April 27, 2017

DRBC Commissioners and Executive Director Steve Tambini
Delaware River Basin Commission
25 State Policy Drive
West Trenton, NJ 08628-0360

Dear DRBC Commissioners and Executive Director Tambini,

The Delaware Riverkeeper Network is writing to urge the Delaware River Basin Commission (“DRBC”), once again, to reconsider its decision not to mandate a DRBC docket for the Millennium Pipeline Company’s (“Millennium”) Eastern System Upgrade project (“ESU” or the “Project”) based on what we believe to be clear and demonstrable misrepresentations by the company as to the true size and scope of the project, and because of the very serious impacts it will inflict on the Delaware Watershed.

We have been alerting the DRBC for months to the belief that the Millennium ESU is a segmented part of a much larger project, and that if this were the case it would be incumbent upon the DRBC to ensure it exercise its jurisdiction not just over the ESU, but over that larger intended project. As we expressed in our February 29, 2017 letter, we now have the Critical Energy Infrastructure Information and expert review to support the belief that the ESU is in fact a segmented piece of a much larger intended project. Since that letter, the Federal Energy Regulatory Commission (“FERC”) has released its Environmental Assessment (“EA”) for the project, reaffirming and amplifying the need for the DRBC to exercise its jurisdiction over the Project.

We believe that the evidence on the record supports our contention that Millennium is making misrepresentations to the DRBC in an effort to avoid a DRBC docket and review. We believe the misrepresentations are significant and are designed to mislead the DRBC into abdicating its authority over Millennium’s Eastern System Upgrade Project without knowing the true scope of the project at issue. And so we urge you to investigate the true scope of the project and to exercise your jurisdiction by mandating review and a docket for the Millennium ESU.

In addition, there is enough evidence of harm to support DRBC exercising jurisdiction over this project just considering the environmental impacts and footprint from the Millennium ESU segment for which Millennium is portraying.

The evidence of harm, independently, as well as in conjunction with our assertions about the true scope of the project Millennium is planning to carry forward, provides the DRBC with the grounds needed to mandate a docket and full review of the proposed ESU project.

Delaware Riverkeeper Network
925 Canal Street, Suite 3701
Bristol, PA 19007
Office: (215) 369-1188
Fax: (215) 369-1181
drm@delawareriverkeeper.org
www.delawareriverkeeper.org
The true scope of Millennium’s intentions needs a DRBC docket for full review. The DRBC should consider project materials provided by Millennium to be materially deficient.

The DRBC based its decision to abdicate its authority over the Project on baseless claims made by the pipeline company that were not supported even by the information that was available on the record. Expert analysis, conducted by Accufacts Inc.\(^1\) from 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 project’s, construction, operation, and maintenance. 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 avoid the DRBC docket and review that would have been required 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 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.

The oversized 36 inch segment of pipe at the Neversink Crossing 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 or 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 a second pipeline 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.”

**Millennium has engaged in segmentation with the additional 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 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 the DRBC misled into making an ill informed decision on a mere segmented piece of a much larger project to come. We urge the DRBC, and have requested that the NYAG and NYDEC, to investigate 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 the state, the DRBC, FERC, or the public in an intentional effort to deceive.

**The impact of the Millennium ESU even as proposed, mandates DRBC create a docket and review of the project.**

While the clearly anticipated expansion of the Millennium pipeline project mandates DRBC review and denial of the project, even if DRBC looks at the proposed ESU as an independent project, as proposed by Millennium, the significance of the project impacts warrants that DRBC mandate a docket for the project.

The Millennium ESU as proposed crosses the Neversink River (a Class B waterbody) in a location with mature riparian forest and with a southern riparian zone exhibiting extremely steep slopes (exceeding 100%).\(^2\) Despite Millennium’s asserted attempt to reduce impacts to water quality and the Dwarf Wedgemussel through the use of an HDD crossing of the Neversink River, the staging, drilling, and permanent removal of mature riparian forest on the steep slopes to accommodate the pipeline ROW and HDD will directly cause increases in suspended sediments and turbidity, water temperature, and nutrients,

\(^2\) See Table A-10 from the FERC Environmental Assessment for the Millennium Pipeline Company, LLC Eastern System Upgrade Project (March 2017), Docket no. CP16-486.
all in violation of New York State water quality standards. In addition, the staging, drilling and permanent removal of riparian forest on the steep slopes will indirectly exacerbate violations of pH water quality standards. It is water quality impacts such as these that required the listing of the Neversink River as “impaired” on the 303(d) and Integrated Lists for New York State waterbodies. Among the impacts of the water quality impairments for the Neversink have been increases in nutrients that lead to excessive growths of algae, weeds, or slimes.

FERC’s Environmental Assessment (“EA”) for the ESU acknowledges the appreciable risks from HDD in terms of bentonite drilling fluids surfacing within the Neversink River, which would cause direct and immediate violations of turbidity water quality standards. The HDD drilling itself, therefore, is a likely cause of water quality violations for the Neversink River and poses threats to the Dwarf Wedgemussel population in the River. Indeed, the concerns of frac-outs from HDD construction activity under the Neversink River were so great that Millennium agreed to use an existing pipeline that already traversed under the river when it first installed its system. In the 2006 Final Environmental Impact Statement that FERC issued for the Northeast (NE)-07 Project, a cluster of projects that included the Millennium Pipeline Project, FERC wrote:

In 2004 and 2005 Millennium conducted a reassessment of the use of a conventional bore technique to construct the Neversink River crossing. The result of this review was that the method was likely to fail based on the subsurface conditions at the site. After review of all possible alternatives, Millennium proposed incorporating a segment of Columbia’s existing 24-inch-diameter Line A-5 pipeline between MPs 340.5 and 347.7 into the project to avoid making a new crossing of the Neversink River. The continued utilization of this segment of the existing Line A-5 pipeline would result in the avoidance of any construction in the vicinity of the Neversink River.³

The conclusion was drawn then, and it must be true now, that construction activity under this stretch of the river represents too great a risk to the Neversink River.

These impacts to water quality will impair the best uses for this Class B waterbody by negatively affecting water clarity, growth of algae and weeds, and impairing the primary and secondary contact recreation uses of the Neversink River.

Impacts to the Neversink River and the Neversink River Floodplain Preserve are inevitable, and these impacts will translate to significant harm to the only population of the State and Federally Endangered Dwarf Wedgemussel wholly within New York State waters (note: a small population of this species also exists along the border waters of Pennsylvania and New York State in the Delaware River, with nearly all identified locations within the Pennsylvania jurisdictions of these boundary waters). This population already has been decimated in recent years, with the current population estimated at approximately 10% of the population size identified as recently as the 1990s.⁴ In fact, the Neversink population of Dwarf Wedgemussel once was estimated to be the single largest or second largest extant population of this

endangered species range-wide. The recent declines in population, however, have reduced the population so severely that relatively small tributary populations are now estimated to exceed the size of the once-preeminent Neversink River population. The tenuous existence of this last remaining New York State population of Dwarf Wedgemussel is thus already in jeopardy and must not be threatened with new impairments to water quality and habitat that threaten its survival and propagation. As noted, the proposed Millennium ESU project will directly impact the forested riparian zone of the Neversink River and will lead to water quality standard violations, impairing the best uses of this stream, particularly for such a sensitive and imperiled obligate aquatic species as the Dwarf Wedgemussel and its ability to survive and propagate.

Also proposed by Millennium, are three crossings of tributaries to the Neversink River plus two crossings of the River for pipeline access roads. One crossing, S-15 at MP 1.4 proposes a dam and pump or flume trenching. When trenching is employed, as acknowledged by NYSDEC, even what is deemed a dry crossing “will negatively impact and affect the riparian and in-stream conditions necessary to provide habitat to support trout presence and preserve water quality”.

Of further concern, the EA does not even include a trenchless feasibility analysis as has been requested by the NYSDEC for other New York pipeline projects.

Due to water quality threats such as these, NYSDEC has denied two other larger pipeline projects deploying similar construction techniques:

It is evident that the impacts from the Project…will impede the best usages of many waterbodies, particularly those with a trout standard or rare species, by degrading the survival and propagation of balanced, indigenous populations of shellfish, fish and wildlife that rely upon these waters. As it relates to State narrative Water Quality Standards, 6NYCRR § 703.2 states that there shall be “no increase [in turbidity] that will cause a substantial contrast to natural conditions.” The techniques utilized for construction of the Project will cause numerous violations of the turbidity standard.

The Delaware Riverkeeper Network will be providing additional substantive and scientific comments documenting the serious footprint of the Millennium ESU segment in the coming weeks. But given the short comment period for the EA and the anticipated pressure from Millennium for a final decision, we wanted to give at least a summary of the kinds of water quality, habitat and species issues we were identifying that, in and of themselves, warrant a docket and full review by the DRBC.

**In conclusion, DRBC must exercise its jurisdiction over the Millennium ESU as proposed.**

- Given the water quality, habitat and species impacts of the Millennium ESU as proposed,
- Given that at a minimum Millennium should have aggregated as a single project the Millennium ESU with the Valley Lateral project and CPV powerplant, and

---

7 NYSDEC WQC joint permit denial letter to National Fuel Gas Supply Corporation and Empire Pipeline, April 7, 2017.
8 NYSDEC WQC joint permit denial letter to National Fuel Gas Supply Corporation and Empire Pipeline, April 7, 2017.
9 NYSDEC WQC joint permit denial letter to Constitution Pipeline Company, April 22, 2016.
Given that there is significant and reliable evidence that the Millennium ESU does not represent the full scope of the project Millennium is anticipating to build, but that in fact it is merely a small step in the much larger pipeline expansion project soon to be proposed,

Please recall that on January 30, 2013, after years of the Delaware Riverkeeper Network alerting DRBC to the need to review and approve major interstate pipeline projects and DRBC rejecting our concerns, DRBC admitted it had acted inappropriately in failing to conduct our requested reviews. But, of course, by that time it was too late, the projects were built and the irreparable harm done. DRBC is at another pivotal moment – we have alerted you to the segmentation game in place with regards to the Millennium ESU, we have alerted you to a critical lack of information on the project and its water resource impacts as well as meaningful threats in need of consideration.

We respectfully request that you not allow Millennium to continue to mislead the public and governing agencies over the true extent of their intended Project and that you exercise your jurisdiction over the Project and demand that Millennium fully disclose its true intentions with regards to expansion of the Millennium Pipeline.

Respectfully,

Maya K. van Rossum
the Delaware Riverkeeper
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.


\(^3\) Ibid., p. 1-2.
dekatethms 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.\textsuperscript{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

\textsuperscript{4} Ibid.
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 Pipeline system would require different service than the older 24-inch, lower 920 psig MAOP, approximately 7.5 mile long segment of the Neversink portion of the Millennium Pipeline system.

---

5 PHMSA CAO

Accufacts Inc.
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.