Chapter 19

Environmental Issues in Natural Gas Pipeline Construction

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§ 19.01. Overview.

The explosion of activity by exploration and production companies in Pennsylvania, West Virginia, and Ohio related to shale gas is unprecedented in recent history. “Gold rush” mentality has led to large bonus payments to mineral owners for the right to drill and produce over a large geographic area of the affected states. Many exploration and production (E&P) companies have entered into leases with landowners that will require them to either commence oil and gas operations within the (typically) five-year lease period, renew the lease at great expense, or abandon the lease without return on the previous investment. Accordingly, as the rush to acquire and lease property
continues, extraordinary pressure is mounting on E&P companies to drill, produce, and therefore hold the leases for which they have expended great sums to acquire.

But, as E&P companies begin to produce, where does production flow? Unlike many historical oil wells in Appalachia where onsite tankage and truck transportation was possible, shale gas is produced generally in gas form, and in volumes that cannot be transported by means other than pipelines. As a result, the gold rush to acquire leased mineral interests has resulted in a stampede to build infrastructure to gather and transport shale gas from the wellhead to a market. This infrastructure is generally in the form of natural gas pipelines, and is being built in the rugged terrain of northern West Virginia, Western/Central Pennsylvania and Eastern Ohio. The amount of construction activity is pressuring construction contractors to move ahead quickly. The volume of available work has created interest from construction contactors with limited experience to enter the pipeline construction market. One of the unfortunate results: some pipeline construction contractors have misunderstood their obligations with regard to environmental law, caused environmental mishaps, and tarnished the pipeline construction industry in the view of environmental regulators.

This chapter examines two primary environmental issues dealt with in construction of natural gas pipelines: 1) requirements, process and procedure for Clean Water Act (Act) permitting under Section 404 of the Act; and 2) requirements for permitting and/or exemptions to permitting under Section 402 of the Act related to stormwater discharges from construction sites.

§ 19.02. Pipeline Construction in Jurisdictional Waters of the United States.

Pipeline construction activities that cross the rugged terrain of Appalachia in the Marcellus and Utica shale regions will inevitably encounter jurisdictional waters of the United States which often include both stream crossings and “Wetland” areas. Generally, section 404 of the Federal Clean Water Act and the regulations promulgated thereunder require that a permit be obtained from the United States Army Corp of Engineers (USACE or
Corps) before dredge and fill activities in jurisdictional waters of the United States can take place.1

The subject of this chapter is focused on practical methods to comply with the requirements of environmental law in pipeline construction. Therefore, an extended discussion of what constitutes jurisdictional waters of the United States is beyond the scope of discussion. There are numerous publications that address the definition of jurisdictional waters for purposes of defining the areas subject to regulation.2 Accordingly, this chapter will not attempt to fully explore the nuances of the definition of jurisdictional waters of the United States.

For purposes of this chapter, jurisdictional waters of the United States are those that satisfy the following conditions:

a. Past, present, or potential presence of interstate or foreign commerce;

b. Physical capabilities for use by commerce as in paragraph (a) of this section; and

c. Defined geographic limits of the water body.3

Federal regulatory jurisdiction extends laterally to the entire water surface and bed of a navigable water body, which includes all the land and waters below the ordinary high water mark. The “ordinary high water mark” on non-tidal rivers is the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

Based on the agencies’ interpretation of the statute, implementing regulations and relevant case law, the following waters are protected by the Clean Water Act:

• Traditional navigable waters
• Interstate waters;
• Wetlands adjacent to either traditional navigable waters or interstate waters;
• Non-navigable tributaries to traditional navigable waters that are relatively permanent, meaning they contain water at least seasonally; and
• Wetlands that directly abut relatively permanent waters.

In addition, the following waters are protected by the Clean Water Act if a fact-specific analysis determines they have a “significant nexus” to a traditional navigable water or interstate water:
• Tributaries to traditional navigable water or interstate waters;
• Wetlands adjacent to jurisdictional tributaries to traditional navigable water or interstate waters; and
• Waters that fall under the “other waters” category of the regulations.4

Generally, Section 404 of the Clean Water Act (CWA) regulates the discharge of dredged or fill material into waters of the United States.5 The Act does not define either “dredge material” or “fill.” Section 301 of the CWA prohibits the discharge of any pollutant by any person except in accord with certain other provisions of the Act, including the permit program under Section 402 and Section 404.6 Section 404 authorizes the issuance of permits by USACE for the discharge of dredged or filled material.7 Section 402 permits primarily govern wastewater and stormwater discharges and the permits are issued by the U.S. Environmental Protection Agency (USEPA or “the Agency”) for the discharge of pollutants.8

4 See id.
5 Id. § 404.
6 Id. § 301, 33 U.S.C.A. § 1311.
7 Id. § 404.
8 Id. § 402.
Section 502 of the CWA provides a definition of “discharge of a pollutant” which means any addition of any pollutant to navigable waters from any point source . . . ."9 The CWA defines a “pollutant” as “dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.10

The EPA and the Corps have agreed on a relevant regulatory definition for these terms, and have published identical definitions in their respective regulations.11 Each agency defines the “discharge” of dredge, or the “discharge” of fill as the “addition” of such material to waters of the United States.12 The definition of fill includes “material placed in waters of the United States where the material has the effect of (i) replacing any portion of water of the United States with dry land; or (ii) changing the bottom elevation of any portion of a water of the United States.”13

As set by Coeur Alaska, Inc. v. Southeast Alaska Conservation Council, the Court decided that the USACE had the right to issue permits when dealing with the discharge of fill.14 In its decision the Court noted that the EPA has the power to veto permits should there be a determination that the discharge would impose unreasonable environmental harm, and the discharge from the outflow of the lake to a river constituting waters of the United States was subject to a permit issued by the EPA under Section 402 of the CWA.15 This case clearly sets a precedent that if a discharge constitutes fill, an applicant is only required to obtain a section 404 permit.16

Dredged materials consist of a redeposit of dirt or soil during normal dredging or other earth-moving activities. In 1986, the Corps regulated any

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9 Id. § 502.
10 Id. at 1362 (6).
11 See 40 C.F.R. § 232.2 (USEPA); 33 C.F.R. § 323.2 (Corps).
12 Id.
13 40 C.F.R. § 232.2; 33 C.F.R. § 323.2(e).
15 Id.
16 Id. at 2471.
addition of dredged material into waters of the United States, but specifically excluded incidental fallback, the *de minimis* incidental movement of soil occurring during normal dredging operations.\(^\text{17}\) The exclusion of incidental fallback was challenged in *North Carolina Wildlife Federation v. Tulloch*, a case regarding the Corps’ decision not to regulate a project involving land clearing and draining of some 700 acres of wetlands because only incidental deposits of soil and dredged material would result.\(^\text{18}\) In response to the Tulloch law suit, in 1993 the Corps redefined the discharge of dredged material to include virtually all redeposit of dredged or excavated material including that incidental to any activity, such as mechanized land clearing or other excavations.\(^\text{19}\)

In 1998, industry challenged this absolutist approach of the 1993 Rule as inconsistent with the CWA definition of “discharge” which required the “addition” of a pollutant.\(^\text{20}\) In *National Mining Association v. U.S. Army Corps of Engineers*, the Court found that “the straightforward statutory term “addition” cannot reasonably be said to encompass the situation in which material is removed from the waters of the United States and a small portion of it happens to fall back.”\(^\text{21}\) In 1999 the agencies responded by modifying the regulatory definition to expressly exclude incidental fallback, but to retain jurisdiction over redeposits that are not incidental fallback.\(^\text{22}\) Two years later the agencies further clarified that incidental fallback is “the redeposit of small volumes of dredged material that is incidental to excavation activities in waters of the United States when such material falls back to substantially the same place as the initial removal.”\(^\text{23}\) The two agencies also incorporated into the regulation their view that use of mechanized earth-moving equipment would result in a discharge of dredged materials unless

\(^{21}\) *Id.* at 1404.
\(^{22}\) 64 Fed. Reg. 25120 (May 10, 1999).
there was specific evidence to establish that only incidental fallback resulted. Industry viewed this regulatory presumption as an impermissible attempt to regulate mechanized earth moving.

In response to industry’s challenging of this rule, in 2007 the district court of the District of Columbia invalidated the definition of incidental fallback as a redeposit based on volume, but concluded that a determination of what could be considered a discharge of dredged materials could be based on the time the material is held before redeposit, or the distance of the redeposit from the location of its initial collection. The court also ruled invalid the agencies’ attempt to regulate all mechanized earth-moving activities.

The Agency promulgated a new rule on December 30, 2008, which expressly excluded incidental fallback as a regulated redeposit, but did not further define “incidental fallback.” The definition is now determined on a case-by-case basis in accord with governing case law. The EPA has stated that examples of unregulated incidental fallback include, “dredged material that falls down from dredge bucket as it is raised up through the water column; dredged material that falls from a dredge cutterhead or clamshell bucket as it is moved through the sediments to pick up and remove soil; and the movement of dredged material around a backhoe bucket as it is moved through the soil in its normal, routine use in lifting and removing sediment.”

Examples of regulated activities include ditching activity where an excavated material is sidecast into waters of the United States, and temporary or permanent stockpiling or disposal of dredged material in waters of the United States. Activities that may be treated as either incidental fallback or regulated activity depending on the facts of the case, include mining

25 Id.
27 Id.
activities, ditching and draining activities, maintenance dredging activates and excavation for flood control.

[2] — **Permits for Regulated Activities in Jurisdictional Waters.**

Section 404 of the CWA gives the USACE responsibility for protection of rivers, lakes, streams, and wetlands from the effects of dredge and fill material. The Corps’ primary procedure for regulating these activities is the issuance of permits for a range of discharging activities that alter these water bodies and wetlands. The Corps issues two types of permits under section 404 permitting program. *Individual permits* issued by the Corps require a case-by-case evaluation of the specific project. This involves extensive administrative proceedings and investigations that include site-specific documentation, public notice and consideration of public comments and evaluation of whether less damaging practicable alternatives are available. *General permits*, also known as *nationwide permits*, are promulgated by Corps headquarters. Nationwide permits allow routine activities in wetlands and other waters under preset conditions that take place without significant environmental damage. Nationwide permits contain general conditions to be followed by any entity that seeks coverage under such nationwide permit.

An entity that desires to conduct regulated activities in jurisdictional waters may choose to obtain permit coverage under one of the nationwide permits, or may seek individual permit coverage. Typically, the regulated activity can be covered under one of the nationwide permits, but there are activities that sometimes must be permitted individually. Permit coverage under a nationwide permit is typically easier and quicker to obtain, but will sometimes contain conditions that are more broad than necessary for the particular activity. Individual permits can be more narrowly tailored to the desired activity, but will almost always involve more effort and time on the part of the permittee.

Whether nationwide or individual permit coverage is obtained, before the permit coverage actually authorizes the desired activity, a certification

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29 Clean Water Act § 404.
from the state in which the activity is to be performed stating that the activity
does, in essence, not cause a violation of state water quality standards,
is necessary. Section 401 of the CWA requires the certification, and the
certification will always contain conditions applicable to the activity.30 The
most recent renewal of the nationwide permits in March of 2012 triggered a
requirement for a new certification by the states prior to using the nationwide
permits for permit coverage. The various states have been working since the
March renewal to correspondingly renew the State 401 certification of the
reissued nationwide permits. Until such time as the State 401 certifications
are complete, entities that seek coverage under nationwide permits will have
to seek individual certification from the appropriate state agency under the
401 certification program.

Historically, the development of nationwide permits was required as
the scope of regulated activities expanded. In *Natural Resources Defense
Council v. Callaway*, the court held that Congress intended the Corps to
assert federal jurisdiction over the nation’s waters to the maximum extent
under the commerce clause of the Constitution.31 The court there ordered
the Corps to broaden its jurisdiction from traditionally navigable waters to
all waters of the United States thereby greatly expanding the geographic
area to be regulated.32 After the *Callaway* decision, between 1975 and
1977, the Corps identified certain discharges of dredge or fill materials that
could be permitted by general permits, nationwide in scope and still meet
the objectives and requirements of the Clean Water Act. Congress endorsed
the nationwide permit program by adding Section 404(e) to ratify the Corp’s
authority for NWPs. Congress also directed that the permits issued could
not be effective for more than five years.

Pursuant to this congressional directive, the Corps promulgated a revised
and comprehensive nationwide permit program in 1982, which established
16 NWPs. For the most part NWPs required very little individualized review
until 1991. In many instances an activity consistent with an NWP could go

30 *Id.* § 401.
32 *Id.*
forward without preconstruction notice to the Corps. The 1991 program revisions gave district engineers greater authority to modify, suspend, or revoke NWPs for specific activities. The Corps expanded the basis that a district engineer could use to exercise discretionary authority to require an individual permit whenever a filling activity would have more than minimal impacts. Also, preconstruction notice (PCN) was required for several NWPs, and when such notice was required, the applicant had to provide a wetland delineation.


In March of 2012, the USACE issued its renewal of the nationwide permits. A total of 50 nationwide permits are authorized covering activities as divergent as Surface Coal Mining, Residential Developments and Cranberry Production Activities. Nationwide Permit 12 covers utility line activities and is summarized below.

This permit covers the construction, maintenance, repair and removal of utility lines, which USACE has defined to include pipelines for the transportation of gaseous, liquid, liquescent, or slurry substance, as well as any cable, line, or wire. The USACE excluded from the definition activities that drain a water of the United States, such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area. The permit allows for temporary sidecast of trench excavation materials, but for no more than three months.

The permit requires that no greater than half-acre of waters of the United States be lost and that preconstruction contours not be changed. The permit does allow for the construction of access roads necessary for the project so long as the construction does not result in the loss of greater than half-acre of non-tidal waters and such roads are of minimum necessary width. The permit also authorizes temporary structures, fills, and work necessary to conduct the utility line activity, but requires that appropriate measures be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable. Any temporary fills must consist of materials

33 Nationwide Permit 12.
that will not be eroded by expected high flows, and the fills must be entirely removed and the affected areas returned to pre-construction elevations and revegetated.

Pre-construction notification to the district engineer prior to commencement of the activity is required if (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges result in the loss of greater than one-tenth acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 31.) (Sections 10 and 404)

The USACE provides further guidance in several notes to the permit. The notes require that pre-construction notification and NWP verification should be sent to the Corps of National Oceanic and Atmospheric Administration (NOAA) and the National Ocean Service (NOS) in addition to the USACE so that these agencies may assist in charting the utility lines to protect navigation routes. Another note allows for the use of access road for both construction and maintenance, but requires that roads for construction only must be removed upon completion. The USACE points out that pipelines are considered bridges, not utility lines, and may therefore also require U.S. Coast Guard permits under the Rivers and Harbors Act.

As a review of the language would indicate, Nationwide Permit 12 allows for certain instances when permit coverage is available without preconstruction notice. Preconstruction notice procedures provide a mechanism by which the USACE district engineer can (or in some cases must) approve coverage with the nationwide permit conditions, thus adding a potential for time delay in approval to proceed. Because of this nuance, many pipeline construction contractors and engineers attempt to design and build pipeline projects in a manner that avoids preconstruction notice requirements of Nationwide Permit 12.
Unfortunately, there have been circumstances wherein a contractor mistakenly concludes that avoidance of preconstruction notice, avoids compliance with other terms and conditions of the nationwide permit. The author has encountered circumstances where contractors have openly professed that “no permit is required” if they are able to construct the project in a manner that avoids preconstruction notice (i.e., less than one-tenth acre loss of waters of the United States, etc.). Typically, these contractors are operating from a playbook that includes a checklist of requirements, and a belief that the checklist is the comprehensive indicator of legal compliance. What is most unfortunate is that many contractors believe they are attempting to be environmentally compliant by taking steps to avoid the need for permit coverage.

Ultimately, avoidance of preconstruction notice is irrelevant to permit coverage, and the requirement to adhere to all permit conditions. As described above, the legal requirement is that all fill activities in jurisdictional waters require a permit from the USACE (other than incidental fallback). Accordingly, a contractor that conducts activities in jurisdictional waters without preconstruction notice is either: 1) unlawfully performing the activity without a permit; or 2) subject to the terms and conditions of Nationwide Permit 12. Hopefully, most contractors do not intend to find themselves in the first category. Accordingly, most contractors, knowingly or not, are subject to the terms and conditions that follow being covered by Nationwide Permit 12.

What does it mean to be covered by Nationwide Permit 12? It means that the permittee is obligated to comply with at least the following conditions:

1. The general conditions of the nationwide permits
2. The regional conditions of the nationwide permits
3. The conditions of the state Certification of the nationwide permits

[a] — Nationwide Permit General Conditions.

So what are the “general conditions” of the nationwide permits? The nationwide permit lists 31 separate general conditions. Unfortunately, the general conditions are extremely broad in scope as they are intended to cover
all aspects of all nationwide permits. However, compliance with all general conditions is required. The general conditions that are relevant to natural gas pipe construction include:

Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity’s primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

Because of the potential for deviating facts, the author recommends a detailed review of all general conditions.
Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.
Endangered Species. This condition requires compliance with the Federal Endangered Species Act (ESA) for species listed as threatened and endangered as well as species proposed for listing. The condition requires that activities may not directly or indirectly affect these species and that pre-construction notification to the district engineer (and subsequent approval) is required if any listed species or designated critical habitat may be affected. If activity is authorized under a NWP, such activity still may not constitute a “take” as defined and interpreted under the ESA of a threatened or endangered species, unless separate authorization has been granted.

Historic Properties. This condition requires that the National Historic Preservation Act (NHPA) requirements be met if any listed property (or property eligible for listing) will be affected by NWP activity. Pre-construction notification to the district engineer (and subsequent approval) is required for any activity which may cause effects to any listed or eligible properties. The notification must designate which properties may be affected, and the district engineer must meet the requirements of NHPA Section 106 Review Procedures. The condition also notes that any party who has significantly adversely affected a historic property in an attempt to avoid the requirements of NHPA Section 106 may not receive a Corps permit.

Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Mitigation. The mitigation condition requires that activities be designed to avoid and minimize adverse effects on waters of the
U.S. Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed one-tenth acre and pre-construction notification is also required. A proposal outlining appropriate mitigation options shall be submitted including the necessary mitigation measures to minimize adverse effects on the aquatic environment. Wetland restoration should be the first compensatory mitigation option considered. An applicant must submit a mitigation plan meeting the general mitigation plan requirements (found at 33 C.F.R. 33.24(c)(2)-(14)), and such application must be approved by the district engineer before work begins. Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters.

**Water Quality.** Where states and authorized tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived. The district engineer or state or tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

**Pre-Construction Notification.** This condition lays out specific requirements in terms of timing, content, form of notification (the standard individual permit form ENG 4345 may be used), and coordination amongst agencies, that must be met in order for PCN to be sufficient. Highlights include requirements that PCN occur as early as possible; that it contain information regarding the location and description of the proposed project, along with its purpose, direct and indirect adverse environmental effects (including loss of water),

35 See 33 C.F.R. § 330.4(c).
other permits used to authorize the project, and sufficient details (including delineation of wetlands) to allow the district engineer to determine the adverse effects of the project; and the necessary compensatory mitigation. If the proposed activity will result in the loss of greater than one-tenth acre of wetlands and PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required, or alternatively, a conceptual or detailed mitigation plan may be submitted.36

[b] — Nationwide Permit Regional Conditions.

In addition to the general conditions listed above, regulated activities in jurisdictional waters must comply with regional conditions promulgated by the various districts of the USACE. Although jurisdiction of the various offices may split a specific state (i.e., Northern West Virginia is in the Pittsburgh Regional District Office while Southern West Virginia is in the Huntington Regional District Office), the offices attempt to coordinate the applicable regional conditions. The USACE provides General Regional Conditions applicable to all NWPs, as well as additional regional conditions specific to each NWP.

For example, the General Regional Conditions for West Virginia are applicable to all nationwide permits. The conditions relevant to oil and gas pipelines include pre-construction notification and information requirements, such as illustrations and project descriptions that must be included, as well as descriptions of impact minimization efforts, and maps and photographs. Other conditions require compensatory mitigation of impacts that result in conversion of a water of the U.S. to uplands or the conversion of one resource type to another; a requirement that culverted crossing allow for the passage of aquatic life; endangered species act compliance, including notification to the U.S. Fish and Wildlife Service field office for work on specific waterways, and coordination with the district engineer; notification

36 Nation Wide Permit 12.
to the National Park Service and/or the Forest Service for work conducted on specific waters in their jurisdiction; compliance with the West Virginia Natural Stream Preservation Act, which prohibits activities that would impound, divert or flood specifically protected bodies of water; heightened notification requirements for Tier 3 Protected Waters, which include waters within Wilderness Areas, federally designated rivers under the Wild and Scenic Rivers Act, waters in state parks, national parks or forests, and waters designated under the National Parks and Recreation Act of 1978; and finally, requirements in the event that archaeological sites or human remains are uncovered during construction.

Specific to NWP 12, of the West Virginia regional conditions which must be met, only a few are applicable to oil and gas pipelines. Examples include a requirement that applicable conditions require the submission of a USGS topographical map of the project; notification for construction of utility line substations; and a limitation on the maximum timeframe for temporary work in waters of the U.S. of one year, unless USACE approves an extension.

Like West Virginia, Ohio has a set of general regional conditions that are applicable to all NWPs, as well as a set of specific conditions applicable only to NWP 12. The USACE for the Ohio region has established a stricter set of regional requirements than West Virginia. While many of the requirements are similar to the West Virginia requirements, especially as they relate to notification, Ohio requires notification under more scenarios, has stricter requirements for particular waters of the U.S., and also provides the district engineer greater authority to make determinations of environmental effects of proposed projects.

In Ohio, the district engineer is given authority to determine whether the activity authorized under the NWP will result in more than minimal environmental effects, including an evaluation of each individual crossing.\(^{37}\) The district engineer will consider direct and indirect effects of projects, including site specific factors, and he has the authority to add case-specific

special conditions to the NWP authorization in order to address concerns that may be specific to a particular site. Projects that will result in a loss of greater than one-tenth acre of wetlands are required to submit a mitigation proposal with the PCN. The district engineer will consider the mitigation plans in making his determination regarding the overall environmental effects of the project. The district engineer must approve this mitigation plan, which may be submitted either conceptually or in detail, before work commences. The district engineer will issue a written response approving the mitigation plan if the project will have no more than minimal environmental effects, and an applicant may proceed under the NWP 12 conditions, along with any activity-specific conditions the district engineer may impose.

If the district engineer determines that the proposed activities will result in impacts that are more than minimal adverse impacts on the aquatic environment, he will respond to the applicant in one of three ways. First, he may find that the proposed project does not qualify for a NWP and will require the applicant to seek an individual permit. Second, he may instruct the applicant that the project is authorized under the NWP upon the submission of a mitigation plan that would reduce impacts to the minimal level; or finally, he may instruct the applicant that the project is authorized under the NWP with specific modifications or conditions.

The district engineer is given authority to determine if an activity complies with the terms and conditions of an NWP. The USACE for the region also notes that NWPs do not exempt applicants from obtaining other required federal, state, or local permits or approvals. NWPs also do not grant any property rights to applicants, nor does the NWP authorize any injury to the property or rights of others. NWPs may not interfere with any existing or proposed federal project.

Ohio’s General Regional Conditions largely reflect the same concerns found in the West Virginia Regional Conditions; however, the USACE for this region provides more exhaustive instructions as to each particular water of the U.S. that may be impacted and what is required in each such case.

General requirements include that no activity may impact bogs and/or fens; no NWP may divert water from the Great Lakes; no NWP shall authorize activity which may trap littoral material and interrupt its transport
within Lake Erie, Sandusky Bay, and Maumee Bay. There is a restriction that no work under any NWP may take place during an Ohio Department of Natural Resources (ODNR) Work Exclusion date, unless approval is granted by the district engineer. These exclusion dates range from two to nine months depending on the type of stream to be impacted and the USACE provides an exhaustive list categorizing streams in the region.

The USACE has heightened notification requirements for work proposed to be conducted in specific types of waters of the U.S. in the region, including: Waters of Special Concern, which include Category 3 Wetlands; Ohio Stream Designations; State Wild and Scenic Rivers; National Wild and Scenic Rivers; waterways that may contain endangered species; critical resource waters; and Oak Opening Region of Northwest Ohio. For each of these categories of waters, the USACE has provided a detailed list of which water bodies, or parts of particular rivers, streams, or creeks fall within each category.

The Ohio region’s heightened notification requirements come under general condition six, which requires the submission of detailed drawings of the proposed work. It is also recommended that applicants contact the U.S. Fish and Wildlife Services prior to submitting project notifications so they may assist with compliance under Nationwide Permit General Conditions 18 and 19, relating to endangered species and migratory birds, respectively. Notification must include justifications for any impacts on historic properties, and detailed information of the project as it relates to the historic property is required (as under Nationwide Permit General Condition 20), along with preliminary resource review within two miles of the project (including such resources as topographical maps, archaeological inventory files, National Register of Historic Places files, and local historic information). Notification to the National Park Service Regional Wild and Scenic Rivers Specialist for the region is recommended for projects in National Wild and Scenic Rivers. Notification requirements are listed for Ohio’s 401 Water Quality Certification (WQC), though as noted below, Ohio has yet to issue WQC for the NWPs. Finally, the general regional conditions require agency coordination when submitting notifications, as well as floodplain coordination by including a copy of the applicable Floodplain Insurance Rate Map issued by the Federal Emergency Management Agency (FEMA).
There are seven specific regional conditions for Ohio under NWP 12. The requirements are similar to those under NWP 12 specific conditions for the West Virginia region, though slightly more stringent. Heightened notification is required for certain activities, including: all work in waters of the U.S. involving utility line substations; impacts greater than one-tenth acre; all temporary structures, work, and discharges necessary for fills or dewatering of construction sites occurring in wetlands, perennial streams, or Section 10 waters where the primary activity has been authorized by the USACE; and all impacts to shrub/scrub and forested wetlands. Mitigation may be required for instances in which waters of the U.S. are permanently adversely affected by the project. The USACE requires the use of anti-seep collars or clay plugs for trenching activities, and manholes may not be placed in wetlands. Further, the USACE requires that all excess material must be immediately removed upon completion of construction. Finally, the loss of water from a project is limited to 300 feet of stream bed, unless the district engineer waives this limit by a written determination that the discharge will have minimal adverse effects and only in intermittent and ephemeral stream beds.

Pennsylvania is split into three districts by the USACE, including the Baltimore, Philadelphia, and Pittsburgh districts. While each district has the right to establish its own regional conditions, the districts regularly coordinate to ensure consistent conditions statewide.

The three districts each have general regional conditions which are nearly identical, with the exception of a few conditions relevant to a particular river or stream. The regional general conditions were drafted so that they correspond to the NWP general conditions. For example, the regional condition number two supplements the NWP general condition two relating to Aquatic Life Movement. The region requires that an applicant must apply any appropriate time-of-year restrictions to protect aquatic life in a project area or down stream of the project site. The region also supplemented NWP general condition 18, regarding Endangered Species, by requiring the completion of the Pennsylvania Natural Diversity Inventory (PNDI) screening for federally listed threatened or endangered species. The applicant must submit the PNDI to the district engineer prior to commencing work, and if a potential impact
or necessary avoidance measures are identified, they must be coordinated with the U.S. Fish and Wildlife Service.

The general regional conditions greatly expand on the PCN requirements of NWP general condition 31. The region requires that PCN also be sent to U.S. Fish and Wildlife Service if the PNDI identifies potential impacts, or if the applicant cannot, or does not agree to implement an avoidance measure under the PNDI. PCN shall include all activities which are reasonably related to the project, and further, must also include a cadre of other information, including: plans of the proposed work, with a location map, longitude and latitude, and plan view drawings that delineate water and wetlands for the entire project area; the amount of fill to be discharged in the project, with depictions of all work including areas proposed for filling, grading, excavation, drainage, and/or inundation. The drawings must also include the ordinary high water mark, existing water depths, and details relating to the crossings including height, width and distance. PCN must include all existing and proposed work in aquatic resources, and the district engineer has discretion to judge whether field verification of wetland and stream delineation is required. Color photographs showing all aquatic resources proposed to be impacted must be included. A PNDI receipt from U.S. Fish and Wildlife Service is evidence that the required coordination has occurred. Likewise, evidence is required to show that the State Historic Preservation Office has been contacted and a response has been received concerning any affected historic properties. The PCN must also include a written statement detailing what steps have been taken to avoid, minimize unavoidable, or compensate for, impacts to aquatic resources. If compensatory mitigation is required, a mitigation plan is required prior to initiating work.  

When a complete PCN is submitted to the Corps, the review period shall commence and the applicant shall not commence any work until notified in writing by the district engineer that the activity may proceed under the NWP, with any special conditions imposed.

The general conditions allow for a waiver of the 300 linear foot limitation on intermittent and ephemeral streams for NWP 12, but a request for such

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38 As required by 33 C.F.R. § 332.4 and 40 C.F.R. § 230.92.4 (c).
waiver must include: a narrative description of the stream, including volume and duration of flow, length, width, and depth of the waterbody, the ordinary high water mark, and detailed information regarding the surrounding area; an analysis of proposed impacts on the waterbody (as required under NWP general condition 31); measures taken to avoid and minimize losses; and a mitigation plan describing how the unavoidable losses are proposed to be compensated.

Finally, the last regional condition requires that compensatory mitigation required under a special condition for an NWP shall be completed before or concurrent with construction of the authorized activity (unless impracticable), including information regarding the use of mitigation banks or in-lieu-fee programs. The amount of mitigation must be sufficient to compensate for the lost aquatic resources, and a watershed approach to compensatory mitigation should be utilized.

The specific regional conditions for NWP 12 for Pennsylvania, while similar to those required by West Virginia and Ohio, are arguably the most extensive in the region. Several practices are prohibited under the regional conditions, such as the stockpiling or sidecasting of excavated materials for more than 30 days, no manholes are permitted in wetlands, and permanent discharge of muds generated through methods such as directional boring or drilling. Like Ohio, Pennsylvania does not permit the loss of more than 300 linear feet of stream bed for a single crossing without approval from the district engineer.

The permit only allows construction during dry conditions for lines below the plane of the ordinary high water mark, using stream diversions other than cofferdams, unless it can be demonstrated to the district engineer that this is impracticable. All lines should make direct or perpendicular crossings and directional drilling is the preferred method. Buffers are required where a line is constructed parallel to the stream corridor. If a pipeline is buried, the conditions require that it be at least three feet below the bottom elevation of the stream bed and must be backfilled with heavy material to the preconstruction bottom elevation. Stricter requirements apply for pipelines being placed on bedrock, in which case a minimum depth of one foot from the lowest point in the natural contour must be maintained. In maintained navigation channels, a
A depth of 10 feet is required between the top of the pipeline and the authorized depth of the navigation channel. Clay plugs, impervious membranes, and other state of the art methods should be employed to ensure trenches do not drain water through which the utility line is installed. If using the “self-certification form,” photographs of the use of these materials are required at each crossing and must be included with the form.

Prior to commencing work, PCN is required. The NWP 12 Regional conditions also contain heightened requirements for PCN. For any submerged line a location map with cross-sectional view drawing showing the pipeline crossing from bank to bank in relation to the bottom of the waterway must be included. A map of the entire project corridor, with delineation of all wetlands and waters of the U.S., is required. The PCN should detail how the selection of the crossing minimizes or avoids impact to the maximum extent practicable. If a permanent access road is necessary for any project, the PCN must include justification for such road, to the satisfaction of the district engineer. When directional drilling or boring activities are proposed in Section 10 waters (navigable waters), the PCN must include a plan that addresses prevention, containment and cleanup of any accidental discharges known as “frack out.”

[c] — State Certification Permitting Programs.

Section 404 of the Clean Water Act provides that any applicant for a permit under The Act must obtain certification from the state that “any such discharge [from proposed activity] will comply with the applicable provisions of [the CWA].” The practical effect of this requirement is to incorporate state certification conditions and permit requirements.

The West Virginia Department of Environmental Protection (WVDEP) issued its final state certification of the renewed NWP on July 16, 2012. This program combines 18 standard conditions with 13 conditions specific to NWP 12.

The West Virginia standard conditions apply to all nationwide permits used in West Virginia. The applicant is required to investigate for the presence of water supply intakes within one-half mile downstream. Excavating, drilling or filling in the watercourse is limited to only that necessary to achieve the
project’s purpose. Spoil material is not to be dumped in the watercourse, and the applicant must ensure that no chemicals used in construction enter the watercourse. All operations disturbances below the ordinary high water mark must be stabilized within 24 hours to prevent soil erosion. Runoff from storage areas should not enter storm sewers without proper removal of solids, oils and toxic compounds, and any discharges from retention ponds must comply with the NPDES permit program. Land disturbances integral to the permitted activity, but in excess of one acre, must comply with the NPDES program, including the use of best management practices. Green concrete is not permitted to enter the watercourse unless contained by tightly sealed forms or cells. Spawning season waivers are required from the West Virginia Department of Natural Resources for work in designated warm water streams between April and June, and trout waters between September 15 and March 31. Well-established riparian vegetation not directly associated with the project construction may not be removed. Operating equipment instream is to be minimized and conducted during low flow periods when practical, and ingress and egress should be within the work site. The applicant must comply with all state water quality standards.

A West Virginia Public Lands Corporation Right of Entry must be obtained for stream activities under a NWP. The deposit of dredged or fill materials in island back channels, embayments or stream mouths on Section 10 waters is prohibited. Written authorization must be received from WV DEP, Division of Water and Waste Management for all work in Outstanding National Resource Waters. Fill may be discharged into a stream or wetland if certain requirements are met, including: PCN requirements for one-tenth to one-half an acre of wetland impacts, including a mitigation plan; fill without mitigation should not exceed one-tenth of an acre; to determine the necessary mitigation, the West Virginia Stream Wetland Valuation Metric (SWVM) should be used. When in-kind replacement mitigation is used, the following ratios should be adhered to: impact to open wetlands are to be one acre replaced for one acre impacted; wet meadow/emergent stream impacts are to be two acres replaced for one acre impacted; and impacts to shrub-shrub and forested wetlands should be three acres replaced for every one acre impacted. All wetlands acquired under the acquisition method of mitigation must be
either deeded to the West Virginia Division of Natural Resources’ Public Land Corporation, or placed under a conservation easement. Compensatory mitigation projects for stream impacts should attempt to replace lost functions. If native freshwater mussels are encountered during the use of the NWP, all activity must immediately cease and Wild Resources Section must be notified to determine the significance of the population and the necessary actions to be taken. Finally, isolated wetlands are considered designated waters of West Virginia, and while such wetlands may not require an NWP, WV DEP must be contacted for impacts on these wetlands so that necessary permits and approvals may be granted.

In addition to the general conditions imposed by the West Virginia state certification, the certification includes requirements specific to NWP 12. The conditions specific to NWP 12 begin with a reminder that any activity involving a discharge is subject to the West Virginia 401 Water Quality Certification Standard Conditions. These conditions include: ingress and egress points must be within the work site; pipelines must be 36 inches or less in diameter for certification; crossings must be completed in a continuous, progressive manner and within 72 hours under normal conditions; shoreline restoration will be completed in compliance with the standard conditions regarding work below the ordinary high water mark; surface disturbances must not extend beyond the right-of-way limits; dredging for backfill material is prohibited; any submarine-type pipeline crossings must be designed to prevent flotation and the possibility of leakage or rupture, and the top of any such pipeline must be at least three feet below the stream bottom. The use of herbicide for right-of-way maintenance triggers individual state water quality certification, so such practice should be avoided. If water is to be withdrawn by the intake structures, written notification specifying the amount of water to be withdrawn must be made to the Director of the Division of Water and Waste Management. If the project will result in impacts to more than 200 linear feet on a stream listed as an Outstanding National Resource Water, an individual state water quality certification is required. Individual certification

39 West Virginia Department of Environmental Protection, Revised “General Mitigation Plan” (11/15/02).
is also required for impacts greater than 300 linear feet to perennial and intermittent streams. Finally, the last condition requires that no structure may impinge or entrain fish or other aquatic life from moving upstream or downstream without written authorization form WV DEP.

One critical component of the West Virginia program, which may not be readily apparent from the conditions, is the timing of the process. The permit allows for an initial application to be filed outlining the general scope of the project and the proposed management practices. Subsection C.11 of the permit allows for modification so long as it is submitted 45 days before the actual commencement of construction. The flexibility to modify the application will allow applicants to amend their application in light of changes that have occurred since their initial submission such as a shift in the course of the pipeline due to easement issues with a defiant property owner, the identification of unexpected wetlands, or other issues that may not get worked out until the project has progressed well beyond the initial planning stages.

In Pennsylvania, the majority of nationwide permits, including NWP 12, have been ‘suspended.’ What this means is that rather than utilizing the NWP plus state water quality certification program that most other states use, the Commonwealth of Pennsylvania utilizes a combined system in which both the USACE and the PADEP sign off on projects simultaneously. Agreement was reached between the USACE and PADEP to implement this one-stop permitting program. The two groups created the State Programmatic General Permits (SPGPs) to carry out its combined permitting program. According the USACE “[t]his SPGP is designed to continue to authorize certain activities previously covered by the NWP program and institute streamlined Corps regulatory process that has been integrated with state processes. Suspension of various NWPs will minimize confusion over SPGP use and eliminate redundancy since state and federal regulatory programs are administered jointly . . . .”

The requirements for Pennsylvania State Water Quality Certification include: a wetland delineation must be conducted for activities that impact wetlands in compliance with PADEP procedures; fill material may not contain waste; prior to commencing any activity under the NWP, the applicant must obtain all necessary permits and approvals from PADEP, and all environmental assessments must be completed as required.

As previously mentioned, Pennsylvania operates under unique circumstances with the coordinated federal and state permitting program. The requirements for this program are listed in the Pennsylvania State Programmatic General Permit (PASPG P-4). This program is renewed every five years, thus any permit received will be valid at most, for the five-year period. Under this permit, activities may fall into one of three categories, with increasing scrutiny as the categories go up. Fortunately, natural gas pipelines likely fall within category one which means that project-specific Corps review is not required. The PADEP will review the application and will provide verification under PASPGP-4 as well as the state authorization. These materials will be sent to the USACE district office and that office has the right to review the proposed project, but ordinarily does not under category one.

The permit requires many of the same general conditions as the NWP 12, as discussed above. In fact, around half of the conditions imposed under the permit come from the NWP conditions, some with minor changes. Regional conditions, also discussed above, are incorporated into the permit as well. New conditions not seen in either the NWP 12 general conditions, or the Pennsylvania regional conditions, include at least the following: the permit specifies that it is for one-time use only; no activity is authorized that may interfere with a current Corps Civil Works project (such as a flood control, dam, or reservoir project); PADEP is allowed to make periodic inspections, and the district engineer may require post-construction engineering drawings for completed work; a Self Certification Form must be completed which outlines the authorized work and required mitigation required for the project; any modification must be approved by the PADEP; any impact that may obstruct fish passage in certain identified rivers must be coordinated with US Fish and Wildlife Service; temporary fill is considered a discharge under § 19.02
this permit and must be included in the discharge count; the application notes that state authorization must also be received (though this is a paradox considering the stated purpose of this permit is to combine the federal and state permit requirements) and for natural gas pipeline purposes, the applicable state permit would be the Water Quality Certification discussed in the previous section.

In Ohio, the Ohio EPA issued its Water Quality Certification (WQC) on March 30, 2012. This WQC incorporates several changes from the 2007 WQC in reaction to the new 2012 NWPs. According to Ohio EPA, the USACE may issue a provisional NWP, but such permit is not considered effective until the applicant obtains the individual 401 water quality certification. Generally, Ohio’s requirements are stricter than those in West Virginia, and arguably even more so than the Pennsylvania requirements. One example of Ohio’s stricter policies is its treatment of Tier 3 waters (such as superior high quality waters or outstanding national resource waters). In West Virginia, the state certification allows for impacts of up to 200 linear feet before requiring an individual permit, whereas Ohio requires an individual permit for any impact to these waters, unless the impacts are a maintenance activity to existing infrastructure. Ohio also has specific requirements related to forested wetlands, only allowing impacts of fewer than 500 linear feet in forested wetlands containing woody vegetation six meters or taller. West Virginia has no such requirement.

The Ohio WQC requirements include both general and permit-specific conditions. The general conditions include requirements regarding culverts, best management practices, mitigation, and other catch all requirements. For culverts in intermittent and perennial streams, they must be buried if greater than 36 inches in diameter, unless their gradient is greater than one percent or they are installed on bedrock. The culvert should be sized to accommodate bankfull discharge and should match the existing depth of flow to facilitate the passage of aquatic organisms. They should be installed at the existing stream bed slope where practicable. For best management practices under the WQC, they should comply with the most recent NPDES requirements. Specifically, all avoided water resources associated with buffers/riparian areas shall be demarcated in the field and protected with suitable material
prior to disturbance; all dredged material should be placed at an upland site and runoff should be minimized; straw bales are prohibited as a form of erosion/sediment control; heavy equipment should not be placed below the ordinary high water mark; temporary fill should include non-erodible material and should be stabilized; and cadmium chromium arsenate and creosote treated lumber should not be used in structures that come in contact with waters of the state.

In terms of mitigation, the WQC generally requires that compensatory mitigation must be used for the discharge of dredged or fill material into wetlands, for impacts greater than one-tenth of an acre. For compensatory mitigation under a mitigation bank, credit purchase shall only be authorized by those banks approved by the agency and holding an active instrument signed by the director of Ohio EPA. Stream restoration activities are required to maintain and enhance the habitat values of the stream and should adhere to the “natural channel design” principles.

Other miscellaneous requirements include: NWP cannot be combined to increase any limits or conditions of the WQC; if an emergency individual certification is required for an activity, such conditions or limitations under the individual certification are not applicable to the project as a whole and it may proceed and the district engineer is prohibited from waiving WQC limitations and NWP general requirements without written authorization from the director of Ohio EPA. For projects that fail to meet one or more of the terms and conditions of the WQC, the Ohio EPA may determine that the project will still have such a minimal impact that individual water quality certification is not necessary, provided all other requirements, including mitigation, have been met. The Ohio EPA requires certain information to be submitted in order to be eligible for this special consideration, including: PCN copies, provisional NWP from the USACE, proposed mitigation plans, the applicants rationale for how the project will minimally impact water quality, and any other documents required under the WQC. The Ohio EPA reserves the right to have the Division of Surface Water inspect the authorized activity at any time necessary to ensure it is being accomplished in accordance with the WQC.
In Ohio there are 13 conditions specific to NWP 12 under the WQC. The conditions are similar to those under West Virginia and Pennsylvania WQC, and include: temporary or permanent impacts in category three wetlands are limited to less than one-tenth acre; WQC is required for impacts on high quality water bodies; temporary impacts to category one and two wetlands are limited to one-half acre; no impacts may result in disturbance of more than 500 linear feet of forested wetland; stream crossing impacts shall not exceed a total of three per stream mile per stream; impacts from buried lines that cross more than 1,500 linear feet of surface waters require individual WQC; culvert, whether existing or new, shall not exceed 500 feet for an individual stream; projects with temporary or permanent impacts to surface waters, including wetlands, located in three or more eight-digit hydrologic units require individual state water quality certification; all hydric soils up to 12 inches in depth in wetlands shall be stockpiled and replaced as the topmost backfill layer and best management practices shall be implemented to reduce erosion and sediment runoff into adjacent wetlands; stockpiling of side case dredge material in wetlands for longer than three months requires individual WQC; buried utility lines shall be installed at 90 degree angles to the stream bank to the maximum extent practicable; when 90 degree angle is not possible, the length of the buried utility line within any single water body shall not exceed twice the width of that water body at the location of the crossing; and finally, the total width of any excavation, grading or mechanized clearing of vegetation and soil shall not exceed 25 feet on either side of a utility line or a total width of 50 feet on both sides of the utility line.

§ 19.03. Stormwater Associated with Gas Line Construction Projects.

The CWA generally requires that industrial activities that disturb greater than one acre be required to obtain NPDES permit coverage for stormwater associated with industrial activity. As a practical matter, this requirement would apply to construction activities related to Natural Gas Pipeline construction. However the Energy Policy Act of 2005 exempted stormwater permitting for oil and gas operations from the requirement to obtain a permit under state and Federal NPDES permit programs (discussed further infra).
Because the exemption under the Energy Policy Act of 2005 is limited to “uncontaminated” stormwater, the effect of the exemption on actual gas pipeline construction in the rugged Appalachian terrain is questionable.


In 1972, Congress amended the Clean Water Act (CWA) to establish the NPDES program. Congress then enacted the Water Quality Act of 1987 (WQA) to further address the environmental threats posed by stormwater runoff. The WQA added Sections 402(l) and (p) to the CWA. Section 402(l) exempts certain stormwater sources from NPDES permitting. With respect to stormwater runoff from oil, gas, and mining operations, it provides, in relevant part:

The Administrator shall not require a permit under this section, nor shall the Administrator directly or indirectly require any state to require a permit, for discharges of stormwater runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities, composed entirely of flows which are from conveyances or systems of conveyances (including but not limited to pipes, conduits, ditches, and channels) used for collecting and conveying precipitation runoff and which are not contaminated by contact with, or do not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations.

This is a two part exemption: it applies only to (1) oil and gas exploration, production, processing or treatment operations, and (2) stormwater that is not contaminated by contact with any overburden, raw material, intermediate products, finished product, byproduct, or waste products. EPA interpreted Congress’ intent behind this exemption to be that “operators that use good

42 Id. at (l)(2) (emphasis added).
management practices and make expenditures to prevent contamination” should not be “burdened with the requirement to obtain a permit.”

The contaminants referenced in Section 402(l) are not statutorily defined; the EPA Administrator has discretion to determine whether or not stormwater runoff is so contaminated. What constitutes a “contaminated” discharge is defined in Section 122.26 of Title 40 of the Code of Federal Regulations. That section provides that an operator is not required to obtain a permit, unless his facility:

(A) Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 C.F.R. 117.21 or 40 C.F.R. 302.6 at anytime since November 16, 1987; or

(B) Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 C.F.R. 110.6 at any time since November 16, 1987; or

(C) Contributes to a violation of a water quality standard.

Section 402(p) of the CWA provides that the USEPA or state NPDES authority cannot require stormwater discharge permits until October 1, 1992 (except for those discharges listed under subsection (2)). It also establishes two separate phases for the regulation of stormwater discharges. Phase I requires EPA to establish a permit program for certain stormwater discharges, including those associated with industrial activities. Phase II requires EPA to investigate other stormwater discharges and to create a comprehensive program to regulate such sources.

In 1990, EPA issued its NPDES Phase I stormwater rule, setting permit requirements for stormwater discharges associated with construction activities

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44 See H. R. Rep. No. 1004, 99th Cong., 2d Sess., at 151. See also, NRDC v. USEPA, 526 F.3d 591, 595 (9th Cir. 2008).
45 40 C.F.R. § 122.26(c)(1)(iii).
47 Id. at (5)-(6).
that disturb five acres of land or greater ("large construction sites").\textsuperscript{48} This rule codified the conditions that would be considered indicative of "contamination" according to Section 122.26(c)(1)(iii), discussed hereinabove. Additionally, EPA determined that construction related activities for the oil and gas industry could result in "serious water quality impacts" due to sediment contained in the stormwater.\textsuperscript{49} Because the statutory exemption was limited to "operations," which EPA concluded was an entirely different category than "construction,"\textsuperscript{50} oil and gas construction activities were found to be ineligible for the exemption.\textsuperscript{51} Operators were thus required to apply for a permit in light of the "serious water quality impacts" caused by construction stormwater discharges polluted with sediment.\textsuperscript{52}

In 1999, EPA issued the Phase II stormwater rule, expanding the NPDES stormwater program to address discharges from construction sites that disturb more than one but less than five acres of land ("small construction sites").\textsuperscript{53} Under this rule, small construction sites were required to obtain an NPDES permit by March 10, 2003.\textsuperscript{54} However, in 2002, industry stakeholders notified EPA that these regulations would apply to approximately 30,000 sites annually.\textsuperscript{55} Accordingly, to consider this new information, EPA published a final rule postponing the permit authorization deadline for small construction sites until March 10, 2005.\textsuperscript{56} EPA further postponed the deadline until June 12, 2006 to evaluate the economic impact of the permit requirements on the oil and gas industry, primarily due to delays in the permitting process resulting in lost production, as well as to continue their evaluation of practices and methods operators may employ to control stormwater discharges.\textsuperscript{57}

\begin{itemize}
\item \textsuperscript{48} 55 Fed. Reg. at 47990 (Nov. 16, 1990).
\item \textsuperscript{49} 55 Fed. Reg. at 48033.
\item \textsuperscript{50} \textit{Id.} ("EPA cannot reasonably place such activity in the same category as light commercial or retail business").
\item \textsuperscript{51} \textit{Id}.
\item \textsuperscript{52} \textit{Id}.
\item \textsuperscript{53} 64 Fed. Reg. at 68723 (Dec. 8, 1999).
\item \textsuperscript{54} 64 Fed. Reg. at 68840, \textit{codified at} 40 C.F.R. \textsection{} 122.26(e)(8).
\item \textsuperscript{55} 67 Fed. Reg. at 79828 (Dec. 30, 2002).
\item \textsuperscript{56} 68 Fed. Reg at 11325 (Mar. 10, 2003).
\item \textsuperscript{57} 70 Fed. Reg. at 11560 (Mar. 9, 2005).
\end{itemize}
Prior to the permit deadline, Congress enacted the Energy Policy Act of 2005, which addressed the issue of permit requirements for stormwater discharges from oil and gas construction sites. Section 323 of the Energy Policy Act amended Section 503 of the CWA to include the following revised definition: The term “oil and gas exploration, production, processing, or treatment operations or transmission facilities” means all field activities or operations associated with exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities.58 The only other place in the CWA where the term “oil and gas exploration, production, processing, or treatment operations or transmission facilities” appears is Section 402(l)(2).59 Therefore, this revised definition brought oil and gas construction activities within the CWA’s exemption from stormwater NPDES permits.

In January of 2006, EPA gave notice of proposed rulemaking that would modify their stormwater regulations to reflect the aforementioned change in definition and its impact on Section 402(l)(2) of the CWA, as well as its effect on the indications of contamination discussed in Section 122.26 of Title 40 of the Code of Federal Regulations.60 In June of 2006, EPA promulgated a final rule entitled “Amendments to the National Pollutant Discharge Elimination System (NPDES) Regulations for Stormwater Discharges Associated with Oil and Gas Exploration, Production, Processing, or Treatment Operations or Transmission Facilities,” codifying the changes to the CWA resulting from the Energy Policy Act. However, EPA included an additional provision which amended the federal rules to specifically state that discharges of sediment from oil and gas activities were exempted from any permitting requirements, whether or not they resulted in a violation of water quality standards.61 Although the Energy Policy Act did not specifically address

60 71 Fed. Reg. at 894, 897 (Jan. 6, 2006).
61 Id. at 33628.
sediment, EPA reasoned that sediment, being the “pollutant most commonly associated with construction activity” is the “very pollutant being exempted from permitting.”

On June 23, 2006, the National Resource Defense Council (NRDC), joined by other parties, petitioned the Ninth Circuit for direct review of EPA’s final rule, claiming that it contravened Congressional intent and constituted an impermissible interpretation of Section 402(l)(2) of the CWA as amended by the Energy Policy Act of 2005. EPA countered that its rule had merely codified Congress’ unambiguous intent. Alternatively, even if Congressional intent was not clearly ascertainable, EPA argued that its interpretation was reasonable and permissible. Ultimately, the Court ruled in favor of the NRDC, finding that EPA’s rule was arbitrary and capricious and amounted to an impermissible interpretation of Section 402(l)(2) of the CWA.

In reviewing the EPA’s interpretation of the CWA, the Ninth Circuit applied a two-step *Chevron* analysis. First, the court looked to “traditional tools of statutory construction” to determine whether the intent of Congress was unambiguously expressed on the issue. It noted that the Energy Policy Act does not indicate whether or not Congress intended the NPDES permit exemption to cover stormwater discharges contaminated solely with sediment. Neither does Section 402(l)(2) of the CWA, nor Section 323 of the Energy Policy Act, mention the term “sediment.” Likewise, the legislative history contains no similar expressions. Therefore, the Ninth Circuit concluded that Congress was silent on the issue, and thus its intent was ambiguous. Accordingly, the court moved on to the second part of the *Chevron* analysis.

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62 *Id.* at 33631, 33634.
64 *Id.*
65 *Id.* at 607-08.
66 *Id.* at 602.
67 *Id.* at 603.
68 *Id.*
69 *Id.* at 604.
Next, the court considered whether EPA’s interpretation was permissible. It noted that it need not find that EPA’s interpretation was the only permissible construction, but rather only that EPA’s interpretation was not “arbitrary and capricious.”\textsuperscript{70} To make this determination, the court looked to the “plain and sensible meaning of the statute,” as well as the consistency of the agency’s position over time.\textsuperscript{71} While an agency is not prohibited from changing its mind, the court emphasized that the consistency of an agency’s position is a factor in assessing the weight that position is due.\textsuperscript{72} EPA conceded that, prior to the Energy Policy Act, a permit was required for discharge of runoff contaminated only with sediment resulting in a water quality violation.\textsuperscript{73} After the Energy Policy Act, however, EPA changed its interpretation of what constituted a “contamination,” holding that discharges laden only with sediment now qualified for a permit exemption.\textsuperscript{74} Because of EPA’s “inconsistent and conflicting” interpretation of what constitutes “contamination” under Section 402(l)(2), the court ruled that the promulgated rule, including the corresponding regulation, was arbitrary and capricious and constitutes an impermissible construction.\textsuperscript{75} Accordingly, the court vacated the rule.\textsuperscript{76} EPA filed a petition for rehearing, but the Ninth Circuit denied EPA’s request.

Ultimately, both state and federal interpretation of the effect of the Energy Policy Act of 2005 results in the exemption from the requirement to obtain a NPDES permit for uncontaminated stormwater from natural gas pipeline construction projects. As a practical matter however, the terrain across which gas pipelines are to be constructed in Appalachia results inevitably in stormwater runoff during precipitation events that is contaminated with sediment that violates applicable water quality standards. Because a state or federal agency can require a NPDES permit in the event of a violation of

\textsuperscript{70} Id. at 605.
\textsuperscript{71} Id.
\textsuperscript{72} Id.
\textsuperscript{73} Id. at 606.
\textsuperscript{74} Id.
\textsuperscript{75} Id. at 607-08.
\textsuperscript{76} Id. at 608.
a water quality standard, the effect has been a typical series of events: 1) a contractor begins construction activities without a permit as an exempted activity; 2) a rainstorm or snowmelt event occurs which washes mud and other debris into a waterway through a point source resulting in muddy flowing water; 3) a complaint from a nearby neighbor triggers an inspection by the state or federal agency; 4) as a result of the investigation, the agency determines that a violation of a water quality standard has occurred and is likely to reoccur; 5) the state or federal agency finds that the exemption provided by the Energy Policy Act of 2005 no longer applies because of the contamination event; 6) the agency orders the construction to be halted until a NPDES permit is obtained, or permit coverage is otherwise imposed.\(^77\)

Under the Energy Policy Act of 2005, Congress and the EPA made it clear that the exemption from NPDES permitting for stormwater associated with gas pipeline construction was not intended to inhibit any state from establishing a separate stormwater permitting program for oil and gas operations (including pipeline construction) should they so desire, so long as the program was independent from the NPDES programs. Because of the practical fate of most pipeline construction activities as described in the previous paragraph, some states have found it practical to develop independent stormwater permit programs for gas pipeline construction projects in their individual states. A debate continues however among the regulated community as to whether individual state permit programs are wise: some in industry object to the imposition of additional permit requirements on gas pipeline construction while others (often those already cited for violating water quality standards in their construction activities) see it as a way to speed up the process and provide more certainty as to the proper environmental standard to be applied.


In general, under the current promulgated regulations, a one-acre land disturbance triggers the requirement to obtain coverage under the Erosion and

\(^{77}\) Often, the agency will provide an administrative order allowing construction activity during a limited period while the entity obtains necessary permit coverage.
Sediment Control General Permit (ESCGP). As described above, gas pipeline projects are exempt from NPDES permitting, but under Pennsylvania’s program, gas construction projects that disturb more than one acre are still required to follow parts of the program. This means that pipeline projects under five acres do not require NPDES permits, however they do require the submission of a plan prior to construction indicating the best management practices that will be in place to prevent sedimentation contamination from occurring. Any event that creates a discharge in violation of sediment limits may result in fines.

Almost all oil and gas pipeline projects will cumulatively disturb more than five acres and will trigger the requirement for coverage under the Pennsylvania ESCGP-1. Attempts to segment construction projects in attempt to stay within the five-acre limit are heavily discouraged by the state agencies. Typically, the acreage is determined by combining the acreage affected by all earth disturbing activities for any one given project.

All permits require a Post Construction Stormwater Management Plan (PCSM). Post Construction Stormwater Management Requirements are codified in new Section 102.8. Permit Requirements Include: Volume, Rate and Quality; Erosion and Sediment Controls per section 102.4(b); Licensed Professional Oversight; Riparian Buffers; and Covenant or Other Legal Instrument.

A new draft of the ESCGP was published for 60-day public comment period on January 21, 2012. The comment period closed on March 21, 2012. In an effort to address the request for expedited processing times, the ESCGP-2 created an option for expedited review for the permits. In order to qualify for expedited review a licensed professional must prepare the permit documents. It is assumed that if a licensed professional drafts the permit application, it will eliminate the common errors usually found in the applications which usually cause an application to be set aside while requests are made for further information. Under this assumption a technical review of the permit application is not required and the permit application can be approved within a 14-day review period. Under the regular review, the process takes up to 60 days to review the permit, and will include a technical review of the application.
The expedited review process is not available for certain construction sites. If the site is located in or could discharge in high quality or exceptional value watersheds any permit application for that site would be disqualified from expedited review. Similarly, projects on lands known to be contaminated would be disqualified from the expedited review. Furthermore if a project area is disqualified from expedited review, due to the nature of the site, it becomes a mandatory requirement that the application be drafted by a licensed professional. Preconstruction conferences are required for all projects unless notified in writing by the Department. The Department must be invited with at least seven days notice. Permittees, co-permittees, operators and licensed personals or designees must attend the conference.

The ESCGP-1 included Notice of Intent (NOI) instructions. These instructions have been removed from the draft ESCGP-2. The previous language stated, “Supporting calculations and measurements would not be required unless there will be permanent impervious paved surfaces or above-ground structures or facilities, excluding well-heads and brine storage tanks and other such ancillary equipment. (See Model Plan for further guidance). Crushed rock or gravel roads are not considered impervious. All other projects must provide supporting stormwater runoff calculations and measurements.” The omission of this language requires calculation in the form of a stormwater analysis for all sites to determine whether there is an increase in the rate and/or volume of runoff as a result of the improvements. In exploration and production projects where gravel pads are intended to remain in place for the life of the facilities, this would most likely require the design and installation of structural rate and volume reducing BMPs and require long term maintenance and operation of structural PCSM BMP’s which were never needed in the past. The requirements for the PCSM portion of the site restoration plan are non-specific with regards to

78 5500-PM-OG0005, Rev. 1/2012, Section 6.n.
79 Id.
80 550o-PM-OG0005, Rev. 2/2011, Section D.2.
81 Per interview with Dustin J. Kuhlman, P.E., Vice President of Civil and Environmental Consultant, Inc., on June 22, 2012.
pipeline construction and a strict interpretation could result in the need for a comparison of preconstruction and post construction peak rates of runoff and volumes of runoff for linear projects wherever land cover is altered. Such an interpretation would make pipeline projects time intensive and unrealistic, especially if operators are expected to install structural BMPs along the pipeline right of way. While there is no specific exemption described in the NPDES permits for linear projects, it is understood that projects regulated by NPDES permits, such as water or electric lines, are not typically held to the PCSM requirements of the NPDES permit because the resulting increase in peak runoff rates is assumed to be *de minimis*.

The application for the permit has also increased in difficulty now that under Act 167 Plan Consistency, consistency must be verified by an application form rather than the previous check box. The proposed ESCGP-2 has added the requirement that upon any cessation of activity for a period greater than four days, the project site must be stabilized which creates additional time commitment and work for any short period of cessation.

The proposed ESCGP-2 adds a new item requiring that upon installation or stabilization of all perimeter sediment control BMPs the permittee is required to provide notice to the Department or conservation district at least three days prior to a bulk earth disturbance activity.82 This creates a three-day waiting period prior to proceeding with earthwork after the site has been prepared. This requirement may be problematic for operators under tight time constraints.83

The proposed ESCGP-2 also added the requirement that permittee and co-permittee(s) must conduct visual inspections of the site and qualified personnel, trained and experienced in erosion and sediment control must file reports and ascertain that the E&S BMPs are properly constructed and maintained to effectively minimize pollution to the waters of the Commonwealth. When BMPs are found to be inoperative or ineffective the permittee must contact the Department and submit a written report and

82 5500-PM-OG0005, Rev. 1/2012, Section 6.c.
83 Per interview with Dustin J. Kuhlman, P.E., Vice President of Civil and Environmental Consultant, Inc., on June 22, 2012.
submit a plan concerning how the issue will be rectified and immediately implement remedial measures to correct any such conditions.\textsuperscript{84} Reports shall include any condition on the project site which may endanger public health, safety or the environment or involve incidents which cause or threaten pollution; the period of noncompliance, including exact dates and times that the activity will return to compliance; steps being taken to reduce eliminate, and prevent recurrence of the non-compliance; proposed measures to correct the condition; and the schedule of when those measures will be implemented.\textsuperscript{85} A weakness of the added proposed ESCGP-2 language is that the process of determining whether a BMP is inoperative or ineffective remains ambiguous.\textsuperscript{86}

Specifically concerning Pipelines, the proposed ESCGP-2 includes that the portion of a site or restoration plan that identifies PCSM BMPs to manage stormwater from oil and gas activities permitted in accordance with Chapter 78, pipelines, or other similar utility infrastructure may be used to satisfy the PCSM requirements if the PCSM, reclamation or restoration plans meet the requirements of section 102.8 (b), (c), (e), (f), (h), (i) and (l), and when applicable, (m). This creates a requirement that all site restoration or reclamation plans include a PCSM component that must comply with the bulk of the Chapter 102 PCSM requirements, including the demonstration of compliance with rate, volume, and quality controls for all projects. With the nature of pipeline construction would most likely create a need for PCSM BMP’s to manage the rate and volume of run off from such pipeline construction sites which has never been required previously.

The proposed ESCGP-2 remains in draft form and has not been finally promulgated. At present, gas pipeline construction activities remain subject to the requirements of ESCGP-1.

\textsuperscript{84} 5500-PM-OG0005, Rev. 1/2012, Section 6.n.
\textsuperscript{85} 5500-PM-OG0005, Rev. 1/2012, Section 8.e.
\textsuperscript{86} Per interview with Dustin J. Kuhlman, P.E., Vice President of Civil and Environmental Consultants, Inc., on June 22, 2012.

No specific oil and gas permit has been promulgated for the State of Ohio. Ohio still treats oil and gas pipeline construction as an exempted activity which does not require a NPDES or other storm water or sediment permit. The exemption however, remains conditional on meeting the requirements outlined above to stay within the Energy Policy Act of 2005 exemption criteria.


West Virginia has noticed its Draft Permit for Stormwater Associated with Oil and Gas related Construction Activities. Pursuant to that notice, West Virginia DEP received public comments and held a public hearing to receive further comments. As of the date of this chapter, West Virginia has not issued this permit in final form.

The West Virginia permit is intended to address discharge of stormwater runoff from oil and gas field activities or operations associated with exploration, production, processing or treatment operations or transmission facilities, disturbing one acre or greater of land are agreeing to be regulated under the terms of the general permit, except for: 1) Activity that disturbs less than one acre of total land area, which is not part of a larger common plan of development; 2) Stormwater discharges associated with land disturbing activities that may reasonably be expected to be causing or contributing to a violation of a water quality standard as determined by the Director; and 3) Activities regulated under the Department of Environmental Protection Office of Oil and Gas. The practical effect of these definitions is that the proposed permit will be applicable only to pipeline construction activities as other field activities are regulated by the Office of Oil and Gas.

The purpose of the general permit is to allow stormwater discharges into the surface waters of West Virginia and is subject to the following terms and conditions: 1) discharges from sites covered under the general permit shall not contribute to violations of the surface and ground water standards; 2) compliance with the permit and the approved Stormwater Pollution Prevention Plan is required upon beginning the construction project; and 3) the permittee must comply with all conditions of the permit and noncompliance is grounds
for enforcement of action, for permit modification, revocation and reissuance or revocation and denial of renewal permit.

The proposed permit provides that any person who violates a permit condition is subject to a civil penalty not to exceed $25,000 per day of such violation as noted in the West Virginia Code. Any person who willfully or negligently violates permit conditions is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both as noted in West Virginia Code, Chapter 22. Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under the proposed permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both as noted in West Virginia Code. The proposed permit requires that a Stormwater Pollution Plan and a Groundwater Protection Plan shall be developed for each project covered by the proposed permit. The two plans may be combined into one plan if all of the requirements for both plans are met. Alternatively, they may be developed and maintained as separate stand-alone documents.

The proposed permit will require the application and Storm Water Pollution Prevention Plan (SWPPP) be submitted to the Division of Water and Waste Management at least 45 days before construction is to begin. Prospective permittees should submit applications for review prior to accepting construction bids on the project. As the plans are evaluated by the Director or authorized representative, the Director or authorized representative may notify the permittee during the 45-day review period that the plan does not meet one or more of the minimum requirements of this section. After such notification from the Director or authorized representative, the permittee shall make changes to the plan in accordance

87 W. Va, Code, § 22-11-1.
88 Id.
with the time frames established below, and shall submit to the Director a written certification that the requested changes have been made.

Projects disturbing one to less than three acres that do not discharge to or upstream of Tier 3 Waters and that have a grading phase of construction that will last less than one year shall submit only the Notice of Intent (NOI) Form 10 days prior to initiating construction. Projects disturbing one to less than three acres that discharge upstream of a Tier 3 Water shall submit the NOI Form and SWPPP at least 45 days prior to initiating construction. Projects disturbing one to less than three acres that will have a grading phase of construction that will last one year or longer shall submit the Site Registration Application Form and SWPPP at least 90 days prior to initiating construction to allow for the public notice procedure.

Projects that discharge to Tier 3 waters or that will disturb 100 or more acres, or that the grading phase of construction will last for more than one year, must submit the application and SWPPP at least 90 days prior to construction to allow for the public notice procedure.

§ 19.04. Conclusion.

The need to continue development of transportation infrastructure for shale gas production from the Marcellus and Utica shale formations will continue for many years to come. The initial push by producers and pipeline companies quickly identified the potential for significant environmental impact, and a general lack of understanding of regulatory requirements. It should be expected that regulatory reform and environmental enforcement will continue hand-in-hand for some period of time. The regulated community will continue to be subject to much scrutiny from regulators and landowners, and must work hard at educating themselves and their contractors as to the requirements of both existing regulations, and the myriad of proposed regulatory changes.