

New York State Petroleum Council

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Ms. Carol R. Collier, Executive Director
Delaware River Basin Commission
25 State Police Drive
West Trenton, NJ 08628

By Federal Express

Re: Proposed Article 7 Water Quality Regulations Relative to Natural Gas Development Projects

Dear Director Collier:

The New York State Petroleum Council is pleased to submit the following comments on the Commission's proposed regulations to "protect water resources of the Delaware River Basin during the construction and operation of natural gas development."

Background and Statement of Interest

The New York State Petroleum Council is a division of the Washington, DC-based American Petroleum Institute (API). API is a national trade association representing approximately 475 companies involved in all aspects of the oil and gas industry including exploration, production, refining and marketing.

Among other things, API has developed for the industry nationally and internationally recognized standards which are accredited by the American National Standards Institute. Since 1919 during the early days of the industry API has developed more than 500 standards and recommended practices covering all segments of the oil and gas industry to promote safe, interchangeable equipment and proven and sound engineering practices. API standards are cited in over 270 instances in the U.S. Code of Federal Regulations and by numerous federal agencies that use API technical standards within their regulatory framework —the Occupational Safety and Health Administration, the U.S. Environmental Protection Agency, the Department of Transportation and the Bureau of Ocean Energy Management, Regulation and Enforcement.

General Summary of Comments

The Commission's proposed rulemaking is overbroad in protecting the water resources of the Delaware River Basin and its tributaries. The rulemaking establishes an overly complex and burdensome permitting program that is duplicative of established and adequate state regulatory programs. The fee structure seems disproportionate to the cost of the program and its enforcement and related Commission activities. The proposed monitoring and reporting

requirements are also unreasonably burdensome. Finally, the restrictions placed on well locations would unnecessarily hamper development in much of the Basin.

Section-Specific Comments

Section 7.1 Purpose, Authority, Scope and Relationship to other Requirements and Rules

DRBC is proposing a new Article 7 of Part III – Basin Regulations. The stated purpose of the regulation is to protect the water resources of the Delaware River Basin during the construction and operation of natural gas development projects. The regulation is applicable to all natural gas development projects, including the construction or use of production, exploratory or other natural gas wells in the Basin regardless of the target geological formation; to water withdrawals, well pad and related activities; and wastewater disposal activities related to those projects. DRBC has determined that all natural gas development projects may have a substantial effect on the water resources of the Basin and consequently, no natural gas development project may be undertaken without first obtaining DRBC approval. DRBC will rely on state regulatory agencies in New York and Pennsylvania for administering well construction and operation standards, but disregard these state programs for all other aspects of natural gas development.

The New York State Department of Environmental Conservation (DEC) already has extensive experience and a well-established, comprehensive program for the regulation of natural gas development activities. (See Article 23 of the Environmental Conservation Law). DEC's regulatory program and permitting process oversees all drilling activities. DEC's Mineral Resources staff - averaging 22 years of experience per person - conducts a rigorous permitting process which protects the environment and landowner before the permit is issued, during drilling, when the well is plugged and when the site is restored. This includes review of each drilling application for environmental compliance before any drilling, which involves:

- Screening of the proposed well location to identify any environmental sensitivities;
- Review of the proposed well design to ensure that it is protective;
- On-site inspection of actual drilling operations; and
- Enforcement of strict restoration rules when drilling is completed.

Municipal water wells are protected by the requirement for a full environmental assessment if a proposed oil or gas well is within 2,000 feet of the municipal well and a supplemental environmental impact statement if within 1,000 feet. All groundwater, including private wells, is protected by strict construction requirements for oil and gas wells. As a result of New York's rigorous regulatory process, the types of problems reported to have occurred in states without such strong environmental laws and rigorous regulations have not happened here. No known instances of groundwater contamination have occurred from previous horizontal drilling or hydraulic fracturing projects in New York State.

While it is recognized that DRBC has a role to play in the regulation of water withdrawals and certain wastewater disposal activities related to natural gas development projects, there is no demonstrated need for an additional level of regulation as proposed. There is no legislative mandate that DRBC also regulate natural gas development activities. Nor is there any

demonstration given the agency's 60-year experience that New York State is failing in its duties under state law to regulate natural gas development activities.

Since DRBC has determined that all natural gas development activities may have a substantial effect on the water resources of the Basin and that no natural gas development project may be undertaken without DRBC approval, natural gas development activities in the Basin have essentially come to a standstill while DRBC considers its regulatory role. While this consequence may have been unintended, it has resulted in project delays and in adverse economic impacts in the area. DRBC had options in how it proceeded, and could have adopted measures such as those of the Susquehanna River Basin Commission that allowed natural gas development activities to continue under state regulation while the Commission conducted its water resource protection responsibilities. The New York State Petroleum Council recommends that DRBC use this process employed by its sister commission.

Section 7.2 Definitions

There are numerous definitions (8 pages) provided, most of which reflect common use. However, one deserves attention. "Natural gas development project," which is used throughout the regulation, is broadly defined as, "all activities necessary for the development, extraction and transportation of natural gas including but not limited to well pad, gas collection and transmission infrastructure (e.g., pipelines, compression stations,) associated access road construction, air rotary/mud rotary natural gas exploratory or production well drilling, natural gas exploratory and production well construction and testing, support vehicle tier cleaning, dust control on access roads, storage of fresh water, hydraulic fracturing well stimulation, hydraulic fracturing chemical storage, final site reclamation, and the storage, reuse, transport and disposal of all domestic and non-domestic wastewaters, including flowback and production water." This definition is so inclusive that "all activities necessary . . ." could be interpreted to encompass activities that occur outside the Basin (such as staging of equipment and supplies, administrative functions, etc.) and activities that occur within the Basin (including communications, implementation of erosion control measures, etc.) that do not "have a substantial effect on the water resources of the Basin." This definition at the very least should have more specificity so as to provide tighter parameters.

Section 7.3 Administration

Four types of natural gas development projects are addressed: (1) water withdrawals and use for natural gas development (2) natural gas development plans (3) well pads, and (4) wastewater treatment and/or disposal. Three types of review and approval are included: (1) dockets acted upon by the Commission after public notice and hearing (2) protected area permits acted upon by the Executive Director, and (3) approvals by rule (ABRs) for eligible projects. Approvals for water withdrawals, natural gas development plans, and well pads have terms of up to 10 years while approvals for wastewater treatment and discharge have terms of up to 5 years. Natural gas development plan approvals expire if construction or operation has not commenced within 3 years. Approvals can be suspended by the Executive Director if necessary to protect the water resources of the Basin. Public notice of application via certified mail is required. Property owners within 2,000 feet must receive notice. Reasonable site access must be provided to DRBC staff.

Notice to appropriate state agencies, municipalities and county planning agencies by certified mail, and to adjacent property owners and property owners within 2,000 feet as well as publication in a newspaper of general circulation is redundant in light of state notification requirements. These additional notice procedures are time consuming and costly with no benefit, and should be eliminated. DRBC should rely on the state notification requirements to serve this purpose.

Financial assurance for plugging and abandonment, restoration and mitigation and remediation of pollution must be provided, and can be in the form of a surety bond, letter of credit, trust fund, or by any other manner as provided in the state where the well is located. Financial assurance amounts are \$125,000 per well and all wells on a pad must be bonded. The administrative requirements are detailed in seven pages of the regulation.

New York State already requires financial assurance for plugging and site reclamation. For wells over 6,000 feet, DEC requires financial security commensurate with the cost of restoring the site which is a fairer and more accurate method for determining the amount necessary to ensure compliance with reclamation requirements. Financial security can take the form of a bond, a certificate of deposit or an irrevocable letter of credit. With a state program amply covering security, the bonding proposed by DRBC is clearly duplicative. If DRBC is unwilling to rely on the state agencies financial assurance programs at the very least it should coordinate financial assurance requirements with the states to avoid unnecessary duplication.

Non-refundable project review fees are established. Fees for water withdrawals range from \$5,000 (ABRs) to \$75,000 (docket or protected area permit). The fee for water use at a pad is \$10,000. Well pad fees where no natural gas development plan is approved are \$20,000 to \$30,000. Natural gas development plan approval fees are \$50,000 for up to 5,000 acres and \$75,000 for over 5,000 acres. ABRs for exploratory or low volume hydraulically fractured wells are \$3,000 per well pad. Wastewater treatment and discharge permits range from a minimum of \$500 (public projects) or \$1,000 (private projects) to \$75,000, depending on project cost. Other costs are listed for changes to approved projects and renewals. Consumptive water use fees are \$0.08 per 1,000 gallons. And an annual compliance and monitoring fee of \$2,000 will apply to each project, water withdrawal and well pad. These fees, especially for those approvals and oversight activities already regulated by the state, constitute another unnecessary layer of regulation.

Project sponsors are required to report all violations. Enforcement actions can include suspension and correction of activities, suspension, modification or termination of DRBC approvals and penalties. Again, violation reporting is already required by the state. Requiring an additional layer of reporting will not result in any additional environmental benefit or protection for the water resources of the Basin.

Section 7.4 Water Sources for Uses Related to Natural Gas Development

Project sponsors may only use water from DRBC approved sources. The types of water sources that can be approved include: (1) previously approved sources (2) new withdrawals (3) treated wastewater effluent and non-contact cooling water (4) imported water from outside the Basin (5) mine drainage water, and (6) recovered flowback and production water. DRBC has made

preliminary determinations that, due to advances in horizontal drilling and hydraulic fracturing technologies, thousands of natural gas drilling sites are expected, many of them proximate to headwater streams that may individually or cumulatively have a substantial effect on the surface water and groundwater resources of the Basin. DRBC has also determined that the DRBC Rules of Practice and Procedure do not contemplate these projects and are not applicable to natural gas development projects. Instead, sponsors must obtain DRBC approval for all sources of water.

While no information is provided on the how the projected thousands of drilling sites was estimated, it is important to note that the drilling activity will occur over a number of years. Consequently, the impacts will be spread over this same time period.

Previously approved sources are eligible for approval by rule provided there is no increase in the withdrawal and other specified conditions are met. Conditions for the bulk sales agreement are provided, and water withdrawals must be metered and recorded by an automatic continuous recording device. If determined necessary by DRBC, an invasive species control plan must be developed and implemented. Pass-by flows to protect stream uses are required. And if the approved source is a facility discharging treated wastewater, conditions designed to protect the receiving stream are required.

New water source withdrawals or the diversion of mine drainage require normal docket approval by DRBC. They are subject to conditions including development and implementation of a non-point source pollution control plan if located within Special Protection Waters, a natural diversity inventory assessment, metering and recording of withdrawals, quarterly reporting of withdrawals and transfers, a water withdrawal site plan, a water withdrawal site operations plan, notice of construction start and completion, restricted access and operations, floodplain regulations and drought emergency plans. DRBC approval expires in 3 years unless extended. If the source is surface water, invasive species control plans and pass-by flow requirements apply. If the source is groundwater, a hydrologic report is required and the withdrawal may not significantly affect or interfere with other designated water uses.

Determinations on applications for importation of water will be made in accordance with existing DRBC regulations.

The use of recovered flowback and production water can be approved as a condition of the well pad docket or approved by rule. Transport, sampling and tracking requirements apply. Storage facilities must meet the criteria for approval of well pads.

Facilities for the collection, treatment, and storage of flowback and production water are centralized and regulated by the state. As such, facility approval and subsequent monitoring and reporting are duplicative and unnecessary.

New York State's oil and gas regulatory program already covers many of the water protection and waste management activities proposed by DRBC. In fact, New York State's program is even more stringent. (Please see Appendices 6 and 10 of the Supplemental Generic Environmental Impact Statement). In light of New York State's comprehensive regulatory requirements now under consideration, the New York State Petroleum Council again considers the proposed duplicative unnecessary.

Section 7.5 Well Pads for Natural Gas Activities

Applications for well pads must be approved prior to initiation of construction at the well pad site. Well pad approvals can be included as part of a Natural Gas Development Plan Docket, can be approved as a separate well pad docket or can be approved by rule. Public notice provisions apply. Citing restrictions prohibit well pads in flood hazard areas, on slopes of 20% or higher or in an area that serves as a critical habitat for threatened or endangered species. Setback requirements of 500 feet from surface water bodies, wetlands, water supply intakes and water supply reservoirs are included. Access for inspections, timing of construction after approvals, and variance provisions are included.

Wells are permitted by the state. That permitting process includes notice provisions, location restrictions and setback requirements. State regulations providing for site access for inspections, timing of construction after permit issuance and variance provisions are already in place. The prohibition of activities to clear land prior to well pad approval suggests that the cutting of trees in the Basin has somehow been determined to be under DRBC control. The whole proposed well pad approval program is unnecessary, duplicative, in some ways conflicting with state requirements, overly inclusive, and costly in terms of time and money without providing benefit to the environment. It is strongly recommended that DRBC rely on the state well permitting process rather than establish another layer of regulatory control.

Natural Gas Development Plans (NGDP) are intended to identify foreseeable natural gas development in a defined geographic area; facilitate analysis of potential water impacts; and identify measures to minimize those impacts. An approved NGDP is required for sponsors that have natural gas leaseholds within the basin encompassing more than 3,200 acres or intend to construct more than 5 natural gas well pads in the basin. An NGDP can provide for phased development for portions that will not be developed within 5 years. NGDP applications must include a lease area map, a landscape map (including state orthophotography, a list of property and mineral rights owners within ½ mile of any proposed well pad site, a 7.5 minute USGS quad showing existing roadways, rights-of-way existing water wells within ½ mile, any wellhead protection areas, and existing buildings, a hydrology map or overlay, a geology map, soils map, slope map, critical habitat map, natural heritage sites map, and a map of all forested landscapes within the lease area), a constraints analysis map showing restricted areas and buffers/setbacks, a circulation plan map showing existing and proposed rights-of-way that will be used for vehicular, pipeline or utility access, and a monitoring program map of all surface and groundwater monitoring locations.

Natural gas well pad docket applications must include a lease area map, landscape map, constraints map, and a circulation map for the area within ½ mile of the well pad sites. Project sponsors will be notified in writing of the Commission's decision and any conditions of approval.

Applications for a well pad approval by rule must submit the same information. The well pad approval by rule can be issued if the project has been identified in an approved NGDP, or if the project

- is not located on a forested site;

- is located on a site with a pre-alteration slope not in excess of 15%;
- is located outside areas managed by the National Park Service, the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreational Area;
- is located outside of the watersheds that drain to New York City's Delaware River Basin Reservoirs;
- meets applicable siting and design criteria; and
- has a state well construction permit.

Well pads can be added to an approved NGDP if the sponsor is the holder of the docket approving the NGDP and if the sponsor is in compliance with the conditions of the docket. Well pads that do not meet the requirements for an approval by rule may apply for approval by docket. Well pad applications must meet planning requirements (lease area map), public notification requirements and water source requirements (source, recording, reporting, water supply rates and water conservation requirements). Wastewater disposal, recording and reporting requirements apply. If the well pad is located in Special Protection Waters a non-point source pollution control plan is required. Mitigation, remediation and restoration provisions are included.

There are additional requirements for all well pads involving high volume hydraulically fractured wells. Groundwater and surface water monitoring is required with pre-alteration and post construction reports filed. Prior to hydraulic fracturing written verification of approved wastewater treatment and disposal facility capacity must be provided and a 48-hour notice of when hydraulic fracturing is to occur. Water volumes must be metered and records of chemicals and additives (with Chemical Abstract Service numbers and Material Safety Data Sheets) must be submitted on the "DRBC Post Hydraulic Fracturing Report." Flowback and production waters must be metered with an automatic continuous recording device, recorded daily, and reported to DRBC on a quarterly basis. Representative sampling of flowback and production water must be analyzed for the same parameters monitored in the pre-alteration monitoring study. Flowback and production waters must be stored in tanks, and flowback may not be transferred to another well pad site without DRBC approval. Drilling fluids and drill cuttings must be properly transported off-site and beneficially reused or disposed of at an approved facility. Wastewaters must be stored and reused, recycled and/or disposed at facilities approved by the host state and DRBC (where applicable). A wastewater treatment and disposal plan is required.

The NGDP proposal is duplicative of state requirements and contains additional monitoring and reporting requirements that go beyond measures considered necessary to protect the water resources of the Basin. The additional level of regulatory control is unnecessary, is not responsive to any legislative mandate or demonstrated need and does not provide environmental protection beyond what is already provided in existing state regulatory programs.

Section 7.6 Wastewater Generated by Natural Gas Development

Wastewater treatment and disposal facilities located in the Basin are required to obtain DRBC approval prior to accepting any natural gas wastewaters. They must submit a treatability study

and conduct analyses that demonstrate that their proposed discharge will not result in non-exceedance of primary and secondary safe drinking water standards. Dischargers in the estuary portion of the basin must demonstrate compliance with applicable basin-wide effluent limitations. Basin-wide effluent limits are established for toxic substances 0.3 Toxic Units (acute); 1.0 Toxic Units (chronic) in non-tidal Basin waters; and Total Dissolved Solids (133% of background—in no case to exceed 500 mg/l except for zones 5 and 6 of the Estuary).

Wastewater imports are discouraged. Non-domestic natural gas wastewater may only be imported after DRBC approval.

DRBC approval is needed for constructing an underground injection well for the disposal of non-domestic natural gas wastewater.

While these requirements are generally duplicative of state and federal requirements, it is recognized that they may generally represent DRBC requirements related to the protection of water resources in the Basin.

Conclusion

The New York State Petroleum Council appreciates the Delaware River Basin Commission's efforts to promulgate regulations to protect the water resources of the Delaware River Basin during the construction and operation of natural gas development projects. We believe, however, that the proposed regulations are unnecessary. They do not respond to a legislative mandate or clearly demonstrated factual need. They are unnecessarily extensive in scope and burdensome. Many portions of the regulation are duplicative of New York State regulations. Sections of the regulation will cause unnecessary expenditure of time and money without the commensurate protection of the public or the environment.

As a final comment, the New York State Petroleum Council supports comments contained in the Analysis of Delaware River Basin Commission Proposed (Article 7) Natural Gas Development Regulations prepared by ALL Consulting, LLC and submitted by Hess, Newfield and Chesapeake, enclosed herein.

Thank you for the opportunity to provide comments on the proposed regulation.

Respectfully submitted,



Michael R. Doyle

Encl.