



December 15, 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington D.C. 20426

Subject: Environmental Assessment regarding DTE Midstream Appalachia, LLC's for the Birdsboro Pipeline Project under CP17-409.

Dear Ms. Bose,

The Delaware Riverkeeper Network (DRN) submits the following comments on the Environmental Assessment (EA) prepared by Federal Energy Regulatory Commission (FERC) staff for the Birdsboro Pipeline Project (BPP) proposed by DTE Midstream Appalachia, LLC (DTE) in Docket No. CP17-409.

DTE requests authorization to construct, operate, and maintain new natural gas facilities in Berks County, Pennsylvania, consisting of 13.2 miles of 12-inch-diameter pipeline, a new meter station and associated facilities at the Texas Eastern Transmission Company Pipeline right-of-way and pig launcher facility, a new pig receiver facility; and four mainline valve sites. The purpose of the planned BPP is to provide about 79,000 dekatherms of natural gas per day to the Birdsboro Power Facility in Birdsboro, Berks County, Pennsylvania.

The EA, which was released on November 15, 2017, concluded that approval of the BPP would not constitute a major federal action significantly affecting the quality of the human environment, and recommended that a Commission order contain a finding of no significant impact. DRN does not agree with this conclusion.

DRN believes that FERC is undertaking segmentation by releasing this Draft EA. The Draft EA does not include all environmental impacts from cradle to grave and does not adequately consider the Birdsboro Power Facility and its appurtenant structures. The BPP, the proposed power plant and all of its required components constitute a single and complete project. None of these components have independent utility. None of these components would be constructed without the construction of the other components. This lack of independent utility was expressly stated in correspondence to the Pennsylvania Department of Environmental Protection (PADEP) regarding the water line proposed to supply the power plant.

Response: Your understanding is correct; the project will not be undertaken without the Birdsboro Power project.¹

¹ Weld, T.L. 24 Feb 2017. Letter to Nicholas T. Pyo, PADEP Southcentral Regional Office, *Ref: 18th Ward Water Booster Pump Station Upgrade and Water Main installation*

Similarly DTE's BPP would not be built independently of the power plant. Therefore, this EA should consider the power plant and all its required components.

The EA does not truly consider a "no-action" alternative. FERC begins its no-action analysis with a flawed assumption: "If the no-action alternative is selected, other natural gas transmission companies could propose to construct similar facilities to meet the demand for new service at the Birdsboro Power Facility."² If FERC were to deny DTE's application, it is unknown if Birdsboro Power Facility as proposed would continue to be pursued at this proposed site. FERC is speculating that other natural gas transmission companies could propose to construct similar facilities to serve the Birdsboro Power Facility. DRN suggests that FERC's no-action analysis also consider the possibility that the Birdsboro Power Facility might not be built at all, or that a power plant might be built at a different location if the FERC were to deny DTE's application. Given that the power plant proposes to secure water for cooling from the Reading Area Water Authority (RAWA), and that the power plant's effluent will be directed to the Birdsboro Municipal Authority's (BMA's) wastewater treatment plant (WWTP), the proposed power plant is not dependent on the Birdsboro site. Birdsboro Power LLC could locate this facility anywhere including sites more readily served by RAWA and other WWTPs.

DRN notes that Birdsboro Power LLCs apparent inaction on the 230 kV transmission line could also raise questions regarding the company's commitment to this project.

[N]o entity has filed a letter of notification or siting application with the Commission for a 230 kV line in Birdsboro Borough and/or Robeson, Union, and Exeter Townships associated with the described power plant. Third, the Commission possesses no records regarding the described 230 kV ring bus substation proposed to be built in Robeson Township.³

Furthermore, recent developments regarding contamination found on the site of the proposed Birdsboro Power Facility raise questions about the suitability of the site for this purpose. On Thursday, November 16, emergency crews responded to the Birdsboro Power Facility site when a worker was exposed to chlorine gas (Appendix A). Through a Right-To-Know (RTK) request, DRN secured a copy of the Pennsylvania Emergency Incident Reporting System (PEIRS) document that details the incident, which is describe as a chemical explosion, resulted during site work which exposed three cylinders buried in the ground. The capacity of the cylinder, which leaked the chlorine gas when moved, was listed as 150 pounds. The discovery of these buried cylinders raises concerns as to what other contamination is present at the site of the proposed Birdsboro Power Facility.

DRN notes that on November 21, Birdsboro Power LLC filed a complaint in the U.S. District Court for Eastern District of Pennsylvania seeking recovery costs from the United States government for costs associated with the cleanup of site of the proposed Birdsboro Power Facility which is a former military site referred to as the Armorcast site. In the complaint, it is revealed that prior to purchasing the Armorcast site, Birdsboro Power LLC commissioned a Phase I Environmental Site Assessment (which represented an update of an environmental site assessment completed in 2009) and subsequently a Phase II Environmental Report. Both studies were completed (April 2016 and October 2016 respectively) prior to Birdsboro Power's purchase of the site which the complaint indicates was October 2016. Birdsboro Power LLC had knowledge of the contamination prior to purchase, but acquire the site regardless. Birdsboro Power is not an innocent landowner under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Had FERC considered not only the BPP, but also the power plant and all its appurtenant structures, the extent of contamination on the site of the proposed Birdsboro Power Facility might have been made known in the community earlier to inform state and local permitting as well as the EA. The Phase I and Phase II documents do not appear to be in PADEP's possession despite agency approval being given for PCB remediation. DRN sought

² Federal Energy Regulatory Commission. (November 2017). Birdsboro Pipeline Project: Environmental Assessment (Docket No. CP17-409-000).

³ Chiavetta, R. 27 Oct 2017. Letter to Chari Towne, PA Public Utility Commission, *PUC RTK 2017-0067*.

documents on contamination at the site through RTK requests, but these documents were not available for review.

Regarding your question of the ESA and its absence from our records during your review. A Phase I is considered an historical search of the property and was not submitted to the Department. Additionally, there is no requirement for submission.⁴

Nor did DRN find the Phase II document during our review of PADEP files pertaining to contamination on the site of the proposed Birdsboro Power Facility.

The EA contradicts itself on the matter of contaminated soils in the path of the pipeline, first noting that:

DTE conducted a limited investigation of soils at the HDD pit and associated pipeline near the Birdsboro Power Facility and identified contaminated fill material across the investigation area, to a depth of up to 6 feet.⁵

Later, the EA suggests the cleanup of any contamination on the site of the Birdsboro Power Facility had been completed. DRN notes that the source cited in support of this statement, U.S. Environmental Protection Agency's *Cleanups in My Community – Armorcast* webpage, lists a completion date 6/5/2008. Leaving aside the Phase I and Phase II document prepared for Birdsboro Power LLC, the 2009 Phase 1 assessment listed contamination remaining on the site after the investigation and remediation activities conducted by the U.S. Army Corps of Engineers (USACE) and PADEP. The statement in the EA that any contamination had been cleaned up is inaccurate and should be deleted.

DRN also notes the link provided in the references for the U.S. Environmental Protection Agency's *Cleanups in My Community – Armorcast* does not link directly to the webpage about the Armorcast property. DRN asks if the link provide in the references should be replaced with this direct link:

https://obipublic11.epa.gov/analytics/saw.dll?PortalPages&Action=Navigate&PortalPath=/shared/CIMC/_portal/CIMC&Page=Profile+Page&col1=ACRES_GRANT_EXPORT.PROPERTY_ID&val1=%22148181%22.

DRN also reviewed the limited investigation of soils data submitted to FERC identify any soil contamination within the planned pipeline corridor at the Birdsboro Power Facility. Our review of these data brought us to a different conclusion than that presented in the EA, that “contaminated soils were encountered and would be remediated during construction.”⁶

DTE is proposing to remove all soils from the pipeline right-of-way on the site to ensure that future maintenance activities can occur without having to monitor and manage contaminated soils.⁷ This is not an adequate response to dealing with contaminated soils in the path of the pipeline. This approach to dealing with contaminated soils ignores the potential for movement of contaminants from adjacent soils into the clean replacement fill. The soils analysis characterized only the level of contamination in soils in the right-of-way, ignoring nearby soils. The level of contamination in those soils might be revealed by the Phase II Environmental Report commissioned by Birdsboro Power LLC. Absent that report, FERC should require DTE to more fully characterize the level of contamination beyond the pipeline corridor and the potential for contaminants to move into the clean fill.

DRN also requests FERC hold DTE to appropriate standards for quality control criteria necessary for valid samples. The data presented in DTE's limited investigation of soils would not meet the quality control criteria

⁴ Conrad, R. 19 Oct 2017. Email to Towne c, PADEP Southcentral Regional Office, *Follow-up: RTK 4300-17-127 (SC)*

⁵ Federal Energy Regulatory Commission. (November 2017). Birdsboro Pipeline Project: Environmental Assessment (Docket No. CP17-409-000).

⁶ Federal Energy Regulatory Commission. (November 2017). Birdsboro Pipeline Project: Environmental Assessment (Docket No. CP17-409-000).

⁷ Dawood Engineering Inc. (June 2017). Limited Geoprobe Investigation Report HDD Pit and Pipeline: Former Armorcast Site. DTE Energy. Page 3 of 7

necessary for valid samples—samples were not collected by lab personnel, absence of custody seals, and flags suggesting contamination in the processing of samples—the limited geoprobe data can serve as an indication of the level of contamination present. The issues with quality control criteria could also mean that the level of contaminant present could be significantly different (e.g., higher than indicated).

Without a more complete picture of contamination on the site of the Birdsboro Power Facility, FERC cannot be sure that the BPP will have no significant impact. A study (one that meets appropriate standards for quality control criteria) that characterizes the level of contamination the site of the Birdsboro Power Facility and the potential for those contaminants to move is necessary to assess the impact of the BPP. At a minimum, the limited investigation of soils needs to be repeated and performed to appropriate standards. DRN recommends such a study include subsurface characterization to prevent another chemical explosion haz-mat incident that could result in the release of chlorine gas.

Another reason to consider not only the BPP, but also the power plant and all its appurtenant structures is the need to identify potential cumulative impacts associated with recently completed, current, proposed, or reasonably foreseeable future actions within the BPP area. The EA states that “To date, no planned commercial, residential, or other developments have been identified within 0.25 mile of the Project facilities.”⁸ The EA fails to identify the RAWA water line to be constructed to the Birdsboro Power Facility, as well as the 230 kV transmission line that will run from Birdsboro Borough through Exeter Township and into Robeson Township where the 230 kV ring bus substation is proposed to be built.

DRN requests FERC add to the list planned residential or industrial/commercial developments in the BPP area the RAWA water line, eh 230 kV transmission line and the 230 kV substation:

- RAWA is proposing to construct and maintain a 16-inch water main permanently impacting 190 square feet of Hay Creek, 60 square feet of Exceptional Value Wetlands, 1,953 square feet of Angelica Creek, 4.5 square feet of an unnamed tributary (UNT) to the Schuylkill River, 10.5 square feet of a second UNT to the Schuylkill River, 9 square feet of a third UNT to Schuylkill River, and 15.75 square feet of a fourth UNT to Schuylkill River.
- The 230 kV transmission line proposed to be comprised of 29 new overhead pole structures ranging in height from 110 to 140 feet. The structures will be 40- to 60-inch-diameter metal self-weathering monopoles. The monopole structures will be structurally supported by drilled pier foundations (bored piles). DRN notes that monopole construction usually requires deeper foundations with greater mass than lattice structures. This means the smaller visual footprint may actually require more extensive excavation and concrete work, and therefore result in a greater area of disturbance.⁹
- The completed substation is described as occupying approximately 5 acres.¹⁰ DRN notes that the proposed substation is located approximately 0.3 mile from the site of the staging area/construction yard proposed by DTE to be located in Robeson Township.

The EA notes that:

DTE consulted with Amity, Earl, Exeter, Oley, Pike, Robeson, Rockland, and Union townships in Berks County to identify any planned residential or industrial/commercial developments in the

⁸ Federal Energy Regulatory Commission. (November 2017). Birdsboro Pipeline Project: Environmental Assessment (Docket No. CP17-409-000).

⁹ Molburg, J.C., et al. (2008). The design, construction, and operation of long-distance high-voltage electricity transmission technologies (No. ANL/EVS/TM/08-4). Argonne National Laboratory (ANL). Retrieved from http://solareis.anl.gov/documents/docs/APT_61117_EVS_TM_08_4.pdf

¹⁰ Delucas. S.F. (18 January 2017) “Robeson Township supervisors get plan for power substation.” Reading Eagle. <http://www.readingeagle.com/news/article/robeson-township-supervisors-get-plan-for-power-substation>

Project area. Each entity indicated that there are no known developments are [sic] planned within 0.25 mile of the Project.¹¹

Perhaps DTE should have consulted with Birdsboro Power LLC regarding the location of known developments planned nearby the BPP.

DRN also asks FERC consider the soils impacts associated with the construction of the Birdsboro Power Facility, which is located in the floodplain and flood way. This development is being allowed only by raising the land surface by four feet. The final grade is intended to be at least 1 foot above the regulatory flood elevation. This can only be accomplished by bringing in significant volumes of fill into the floodplain. DRN estimates the footprint of the proposed power plant facilities to be in the range of 200,000 to 400,000 square feet, which means the proposed floodplain filling would displace at minimum of 600,000 cubic feet of floodwaters when inundated by the regulatory flood.

This floodplain filling will exacerbate flooding in the vicinity as well as at the site of the BPP. FERC concludes that “the BPP facilities would not discernably alter the flood storage the capacity of affected floodplains.”¹² Past flooding in Birdsboro has been attributed to backup of the Hay Creek from high stages of the Schuylkill River. The proposed fill on this site will only exacerbate the issue of Hay Creek backup during high Schuylkill flows. However, if FERC were to deny DTE’s application, Birdsboro Power LLC might choose not to pursue this project at this proposed site, and therefore remove the need for filling in of the floodplain filling. These floodplain impacts and subsequent flooding that will result from the construction of the Birdsboro Power Facility cannot be separated from the BPP.

Pennsylvania permitting for this project indicated 28 streams and 21 wetlands would be crossed by this project.¹³ However, materials provided to FERC suggest 22 stream crossings.¹⁴ This discrepancy should be addressed.

The applicant proposes to use open cut dry crossing methods, conventional bore, and horizontal directional drilling (HDD), a process that results in cuttings or spoils. The wetland and waterbody HDD crossings total approximately 4,500 feet, nearly a mile, with approximately 1,400 feet of that total associated with the HDD crossing of the Schuylkill River.¹⁵ The applicant does not adequately address the risk of inadvertent returns, or inadvertent spills of drilling fluids. Inadvertent returns are considered to be a common occurrence with HDD crossings.¹⁶

An analysis by FracTracker and the Clean Air Council finds that approximately 202,000 gallons of drilling fluids have been accidentally released in 90 different spill events while constructing the Mariner East 2 pipeline in Pennsylvania. In a more recent update, FracTracker estimates these occurred at 42 distinct locations.¹⁷

¹¹ Federal Energy Regulatory Commission. (November 2017). Birdsboro Pipeline Project: Environmental Assessment (Docket No. CP17-409-000).

¹² Federal Energy Regulatory Commission. (November 2017). Birdsboro Pipeline Project: Environmental Assessment (Docket No. CP17-409-000).

¹³ 47 Pa.B. 4716

¹⁴ Rucker, K. (27 June 2017). Email to Gregory Lech. Subject: Birdsboro Pipeline - SIR# 46159, In-stream Construction Restrictions

¹⁵ GAI Consultants, Inc. (February 2017). Federal Energy Regulatory Commission Draft Resource Report 1, DTE Midstream Appalachia, LLC, Docket No. PF17-1-000, Birdsboro Pipeline Project, Berks County, Pennsylvania.

¹⁶ Tetra Tech, Inc. (December 2016). HDD Inadvertent Return Assessment, Preparedness, Prevention and Contingency Plan: Pennsylvania Pipeline Project.

¹⁷ Jalbert, K. (2 August 2017). Mariner East 2 Drilling Fluid Spills – Updated Map and Analysis. FracTracker Alliance. Retrieved from <https://www.fractracker.org/2017/07/me2-drilling-fluid-spills/>

Among the Mariner East 2 spills was one not far from the path of the Birdsboro Pipeline Project in Cumru Township where approximately 500 gallons of fluids surfaced in retention pond on May 31, 2017. The drinking water intake for the Borough of Pottstown's is located just a short distance downstream from the site of the proposed HDD crossing of the Schuylkill River. Given problems that have resulted with inadvertent returns during construction of other pipelines such as the Mariner East 2, PADEP should require special conditions for notification, containment, cleanup, and restoration activities.

The applicant asserts that inadvertent returns are unlikely as a result of design precautions,¹⁸ but the two paragraph narratives provided for the HDD crossings suggest short shrift was given to risk assessment. This brief discussion of this real risk runs counter to what proved to be a common occurrence with the Mariner East 2 pipeline project.

The applicant's HDD risk assessments should speak to the probability each of these HDD construction risks:¹⁹

- Hydrofracture/Inadvertent returns—escape of the drilling fluid from the bore to the surface.
- Loss of circulation – escape of drilling fluid from formation without flowing to the entry and/or exit holes or to the surface.
- Hydrolock – creation of a hydraulic cylinder due to pressure buildup after loss of circulation.
- Loss of depth/Floating line.
- Mixed soil conditions.
- Heave/hump on surface.
- Surface subsidence.
- Hitting unknown existing utilities and structures –includes cross-bores and utilities that are affected by the displacement of soil and other movement.
- Loss of formation/collapse of borehole – refers to collapse of borehole and is common in loose soil situations, especially random fill.
- Collapse of product pipe – can result if the bore is not adequately prepared to receive the product pipe or if the pipe is not adequately designed.
- Drill pipe/down-hole tooling failure – here, the tooling (bottom hole assembly - BHA) or pipe is damaged to a level beyond the normal anticipated and manageable wear and tear.
- Stuck pipe – where the product pipe is lodged in the bore hole and is immovable.
- Weather related risks – delays and other damages that may result from weather related issues including excessive rains or snow.
- Operational risks – this covers the time lost when operations are halted following unscheduled maintenance, delay of equipment, client request, need to make decisions, and other events leading to delays.
- Obstructions –includes cobbles, boulders and other obstructions that may be encountered during the drilling operation with the potential to deter bore completion.
- Inability to maintain line and grade.
- Safety – physical/bodily harm to workers or/and general public.
- Environmental risks – contamination, drilling fluid disposal, drilling through contaminants, and potential risks when drilling in environmentally sensitive areas.
- Bypass related risks – risk involved when you have to bypass the flow to allow construction to take place, especially when rehabilitating or replacing a section of a pipeline.

Among these HDD construction risks, Onsarigo et al (2017) identified Hydrofracture/Inadvertent returns and Mixed soil conditions as risks with high impact on the project and with high probability of occurrence.

¹⁸ DTE Midstream Appalachia, LLC Response to FERC Staff Environmental Data Requests Dated June 12, 2017. Attachment O: Updated HDD Assessments (3 July 2017)

¹⁹ Onsarigo, L., Adamtey, S., & Atalah, A. (2014). Analysis of Horizontal Directional Drilling Construction Risks Using the Probability-Impact Model: A Contractor's Perspective. In *Pipelines 2014: From Underground to the Forefront of Innovation and Sustainability* (pp. 1772-1783).

As the result of document reviews and field investigations during construction of three sections of pipeline -- the TGP 300 line upgrade, TGP Northeast Upgrade Project (NEUP), and Columbia 1278 pipeline -- in the Upper Delaware River Basin, DRN documented:

- Over 60 instances where best management practices (BMPs) were not present, inadequate or not functioning or in need of repair, maintenance or reinforcement
- 4 instances of fueling being conducted in wetlands or near waterbodies
- Dozens of instances of poor signage and staking and mapping errors which sometimes led to impacts off of the permitted right of way, loss of trees outside the row, and inaccurate mitigation calculations
- Thermal impacts, extreme (and unreversed) soil compaction, nutrient impacts, benthic invertebrate changes from pipeline cuts, including for streams with exceptional value, high quality and or c-1 anti-degradation classifications
- Discrepancies between pipeline company monthly compliance reports and what work and activities to meet compliance and avoid pollution were actually occurring or not occurring on the ground. We also noted excessive lag time in the filing and/or public release of construction reports making for difficult follow up in the field. We documented too few pipeline inspectors and a lack of oversight person-power for these extensive linear projects that spanned many miles and where work was going on simultaneously along the routes with little independent oversight.

Based on first hand observations and monitoring, DRN has concluded:

- Natural gas pipeline projects result in a multitude of environmental impacts that inflict high levels of unnecessary ecological damage – this damage is not avoided, nor properly mitigated, despite the resource reports that are drafted or the guidance provided by FERC or other federal or state agencies;
- Violations of environmental laws are common place and an accepted part of pipeline construction – and compliance outweighs penalties and violations to the detriment of the environment and the public;
- Construction problems and potential violations are not properly responded to by the company, by FERC or by other state or federal agencies and mitigation does not undo the harms inflicted -- as a result of both, pipelines inflict enduring and/or repetitive harms on natural resources; and
- Current or proposed guidance from FERC or other regulatory agencies do not prevent, avoid, or otherwise mitigate these ecological and public harms or the multitude of bad practices used by the pipeline companies.

For the foregoing reasons, DRN believes FERC's finding of no significant impact is incorrect. DRN urges FERC to rescind this EA and develop a complete and comprehensive EIS. We also request that you extend the public comment period and provide a public meeting with advanced and fair notice to the public. We look forward to a response.

Respectfully submitted,



Maya K. van Rossum
the Delaware Riverkeeper

The Mercury (<http://www.pottsmmerc.com>)

Worker exposed to chlorine gas at power plant site in Birdsboro

Emergency crews respond to Hazmat incident at construction site

By Digital First Media

Thursday, November 16, 2017



BIRDSBORO >> A situation involving hazardous materials brought emergency crews to a power plant construction site in Birdsboro Thursday afternoon.

Emergency crews were called to EIG Environmental, 1 Armorcast Road, just before 2 p.m. Thursday. Authorities say a gas was emitted from a cylinder in the ground prior to construction.

One male reportedly inhaled the chemical after the product exploded and he was quickly moved to a “fresh air environment,”

according to first responders.

Emergency medical assistance was then requested. The man’s current condition is not known.

“Crews reported a yellowish liquid coming from the cylinder, when moved cylinder smokes,” read a post from Fire Alerts of Berks on the incident.

At around 3 p.m. Fire Alerts of Berks posted an update saying the Hazmat team confirmed the chemical to be chlorine.

Southern Berks Emergency Medical Services and Gibraltar Fire Company were at the scene.

Bob Kula, vice president for corporate communication for Kiewit Corp., released the following statement: “This afternoon, a subcontractor employee of Kiewit working on the Birdsboro Power Project was removing debris as part of planned remediation and cleanup of the property. The employee was operating a track loader and made contact with a canister while moving material on site, resulting in the release of chlorine gas in the vicinity of the worker. The employee was treated at the scene by paramedics and is currently under observation.”

Kiewit is working closely with Birdsboro Power LLC, Environmental Infrastructure Group and local Hazmat authorities to investigate the incident, Kula said.

“The safety of all those on and near the project is our utmost priority,” he said.

URL: <http://www.pottsmmerc.com/general-news/20171116/worker-exposed-to-chlorine-gas-at-power-plant-site-in-birdsboro>