventer use and testing plan; detailed mapping requirements; and disclosure of additives proposed to be used during hydraulic fracturing including the proposed volume of each and the proposed percent by weight of base fluid, each additive and proppants, if used. The chemical disclosure must also identify each chemical constituent intentionally added to the base fluid and its proposed concentration. Section 560.3 also sets out a process for Department review of permit applications, including a 15 day public comment period. This section provides for collection of fees, including ones that may be charged for preparation of GEISs (see 6 NYCRR sections 617.13 and 618.1).

Section 560.4 proposes setbacks for high-volume hydraulic fracturing for surface activities, including setbacks for wells proposed within 500 feet of a primary aquifer, private water well, domestic use spring, water supply for crops or livestock, inhabited dwelling or place of assembly, and specified distances from certain water resources. Section 560.4 provides that the Department may grant variances from the 500 foot setback from a private water well, domestic use spring, or water supply for crops or livestock, and from an inhabited dwelling or place of assembly subject to landowner and tenant consent (as applicable) where there are no reasonable allowable alternative locations for the well pad. The Department shall impose reasonable and necessary conditions to minimize any adverse impact.

Section 560.5 will promulgate the well testing, recordkeeping and reporting requirements in the SGEIS. This section includes requirements for well operators to prepare an emergency response plan and notify county emergency management offices, report non-routine incidents, and test residential water wells within a specified distance from the proposed gas well. The regulations authorize the Department to require water well testing after wells are completed to investigate whether drilling activities have impacted residential water well quality.

Section 560.6 contains detailed well construction and operational requirements for high-volume hydraulic fracturing wells and separate subdivisions specify requirements for site preparation, such as the design standards for reserve pits; site maintenance, such as secondary containment and other operational requirements; and drilling, hydraulic fracturing and flowback, including several requirements in relation to these activities, such as cementing and casing, monitoring during fracturing operations, storage of flowback water, and venting and flaring requirements.

Section 560.7 includes waste management and reclamation requirements that specify how wastes generated on the well pad should be managed and further specifying that partial and final reclamation of the well site must be done in accordance with the plans approved by the Department.

Lands and Forests and Fish, Wildlife and Marine Resources.

Parts 52 and 190 of 6 NYCRR will be modified to prohibit the leasing of state-owned land for surface activities related to HVHF. The prohibition, however, will not prevent the Department from leasing state land to allow subsurface access to the state's mineral rights from locations adjacent to state-owned land. Nor would the proposed rule prohibit the siting of pipelines on state-owned lands because pipeline are not considered associated with the drilling of a natural gas well. However, a determination to permit the siting of a pipeline would be subject to its own site-specific review.

Water Resources.

This revised rulemaking updates Section 750-1.5 to conform the existing regulation to the current federal process for issuance of Underground Injection Control permits.

Part 750-3 will consist of twelve sections. Unless in conflict, superseded or expressly stated otherwise in this Subpart, the provisions set forth in Subpart 750-1 and Subpart 750-2 of this Part apply to HVHF operations.

Section 750-3.2 incorporates the definitions provided in 750-1.2 and provides additional definitions specific for HVHF operations.

Section 750-3.3 prohibits certain HVHF activities and discharges and does not allow the issuance of a SPDES permit for such activities or discharges. These specifically include well pads for HVHF operations: within 4,000 feet of, and including, an unfiltered surface drinking water supply watersheds; within 500 feet of, and including, a primary aquifer; within 100 year floodplains; within 2,000 feet of any public (municipal or otherwise) drinking water supply well, reservoir, natural lake, man-made impoundment, or springs; within 2,000 feet of any public (municipal or otherwise) drinking water supply intake in flowing water with an additional prohibition of 1,000 feet on each side of the main flowing waterbody and any upstream tributary to that waterbody for a distance of 1 mile from the public drinking water supply intake; and within 500 feet of a private water well or domestic use spring, or water supply for crops or livestock, unless the department has

granted a variance. The distances are measured from the closest edge of the HVHF well pad.

For the purposes of obtaining a SPDES permit for HVHF operations, Section 750-3.4 states that HVHF operations cannot commence without a valid HVHF SPDES permit.

Section 750-3.5 provides the minimum information required for the Department to determine that groundwater or surface water quality will not be degraded by the injection of water, gas or other material through HVHF into a well to facilitate the production of gas resources.

The requirements in Sections 750-3.6, 750-3.7, and 750-3.8 protect water resources by ensuring necessary and adequate stormwater management practices are in place and properly operated and maintained. The requirements of these sections also ensure water resources are protected through the application of the Uniform Procedure Act and SEQRA.

Section 750-3.6 details the requirements for an individual HVHF SPDES permit application. This section provides a list of the certifications required including: disclosure of chemical additives; evaluation and use of less toxic alternatives; on-site maintenance of a list of chemical additives used; residential water well testing; removal of HVHF wastewater from the well site; secondary containment; containment of flowback and production brine; construction and use of reserve pits; and closed-loop system requirements. These certifications are also regulatory requirements found in Section 750-3.7. Section 750-3.6 also requires the proper handling and disposal of HVHF wastewater; identification of the depth of the HVHF drilling; and the development of a comprehensive stormwater pollution prevention plan (SWPPP), which addresses the construction, HVHF and production phases of natural gas well development through the Construction SWPPP and HVHF SWPPP.

Section 750-3.7 details the requirements of a Comprehensive SWPPP (both the Construction SWPPP and the HVHF SWPPP), including effective implementation, operation and maintenance; recordkeeping; and inspections. The Construction SWPPP must include erosion and sediment control practices and post-construction control practices. The HVHF SWPPP must include the applicable BMPs for HVHF operations,

which includes the requirements for certification under Section 750-3.6. Additionally, Section 750-3.7 includes requirements for partial site reclamation, implementation of a Spill Prevention Control and Countermeasure plan, and plugging and abandonment of gas wells prior to termination of a SPDES permit for HVHF operations.

Section 750-3.8 details the monitoring, recording and reporting requirements for a SPDES permit for HVHF operations. Monitoring includes: stormwater discharges; volume of water used at the well site; volume of HVHF and sanitary wastewater generated; amount of chemical additives used in HVHF operations.

Section 750-3.9 details the requirements for the renewal of an existing SPDES permit for HVHF operations.

Section 750-3.10 details the bases upon which the department may deny, suspend, or revoke an existing SPDES permit for HVHF operations.

Section 750-3.11 addresses a general SPDES permit for stormwater discharges associated with HVHF operations. This section includes a detailed list of where HVHF operations are ineligible for coverage and would require an individual SPDES permit, including HVHF operations within: 500 feet of, and including, Principal Aquifers; and 300 feet of wetlands, perennial or intermittent streams, storm drains, lakes, or ponds. This section also includes instances where HVHF operations are also ineligible for coverage under a general SPDES permit consistent with other department stormwater general permits.

Moreover, Section 750-3.11 details the requirements for obtaining coverage under an HVHF general permit, such as: filing of a complete Notice of Intent; and compliance with the regulatory requirements of 750-3.6. Additionally, Section 750-3.11 includes the procedures for administration of an HVHF general permit (e.g. duration; transfer of coverage; renewal; denial, suspension, and revocation; fees; and termination). Section 750-3.11 also includes the authority for the Department to issue a stop work order.

Section 750-12 details the requirements for the permittee to demonstrate that all HVHF wastewater will be treated, recycled or otherwise disposed of over the projected life of the well (Fluid Disposal Plan). This section details the requirements for disposal options, including: disposal at publicly owned treatment works;

disposal at privately owned industrial treatment facilities; on-site treatment and recycling; deep well injection; and disposal in accordance with the terms of a Department-approved beneficial use determination.