



April 25, 2017

The Honorable Eric T. Schneiderman
Office of the Attorney General
The Capitol
Albany, NY 12224-0341

Dear Attorney General Schneiderman,

The Delaware Riverkeeper Network is writing to urge you to investigate the misrepresentations being advanced by the Millennium Pipeline Company, LLC's ("Millennium") in an effort to secure permits and other authorizations from the New York Department of Environmental Conservation ("NYSDEC") related to Millennium's Eastern System Upgrade Project ("ESU" or the "Project"). We believe the misrepresentations are significant and are designed to mislead the NYSDEC into inappropriately approving Millennium's Eastern System Upgrade Project ("ESU" or the "Project") without knowing the true scope of the proposed project at issue.

Millennium's ESU is currently under review by the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity and by the NYSDEC for federally delegated Clean Water Act ("CWA") Section 401 Certification and Clean Air Act permits. Expert analysis, conducted by Accufacts Inc.,¹ of the Project's recently released Critical Energy Infrastructure filings confirms that Millennium has improperly split the ESU from the overall planned expansion of its natural gas pipeline system into smaller components in attempt to avoid a more rigorous comprehensive environmental review of the construction activity. We believe that Millennium is not only engaged in a deliberate deception as to the scope of its project today, but has, in the past, engaged in similar misleading behavior and as a result has been able to piecemeal together a series of NYSDEC approvals that it could not have received had the agency been aware of the full extent of the project plans the company was seeking to pursue.

Millennium's ESU is characterized as an upgrade of its current pipeline project through the installation of 7.8 miles of 30- and 36-inch-diameter pipeline loop ("Huguenot Loop") in Orange County, New York; a new compressor station in Sullivan County, New York; additional compression at the Hancock Compressor Station in Delaware County, New York; modifications at the Westtown Meter Station and Wagoner Interconnect in Orange County, New York; modifications at the Ramapo Meter Station in Rockland County, New York; and other appurtenant facilities.

¹ Kuprewicz, Richard B. Accufacts Inc. Observations Concerning the Millennium Pipeline Eastern System Upgrade Project Proposal, FERC Docket No. CP-16-486. March 26, 2017.

The oversized 36 inch segment of pipe at the Neversink Crossing, independently and combined with the proposed additional compression, signals that the Millennium ESU is one step in a much larger expansion plan.

As described in the attached expert report from Accufacts Inc.:

With the exception of the existing Neversink 24-inch segment restricted to an MAOP of 920 psig, the Millennium Pipeline gas transmission mainline was installed and designed to operate as a 30-inch pipeline with a MAOP of 1,200 psig (see purple dashed MAOP lines on all Exhibits). Installing the 36-inch segment at an MAOP of 1,350 overbuilds the Project for its stated purpose. Millennium has not adequately explained nor justified their request to install additional large diameter 36-inch pipeline at the MAOP of 1,350 psig. Installing much larger diameter pipe rated for much higher MAOP than the current major system's design signals further expansions are being anticipated or planned as a result of this Project.

Further, according to Accufacts:

The combination of requested horsepower addition along with the much larger diameter 36-inch higher 1,350 psig MAOP needs additional supporting analysis as these changes suggest additional project expansions are expected well beyond the needs stated in the Project application.

The oversized pipe proposed for the Project is inconsistent and incompatible with the rest of Millennium's system. This, in connection with the high level of compression being proposed over such a relatively short distance, demonstrates that Millennium is anticipating future expansions of the Millennium pipeline.

Laying parallel segments of looped pipeline to create second contiguous pipelines has become a common occurrence amongst interstate fracked gas transmission lines – it seems clear to the Delaware Riverkeeper Network from the evidence on the record that Millennium is planning for a mass expansion of the Millennium pipeline, including significant looping to create a future second line similar to what Tennessee Gas Pipeline Company did with their 300 Line System. This type of segmentation of smaller projects to avoid proper environmental scrutiny was the subject of the Delaware Riverkeeper Network's successful lawsuit against the Federal Energy Regulatory Commission in 2014 over the 300 line System.

As the Accufacts report states: *“further expansion projects are likely or already planned in the future operation of Millennium Pipeline.”*

The Millennium ESU, Valley Lateral and CPV projects are part of an integrated whole that should have been presented to NYSDEC and reviewed as a single project for purposes of Clean Water Act and Clean Air Act approvals.

The Millennium ESU is clearly inter-connected with the Millennium Valley Lateral project and the associated CPV powerplant. And yet, each of these projects has been advanced before NYSDEC and

other regulatory agencies, including FERC, as independent projects, despite being before NYSDEC and (in the case of the two pipelines) FERC during overlapping time frames.

As discussed in the attached Accufacts report:

“The 24-inch Neversink segment has become an increasing bottleneck as gas rates have increased in recent years on the Millennium system. The serious impact of much higher gas rates and actual gas velocities, can be easily demonstrated by reviewing the steep slope (more vertical nature) of the pressure plots on Exhibit 1 and 3 for the existing Neversink segment. These steep slopes, higher pressure loss per mile, suggest that the Neversink 24-inch pipeline is destined for a different service, such as to serve as a much lower gas flow delivery supply gas line to the proposed CPV power plant. Once the Neversink is looped with a 30-inch 1,200 psig MAOP pipeline, the smaller diameter weaker MAOP Neversink pipeline segment is of little value to the mainline Millennium Pipeline system except to serve as a delivery supply line to customers on that segment, essentially the proposed CPV power plant. ”

In addition to the Accufacts Report, the US Environmental Project Agency (EPA) is on record stating their concerns over the interdependency of the Valley Lateral Project and the ESU in comments on the FERC dockets for both projects. In a June 10, 2016 letter to FERC, EPA Region 2 states:

“EPA is also concerned that the proposed Eastern System Upgrade is connecting into the Valley Lateral Project (CP16-17) now under review by FERC. The EA must discuss this interconnect and its purpose in detail, and whether the Eastern System Upgrade would be constructed and meet the purpose and need with or without the Valley Lateral being completed.”²

Similarly, in a June 8, 2016 letter to FERC regarding the Valley Lateral Project, EPA Region 2 states:

“EPA also requests that the document more fully discuss the proposed interconnect to the Valley Lateral by the proposed Eastern Systems Upgrade project. It should be stated clearly whether this interconnect would be providing more natural gas to the Valley Lateral, and whether the Eastern Systems Upgrade requires this interconnect to function.”

Millennium has engaged in segmentation with compressor projects of the past that should not have been allowed.

When Millennium was urged by the community of Minisink to avoid installation of a compressor station in their town because the stated need for the project could have been met by a pipeline upgrade at the Neversink crossing, Millennium rejected the idea, asserting that no expansions of the Millennium pipeline were anticipated. And yet now, just a few short years later, Millennium has added additional compression in Hancock, is planning for even more compression in Hancock and in Highland, and is planning for an upsizing of the very Neversink crossing Millennium denied consideration of during the

² Letter from Grace Musumeci, Chief, Environmental Review Section. EPA Region 2, to FERC Re Millennium Eastern System Upgrade Project, FERC Docket no. PF16-13 on June 10, 2016.

Minisink battle. The close timing of the various projects, coupled with comments on all past dockets expressing concerns about future expansions and the option of other alternatives that were rejected, suggests to the Delaware Riverkeeper Network that each of these steps should have been foreseeable, anticipated, and perhaps were even planned for, by Millennium.

We do not want to see New York misled into making ill informed decisions on a mere segmented piece of a much larger project to come. We respectfully request that the Attorney General's office initiate an investigation into the true scope of Millennium's proposed expansions, including to what degree there is clear internal knowledge of, and planning for, a significantly larger expansion that is not being divulged to New York state, the DRBC, FERC, or the public in an intentional effort to deceive.

Respectfully,

A handwritten signature in blue ink that reads "Maya K. van Rossum". The signature is written in a cursive, flowing style.

Maya K. van Rossum
the Delaware Riverkeeper

Accufacts Inc.

“Clear Knowledge in the Over Information Age”

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March 26, 2017

**To: Maya van Rossum
Aaron Stemplewicz
Delaware Riverkeeper Network
925 Canal St., Suite 3701
Bristol, PA 19007**

Re: Observations Concerning the Millennium Pipeline Eastern System Upgrade Project Proposal, FERC Docket No. CP-16-486

Accufacts Inc. (“Accufacts”) was asked to review the above Millennium Pipeline filing and proposal to FERC identified as the Eastern System Upgrade Project Proposal (“Project”). The Project description indicates the proposal will:

1. loop the existing 24-inch Neversink 920 psig Maximum Allowable Operating Pressure, or MAOP, pipeline with approximately 7.8 miles of pipeline (approximately 0.1 miles of 30-inch and approximately 7.7 miles of 36-inch pipeline identified as the “Huguenot Loop,” which will be designed for an MAOP of 1,350 psig,¹
2. provide 38,300 additional horsepower at the existing 15,900 horsepower Hancock compressor station,
3. construct and operate a new 22,400 horsepower compressor station (Highland) installed between the Hancock and Minisink compressor stations,
4. modify the existing Wagoner Interconnect,
5. supply additional pipeline facilities at the Huguenot Meter and Westtown Metering stations including installation of various pig launchers and receivers, and
6. make modifications at the existing Ramapo Metering and Regulator Station.²

The stated purpose of the Project “is to permit Millennium to transport an incremental volume of 223,000 dekatherms per day of natural gas from Millennium’s Corning Compressor Station to an existing interconnect with Algonquin Gas Transmission, L.L.C (Algonquin) located in Ramapo, New York.”³ The application further states that “The Project facilities have been specifically designed to provide for an additional 223,000

¹ MAOP is a term defined in federal pipeline safety regulations for gas transmission pipelines that has a specific meaning and obligation to FERC. The Millennium application/filing references the term maximum operating pressure, but this term is not defined in federal pipeline safety regulations. The bulk of the Millennium gas transmission system is designed for an MAOP of 1200 psig.

² Millennium Pipeline Company L.L.C application to FERC, “Eastern System Upgrade Resource Report 1 General Project Description,” July 2016, pp. 1-1 & 1-10.

³ *Ibid.*, p. 1-2.

dekatherms per day of firm transportation, as well as to maintain adequate operating pressures at intermediate delivery points following the construction of the Project, to continue to meet customer demand on Millennium's system during the summer months, and to ensure continued deliveries to interconnecting pipelines.”⁴

In order to obtain Project pipeline/flow/pressure data Accufacts was required to sign a Protective Agreement with Millennium, and a CEII nondisclosure agreement with FERC that prohibits public disclosure of certain information concerning this proposal. Based on a review of the CEII protected Exhibit G submissions for this project, Accufacts cannot justify the pipeline Project, especially the 1,350 psig MAOP design nor the 36-inch diameter for the new Huguenot Loop. In Accufacts' opinion this unusual proposal suggests further expansions are in Millennium's plans and such “segmented” expansion(s) should be included with this Project's proposal.

Confidential Attachments (CEII protected) Exhibits No. 1, 2, 3, and 4 developed by Accufacts.

The attached four Exhibits plot pressure and flow versus milepost between Corning compressor station, or “CS,” (set as milepost zero) and the Ramapo Metering station connection to Algonquin (milepost ~ 189) for the existing and the proposed peak day expansion cases submitted to FERC for summer and winter, respectively.

The mainline pipeline length downstream of Minisink to Ramapo provided by Millennium as Exhibit Gs for the mainline transmission pipe are not modified by the proposed Project but vary by over 5 miles in length (or over 16% of the segment). Millennium needs to reconcile this error in updated filings to FERC given the importance of the Minisink CS to Ramapo mainline segment length to the validity of the Project's application. Suspecting a typographical error in the Exhibit G submissions, for purposes of the attached Confidential CEII Exhibits, I have normalized this length to the same value across all four Exhibits using the shortest mainline length given in the Exhibit Gs for the Minisink to Ramapo pipeline segment. There is another apparent error in the existing winter case pressures for the segment between the Minisink CS and the Ramapo M&E delivery point (see Exhibit 3 pressure line). The pressure slopes appear inconsistent for the flows, and pressure downstream along a pipeline does not increase with flow unless compression is added.

Based on the provided CEII information, Accufacts has the following additional detailed comments supplemented from a review of attached Exhibits:

1) The proposed MAOP of 1,350 psig for the new pipe looping (i.e., Huguenot Loop) cannot be supported nor justified by this Project.

With the exception of the existing Neversink 24-inch segment restricted to an MAOP of 920 psig, the Millennium Pipeline gas transmission mainline was installed and designed to operate as a 30-inch pipeline with a MAOP of 1,200 psig (see purple dashed MAOP

⁴ *Ibid.*

lines on all Exhibits).⁵ Installing the 36-inch segment at an MAOP of 1,350 overbuilds the Project for its stated purpose. Millennium has not adequately explained nor justified their request to install additional large diameter 36-inch pipeline at the MAOP of 1,350 psig. Installing much larger diameter pipe rated for much higher MAOP than the current major system's design signals further expansions are being anticipated or planned as a result of this Project. Both the large diameter 36-inch pipeline and the higher pressure 1,350 psig MAOP for the looped pipe proposal are inconsistent with the remainder of Millennium's main gas transmission system of 30-inch pipe and 1,200 psig MAOP upstream and downstream of the proposed loop. There is no way, for example, that the 1,350 psig of the proposed loop can be utilized without incorporating additional compressor stations and/or mainline pipeline changes beyond the cases filed for this Project's proposal.

2) The 36-inch diameter pipe is larger than that needed for the Project.

A close review of the Exhibits, especially Exhibit No. 4, will demonstrate that the 36-inch diameter pipeline is larger than needed, even if it were to be installed at a MAOP of 1,200 psig. For example, on Exhibit 4 for the same flow rate, the approximate pressure line between the Hancock CS and Highland CS is less vertical than the pressure line between Highland CS and Huguenot Regulator. The pressure line slope between Highland CS and Huguenot Regulator should be the same or even less vertical because gas flow rate in that segment is the same or less than that for the Hancock CS to Highland CS segment, while the pressures are similar. This deviation in pressure slope or verticalness, because it can significantly affect the analysis, needs to be properly investigated and reconciled. A simple comparison analysis of the Exhibits will further demonstrate that a 30-inch pipeline for the Huguenot Loop would be suitable. Millennium has not adequately justified their proposing a 36-inch diameter pipeline for the Huguenot Loop. Installing a 36-inch pipe segment that is larger than is needed on this primarily 30-inch Millennium Pipeline system, given the current and proposed MAOPs, signals further expansions are anticipated for this Project.

3) Delivery pressures to the Algonquin Pipeline are not justified.

Based on the information provided, the delivery pressure to the Algonquin system at Ramapo can vary considerably. The delivery pressure assumption to Algonquin significantly influences the Millennium Pipeline design and operation. The delivery pressure of 750 psig to Algonquin for the additional gas claimed by the Project needs to be independently justified. Without appropriate justification, it appears as though the current proposal is anticipating additional upgrades.

4) The Neversink 24-inch pipeline segment appears destined for a different service.

It should come as no surprise that the older 24-inch, lower 920 psig MAOP, approximately 7.5 mile long segment of the Neversink portion of the Millennium

⁵ PHMSA CAO

Pipeline is out of character with the design of the rest of the newer Millennium transmission pipeline that is 30-inch, 1,200 psig MAOP. The 24-inch Neversink segment has become an increasing bottleneck as gas rates have increased in recent years on the Millennium system. The serious impact of much higher gas rates and actual gas velocities, can be easily demonstrated by reviewing the steep slope (more vertical nature) of the pressure plots on Exhibit 1 and 3 for the existing Neversink segment. These steep slopes, higher pressure loss per mile, suggest that the Neversink 24-inch pipeline is destined for a different service, such as to serve as a much lower gas flow delivery supply gas line to the proposed CPV power plant. Once the Neversink is looped with a 30-inch 1,200 psig MAOP pipeline, the smaller diameter weaker MAOP Neversink pipeline segment is of little value to the mainline Millennium Pipeline system except to serve as a delivery supply line to customers on that segment, essentially the proposed CPV power plant.

5) The Project proposal signals that Millennium Pipeline is anticipating further pipeline expansions.

The gas rates required on the pipeline segment discharging from the Hancock compressor station (well over 1,200 Dth/d on the 30-inch 1,200 psig MAOP pipeline), results in an increase of almost 30% more gas through the Minisink Compressor station for the Peak Day Winter Expansion Case. As a result, the Project requests major horsepower addition at Hancock CS and a new compressor station addition at Highland (see Exhibit 4) to meet these higher flow rates. This additional compressor horsepower, needs further supporting analysis with appropriate flow/pressure data, given the discrepancies identified in the provided exhibit Gs, and demonstrated in the attached Exhibits. The combination of requested horsepower addition along with the much larger diameter 36-inch higher 1,350 psig MAOP needs additional supporting analysis as these changes suggest additional project expansions are expected well beyond the needs stated in the Project application.

Conclusion

Millennium's request for a larger diameter 36-inch, 1,350 psig MAOP for the Project's new pipeline segment (Huguenot Loop) is inconsistent and unwarranted. Such an unusual MAOP increase proposal over the Millennium Pipeline system's design in combination with the Project's 36-inch diameter pipe proposal, signals to me that further expansion projects are likely or already planned in the future operation of Millennium Pipeline. Such future projects, I believe, are reasonably foreseeable based on basic engineering principles and must be included in the Project's FERC application and Exhibit Gs.

s/ Richard Kuprewicz

Richard B. Kuprewicz,
President,
Accufacts Inc.