

**NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES FROM
HIGH VOLUME HYDRAULIC FRACTURING OPERATIONS**

Permit No. GP-0-XX-XXX

FACT SHEET

I. INTRODUCTION

This SPDES general permit authorizes point source discharges to waters of the State from High-Volume Hydraulic Fracturing (HVHF) operations. HVHF operations in locations and with activities consistent with the 2011 Revised Draft Supplemental Generic Environmental Impact Statement (SGEIS) on the Oil, Gas and Solution Mining Regulatory Program Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing in the Marcellus Shale and Other Low-Permeability Gas Reservoirs (rdSGEIS) are eligible for coverage under this SPDES general permit. Pursuant to Environmental Conservation Law (ECL) §17-0817(1) and 6 NYCRR Part 750-1.15, the term of this SPDES general permit is five (5) years from the effective date of this SPDES general permit.

General permits may be issued in accordance with the Environmental Conservation Law §70-0117 to authorize discharges determined by the New York State Department of Environmental Conservation (Department) to (1) involve the same or substantially similar types of operations, (2) discharge the same types of pollutants, (3) require the same effluent limitations or operating conditions, (4) require the same or similar monitoring, and (5), which will result in minimal adverse cumulative impacts. HVHF operations, as used in this general permit, consist of three parts: 1) the Construction phase during which an access road and a well pad are constructed; 2) the HVHF phase, during which a variety of well drilling equipment, chemical additives and material storage and mixing areas, vehicles and other miscellaneous equipment and supplies may be present; and 3) the Production phase, where natural gas is extracted from the well. HVHF operations are an industrial activity that is exposed to stormwater, which has the potential to include a significant number of contaminants. As these activities are generally consistent from well site to well site, utilizing similar industrial processes and materials, the Department has determined that a general permit adequately addresses potential sources of contamination of water resources from HVHF operations when a site is operated in accordance with general permit conditions, and in compliance with monitoring, reporting and Stormwater Pollution Prevention Plan (SWPPP) requirements. Authorization for stormwater discharges to waters of the State is required for all phases of HVHF operations. Coverage must be obtained before commencement of soil disturbance (Construction Phase).

The types of wastes associated with HVHF operations include process and flowback water containing acids, bacteriocides and biocides, surfactants, crosslinkers, corrosion inhibitors, gelling agents, friction inhibitors, clay and iron stabilizers, solvents, enzyme breakers, foamers

and scale inhibitors. The quantities of chemical additives varies according to the well characteristics, with flowback wastewater accounting for up to 35% , or up to 2.7 million gallons, of total fluid pumped into each well.

II. ORGANIZATION OF THE GENERAL PERMIT

The SPDES General Permit for Stormwater Discharges from High Volume Hydraulic Fracturing Operations (HVHF GP) is composed of twenty one Parts.

Parts I, II, and XVII through XXI are permit conditions that include coverage and limitations of the HVHF GP; how to obtain coverage under the HVHF GP; retention of records; special conditions; termination and transfer of coverage under the HVHF GP; and standard general permit conditions.

The other Parts of the HVHF GP are organized to coincide with the construction of the well site; well drilling, hydraulic fracturing, and well stimulation; and production of natural gas. The conditions and requirements set forth therein are applicable during the periods when the operator is engaged in any or all of the activities described in each section.

Parts III through VI are dedicated to regulation of soil disturbance associated with construction activity, which apply until the well site is stabilized and post-construction stormwater controls are installed and functioning effectively.

Parts VII through XIII address potential sources of contamination associated with the HVHF Phase of the life of the well. Part X is subdivided into activity specific sections, which set forth permit conditions and requirements applicable in the period during which the operation is engaged in each of the activities.

Parts XIV through XVI apply to the Production Phase of the life of the well.

III. PROHIBITIONS

In accordance with the rdSGEIS, HVHF operations are prohibited as follows:

- in New York City and Syracuse Watersheds
- on primary aquifers
- on certain state lands
- within 2,000 feet of public drinking water supplies
- in floodplains
- within 500 feet of private water wells unless waived by the landowner

This prohibition means that HVHF operations in the above areas are not able to obtain coverage under the HVHF GP or an individual SPDES permit.

IV. SUMMARY OF THE BASIS FOR THE DRAFT GENERAL PERMIT CONDITIONS

A. Coverage and limitations of the HVHF GP

6 NYCRR 750-1.21(c) states that “[a]ny general permit issued under this subdivision shall set forth the applicability of the permit and the conditions that apply to any discharge authorized by such general permit.”

The HVHF GP provides ECL Article 17 SPDES coverage to HVHF operations with stormwater discharges to waters of the state from a point source. The jurisdiction of this general permit covers all areas of New York State.

This general permit does not authorize stormwater discharges listed as ineligible under the HVHF GP.

Stormwater discharges associated with the HVHF operation by any person shall be unlawful unless in compliance with the HVHF GP or a duly authorized individual SPDES permit.

It is a violation of ECL §17-0501 for any discharge authorized by the HVHF GP to either cause or contribute to a violation of water quality standards as contained in 6 NYCRR Parts 700 through 705. Consistent with 6 NYCRR 750-2.1(b), the Department determined that compliance with the HVHF GP will reasonably protect classified water use and assures compliance with applicable water quality standards.

The owner/operator must maintain eligibility whenever covered by the HVHF GP, or risk enforcement for operating without a permit

The HVHF GP lists the non-stormwater discharges that are ineligible for coverage under the HVHF GP. This list was generated from the relevant sections of the SPDES General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-06-002) (MSGP) and the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001) (CGP).

The HVHF GP also lists the non-stormwater discharges that are authorized by the HVHF GP so long as the discharge is in compliance with the HVHF GP. This list was generated from the relevant sections of the MSGP and CGP.

The HVHF GP specifies stormwater discharges not eligible for coverage under the HVHF GP. This list was generated from the relevant sections of the MSGP, CGP, and the rdSGEIS, as well as through best professional judgment.

Specifically, the MSGP and CGP are the sources of the following ineligible activities:

1. Discharges from HVHF operations that are mixed with sources of non-stormwater other than those expressly authorized under either this general

permit or a different SPDES permit;

2. Discharges from HVHF operations, which either cause or contribute to a violation of water quality standards adopted pursuant to the ECL and its accompanying regulations;
3. Discharges from HVHF operations that adversely affect a listed or proposed to be listed endangered or threatened species or its critical habitat; and
4. Discharges from HVHF operations that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (Note: includes Archeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects, or there are local land use approvals evidencing the same.

A well permit must be issued before coverage under the HVHF GP can be obtained. A complete Notice of Intent (NOI) must contain the initial well permit American Petroleum Institute (API) number. It is anticipated that the requirements of the State Historic Preservation Act will be met during the well permitting process.

The MSGP is the source of the following ineligible activities:

1. Discharges from HVHF operations that are subject to an existing SPDES individual or general permit located at the HVHF operation where a SPDES permit has been terminated or denied, or which are issued an individual or alternative general permit; and
2. Contaminated stormwater discharges from drilling operations that are subject to nationally established Best Available Technology Economically Achievable (BAT) or Best Practicable Control Technology Currently Available (BPT) guidelines found at 40 CFR Part 435. Note: most contaminated discharges from drilling facilities are subject to these effluent guidelines and are not eligible for coverage under this general permit.

The CGP is the source of the following ineligible activity:

1. HVHF operations:
 - a. where the discharges from the construction activities are tributary to waters of the state classified as AA or AA-s; and
 - b. that disturb land with no existing impervious cover; and
 - c. where the Soil Slope Phase is identified as an E or F, or the map unit name is inclusive of 25% or greater slope on the United States Department of Agriculture (USDA) Soil Survey for the surface area where the disturbance will occur.

The rdSGEIS is the source of the following ineligible activities:

1. HVHF operations where the top of the target fracture zone at any point along the entire proposed length of the wellbore is shallower than 2,000 feet below surface; and where the top of the target fracture zone at any point along the entire proposed length of the

wellbore is less than 1,000 feet below the base of a known fresh water supply; and

2. HVHF operations sited within the following buffers (calculated from the edge of the well pad):

Principal Aquifer	500 feet
Wetland	100 feet
Storm drains, lakes, or ponds, and perennial or intermittent streams, as described in 6 NYCRR Parts 800-910	150 feet
Perennial or intermittent streams, as described in 6 NYCRR Parts 800-910, and that are tributary to surface public drinking water supplies	500 feet

Best Professional Judgment provides the basis for the following ineligible activity:

1. Construction of a centralized flowback impoundment.

6 NYCRR 750-1.21(e)(1)(vii) provides an additional basis for the following ineligible activity:

1. Discharges from HVHF operations, which either cause or contribute to a violation of water quality standards adopted pursuant to the ECL and its accompanying regulations

B. How to obtain coverage under the HVHF GP

In general, the process to obtain coverage under the HVHF GP is consistent with the MSGP and the CGP. In accordance with 6 NYCRR Part 750-1.21(d)(1), an owner/operator must notify the Department, in the format provided by the Department, of its intent to discharge in accordance with the HVHF GP. The Department developed the NOI form, which must be complete for an owner/operator to obtain coverage under the HVHF GP. For informational purposes only, the Department issues an NOI Acknowledgment Letter. The NOI must contain the initial well permit API number, which is assigned once the well permit is issued.

Additionally, in order to obtain coverage under the HVHF GP, the owner/operator must develop a Comprehensive SWPPP, which includes both a Construction SWPPP for the Construction Phase and an HVHF SWPPP for the HVHF and Production Phases. Project review under the State Environmental Quality Review Act (ECL Article 8 and 6 NYCRR Part 617), where applicable, must be complete and all Uniform Procedure Act (ECL Article 70 and 6 NYCRR

Part 621) permits must be obtained, before an owner/operator is authorized to discharge under the HVHF GP.

The CGP provides the timeframes upon which authorization for an HVHF operation to discharge in accordance with the HVHF GP are based. If a Construction SWPPP is prepared in accordance with the 2005 New York State Specifications for Erosion and Sediment Control and the 2010 New York State Stormwater Management Design Manual (collectively “technical standards”), then the HVHF operation is authorized to discharge in accordance with the HVHF GP thirty (30) calendar days after the Department receives a complete NOI. If the Construction SWPPP is not prepared in accordance with the technical standards, then the HVHF operation is authorized to discharge in accordance with the HVHF GP sixty (60) calendar days after the Department receives a complete NOI.

6 NYCRR 750-1.21(e) allows the Department to require any discharger authorized to discharge in accordance with the HVHF GP to obtain an individual SPDES permit or alternative general permit. This regulation provides the bases upon which the Department may act and the procedures that the Department must follow.

The HVHF GP also contains conditions for compliance with Clean Water Act Section 303, specifically listing of impaired waterbodies and Total Maximum Daily Loads. This portion of the HVHF GP is consistent with the MSGP; however, stricter timeframes for TMDL compliance have been added based on best professional judgment.

C. Construction Phase

The requirements of the HVHF GP for the Construction Phase are consistent with the CGP. An owner/operator must obtain coverage under the HVHF GP before soil disturbance begins. The owner/operator must develop and implement a Construction SWPPP in conformance with technical standards or demonstrate equivalency. In such cases, an additional 30 day waiting period (for a total of 60 calendar days) is imposed prior to authorization to allow for Department review.

The HVHF GP incorporates applicable sections of the CGP to regulate all stages of well site construction, from planning of the well site through maintenance of post-construction stormwater management practices. Some relevant provisions/concepts of the CGP that are incorporated into the HVHF GP include:

- Disturbance of greater than five acres at one time requires written pre-authorization from the Department.
- The owner/operator must adhere to a strict inspection schedule by qualified inspectors.
- If non-compliance with conditions of the HVHF GP or insufficiency of the Construction SWPPP is discovered, corrective actions must be taken within the time frames set forth in the HVHF GP.
- The Construction SWPPP must be updated to record the nature of the insufficiency or non-compliance and the actions taken to gain compliance.

- The owner/operator must certify to the Department that the Construction Phase is complete when the well site has been stabilized and stormwater is controlled in accordance with HVHF GP conditions. Once the Department receives a Notice of Construction Completion, the HVHF Phase may be commenced.

Consistent with the CGP and the MSGP, the owner/operator must keep the Construction SWPPP current.

The Construction Phase inspection and maintenance requirements are derived from the CGP. Inspections by a qualified inspector are required weekly, and twice weekly if greater than five acres is disturbed at any one time. Consistent with the requirements in the CGP, inspection frequency is reduced to once every 30 days when disturbance activities are temporarily suspended or shut down and temporary stabilization measures are applied to all disturbed areas.

The Construction Phase maintenance requirements require implementation of corrective actions within one day of the qualified inspector's notification that corrective actions are required. The corrective actions must be complete within seven days.

The HVHF GP also contains authority for the Department to issue a stop work order during the Construction Phase. A similar provision is found in the CGP and is supported by Articles 3, 17, and 71 of the ECL. Where there is a finding of significant non-compliance with the Construction SWPPP or a violation of the HVHF GP, the Department can issue an order to stop all work in the Construction Phase immediately and until the non-compliance is remedied.

Effluent Limitation Guidelines

On December 1, 2009, the United States Environmental Protection Agency (USEPA) published effluent limitations guidelines (ELGs) and new source performance standards to control the discharge of pollutants from construction sites. The regulation became effective on February 1, 2010. As of that date, New York was required to incorporate the final rule requirements into SPDES permits for stormwater discharges from construction activity.

The regulation included both numeric and non-numeric (i.e narrative) ELGs. The numeric ELGs established monitoring requirements for turbidity on certain construction activities. The non-numeric ELGs established requirements for erosion and sediment controls, soil stabilization, construction site dewatering, pollution prevention measures, prohibited discharges and surface outlets in stormwater basins. The non-numeric ELGs apply to all construction activities.

After the rule was final, USEPA withdrew the portion of the final rule which established the numeric ELG for turbidity. However, New York was still required to incorporate the non-numeric ELG's into any SPDES permits for stormwater discharges from construction activity the Department issued.

Department staff crafted ELG language for incorporation into SPDES permits based on EPA's final rule (non-numeric ELGs only) and language in the current CGP. The Department determined that the majority of the non-numeric ELG's were already addressed in that permit. Since February 1, 2010 such language has been incorporated into individual SPDES

permits for stormwater discharges from construction activity. Due to the fact that the HVHF GP incorporates the requirements of the CGP, the ELGs have been incorporated into the HVHF GP.

D. HVHF Phase

After the Construction Phase, the HVHF Phase may be commenced. A SWPPP must be developed to address the general requirements and required structural and non-structural best management practices (BMPs), as well as activity-specific structural and non-structural BMPs. The general HVHF GP requirements and BMPs have been developed with best professional judgment to reflect and maintain consistency with standards and regulation to which parallel industries are held. Additionally, requirements have been adopted from the industry standards published in the Oil and Gas Gold Book.

Specific conditions, monitoring, reporting, and SWPPP requirements have been developed for each category of industrial activity that may occur during HVHF operations, as identified by the Department by the nature of the activities and pollutants of concern. Operators are required to comply with requirements for any or all of the identified activities that occur on the well site during HVHF operations. Consistent with the MSGP construct, the HVHF SWPPP must incorporate each of the activity-specific requirements identified in the GP, when such activities are conducted on the well site. There are specific monitoring and SWPPP requirements associated with each activity. The owner/operator must comply with all requirements related to each activity.

While HVHF operations have been determined to involve substantially similar activities, not all operations include all activities covered by the HVHF GP or use the same volume of materials. In addition to variation in industrial operations, each well site requires selection of stormwater controls in consideration of the natural features of the well site. Therefore, each HVHF SWPPP must be developed for individual site conditions to achieve the intent of the HVHF GP.

The HVHF GP allows an owner/operator to propose BMPs that achieve the same or greater water quality protections. Such proposals must be authorized by the Department prior to implementation. This provision is intended to provide the regulated community with opportunities for innovation in BMPs. It is not the Department's intent to receive proposals of minor change to the BMPs (e.g. using one type of drip pan instead of another).

Consistent with the CGP and the MSGP, the owner/operator must keep the HVHF SWPPP current.

The HVHF GP also contains authority for the Department to issue a stop work order during the HVHF or Production Phases. A similar provision is found in the CGP and is supported by Articles 3, 17, and 71 of the ECL. Where there is a finding of significant non-compliance with the HVHF SWPPP or a violation of the HVHF GP, the Department can issue an order to stop all work in the HVHF or Production Phases immediately and until the non-compliance is remedied.

The completion of the HVHF Phase is discussed below in K. of this fact sheet.

General Requirements Consistent with the rdSGEIS

- Identification and Evaluation of Hydraulic Fluid Additives – The HVHF GP requires that additives used in the HVHF Phase be identified and evaluated to encourage the use of processes and substances that minimize the potential for environmental impacts. If the evaluation has been conducted in accordance with another Department approval (e.g. through the well permitting process), that approval can be incorporated by reference into the HVHF SWPPP. If the HVHF Phase fluid additives are modified, the HVHF SWPPP must be modified.
- Wastewater Treatment and Disposal Plan - The HVHF GP requires the development of a plan to assure that flowback and brine generated at the well site are properly recycled and/or treated, and ultimately disposed of properly.
- Depth of Drilling- The top of the target fracture zone may not be closer than 2,000 feet from the surface or less than 1,000 feet from the known bottom of an aquifer.

General Requirements Consistent with the MSGP

- Secondary Containment – In order to prevent the conveyance of spills to waters of the State, secondary containment, constructed of appropriate materials, must be employed in all areas where spills can be reasonably expected to occur.
- Partial Site Reclamation – Before ceasing monitoring, inspection and reporting requirements associated with the HVHF Phase, the well site must be partially reclaimed to specific standards set forth in the HVHF GP.
- Corrective Actions - If non-compliance with conditions of the HVHF GP, exceedence of benchmark monitoring levels, or insufficiency is discovered, corrective actions must be taken according to the time frame set forth in the HVHF GP. The HVHF SWPPP must be updated to record the nature of the insufficiency or non-compliance and the actions taken to gain compliance. Failure to do so is a violation of the HVHF GP, and may be addressed with variety of enforcement tools, including, but not limited to, substantial penalties and stop-work orders.
- Good Housekeeping, Preventative Maintenance, Training, Inspection and Other Non-Structural Best Management Practices Requirements
- Spill Prevention, Control and Countermeasure (SPCC) Plan – An SPCC plan meeting the requirements of the HVHF GP must be developed, staff must be trained in the plan, and spill cleanup materials, in amounts sufficient to contain or control the volume of material on the well site must be available at all times.
- General Requirements for Selection, Description and Performance of Structural Best Management Practices
- General HVHF SWPPP Requirements - All HVHF SWPPPs must include:
 - Maps clearly identifying existing and planned well site conditions, drainage areas, location of surface water impoundments, stockpiles, material storage areas, outfalls and receiving waterbodies.
 - Identification of potential sources of pollution, including areas where residue from previous spills may be present.
 - Identification of other permitted discharges
 - Stormwater Pollution Prevention Team
 - Training schedule and topics for staff responsible for permit related duties.
 - Good housekeeping practices must be identified and implemented.

- Schedule for maintenance of stormwater control practices.
- Sampling data and reports
- Summary of corrective actions and schedules
- Identification of water sources
- Impervious surface estimate
- Record of the types and volumes of materials, constituents of fluids and chemicals
- Schedule of pick-up and disposal of wastes
- Schedule of monitoring and reporting requirements

Non-Structural BMPs

The categories of non-structural BMPs associated with the HVHF Phase are consistent with the MSGP and include:

- Good housekeeping including routine site clean-up, spill prevention and management, material and chemical inventories, tracking and schedules for pickup and disposal of waste materials; routine inspections of drums, tanks and containers
- Limiting exposure to precipitation of all industrial materials and activities wherever practicable
- Preventative maintenance of stormwater management devices and site equipment, including record-keeping system of scheduled equipment tests and inspections
- Spill prevention and response procedures including a identification of a local spill response team spill containment, diversion, isolation and cleanup practices, procedures for notifying authorities of a spill, spill containment materials and methods
- Routine site inspections of all industrial materials or activities that are exposed to precipitation including an evaluation of the existing stormwater BMPs. Any deficiencies in the implementation of the HVHF SWPPP must be corrected as soon as practicable, but not later than within five (5) calendar days of the inspection.
- Records of inspections including the results of the inspections, documented in the HVHF SWPPP, along with any corrective actions that were taken in response to any deficiencies or opportunities for improvement that were identified.
- A stormwater employee training program for all employees who work in areas where industrial materials or HVHF activities are exposed to stormwater, and for employees who are responsible for implementing the HVHF SWPPP, to take place annually with the first training completed prior to employment at any HVHF operation. The training shall include the components and goals of the HVHF SWPPP, good housekeeping practices, prevention of non-stormwater discharges, spill prevention, containment, clean up and reporting procedures, emergency spill response training, emergency response plan, loading and unloading procedures and preventative maintenance.

Structural BMPs

The Structural BMPs associated with the HVHF Phase are consistent with the EPA Fact Sheets, as more fully described below, and the MSGP and include:

- Peripheral Berms to contain potential spills or releases from industrial activities
- Chemical/Fuel Storage in Secondary Containment such as dikes or portable

containers, sized to contain the larger of 10% of total tank volume or 110% of the largest enclosed tank

- Oil-Water Separators to treat stormwater before discharging
- Containment of shallow service holes dug in connection with well-drilling
- Recycling of Stormwater
- Procedures for monitoring capacity for flowback storage
- Curbing around fuel pumps
- Freshwater Surface Impoundment Design and certification by a Qualified Professional using the utilizing the Department's "Guidelines for the Design of Dams"

Activity-specific Structural and Non-structural Best Management Practices

The following categories of industrial activities associated with the HVHF Phase have been specifically addressed in the HVHF GP. The HVHF SWPPP must include the activities if they are conducted at the well site. If the activities are not conducted at the well site, monitoring would not be required to be included in the HVHF SWPPP. The references upon which the HVHF SWPPP and monitoring requirements are based are identified by activity:

Well-Drilling and High Volume Hydraulic Fracturing

- EPA Fact Sheets for Sector I: Oil and Gas Extraction
- Sector I Requirements from the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)
- General Requirements of the MSGP

Vehicle and Equipment Storage/Maintenance Areas

- EPA Fact Sheet for Sector I: Oil and Gas Extraction
- EPA Fact Sheet for Sector D: Asphalt Roofing and Paving Products
- EPA Fact Sheet for Sector P: Transportation and Warehousing
- Sector I Requirements from the MSGP
- Sector P Requirements from the MSGP
- General Requirements of the MSGP

Vehicle and Equipment Cleaning Areas

- EPA Fact Sheets for Sector I: Oil and Gas Extraction
- EPA Fact Sheet for Sector P: Transportation and Warehousing
- Sector P Requirements from the MSGP
- General Requirements of the MSGP

Fueling Areas

- Sector P Requirements from the MSGP
- General Requirements of the MSGP

Materials and Chemical Storage Areas

- EPA Fact Sheet for Sector I: Oil and Gas Extraction
- EPA Fact Sheet for Sector C: Chemical and Allied Products
- Sector C Requirements from the MSGP
- General Requirements of the MSGP

Chemical Mixing, Material Handling and Loading/Unloading Areas

- EPA Fact Sheet for Sector I: Oil and Gas Extraction
- EPA Fact Sheet for Sector C: Chemical and Allied Products
- Sector I Requirements from the MSGP
- Sector C Requirements from MSGP
- General Requirements of the MSGP

Chemical/Fluid Storage Tanks

- EPA Fact Sheets for Sector I: Oil and Gas Extraction
- EPA Fact Sheet for Sector C: Chemical and Allied Products
- EPA Fact Sheet for Sector P: Transportation and Warehousing
- Sector I Requirements from the MSGP
- Sector C Requirements from the MSGP
- Sector P Requirements from the MSGP
- General Requirements of the MSGP

Employee Housing and Sanitary Facilities

- General Requirements of the MSGP

Piping/Conveyances

- NRCS Conservation Practice Standard Pipeline Code 516 4/2007
- Oil and Gas Gold Book
- General Requirements of the MSGP

Lumber Storage or Processing Areas

- Sector A: Timber Products Requirements from the MSGP

Cement Mixing

- EPA Fact Sheets for Sector E: Glass, Clay, Cement, Concrete and Gypsum Products

Freshwater Surface Impoundments and Reserve Pits

- General Requirements of the MSGP
- Construction General Permit Requirements

The above may have been modified based on best professional judgment to more appropriately and adequately protect water quality during the HVHF Phase.

HVHF Phase Inspection, Maintenance and Monitoring Requirements

The HVHF Phase inspection requirements are derived primarily from the MSGP, but include modifications based on best professional judgment to more appropriately and adequately protect water quality during the HVHF Phase. The requirements include weekly inspections of above-ground tanks, pumps, pipelines and pits, and bi-weekly inspections of material and maintenance storage and fueling areas, piping systems, vehicle and equipment cleaning and loading areas and impoundments and secondary containment areas. Inspections of drill mud, cement and chemical mixing areas must be conducted on the day such activity occurs. Visual Monitoring Examinations of stormwater discharging during a qualifying storm event through all outfalls listed in the NOI must be conducted. Records of the precipitation event and results of examination must be maintained with the HVHF SWPPP.

The HVHF Phase maintenance requirements are derived from the MSGP and require that BMPs be maintained in effective operating condition. If well site inspections identify BMPs that are not operating effectively, maintenance must be conducted as required to return BMPs to operating condition. The maintenance must be completed before the next anticipated storm event or at least within five days of the routine well site inspection.

The HVHF Phase monitoring requirements are consistent with the MSGP. A Comprehensive Site Evaluation must be conducted at least once a year, including all areas where industrial materials or activities are exposed to stormwater. Records of this evaluation must be kept with the HVHF SWPPP. Annual Dry Weather Flow Monitoring must also be conducted at all outfalls listed in the NOI. Records of annual inspections must be kept with the HVHF SWPPP.

To comply with Benchmark Monitoring Requirements, owners/operators must collect one stormwater sample per quarter, from each outfall listed in the NOI. The sample(s) must be analyzed at an approved lab for the parameter(s) listed for the applicable industrial sector in the General Permit. The owner/operator must compare the results with the cut-off concentrations and, if results exceed the cut-off concentrations, identify the source of contamination and determine if corrective actions are necessary to reduce the potential for stormwater contamination at the site. In instances where multiple activities with common benchmark monitoring parameters share a common outfall, one stormwater sample may be taken to cover the parameters of the common activities.

E. Production Phase

Before the Production Phase can be begin, several requirements must be met. Based on best professional judgment, the drill site must be reclaimed, all well-drilling and fracturing equipment must be removed from the well site and drilling pits must be reclaimed. Consistent with the technical standards, surface disturbances not associated with the Production Phase must be de-compacted, reseeded and a vegetative cover re-established to ultimately return the site to pre-development conditions. The owner/operator must submit a notice of Partial Site Reclamation to the Department before the reduced monitoring and inspection requirements for the Production Phase become effective.

Based on best professional judgment, the Production phase inspection requirements are reduced in frequency from the HVHF Phase. The Production Phase will have a reduced level of activity, a reduced impervious footprint on the well site, and consequently smaller risk of polluted runoff leaving the site. Visual Monitoring Examinations of stormwater discharging during a qualifying storm event through all outfalls listed in the NOI must be conducted once every three months. Records of the precipitation event and results of examination must be maintained with the HVHF SWPPP. Dry weather flow monitoring must be conducted annually for each outfall to determine if non-stormwater discharges are present, and to identify the source of any such discharge. The owner/operator is required to modify the HVHF SWPPP to address any newly identified non-stormwater discharge. Corrective actions must be taken to correct any deficiencies to ensure integrity and effectiveness of all practices.

The Production Phase maintenance requirements are derived from the SWPPP requirements in the MSGP. BMPs must be maintained in effective operating condition. If well site inspections identify BMPs that are not operating effectively, maintenance as required to return BMPs to operating condition must be complete before the next anticipated storm event or at least within five days of the routine well site inspection.

F. Reporting (HVHF and Production Phases)

Consistent with the MSGP, all facilities covered under the HVHF GP must submit an Annual Certification Report. The Annual Certification Report provides information about the results of monitoring and inspections conducted at the facility during a calendar year (January 1-December 31). The report is due by March 31st following the end of each calendar year. For example, reports of results of monitoring and inspections conducted during calendar year 2012 are due by March 31, 2013.

Also consistent with the MSGP, and 6 NYCRR 750-2.5(e)(1), results of Benchmark and Compliance Monitoring analysis performed during a quarterly monitoring period (January-March, April-June, July-September, October-December) must be reported on Discharge Monitoring Reports (DMRs) that are provided by the Department no later than ten calendar days after the results are received from the laboratory. Results from each outfall shall be reported on preprinted DMRs provided by the Department, based on the information provided to the Department in the NOI.

G. Monitoring (HVHF and Production Phases)

6 NYCRR 750-2.5(a) requires the owner/operator to “comply with all recording, reporting, monitoring and sampling requirements specified in the permit.”

For additional information, please see the HVHF Phase or Production Phase portion of this fact sheet.

H. Reporting (HVHF and Production Phases)

6 NYCRR 750-2.5(a) requires the owner/operator to “comply with all recording, reporting, monitoring and sampling requirements specified in the permit.”

For additional information, please see the HVHF Phase or Production Phase portion of this fact sheet.

I. Retention of Records

ECL §17-0815(8) requires SPDES permits to include “recording, reporting, monitoring, and sampling requirements applicable under the [Clean Water] Act.”

6 NYCRR 750-2.5(a) requires the owner/operator to “comply with all recording, reporting, monitoring and sampling requirements specified in the permit.”

The HVHF GP requires the retention of all records relating to HVHF operations for five years from specified dates/actions. This requirement is based on 6 NYCRR 750-2.5(c).

Additionally, in accordance with 6 NYCRR 750-2.5(c), the HVHF GP requires recording of monitoring activities and results.

6 NYCRR 750-2.5(c) also provides the authority for the Department to inspect and copy any information maintained pursuant to 6 NYCRR 750-2.5(c) within twenty-five (25) business days of a receipt for such information.

J. Special Conditions

Discharges of hazardous substances or petroleum are not authorized by the HVHF GP. This provision in the HVHF GP is based on the MSGP, as well as the New York Navigation Law §173, and 6 NYCRR Part 595.

K. HVHF Phase Completion

Within the CGP, once “final stabilization” has been achieved, coverage under the CGP may be terminated. This part of the HVHF GP is based, generally, on this concept, but modified for specificity for HVHF operations. For example, Department staff used best professional judgment to determine that the equivalent of “final stabilization” for the Construction Phase would be “partial site reclamation” for the HVHF Phase. Since there are three phases to HVHF operations, partial site reclamation does not necessarily indicate that coverage under the HVHF GP is no longer required, but instead indicates a transition to the Production Phase.

L. Termination or Transfer of Coverage

The termination process in the HVHF GP is consistent with the procedure for termination in the MSGP and the CGP. Department staff used best professional judgment to develop the termination criteria, and slightly modify the process, as applicable and appropriate for HVHF operations.

The HVHF GP requires a certification of plugging and abandonment, which was developed through the Department staff’s best professional judgment with an understanding of and consideration for the well permitting process.

The HVHF GP requires a certification of the post-construction stormwater management practices, where impervious surfaces are not being reclaimed. This concept is from the CGP,

which requires that before termination, the owner/operator of the construction activity must ensure that these practices will continue to be operated and maintained through one of the specified mechanisms.

The transfer process in the HVHF GP is consistent with the procedure for transfer in the CGP. Transfer of coverage under the HVHF GP ensures that there is only one owner/operator with responsibility for HVHF operations at the well site.

M. Standard Permit Conditions

A. Duty to Comply - The authority for this standard permit conditions is 6 NYCRR 750-2.1(e) and 6 NYCRR 750-2.4.

B. Continuation of the Expired General Permit - The authority for this standard permit condition is ECL §17-0817(1), 6 NYCRR 750-1.15, and 6 NYCRR 750-1.21(d)(2).

C. Penalties for Violations of General Permit Conditions - The authority for this standard permit condition is 6 NYCRR 750-2.1(e), 6 NYCRR 750-2.4, and ECL §71-1929.

D. Need to Halt or Reduce Activity Not a Defense - The authority for this standard permit condition is 6 NYCRR 750-2.1(g).

E. Duty to Mitigate - The authority for this standard permit condition is 6 NYCRR 750-2.7(f).

F. Duty to Provide Information - The authority for this standard permit condition is ECL §17-0815(8), 6 NYCRR 750-2.1(i), and 6 NYCRR 750-2.5(c).

G. Other Information - The authority for this standard permit condition is 6 NYCRR 750-2.1(f).

H. Signatory Requirements - The authority for this standard permit condition is 6 NYCRR 750-2.5(b).

I. Penalties for Falsification of Reports- The authority for this standard permit condition is ECL §17-0819, ECL §71-1929, 6 NYCRR 750-2.4(f) and 6 NYCRR 750-2.5(b). Articles 175 and 210 of the New York State Penal Law also provide authority for this standard permit condition.

J. Penalties for Falsification of Monitoring Systems - The authority for this standard permit condition is NYCRR 750-2.4(f), 6 NYCRR 750-2.5(a)(6), or 6 NYCRR 750-2.5(b).

K. Oil and Hazardous Substance Liability - The authority for this standard permit condition is section 311 of the CWA or section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA").

L. Property Rights - The authority for this standard permit condition is 6 NYCRR 750-

2.2(b).

M. Severability - The authority for this standard permit condition is 6 NYCRR 750-2.1(c).

N. Requiring an Individual Permit or an Alternative General Permit - The authority for this standard permit condition is 6 NYCRR 750-1.21(e).

O. State/Environmental Laws – The authority for this standard permit condition includes all the laws of New York State, and particularly ECL Articles 3, 17 and 71.

P. Proper Operation and Maintenance- The authority for this standard permit condition is 6 NYCRR 750-2.8(a)(2), and modified by Department staff based on best professional judgment to address HVHF operations.

Q. Inspection and Entry - The authority for this standard permit condition is 6 NYCRR 750- 2.3.

R. Permit Actions - The authority for this standard permit condition is 6 NYCRR 750-1.21(d).

S. Other Permits - The authority for this standard permit condition is 6 NYCRR 750-2.1(j).

T. Permit Transfers – The authority for this standard permit condition is 6 NYCRR 750- 1.21(d)(1).

U. Definitions- The authority for this standard permit condition is ECL §17-0105 and 6 NYCRR 750-1.2(a).

V. REACHING A FINAL DECISION

Pursuant to ECL §17-0805, the Department is required to provide at least 30 days for public notice wherein comments can be submitted and a hearing requested regarding the HVHF GP. The Department is providing seventy-five (75) days for public notice. The comment period will begin on September 28, 2011 and end at 5:00pm on December 12, 2011.

The Department will conduct a series of combined public hearings at the dates, times, and locations listed below for the purpose of accepting both verbal and written comments on the following:

1. The revised draft Supplemental Generic Environmental Impact Statement (rdSGEIS) on the Oil, Gas and Solution Mining Regulatory Program relating to the permitting of horizontal drilling and high-volume hydraulic fracturing (HVHF) available at: <http://www.dec.ny.gov/energy/75370.html> ;
2. The proposed State Pollutant Discharge Elimination System (SPDES) General Permit (GP) for Stormwater Discharges from HVHF available along with its fact sheet at: <http://www.dec.ny.gov/permits/77251.html> ; and

3. The proposed regulations relating to HVHF revising and adding to 6 NYCRR Parts 52, 190, 550-556, 560, and Subparts 750-1 and 750-3, available at:
<http://www.dec.ny.gov/regulations/propregulations.html>.

Each meeting location will be open from 1:00 PM to 4:00 PM and 6:00 PM to 9:00 PM

Nov. 16, 2011, Dansville Middle School Auditorium, 31 Clara Barton St., Dansville, NY 14437

Nov. 17, 2011, The Forum Theatre, 236 Washington Street, Binghamton, NY, 13901

Nov. 29, 2011, Sullivan County Community College, Seelig Theatre, 112 College Rd, Loch Sheldrake, NY 12759

Nov. 30, 2011, Tribeca Performing Arts Center, 199 Chambers Street, New York, NY, 10007

Public comments on the draft HVHF GP will be accepted until 5:00pm on December 12, 2011 at: <http://www.dec.ny.gov/energy/76838.html>

Additional information may be obtained from the contact listed below.

Contact: NYSDEC, 625 Broadway, Albany NY 12233-6510, Attn: Eugene Leff, 518-402-8044, e-mail: public@gw.dec.state.ny.us