



State of New Jersey

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May 14, 2015

Robert Fatzinger, Sr. Vice President
Engineering and System Integrity
South Jersey Gas
1 South Jersey Plaza
Folsom, NJ 08037

Re: Preliminary Regulatory Review and Guidance
Proposed South Jersey Gas Pipeline

Dear Mr. Fatzinger,

This letter is provided at the request of South Jersey Gas (SJG) for preliminary regulatory review of alignment options for a proposed natural gas pipeline in southern New Jersey. On June 20, 2014, a pre-application meeting was requested by SJG with the Office of Permit Coordination and Environmental Review (PCER) to discuss potential future submissions to the Department of Environmental Protection (Department) and requirements for necessary alternative analyses. On July 3, 2014, a meeting was held between the Department of Environmental Protection, SJG, and RC Cape May Holdings, LLC (RCCM). The purpose of this letter is to: summarize the general information presented to the Department; provide an evaluation of the regulatory requirements and permit feasibility of each alignment option; and to provide guidance on potential future permit applications to the Department.

Background

The B.L. England Generating Station (BL England) is a power plant located in Upper Township, Cape May County. The facility typically provides approximately 450 megawatts of generating capacity from three generating units using coal and oil. Under the federal Clean Air Act and applicable state rules, the BL England facility is required to comply with several air quality standards for air pollutant emissions. The Department and RCCM entered into an Administrative Consent Order (ACO) on January 24, 2006, and an amended ACO on October 31, 2006, requiring RCCM to repower BL England to natural gas or shut down. As part of the ACO, the BL England facility ceased using one of its coal generating units in May 2014.

SJG has proposed a pipeline in southern New Jersey to repower BL England from coal and oil to natural gas. SJG has also stated that this pipeline will have an additional benefit by providing for

needed redundancy to improve the resiliency of the region's natural gas delivery system against future disruptions. SJG analyzed several options for the pipeline route and identified one, known as Route A, as optimal. Prior to submitting applications to the Department and Pinelands Commission, SJG met with both agencies in pre-application conferences to discuss the proposed project and solicit guidance. At that time, both agencies' staff identified Route A as the preferred alternative. To proceed with the project, SJG took several actions requiring permits or approvals from the Department, Pinelands Commission, and Board of Public Utilities (BPU).

Since this project would impacted resources within the jurisdiction of the Department and the Pinelands Commission, the Department's rules at N.J.A.C. 7:7E-3.44(b)2 direct the agencies to coordinate with one another through permit review processes. Throughout this project, the Department coordinated with Pinelands Commission staff to share technical information, including resource information, benefits to the regional air quality for the repowering, and other land use and water quality related information.

The Department's technical staff analyzed the various environmental aspects of this project under applicable rules. In terms of impacts to freshwater wetlands, wetland buffers, riparian zones, water quality, and threatened and endangered species habitat, the Department concluded that SJG's Route A alignment was the most favorable alignment alternative. On July 10, 2013, the Department issued a Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands General Permit #2, and a Water Quality Certificate for the proposed pipeline alignment known as Route A.

Concurrent with the Department's permit review, the Pinelands Commission also reviewed technical information in conformance with Pinelands Act rules. Part of the Pinelands Commission review required the approval of a Memorandum of Agreement (MOA) with the BPU to authorize the project. Following the Department's issuance of permits for Route A, the Pinelands Commission issued its report entitled "Report on a Proposed Memorandum of Agreement Between the New Jersey Pinelands Commission and the New Jersey Board of Public Utilities Regarding Construction of a Proposed Approximately 15 Miles of 22-mile, 24-inch Natural Gas Pipeline in the Stated Designated Pinelands Area," dated January 3, 2014 (Pinelands Report). Similar to the Department's issuance of permits, the Pinelands Report concluded that the MOA would implement the proposed development consistent with the comprehensive management plan for the Pinelands Area. Ultimately, the Pinelands Commission did not authorize execution of the MOA.

Following the Pinelands Commission vote not to authorize the MOA, RCCM requested an ACO amendment to change certain air quality compliance deadlines to allow RCCM an opportunity to further explore other permitting options for the repowering of BL England. As part of the DEP's deliberations in ultimately amending the ACO, the DEP reviewed several reports prepared by the Transmission Expansion Advisory Commission (TEAC), the region's electrical grid operator PJM Interconnection LLC (PJM), and RCCM on the need for BL England to remain in service to provide a reliable energy source to the area. The Department testified at a Pinelands Commission hearing on December 13, 2014 that removing BL England from service would result in power generation for the region coming from upwind, more polluting coal-fired power plants in Pennsylvania. This may also lead to the need for the regional transmission

organization, PJM, to require additional high-voltage transmission lines to deliver electricity to the region, resulting in other environmental harms, including greater losses to wetlands and forested uplands.

On July 11, 2014, following consultation with the United States Environmental Protection Agency (USEPA), the Department and RCCM entered into a second amended ACO. This ACO effectively gives RCCM until May 1, 2017 to either repower BL England or shut down. As part of extending certain compliance deadlines, RCCM agreed to expedite the changeover to low-sulfur fuels and modify operations to reduce, to the greatest extent possible, air pollutants of concern. In addition, RCCM committed to fund the installation of electric vehicle charging stations in southern New Jersey.

List of Submissions

In providing this preliminary regulatory review, the Department reviewed several documents provided by SJG. These documents are listed below. In addition, the Department incorporates by reference the documents reviewed and relied upon in issuing the CAFRA permit, Waterfront Development IP, Freshwater Wetlands General Permit #2, and a Water Quality Certificate in July 2013.

- Alternatives Analysis Addendum II to the June 18, 2012 South Jersey Gas – BL England Route Analysis Report, prepared by Woodard & Curran, dated April 2015
- Map of Pinelands Infrastructure, prepared by SJG, last revised October 21, 2014
- Expert Report prepared by Bennett Trenchless Engineers, dated August 18, 2014
- Letter from Robert Fischer, Chief Engineer of NJ Turnpike Authority to Mr. Steven R. Ewing, dated July 14, 2014
- Map of Alternative Routes, prepared by Woodard & Curran

Alternatives for Pipeline Alignments

At the July 3, 2014 meeting, SJG identified the required alternative analyses under Department and Pinelands Commission rules as the critical regulatory issue if SJG were to advance this project again. At the July 3 meeting, SJG provided the Department with a summary of each of the alternative pipeline alignments it had identified. SJG also supplemented this information with additional data and reports in subsequent transmittals to the Department. A list of submissions is provided above. The July 3, 2014 meeting focused on identifying permitting challenges for all the alignment options. At the conclusion of the July 3, 2014 meeting, SJG requested the Department provide a written summary of findings and guidance related to the alternative analysis rules, and the proposed alignment options. Below is that summary.

With respect to Department rules prescribing the need and use of alternative analyses in the Department's decision making, prospective applicants must comply with several rules: Freshwater Wetlands rules at N.J.A.C. 7:7 that specify the type of permit and permit requirements for a project; and the Coastal Zone Management (CZM) rules at N.J.A.C. 7:7E that specify alternative analysis requirements for various environmental resources. Some resources in N.J.A.C. 7:7E, such as wetlands and wetland buffers, are prohibited from being impacted if a

practicable alternative exists. N.J.A.C. 7:7E-3.27(b). The alternative analysis typically requires an applicant to demonstrate that no onsite or offsite alternative has less impacts than the preferred alternative, or that no prudent or feasible alternative exists. "Practicable alternative" is defined in N.J.A.C. 7:7-1.4 as "other choices available and capable of being carried out after taking into consideration cost, existing technology, and logistics...." In addition, several rules specify when certain activities are discouraged. "Discouraged" is defined in the CZM rules at N.J.A.C. 7:7E-1.8 as "a proposed use...[that] is likely to be rejected or denied as the Department has determined that such uses of coastal resources should be deterred."

Eight alternatives for the pipeline alignment were identified by SJG. All the alternatives would require some type of activity within the Pinelands Area, as delineated in the Pinelands Protection Act, N.J.S.A. 13:18A-11. For some alternatives where the newly proposed pipeline is outside the Pinelands Area, these alternatives would require upgrades to existing infrastructure that includes some disturbance to resources within the Pinelands Area. In particular, route alternatives B, F, and G would require significant upgrades to increase the size and capacity of the 10-mile Vineland to Ways Landing segment, which runs through Pinelands Forest Area. At the July 3 meeting with the Department, SJG confirmed that no new alternatives exist beyond the eight originally reviewed by the Department and Pinelands Commission. All of the proposed alternatives would result in some activity outside and inside the Pinelands Area, in particular the Forest Area, necessitating review and action again by the Department and Pinelands Commission.

The following summarizes the Department's findings regarding eight proposed alternatives. These findings are also supported by the Department's review and issuance of permits for SJG's original applications to the Department in 2013.

Route A:

Description: Route A begins at the existing 24-inch gas main near the intersection of Rt. 49 and Rt. 671 and predominantly follows Rt. 49, either under the existing roadway or within the right-of-way, until it reaches the unincorporated community of Tuckahoe. From Tuckahoe, the proposed alignment travels along the existing roads of Rt. 50, Tuckahoe Rd. (Rt. 631), Old Tuckahoe Rd., and N. Shore Rd until it terminates at the BL England power plant.

Permits required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands General Permit #2, and a Water Quality Certificate

Resource Impacts:

Tree removal: Fewer than 10 tree removals, as required by the N.J. Department of Transportation's (NJDOT) safety guidelines

Stream crossings: 16. SJG proposes to use horizontal directional drilling (HDD) at stream crossings to minimize adverse impacts to the environment.

Wetlands: None

Threatened & Endangered Species: The Department's Landscape Mapping identified several threatened and endangered (T&E) species habitat in nearby undeveloped areas including bald eagle, barred owl, black crowned night heron, and osprey. However, the Department found in its CAFRA permit that "[a]dverse impacts to these protected habitats are not overly anticipated as a high percentage of the total project limit of disturbance is proposed to occur either within existing rights-of-way or via horizontal directional drilling (HDD) that is beneath suitable habitat."

Other considerations: Provide redundancy to region's natural gas delivery system

Route B:

Description: The key feature of alignment Route B would be the use of HDD beneath the Great Egg Harbor Bay to deliver natural gas from the north to BL England. SJG estimates the HDD length is approximately 7,000 feet, or nearly 1.3 miles under the Great Egg Harbor Bay. This option would result in less new linear miles of pipeline within the Pinelands Forest Area compared to Route A, however far greater impacts to wetlands and T&E habitat will likely occur compared to Route A.

Permits required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands Individual Permit, and a Water Quality Certificate

Resource Impacts:

Tree Removal: 7 miles of tree clearing for the upgrade of the Vineland to Mays Landing segment

Stream crossings: 21

Wetlands: Approximately 8 acres of wetlands would likely be filled as part of Route B. This route is prohibited under N.J.A.C. 7:27E-3.27(b) if a feasible alternative exists.

Threatened & Endangered Species: bald eagle, black crowned night heron, cattle egret, osprey, and northern pine snake. Wetland filling would likely lead to significant adverse impacts to pine snake habitat.

Other considerations: This option will not result in redundancy to the natural gas system, which will leave the region susceptible to future service disruptions.

Route C:

Description: This proposed option includes less total new linear miles of pipeline within the Pinelands Forest Area compared to Route A. Route C predominantly would follow an abandoned rail line for approximately 6 miles through the Pinelands Forest Area that has reforested, which if used, would result in a far greater direct loss of trees compared to Route A. This option results in greater disturbances to wetlands and T&E habitat.

Permits Required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands Individual Permit, and a Water Quality Certificate

Resource Impacts:

Tree clearing: 36 acres of upland forest, including identified T&E habitat, would need to be cleared.

Stream crossings: 10

Wetlands: Approximately 2 acres of wetland filling. This route is prohibited under N.J.A.C. 7:7E-3.27(b) if a feasible alternative exists.

Threatened & Endangered Species: barred owl, northern pine snake, swamp pink, and Cope's gray treefrog.

Other considerations: Route includes 10 miles of unpaved Pinelands Forest Area.

Route D:

Description: This option is the lengthiest route of all proposed at approximately 37 miles. This alignment, like Route A, predominantly follows existing rights-of-way. Route D typically follows along the western and southern boundaries of the Pinelands Forest Area until it turns east at Woodbine Municipal Airport, then north following Route 9 until terminating at BL England.

Permits required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands General Permit #2, and a Water Quality Certificate

Resource impacts:

Tree clearing: Minimal

Stream crossings: 27

Wetlands: None

Threatened & Endangered Species: federally listed swamp pink, sensitive joint-vetch

Other considerations: impacts to a federally listed species would likely create additional constraints on the project corridor; logistical issues such as traffic and community impacts on Route 9 and Route 47 would need to be considered

Route E:

Description: Approximately 33 miles using a combination of existing rights-of-way, such as Route 50, as well as cross-country through other utility rights-of-way that would require some expansion.

Permits required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands Individual Permit, and a Water Quality Certificate

Resource impacts:

Tree clearing: 7 miles of cross-country right-of-way equaling approximately 36 acres of forest requiring tree clearing

Stream crossings: 20. This route includes a crossing of the Tuckahoe River.

Wetlands: Approximately 2.5 acres of wetlands filling

Threatened & Endangered Species: northern pine snake, barred owl, and redheaded woodpecker

Other considerations: This option carries other ancillary issues including significant traffic and community impacts, as well as conflicts with construction timing for Route 50 improvements. The Department notes this option would fail to provide redundancy to the region's natural gas system because the new pipeline is sited adjacent to the only existing natural gas main for the region.

Route F:

Description: This route is an extension of Route E that would tie into existing infrastructure at a location further north in Franklin Township. The extension increases the total length of this option to approximately 34 miles.

Permits required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands Individual Permit, and a Water Quality Certificate

Resource impacts:

Tree clearing: Significant tree clearing along the 13-mile length within the Pinelands Forest Area.

Stream crossings: 18

Wetlands: 3 acres to be filled. Approximately 8 acres of mapped wetlands exists in the proposed right-of-way

Threatened & Endangered species: barred owl, eastern tiger salamander, Pine Barrens tree frog, bald eagle, osprey, black skimmer, cattle egret, least tern, and black-crowned night heron.

Other considerations: This option carries other ancillary issues including significant traffic and community impacts, as well as conflicts with construction timing for Route 50 improvements. The Department notes this option would fail to provide redundancy to the region's natural gas system because the new pipeline is cited adjacent to the only existing natural gas main for the region.

Route G:

Description: This route, similar to Route B, places the alignment to the north of BL England, but crossing over the Great Egg Harbor Bay via suspension from the Garden State Parkway Bridge or a new dedicated pipeline bridge.

Permits required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands Individual Permit, and a Water Quality Certificate

Resource impacts:

Tree clearing: 7 miles of cross-country right-of-way equaling approximately 36 acres of forest requiring tree clearing

Stream crossings: 18

Wetlands: 2.5 acres of wetlands filled

Threatened & Endangered Species: northern pine snake, barred owl, redheaded woodpecker, swamp pink, black skimmer, osprey, and least tern.

Other considerations: Although not within the Department's purview, the Department notes this option is prohibited by Department of Transportation safety regulations at N.J.A.C. 16:25-1.7, which prohibits the installation of natural gas pipelines beneath limited access highways, including the Garden State Parkway. SJG provided a letter from the New Jersey Turnpike Authority (Authority), dated July 14, 2014 reiterating the Authority's long-standing determinations preventing third-party utilities from co-locating within the Authority's rights-of-way. This option would also not result in redundancy to the natural gas system, which will leave the region susceptible to future service disruptions.

Pinelands Preservation Alliance Route:

Description: The Pinelands Preservation Alliance (PPA), a local non-profit organization, requested consideration of an alternative similar to option G. This route option varies from Option G by using HDD beneath the Great Egg Harbor Bay, rather than over the bay via bridge.

Permits required: Coastal Area Facility Review Act (CAFRA) permit, Waterfront Development Individual Permit (IP), Freshwater Wetlands Individual Permit, and a Water Quality Certificate

Resource impacts:

Tree clearing: 7 miles of cross-country right-of-way equaling approximately 36 acres of forest requiring tree clearing

Stream crossings: 18

Wetlands: 2.5 acres of wetlands filled

Threatened & Endangered Species: northern pine snake, barred owl, redheaded woodpecker, swamp pink, black skimmer, osprey, and least tern.

Other considerations: The HDD staging area requires relocating multiple families from their properties. SJG provided an expert report prepared by Bennett Trenchless Engineers, dated August 18, 2014 (Bennett Report) that identifies several critical issues with the HDD option. First, the HDD segment requires a bore of 36 inches for approximately 8,700 feet, or nearly 1.6 miles long. The Bennett Report states that this specification is "beyond the state of the industry." Further, the Bennett Report concludes after analyzing nearly 100 boring logs in the target area that "these extremely unfavorable soils...will result in inadvertent drilling fluid returns...and [the] risks of adverse consequences to sensitive environmental features will be extremely high." Finally, the Department notes this option would not provide redundancy to the region's natural gas system.

Conclusions and Next Steps


Department rules require SJG to submit a comprehensive alternatives analysis to the Department demonstrating environmental impacts are minimized to the greatest extent possible. The route alternatives presented by SJG during the pre-application meeting provide a broad range of possible alignments for the proposed natural gas pipeline. In light of the Department's previous actions approving Route A as the preferred alternative and the CZM rules, the Department finds the following:

- Route A remains the preferred alternative based on the Department's previously issued permits identifying it as such
- Routes B, C, E, F, and G are infeasible because these alternatives include wetlands filling, which is prohibited under N.J.A.C. 7:7E-3.27(b) when, as here, a feasible alternative exists without wetlands filling
- Route D is not preferred over Route A because Route D contains nearly twice the stream crossings as Route A
- The Pinelands Preservation Alliance alternative is infeasible for technical and logistical reasons as prescribed under the Department's "practicable alternative" definition at N.J.A.C. 7:7E-1.4

If SJG requires modification to the existing Department-issued permits, the Department recommends SJG contact the Department and Pinelands Commission for additional guidance prior to submitting any modification or new permit applications.

If you have any comments or questions regarding this matter, please contact me at your earliest convenience at 609.292.6877.

Sincerely,



John Gray
Deputy Chief of Staff

cc: Ginger Kopkash, Assistant Commissioner, NJDEP
Ruth Foster, Director, Office of Permit Coordination and Environmental Review, NJDEP
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