

124 FERC 61,160  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
Philip D. Moeller, and Jon Wellinghoff.

Transcontinental Gas Pipe Line Corporation

Docket No. CP08-31-000

ORDER ISSUING CERTIFICATE AND GRANTING  
ABANDONMENT AUTHORITY

(Issued August 14, 2008)

1. On December 3, 2007, in Docket No. CP08-31-000, Transcontinental Gas Pipe Line Corporation (Transco) filed an application under section 7 of the Natural Gas Act (NGA)<sup>1</sup> and Part 157 of the Commission's regulations<sup>2</sup> for a certificate of public convenience and necessity to construct and operate looping pipeline facilities; to replace existing pipeline facilities; to abandon existing pipeline; and to make modifications to compressor stations and appurtenant facilities in eastern Pennsylvania and northern New Jersey (Sentinel Expansion Project or project). The proposed Sentinel Expansion Project would provide an additional 142,000 dekatherms per day (Dth/d) of firm transportation capacity to the northeastern U.S. market.

2. For the reasons discussed below, we will grant the requested authorizations, subject to the conditions set forth in this order.

**I. Background and Proposal**

3. Transco is a natural gas pipeline company engaged in the transportation of natural gas in interstate commerce. Transco's natural gas transmission system extends from supply sources in Texas, Louisiana, Mississippi, Alabama, and the offshore Gulf of Mexico area through Georgia, South Carolina, North Carolina, Virginia, Maryland, Pennsylvania, New Jersey, and New York. The Sentinel Expansion Project is an

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<sup>1</sup> 15 U.S.C. § 717f (2000).

<sup>2</sup> 18 C.F.R. §§ 157.1-157.218 (2008).

incremental expansion of Transco's existing pipeline system in the northeastern market area.

**A. Proposed Facilities**

4. The Sentinel Expansion Project will allow Transco to provide 142,000 Dth/d of incremental firm transportation service from its existing point of interconnection in Fairfax County, Virginia with Dominion Cove Point LNG, LP, and from its existing Leidy Hub receipt point in Clinton County, Pennsylvania to delivery points in Pennsylvania, Delaware, New Jersey and New York. The project will be constructed in two phases: Phase 1 will place 40,000 Dth/d in service by November 1, 2008; and Phase 2 will place the remaining 102,000 Dth/d in service by November 1, 2009.

5. During Phase 1 of the Sentinel Expansion Project, Transco proposes to install 3.87 miles of 42-inch pipeline loop on the existing Leidy Line in Northampton and Monroe Counties Pennsylvania (Wind Gap Loop); to modify Compressor Station No. 195 in Chester County, Pennsylvania; to modify various valves, valve operators, controls, and detection systems at four locations on Mainline A in Pennsylvania; and to modify two existing Transco meter stations in Pennsylvania – the Hockessin Meter Station in Chester County and the Wilmington Meter Station in Delaware County.

6. During Phase 2 of the Sentinel Expansion Project, Transco proposes to replace 7.15 miles of 42-inch pipeline on the existing Mainline A and to make piping modifications at Compressor Station No. 200 in Chester County, Pennsylvania (Downingtown Replacement); to install 1.93 miles of 42-inch pipeline loop on the existing Leidy Line in Luzerne County, Pennsylvania (Conyngham Loop); to install 3.78 miles of 42-inch pipeline loop on the existing Mainline A in Somerset County, New Jersey (Mountain View Loop); to install 1.17 miles of 42-inch pipeline loop on the existing Mainline A in Union County, New Jersey (Turnpike Loop); and to make modifications to eight existing meter stations – the West Parkesburg and Kennett Square Meter Stations in Chester County, Pennsylvania; the Ivyland Meter Station in Bucks County, Pennsylvania; the Cloverleaf Meter Station in Middlesex County, New Jersey; the Erie Street Meter Station in Union County, New Jersey; the Paramus Meter Station in Bergen County, New Jersey; the Hamilton Meter Station in Mercer County, New Jersey; and the Mount Laurel Meter Station in Burlington County, New Jersey. In addition, minor aboveground facilities such as valves, valve operators, launchers, and receivers will be constructed or modified for each phase of the project.

**B. Rates**

**1. Precedent Agreements**

7. Transco held an open season in 2005 during which it received requests from seven potential shippers (Sentinel shippers) for new incremental firm transportation service

through the Sentinel Expansion Project.<sup>3</sup> Transco also conducted a reverse open season and did not receive any offers by its customers to permanently relinquish firm transportation capacity under existing service agreements. Transco has executed binding precedent agreements with the Sentinel shippers for 100 percent of the incremental firm transportation service created by the Sentinel Expansion Project.

## 2. Project Financing

8. Transco estimates the total cost for the proposed Sentinel Expansion Project will be \$155 million. Transco states that the project will be financed initially through short-term loans and funds on hand. Permanent funding will be undertaken at a later date as part of Transco's overall long-term financing program.

## 3. Incremental Recourse Rates

9. Transco proposes to provide services using the proposed expansion capacity under its existing Rate Schedule FT. However, Transco proposes to charges incremental rates. As the incremental recourse rate for firm services using expansion capacity during Phase 1, Transco proposes a daily reservation rate of \$0.35104 per Dth based on the estimated cost of the Phase 1 facilities, and other cost factors, including a pre-tax return of 15.34 percent, based on Transco's approved settlement rates in Docket Nos. RP01-245-000, *et al.*;<sup>4</sup> and a depreciation rate of 2.79 per cent.<sup>5</sup>

10. Transco proposes two incremental recourse rates for firm services using the expansion capacity after the Phase 2 facilities are completed and placed in service: (1) a daily reservation rate of \$0.48729 per Dth for firm capacity to non-New York delivery points; and (2) a daily reservation rate of \$0.92005 per Dth for firm capacity to delivery

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<sup>3</sup> The Sentinel shippers include Chesapeake Utilities Corporation – Delaware Division; Delmarva Power & Light Company (Delmarva Power); Hess Corporation; PECO Energy Company (PECO Energy); Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas; PSEG Power, LLC (PSEG Power); and UGI Utilities, Inc (UGI Utilities).

<sup>4</sup> *Transcontinental Gas Pipe Line Corp.*, 123 FERC ¶ 61,040 (2008).

<sup>5</sup> The proposed depreciation rate of 2.79 includes negative salvage and is the onshore transmission depreciation rate approved by the Commission in Docket Nos. RP06-569-000, *et al. Transcontinental Gas Pipe Line Corp.*, 122 FERC ¶ 61,213 (2008). The settlement in Docket No. RP06-569 was a black box settlement which stated the 2.79 percent settlement depreciation rate, including negative salvage, but did not specify a rate of return or most other cost of service components.

points in New York. In addition to the reservation rates, Transco proposes to charge the Sentinel shippers an electric power unit rate, a fuel retention factor, the Annual Charge Adjustment (ACA) surcharge, other applicable charges under Rate Schedule FT, and, as discussed below, a surcharge based on each Sentinel shipper's incremental cost of service for meter station modifications and firm capacity entitlements.

11. Transco states that in calculating its proposed Phase 1 rate, it used an estimated Phase 1 total cost of service of \$5,125,198 and total billing determinants of 14,600,000. For the proposed Phase 2 reservation rate for firm capacity to non-New York delivery points (\$0.48729 per Dth), Transco used an estimated Phase 2 total cost of service of \$25,256,109 and total billing determinants of 51,830,000. For the proposed Phase 2 reservation rate for firm capacity to delivery points in New York (\$0.92005 per Dth), Transco used a Phase 2 total cost of service including an additional \$3,948,954 (for a total of \$29,205,063) and billing determinants of 9,125,000.

#### **4. Meter Stations**

12. Meter station modifications will be necessary to accommodate the expansion services for some of the Sentinel shippers. Transco proposes to charge each of these Sentinel shippers a surcharge to recover the costs of the meter station modifications for their benefit. The proposed Daily Reservation Rate Meter Station Surcharges are as follows: Delmarva Power - \$0.07108 per Dth; Elizabethtown Gas - \$0.12402 per Dth; PSE&G Power - \$0.07666 per Dth; and PECO Energy - \$0.06257 per Dth.

13. For rate purposes, Transco proposes to depreciate the proposed modifications to meter stations for the benefit of Sentinel shippers over the respective contractual terms of its long-term shipper contracts, which range from five to twenty years, plus an onshore negative salvage rate. For financial accounting and reporting purposes, Transco proposes to depreciate the Sentinel meter stations over their estimated useful life using its existing Commission approved depreciation rate of 2.79 percent, inclusive of the onshore negative salvage rate.<sup>6</sup>

## **II. Notices, Interventions, and Comments**

14. Notice of Transco's application in Docket No. CP08-31-000 was published in the *Federal Register* on December 27, 2007 (72 *Fed. Reg.* 73,342), with interventions, protests, and comments due by January 7, 2008. Thirteen timely, unopposed motions to intervene were filed by Atmos Energy Corporation; Mark T. and Cheryl A. Bradley; Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.; the City of Richmond, Virginia; Consolidated Edison Company of New York, Inc.; Delmarva

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<sup>6</sup> Transco's data response filed March 18, 2008.

Power; Henry J. and Margaret McHugh, and Michael and Erin Heilig, filing jointly; the National Grid Gas Delivery Companies;<sup>7</sup> New Jersey Natural Gas Company; NJR Energy Services Company; the North Carolina Utilities Commission; PECO Energy; and Piedmont Natural Gas Company, Inc. Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.<sup>8</sup>

15. Seven motions to intervene out-of-time were filed by Hess Corporation; Michael and Lisa Matson; Andrew J. Moody; National Fuel Distribution Corporation; Stephen K. and Gwendolynne C. Pfau; PSEG Power; and UGI Utilities. No party has opposed these motions to intervene. The Commission finds that granting these motions to intervene will not delay, disrupt or otherwise prejudice this proceeding, or place an additional burden on existing parties. Each of the parties has a demonstrated interest in the proceeding either as a Sentinel shipper or as a landowner directly affected by the Sentinel Expansion Project. Accordingly, pursuant to Rule 385.214(d) of the Commission's Rules of Practice and Procedure, the out-of-time motions to intervene are granted.<sup>9</sup>

16. Seven protests against the Sentinel Expansion Project were by were filed by Mark T. and Cheryl A. Bradley; Lou Franzini; Chuanpu and Wenyu L. Hu; Malvern Hunt Home Owners Association (HOA); Henry J. and Margaret McHugh, and Michael and Erin Heilig, filing jointly; Stephan K. and Gwendolynne C. Pfau; and Karen Zajick and Melissa L. Hrynko, filing jointly. All of these protests concern the Downingtown Replacement section of the Sentinel Expansion Project. These protesters' comments were addressed in the Commission's environment assessment (EA), which is discussed in the environmental section of this order.

17. Numerous comments on the application were filed by U.S. Senator Robert P. Casey, Jr.; Pennsylvania State Senator Andrew E. Dinniman; Malvern Hunt HOA; Montgomery Township Environmental Commission; Sourland Planning Council; West Whiteland Township Board of Supervisors; and landowners affected by the Sentinel Expansion Project. The comments concern impacts on the local environment,

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<sup>7</sup> The National Grid Delivery Companies include The Brooklyn Union Gas Company d/b/a KeySpan Energy Delivery NY; KeySpan Gas East Corporation d/b/a/ KeySpan Energy Delivery LI; Boston Gas Company, Colonial Gas Company, EnergyNorth Natural Gas, Inc., and Essex Gas Company, collectively d/b/a KeySpan Energy Delivery NE; Niagara Mohawk Power Corporation d/b/a National Grid; and The Narragansett Electric Company d/b/a National Grid, all subsidiaries of National Grid USA.

<sup>8</sup> 18 C.F.R. § 385.214 (2008).

<sup>9</sup> 18 C.F.R. § 385.214(d) (2008).

landowners' property, community utilities, and quality of life. The comments are addressed in the EA, and discussed further in the environmental section below.<sup>10</sup>

### **III. Discussion**

18. Since the proposed facilities will be used to transport natural gas in interstate commerce, the construction, operation, and abandonment proposed in the Sentinel Expansion Project are subject to the jurisdiction of the Commission and the requirements of NGA section 7.

#### **A. Policy Statement on New Facilities**

19. To determine whether a proposed project is required by the public convenience and necessity, we consider whether the proposal meets the criteria set forth in our Certificate Policy Statement addressing new facilities.<sup>11</sup> In this policy statement, we establish criteria for determining whether there is a need for a proposed project, balance the public benefits against potential adverse impacts of the project, and determine whether the proposed project will serve the public interest. Our goal in evaluating proposed projects is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, avoidance of unnecessary disruptions to the environment, and avoidance of the unnecessary exercise of eminent domain.

20. Under the Certificate Policy Statement, the threshold requirement for existing pipelines proposing a new project is that the pipeline must be prepared to financially support the project without relying on subsidization from existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the new project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the location of the new facilities. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, we evaluate the project by balancing the public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the

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<sup>10</sup> For a full list of commenters on the Sentinel Expansion Project, see Appendix A.

<sup>11</sup> *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *order on clarification*, 90 FERC ¶ 61,128 (2000), *order on clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

adverse effects on the economic interests will the Commission proceed to complete the environmental analysis where other interests are considered.

21. The threshold requirement under the Certificate Policy Statement is that the applicant must be prepared to financially support the project without relying on subsidization from its existing customers. Transco has proposed incremental rates for services utilizing its proposed Sentinel expansion capacity. The Commission has previously determined that where a pipeline will charge incremental rates to recover the costs of new construction, the pipeline satisfies the requirement that the project will not be subsidized by existing shippers.<sup>12</sup> Thus, the Commission finds that the incremental rate structure submitted by Transco satisfies the threshold requirement of the Commission's policy statement.

22. The next criterion the Commission considers under the policy statement is whether the applicant has made efforts to eliminate or minimize any adverse effects the new project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the location of the new facilities. Transco states that existing customers will not be affected by the Sentinel Expansion Project because existing customers will be served through Lines B or C in the same right-of-way, while Mainline A and the Leidy Line are being replaced, looped, and/or abandoned. The project should have no adverse effects on Transco's services to its existing customers. Further, Transco has precedent agreements for 100 percent of expansion capacity and no shippers offered to turn back any firm capacity during the reverse open season. The Commission finds that there will likely be no adverse effects on other pipelines and their captive customers.

23. Transco has designed the Sentinel Expansion Project to minimize the impact on landowners, communities, and the environment. All of the replacements, loops, and/or abandonments that are part of the Sentinel Expansion Project will be carried out along Transco's existing rights-of-way. Transco has requested additional easement space to the north of the existing right-of-way to prevent future encroachment and to comply with pipeline safety standards that ask pipeline operators to propose additional measures to ensure the safety of pipelines in high consequence areas.<sup>13</sup> Transco believes this extra right-of-way space is an appropriate additional measure to satisfy pipeline safety

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<sup>12</sup> See, e.g., *Dominion Transmission, Inc.*, 120 FERC ¶ 61,235 (2007); *Transcontinental Gas Pipe Line Corp.*, 98 FERC ¶ 61,155 (2002).

<sup>13</sup> Transco cites section 192.935, 49 C.F.R. § 192.935(a) (2008), of the U. S. Department of Transportation's regulations which require a pipeline operator to ". . . take additional measures beyond those already required by Part 192 to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in a high consequence area."

requirements. Transco states that it has been actively working directly with affected landowners on adjusting the pipeline route within easements and on the size of the negotiated easement on a case-by-case basis to accommodate landowners' concerns.<sup>14</sup> Further, Transco states that it has been working with local communities to minimize the effects of the Sentinel Expansion Project on sewage systems, water supplies, and conservation goals in the affected communities. We urge Transco to make all possible efforts to minimize adverse impacts on landowners and communities, and to resolve easement issues outside of court.

24. Based on the benefits that Transco's proposal will provide to the market and the minimal adverse effects on existing customers, other pipelines, landowners, or communities, we find that approval of the Sentinel Expansion Project is required by the public convenience and necessity, subject to the environmental and other conditions set forth in this order.

### **B. Rates**

25. Transco's proposed incremental recourse rates are based on the proposed project's actual design capacity. Further, the rates are designed using the straight fixed-variable method, consistent with Commission policy.<sup>15</sup> The recourse rates for firm service and the meter station surcharges have been designed to recover 100 percent of Transco's costs. Accordingly, no other class of shippers will subsidize any of the project's costs. The Commission finds that Transco's proposed incremental recourse rates are appropriate.

26. The Commission's regulations require pipelines to account separately for the construction costs of incrementally priced expansion capacity and to compare actual to projected costs in their NGA section 4 general rate proceedings.<sup>16</sup> This accounting will protect existing shippers from cost overruns and from subsidization that might result from under collection of the project's incremental cost of service, as well as help the Commission and parties to the rate proceedings determine the costs of the project. Such an accounting will allow the Commission to identify any material changes in

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<sup>14</sup> As part of discussions regarding a reasonable width for the additional right-of-way and concerns over the content of the easement agreements, Transco has agreed to revisit the existing easement agreements and offer revised language to homeowners. This issue is discussed more fully in the environmental section below.

<sup>15</sup> *E.g., Texas Gas Transmission, LLC*, 123 FERC ¶ 61,118, at P 22 (2008).

<sup>16</sup> 18 C.F.R. § 154.309 (2008).

circumstances that would warrant a re-examination of the rate treatment approved in the certificate proceeding in which the expansion project was approved.

27. Transco's application does not discuss interruptible transportation services using the proposed expansion capacity. The Commission's open-access regulations require that jurisdictional pipelines that offer firm transportation service must also offer interruptible transportation service.<sup>17</sup> Although Transco asserts the new capacity is fully subscribed, this does not preclude the possibility of offering interruptible transportation service at those times the Sentinel shippers are not utilizing all of their reserved firm capacity.

28. Since the expansion capacity is being built onto the original system trunkline with operation on an integrated basis, a particular shipper's usage of capacity is not distinguishably assignable to either the original system design capacity or the expansion capacity on an operational basis. Consistent with the Commission's action in *Kern River Gas Transmission Co.*,<sup>18</sup> Transco is directed to charge the current system-wide rates for any interruptible service rendered on the additional capacity made available as a result of the expansion.

29. At least thirty days but not more than sixty days prior to commencing Phase 1 expansion service, Transco must file actual tariff sheets setting forth its Phase 1 incremental recourse rates. At least thirty days but not more than sixty days prior to commencing Phase 2 expansion service, Transco must file actual tariff sheets setting forth its Phase 2 incremental recourse rates.

30. Transco has executed binding precedent agreements with the Sentinel shippers for 100 percent of the incremental firm transportation service under the project. The precedent agreements require the Sentinel shippers and Transco to execute firm transportation service agreements with primary terms ranging from 15 to 20 years and five months within 30 days of Transco's receipt and acceptance of the authorizations requested in this application. At least thirty days but not more than sixty days prior to the commencement of firm transportation service, Transco must file with the Commission its Rate Schedule FT service agreements for the Sentinel shippers reflecting any negotiated reservation rates, the applicable receipt and delivery points, and the volumes to be transported.<sup>19</sup>

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<sup>17</sup> 18 C.F.R. § 284.9(a) (2008).

<sup>18</sup> 117 FERC ¶ 61,077, at P 313-14, 326 (2006). *See also Gulf South Pipeline Company, LP*, 122 FERC ¶ 61,162, at P 17 (2008).

<sup>19</sup> Consistent with our standard practice, we will condition our certificate authorization so that construction cannot commence until after Transco executes contracts that reflect the levels and terms of service presented in its precedent

(continued...)

### C. Accounting

31. As stated above, Transco proposes to depreciate the Sentinel meter stations for rate purposes over the respective contractual terms of its long-term shipper contracts, which range from five to twenty years, plus an onshore negative salvage rate. For financial accounting and reporting purposes, Transco states in its March 18, 2008, data response that it proposes to depreciate the modifications to the meter stations over their estimated useful life using its existing Commission approved depreciation rate of 2.79 percent, inclusive of the onshore negative salvage rate.<sup>20</sup>

32. It is not clear from Transco's March 18, 2008, data response how Transco proposes to account for the difference between the depreciation included in its rates and the depreciation recorded for financial accounting. Accordingly, we will require Transco to recognize the difference between the depreciation included in rates and the depreciation recorded for financial accounting and reporting purposes as a regulatory liability consistent with instructions to Account 254, *Other Regulatory Liabilities*.<sup>21</sup>

## IV. Environmental Analysis

### A. Background

33. On August 4, 2006, the Commission granted Transco's request to use our pre-filing process for the Sentinel Expansion Project. At the pre-filing stage, Transco's planned project was to consist of five, 42-inch-diameter natural gas pipeline loops totaling approximately 26 miles. The project components were identified as the Wind Gap Loop, Mountain View Loop, Conyngham Loop, Downingtown Loop, and Turnpike Loop, all of which would be collocated with multiple natural gas pipelines. On October 18, 2006, we issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Sentinel Expansion Project and Request for Comments on Environmental Issues* (NOI). The NOI was published in the *Federal Register* and mailed to approximately 780 interested parties. In response to the NOI, we received six comment letters. The Commission also received comments from 11 individuals who participated in a public scoping meeting held on November 16, 2006.

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agreements. *See, e.g., Tennessee Gas Pipeline Company*, 101 FERC ¶ 61,360, at P 21 (2002).

<sup>20</sup> Transco's data response filed March 18, 2008.

<sup>21</sup> 18 C.F.R. Part. 201 (2008); *See, e.g., El Paso Natural Gas Co.*, 77 FERC ¶ 61,129 (1996); *TransColorado Gas Transmission Co.*, 67 FERC ¶ 61,301 (1994).

34. During the pre-filing process, staff worked with interested parties to identify and resolve project-related issues. Staff also conducted a public site visit to the proposed facilities and participated in numerous meetings with Transco and interested state, federal and local agencies regarding the proposed project. At the conclusion of the pre-filing process, we had received an additional 39 comment letters regarding the proposed project, primarily from residents along the proposed Downingtown Loop in Chester County, Pennsylvania. These residents were concerned with the amount of space required to construct an additional pipeline in a corridor that already contained three natural gas pipelines, especially since residential developments now bordered the pipeline right-of-way.

35. On December 3, 2007, Transco filed its certificate application for the Sentinel Expansion Project, modified as a result of the pre-filing process. As described in the background section of this order, Transco's application proposes four, 42-inch diameter natural gas pipeline loops totaling approximately 10.75 miles and the replacement of approximately 7.15 miles of 30-inch-diameter natural gas pipeline with 42-inch diameter natural gas pipeline. The Wind Gap, Conyngham and Turnpike Loops were reduced in length and the 10.56-mile-long Downingtown Loop became the 7.15-mile long Downingtown Replacement. The Downingtown Replacement involves the removal of a 30-inch diameter natural gas pipeline, commonly known as Mainline A, and replaces it with a new 42-inch diameter natural gas pipeline. Mainline A is the oldest of three natural gas pipelines located together in a natural gas pipeline corridor running through Chester County, Pennsylvania. Also within this corridor, between Mainlines A and B is a fiber optic cable owned by Level 3 Communications (Level 3).

36. In response to the filing of Transco's application, we received 33 comment letters regarding the proposed project. Staff conducted a public site visit of the proposed Downingtown Replacement on January 9, 2008. The purpose of staff's visit was to review the proposed temporary and permanent rights-of-way and requested additional temporary work spaces and to assess potential impacts to residences, trees, and other environmental resources.

37. On March 18, 2008, staff issued a *Notice of Schedule for Environmental Review for the Sentinel Expansion Project*. On April 18, 2008, staff issued a *Notice of Availability of the Environmental Assessment for the Proposed Sentinel Expansion Project* (NOA). The EA describes the proposed action, facilities, construction methods, and rights-of-way requirements; estimates the potential environmental impacts of the proposed project under the following headings: geology and soils, water resources and wetlands, vegetation, wildlife and fisheries, endangered and threatened species, land use and visual resources, cultural resources, air quality and noise, reliability and safety, and cumulative impacts; and considers several alternatives. The NOA was published in the *Federal Register* and approximately 800 copies of the EA were mailed to interested parties. The comment period for the EA closed on May 19, 2008.

38. In response to the EA, we received over 92 comment letters. We received comments from affected landowners, one homeowners association, federal, Pennsylvania and county resource management agencies, and elected representatives. All but five of the comment letters received pertain specifically to the Downingtown Replacement. Several parties requested that the EA comment period be extended. However, based on our need to balance the length of the comment period with our obligation to consider Transco's application in a timely manner, the EA comment period was not extended. Nevertheless, we accepted and considered numerous comments after the close of the EA comment period.

39. At the request of U.S. Congressman Jim Gerlach, representing the 6<sup>th</sup> District of Pennsylvania, staff participated in a town hall meeting on June 16, 2008, to hear concerns about the proposed Downingtown Replacement. Based on the number of comment letters received regarding the Downingtown Replacement, the concerns expressed in those comment letters, and the concerns heard at the town hall meeting, staff conducted another public site visit of the Downingtown Replacement on July 9, 2008. The purpose of this site visit was to review the residential areas potentially affected by the proposed replacement of Mainline A and to reassess potential alternatives.

40. During the July 9, 2008 site visit, Transco committed to relocate the Level 3 fiber optic cable through the Malvern Hunt and McIlvain Drive neighborhoods and other areas; replace the East Caln Township sewer line located along McIlvain Drive; install mufflers within Compressor Station 200; and reevaluate the proposed crossing of Brandywine Creek.

## **B. Downingtown Replacement**

41. We received approximately 80 comment letters on the EA regarding the Downingtown Replacement. Letters were received from residents of the Malvern Hunt neighborhood, McIlvain Drive, Whitford Hills Road, and Norwood Road.

42. A majority of the comment letters expressed similar concerns, including (1) the need for and the size of the proposed construction right-of-way and associated tree clearing; (2) the need for and the size of the proposed permanent right-of-way; (3) the proximity of construction activities to residences and residential site-specific plans, including residential construction methods, timing, and construction safety; (4) alternatives to the proposed project; and (5) potential impacts to land and property values, and other environmental resources. We also received a number of comments from Malvern Hunt community residents concerning noise at Transco's Compressor Station 200.

### **1. Construction Right-of-Way and Tree Clearing**

43. Numerous commenters expressed concern with the need for and the size of the proposed construction right-of-way, and the impacts of the proposed construction right-of-way on their respective residences. Transco proposes to use a nominal 90-foot-wide temporary construction right-of-way and numerous additional temporary work spaces to remove Mainline A and install the replacement pipeline. Since Mainline A is collocated with two other Transco natural gas pipelines and all three pipelines share overlapping permanent rights-of-way, a majority of the proposed construction right-of-way will comprise existing permanent natural gas pipeline rights-of-way. Depending on the specific location of Mainline A, the proximity of residences, the type of land crossed, and other site-specific characteristics including the locations of trees, landscaping, and other residential features, the width of the temporary construction right-of-way will vary.

44. Transco states that installation of the replacement pipeline requires the widening of the Mainline A trench and the use of additional temporary construction work space beyond the existing permanent right-of-way. Installation of the replacement pipeline will also involve the abandonment in place of the old pipeline under some roads, wetlands, waterbodies and other sensitive areas. Where Mainline A will be abandoned in place, a duplicate segment of pipeline will be installed immediately adjacent to the original Mainline A. Other segments of duplicate pipe located immediately adjacent to the old pipeline may occur where residences, businesses, or utilities are located on or near the existing right-of-way. At such locations, the installation of the replacement pipeline may require additional work space. Furthermore, the presence of residences, businesses, or utilities in close proximity to existing rights-of-way may create construction constraints that could result in temporary inconveniences to residents. However, we believe that the proposed construction right-of-way and additional work spaces are reasonable to construct the proposed replacement pipeline.

45. Numerous commenters also expressed concern about the clearing of trees and other landscaping. Transco proposes to clear trees and other vegetation within the construction right-of-way. However, where possible, Transco has committed to not clearing trees growing along the edge of the construction right-of-way. During operation, Transco would generally prevent the growth of trees within the permanent right-of-way. We agree with Transco that the clearing of trees is necessary to ensure a safe construction work space and that the general prevention of trees within the permanent right-of-way is necessary during operation to ensure pipeline integrity and the safety of the surrounding area. However, in order to minimize the impacts of tree clearing on the environment and nearby residences, we are requiring that Transco file detailed site-specific residential construction plans that would specifically indicate the location of trees on each property where a residence is located within 50 feet of construction work spaces and whether or not the trees will be cleared.

46. We recognize that Transco anticipates clearing the permanent pipeline rights-of-way adjacent to Mainline A for use as a temporary construction right-of-way. Transco

acknowledges that it has improperly failed to keep its rights-of-way clear of vegetation and that numerous residents have planted or allowed large-diameter trees to grow over Mainline A. Despite Transco's record of infrequent maintenance through this area, permanent natural gas pipeline rights-of-way should be cleared on a routine basis and we find that the impacts resulting from the removal of trees are acceptable and necessary for construction of the replacement pipeline.

47. Several commenters also identified the need for Transco to compensate property owners for the loss of trees. The EA noted that along the Downingtown Replacement, approximately 3.76 acres, 0.82 acres of it forested, will be impacted by construction and operation of the pipeline. Compensation for tree loss will be considered on an individual basis during easement negotiations between Transco and property owners, and will depend on whether tree loss is associated with the clearing of additional workspace or temporary right-of-way to accommodate the replacement pipeline.

## **2. Permanent Right-of-Way**

48. Transco proposes to maintain a 50-foot wide permanent right-of-way centered over the replacement pipeline. Depending on the specific location of the replacement pipeline and the proximity of residences and other residential features, the size of the permanent right-of-way will vary, but will never exceed 50 feet in width. In many locations, Mainline A is located only five feet from the edge of Transco's current permanent right-of-way. At these locations, Transco's proposed permanent right-of-way will result in a 20-foot expansion of the existing Mainline A permanent right-of-way. Residential expansions and the addition of other residential features, such as decks, sheds, or some landscaping, may be prevented by Transco's acquisition of the proposed permanent right-of-way.

49. As stated in the EA, the proposed permanent right-of-way is reasonable and consistent with other certificated natural gas pipeline projects. To ensure that impacts to the environment and adjacent residences are minimized to the greatest extent practical, Environmental Condition No. 17 in Appendix B ensures that Transco will not be able to rely on its certificate to seek eminent domain authority for the acquisition of permanent right-of-way until our review of the required residential site-specific plans is complete. This condition provides, *inter alia*, that Transco must file site-specific residential plans and obtain written approval from the Director of the Commission's Office of Energy Projects (Director of OEP) prior to commencing construction.

## **3. Pipeline Proximity to Residences and Residential Site-Specific Construction Plans**

50. Numerous commenters expressed concern with the amount of detail provided in the EA regarding residential construction methods, site-specific residential construction plans, the identification of construction work areas, the potential removal of residential

features and the overall impacts of construction on homeowner residences. Commenters were also concerned with the impacts to their quality of life resulting from the noise and vibration emitted from pipeline construction equipment, increased traffic due to construction activities, and the safety and aesthetic quality of an active construction work site.

51. We recognize that residents living along the replacement pipeline will be temporarily affected by construction activities. Installation of the replacement pipeline will temporarily result in additional noise and minor vibrations due to the use of construction equipment, the temporary loss of land use, disruption of existing traffic patterns within affected neighborhoods, and temporary impacts to the aesthetic quality of affected lands. These temporary impacts will occur, notwithstanding the commitments made and mitigation measures agreed to by Transco to reduce construction-related impacts and the environmental conditions recommended in the EA and adopted by this order regarding traffic concerns and site-specific plans. We also acknowledge that the final boundaries of the construction right-of-way and the proposed additional temporary work spaces have yet to be precisely defined near residences adjacent to the pipeline.

52. To ensure impacts to residential areas are minimized to the extent practical, we are strengthening the EA's recommended environmental condition regarding site-specific residential plans and traffic to also require, in Environmental Condition No. 17 in Appendix B, that Transco include more detail in its site-specific residential plans, including information about construction work spaces, techniques including sequence and timing, safety features, and descriptions of restoration and revegetation measures. Furthermore, we are requiring that Transco make these plans available for each affected property owner's review, and provide the property owners with the opportunity to comment on the plans prior to filing them with the Secretary. In addition, Environmental Condition No. 27 requires Transco to provide information regarding residential access and traffic specific to neighborhoods affected prior to construction of the Downingtown Replacement. We believe that site-specific residential construction plans reviewed by property owners and approved by the Director of OEP, and a residential access and traffic mitigation plan will minimize impacts to residences resulting from construction activities.

53. Based on the nature of the pipeline construction, information described in the EA, and the filing of site-specific residential plans, we believe that construction impacts on residences will be temporary and that sufficient mitigation measures will be in place to minimize impacts to the extent practical, and ensure the safety of construction work areas and the surrounding community. Additionally, to ensure that Transco adheres to its commitments and the environmental conditions of this order, Environmental Condition No. 25 requires Transco to fund a third-party environmental monitoring program for the Downingtown Replacement. Environmental compliance monitors working under the direction of staff will further help to ensure that impacts to residences are minimized.

#### **4. Alternatives Considered**

54. Numerous commenters expressed concern with the alternatives analysis provided in the EA, specifically with the amount of consideration given to the relocation of the Level 3 fiber optic cable. In response to these concerns, Transco filed a letter on June 27, 2008, in which it states that it is continuing to pursue discussions with Level 3 and is investigating the lowering of the fiber optic cable in certain areas along the proposed replacement. To the extent it is determined that the fiber optic cable can be lowered in these areas, we believe the need for additional permanent right-of-way may be eliminated or significantly reduced. Transco expects to have a definitive answer on the feasibility of lowering the fiber optic cable in August 2008 and will file the results with the Secretary.

55. During the July 9, 2008 site visit, Transco committed to lowering the Level 3 fiber optic cable through the Malvern Hunt and McIlvain Drive neighborhoods, as well as other areas. Based on the design and construction alternatives described in the EA, which considered the relocation of the Level 3 fiber optic cable, and Transco's statements in its June 27, 2008 letter and its commitment at the July 9, 2008 public site visit, Environmental Condition No. 29 requires Transco to reevaluate the feasibility of lowering the Level 3 fiber optic cable and to provide a summary of its analysis to the Director of OEP for review. We are also requiring that Transco file for review and written approval by the Director of OEP revised alignment sheets indicating where it plans to lower the Level 3 fiber optic cable and any subsequent changes to either the construction or permanent rights-of-way through the Malvern Hunt and McIlvain Drive neighborhoods and other selected areas.

56. Commenters also expressed concern with the amount of consideration given to alternative construction methods, particularly in areas with substantial residential development. The EA describes general pipeline construction methods, special pipeline construction techniques, including construction in residential areas, and construction alternatives. We acknowledge that the description of special construction techniques in the EA is general, especially as they apply to residential construction. We also acknowledge that the construction alternatives do not specifically address residential areas. However, due to Transco's commitment to use special construction techniques that typically minimize workspace requirements and minimize impacts to residences, we do not believe the implementation of other construction techniques would significantly reduce workspace requirements or impacts to residences. Therefore, we believe the EA's consideration of construction alternatives was adequate. Additionally, we are requiring that Transco provide detailed descriptions of construction methods along with its site-specific residential construction plans.

## **5. Land and Property Values**

57. Numerous commenters expressed concern with impacts to land and property values resulting from the use of the proposed construction and permanent rights-of-way. The EA states that many of the homes present along the proposed replacement pipeline are currently situated adjacent to Transco's existing right-of-way, which functions

essentially as green space. Therefore, the EA concluded that expansion of this space would not result in significant impacts to land value. Since the affected lands abut a long established natural gas pipeline corridor, we believe that the use of this land, whether on a temporary or permanent basis, should not significantly impact the overall land value. As described previously, in order to minimize impacts to residences, we are requiring in Environmental Condition No. 17 that Transco prepare site-specific residential plans for property owners' review and approval by the Director of OEP before the commencement of construction.

## **6. Environmental Resources**

58. Numerous commenters, including the Chester County Conservation District, expressed concern about impacts to soils, water, wetlands, vegetation, and wildlife resulting from increased erosion, flooding, water run-off, soils disturbance, vegetative clearing, waterbody crossings, and general construction-activities.

59. As discussed in the EA, during construction Transco will implement an Upland Erosion Control and Revegetation Maintenance Plan (Plan) and Waterbody Construction and Mitigation Procedures (Procedures) as well as numerous project-specific soil erosion and sediment control plans required by other resource agencies. In addition to the environmental conditions included in Appendix B to this order, the Plan and Procedures collectively outline numerous measures to avoid, minimize, mitigate, and reduce the potential for erosion, water run-off, soil compaction, vegetative clearing, flooding, and other potential environmental impacts.

60. We believe Transco's implementation of its Plans and Procedures and its adherence to the environmental conditions in Appendix B will ensure that construction and operation of the facilities authorized by this order will not significantly impact environmental resources located within and adjacent to the proposed construction and permanent rights-of-way.

## **7. EA Analysis**

61. Several commenters expressed concern with the level of analysis conducted by staff in the EA. Staff decided that an EA was appropriate for the proposed project because the entire project consists of approximately 17.9 miles of pipeline looping and replacement that is entirely adjacent to or within an existing natural gas pipeline corridor. The EA was prepared to generally describe the impacts that could be reasonably determined to result from construction and operation of the proposed project and was not intended to describe the precise impacts of the project on a property-by-property basis, i.e., the specific number of trees that would be cleared or the exact volume of sediment that would be disturbed during a stream crossing. We find, based on the size and scope of the proposed project, that the analysis in preparing the EA was reasonable.

## **8. Consultations with Local Agencies**

62. Several commenters expressed concern with the amount of consultation between staff and local resource agencies. As identified previously, a notice describing the proposed project and requesting comments on environmental issues was issued to interested stakeholders including local resource agencies. A public site visit was also conducted after the filing of Transco's application and prior to the issuance of the EA. Another site visit was conducted on July 9, 2008, following issuance of the EA. All documents filed by Transco and all comment letters received by the Commission regarding the proposed project are in the administrative record. Several local resource agencies did submit comments on the EA, which we have considered. Based on the NOI issued by staff, Transco's use of the pre-filing process and its consultations with local agencies, and the number of site visits to the area conducted by staff, we believe staff's consultation efforts were sufficient.

## **9. Mapping Used in the Environmental Analysis**

63. Several commenters expressed concern that the mapping included in the EA provided staff with insufficient information to conduct its environmental review. The EA referenced and included United States Geological Survey (USGS) topographic maps prepared circa 1980. These maps were used by staff in its environmental review; however, they were not relied upon to be the sole source of information regarding resources and structures potentially affected by the proposed project. In addition to the USGS topographic maps, staff used aerial photo alignment sheets taken in 2006, information gathered during site visits, and other mapping tools available to the public to conduct its environmental review. We believe that the mapping information utilized by staff was sufficient to conduct its environmental review.

## **10. Eminent Domain Authority**

64. Several commenters expressed concern with the appropriateness of Transco being able to rely on NGA certificate authority to obtain construction and permanent rights-of-way by exercise of eminent domain. The issuance of a certificate by the Commission conveys with it the ability to invoke the eminent domain authority provided for in section 7(h) of the NGA. Transco's certificate authority granted by this order may only be used to invoke eminent domain for the rights-of-way necessary for the facilities certificated by this order. We recognize property owners' concerns regarding the proposed construction and permanent rights-of-way. Therefore, as discussed above, we are including Environmental Condition No. 17 to ensure that Transco does not seek to invoke eminent domain under its certificate and section 7(h) of the NGA to acquire permanent right-of-way until the required site-specific residential construction plans have been reviewed and approved by the Director of OEP.

## **11. Potential for Future Pipelines**

65. Several commenters expressed concern that in the future Transco may place another pipeline, in addition to the Sentinel Expansion facilities approved by this order, in its existing rights-of-way. Transco acknowledged that the right-of-way amendment agreements initially presented to affected landowners included language indicating that the supplemental easement would convey rights for Transco to install additional pipelines within the new permanent easement. Transco has since committed to removing this language from its agreements before resuming landowner negotiations. Transco has also committed to revisit landowners who have signed easement agreements that include the language allowing Transco to install additional pipelines. Regardless of the specific language in the easement agreements, should another natural gas pipeline be proposed to be located in the existing natural gas pipeline corridor, it would be subject to review by the Commission which would take into account the cumulative impacts of another natural gas pipeline on the surrounding environment.

## **12. Malvern Hunt**

66. We received numerous comment letters from residents of the Malvern Hunt neighborhood who expressed concern about the noise from Compressor Station 200, the construction and permanent rights-of-way, land and property values, disturbances caused by construction equipment, the safety of the proposed construction work areas, impacts to landscaped areas, and the alternatives considered. With the exception of noise related to Compressor Station 200 and a route variation that would relocate the proposed pipeline north of the Malvern Hunt neighborhood, the concerns identified in their comments are discussed above.

67. The comments we received regarding Compressor Station 200 were concerned with existing noise levels and the potential increase in noise resulting from proposed modifications at the compressor station. Existing noise levels are not subject to review in this proceeding because Transco is not proposing to add or modify compression at the station; rather, Transco is only proposing to perform some piping modifications. The EA concludes that the modifications to Compressor Station 200 will not result in additional noise. However, based on the concerns expressed by the residents of the Malvern Hunt neighborhood, the EA recommended that Transco conduct pre- and post-modification noise surveys while the station is operating at full load. The recommendations were made to ensure that noise levels do not increase as a result of the proposed piping modifications. The EA's recommendations are adopted in Environmental Condition No. 35 in Appendix B to this order, which requires that if an increase in noise attributable to the compressor station modifications is identified, Transco must install additional noise controls to meet the pre-modification noise level. We believe this requirement will

ensure that noise levels at Compressor Station 200 will not increase as a result of the proposed modifications.

68. In response to concerns about alternatives considered around the Malvern Hunt neighborhood, we evaluated a route variation that would begin in Exton Park and would extend in a northeasterly direction adjacent to Old Valley Road past the Malvern Hunt neighborhood, then turn to the southeast and terminate at Compressor Station 200. Adoption of this route variation would avoid impacts to residents of the Malvern Hunt neighborhood living along the existing Mainline A. The total length of this variation would be approximately 0.80 mile. In contrast, the currently proposed route for this portion of the project will be approximately 0.60 mile. Based on the topography that would be crossed, the amount of vegetation that would be cleared, the anticipated construction right-of-way requirements, and the creation of a new natural gas pipeline permanent right-of-way in the vicinity of the Malvern Hunt neighborhood, we have determined that adoption of this route variation would not be preferable to the proposed route.

### **13. McIlvain Drive and East Caln Township**

69. We received ten comment letters from individuals residing along McIlvain Drive. These commenters expressed concern with the construction and permanent rights-of-way, the loss of trees, increased water run-off, impacts to the adjacent East Caln Township sewer line, land and property values, and the safety of the proposed construction work areas. With the exception of the potential impacts to the adjacent East Caln Township sewer line, the concerns identified in these comments have been addressed above.

70. An East Caln Township sewer line parallels the proposed replacement pipeline in the vicinity of McIlvain Drive. Commenters expressed concern with the impacts to this line resulting from installation of the proposed replacement pipeline. Natural gas pipeline construction near existing utilities is a common occurrence, particularly in a suburban setting. As described in the EA, we believe that Transco's commitment to coordinate with the respective utility companies during construction of the replacement pipeline and to repair or replace any damage to a utility is sufficient to ensure that utility service is not interrupted. Furthermore, at the request of East Caln Township during the staff's July 9, 2008 public site visit, Transco committed to replace the East Caln Township sewer line immediately following the replacement of its new pipeline to further reduce impacts on residents affected by both utilities in the vicinity of McIlvain Drive.

### **14. Norwood Road**

71. We received nine comment letters from individuals residing along Norwood Road. These commenters expressed concerns similar to those of other residents along the Downingtown Replacement, with the exception of the potential impacts to Ludwig's Run and impacts on steep topography.

72. The proposed replacement pipeline crosses Ludwig's Run three times in the vicinity of Norwood Road. Transco states that it will cross Ludwig's Run using its Procedures and will restore the project area to preconstruction conditions. Restoration plans will be finalized in conjunction with the United States Army Corps of Engineers, Pennsylvania Department of Environmental Protection, and Chester County. Based on information described in the EA, including alternatives considered for the crossing of Ludwig's Run and Transco's proposed mitigation measures, we believe that construction and operation of the proposed project would not have a significant impact on Ludwig's Run. To ensure that impacts to this waterbody are minimized to the extent practical, Environmental Condition No. 31 requires Transco to file for review and written approval by the Director of OEP a site-specific crossing plan for the three crossings of Ludwig's Run. This plan must include a description of the restoration measures that Transco plans to implement following installation of the pipeline.

73. Commenters also expressed concern with the steep topography that will be impacted as part of the proposed Norwood Road crossing. Although relatively common, construction on side slopes can be difficult since work is done on uneven topography. Following construction, Transco states that it will reestablish preconstruction contours, and adequately stabilize and revegetate impacted lands. To ensure impacts to environmental resources affected by the proposed Norwood Road crossing are minimized, Environmental Condition No. 31 requires Transco to file for review and written approval by the Director of OEP a site-specific plan for the crossing of Norwood Road.

## **15. Brandywine Creek**

74. We received several comment letters expressing concern with the proposed Brandywine Creek crossing, work space requirements associated with the proposed crossing, tree clearing, the amount of coordination with local resource managers, impacts resulting from severe weather conditions, and downstream sedimentation and water withdrawals. In the EA, staff evaluated the use of a horizontal directional drill as an alternative waterbody crossing method and determined that it would not be environmentally preferable to Transco's proposed crossing, due to the anticipated length of the drill crossing and the underlying geology. Nevertheless, during the staff's July 9, 2008 public site visit, Transco stated that it was evaluating an alternative crossing method for Brandywine Creek. Since staff has not had an opportunity to evaluate this alternative crossing method, Environmental Condition No. 28 requires Transco to prepare a site-specific crossing plan for Brandywine Creek that describes the proposed crossing method, the measures to be implemented during severe weather conditions, the procedures to ensure coordination with appropriate resource managers, and the workspace requirements and features to be cleared during construction. This plan must be filed for review and approval by the Director of OEP prior to construction.

## **16. Downstream Water Withdrawals**

75. Several commenters, including the Downingtown Municipal Water Authority (DMWA) and the Chester County Water Resources Authority, identified water intakes downstream of Transco's proposed crossing of Brandywine Creek that were not addressed in the EA. These water intakes had not been identified during the scoping process and therefore were previously unknown to staff. Therefore, Environmental Condition No. 29 requires Transco to file, for review and written approval by the Director of OEP, a DMWA Protection Plan that describes how Transco plans to coordinate with the DMWA to ensure the integrity of DMWA's operations. Combined with Environmental Condition No. 28, which requires Transco to file a site-specific plan for the crossing of Brandywine Creek, we believe that impacts to the Brandywine Creek water intakes will be minimized.

## **17. Recreational Areas**

76. We received comments expressing concern about impacts to the Shady Acres Campground, which abuts the proposed replacement pipeline on the eastern bank of Brandywine Creek. In the EA, staff stated that it did not believe impacts on this campground would be significant. We acknowledge the unique impact construction activities would have on this campground. As described previously, Transco is evaluating an alternative crossing method for Brandywine Creek, which could reduce impacts to the Shady Acres Campground. However, since staff has not had an opportunity to evaluate this alternative crossing method, Environmental Condition No. 28 requires Transco to prepare a site-specific crossing plan for Brandywine Creek and coordinate with the owner of the Shady Acres Campground.

77. We also received comments expressing concern with the crossing of the Struble Trail and impacts to recreational use of this area. The EA recommends that Transco be required to file for review and written approval by the Director of OEP a site-specific Struble Trail crossing plan developed in consultation with the Chester County Parks and Recreation Department (CCPRD). This plan should describe how the trail will be used during construction and how recreational use will be maintained. To minimize the impacts associated with the crossing of the Struble Trail, we have included staff's recommendation as Environmental Condition No. 30 in Appendix B to this order.

78. Several commenters expressed concern with potential impacts to the area known as Exton Park, a currently undeveloped tract of land that the CCPRD plans to develop for recreational use. The EA concludes that significant adverse impacts to the proposed Exton Park are not anticipated. Given the presence of the natural gas pipeline corridor through this area, the current use of the land, Transco's proposed construction and restoration measures, and the proposed use of the land, we also believe that construction

and operation of the replacement pipeline will not significantly impact the development of Exton Park.

### **18. Blasting**

79. Several commenters expressed concern about the potential for blasting and the resulting impacts. As described in the EA, the potential for blasting exists, and Transco has made several commitments regarding potential blasting, including the preparation of a Blasting Plan prior to construction. The EA found that given the potential impacts on structures from blasting and the safety issues associated with blasting, Transco should be required to file for review and written approval by the Director of OEP a Blasting Plan to include information regarding notification, scheduling, and other mitigation measures. This recommendation is adopted in Environmental Condition No. 12.

### **19. Karst Topography**

80. Several commenters expressed concern with the construction of a natural gas pipeline in an area known to contain karst topography. As described in the EA, staff shared this concern, stating that the presence of karst topography could present potential problems for pipeline construction. The EA recommended that Transco file a Karst Topography Plan to include a list of areas prone to sinkhole development and a description of mitigation measures that would be implemented during construction of the project. Environmental Condition No. 26 requires Transco to prepare a Karst Topography Plan.

### **20. West Whiteland Township Board of Supervisors**

81. The West Whiteland Township Board of Supervisors (WWTBS) filed several comment letters expressing concern with rights-of-way needs, easement negotiations, tree clearing, potential impacts to environmental resources, township road crossings, traffic concerns, construction procedures and safety, a pipe storage yard, and potential impacts to Exton Park. With the exception of easement negotiations, the pipe storage yard, and the township road crossings, the township's concerns have been addressed in the preceding sections.

82. The WWTBS requested that since affected property owners may not have the ability to negotiate easement rights and may not know how to gain assistance, the Commission should prepare a summary of "land owners rights" for distribution by Transco. We recognize the WWTBS' concerns regarding easement negotiations and refer potentially affected property owners to the citizens guide entitled "An Interstate Natural Gas Facility on My Land?" available on our Internet website at [www.ferc.gov](http://www.ferc.gov).

83. The WWTBS expressed concerns about impacts to traffic and cultural resources resulting from the use of a pipe storage yard at the intersection of Old Valley and Ship

Roads. Currently, Transco has not proposed to use a pipe storage yard at this location. However, Transco is proposing the use of two pipe storage yards to support the construction of the replacement pipeline. Environmental Condition No. 5 requires the completion of additional surveys, including cultural resource surveys, and written approval from the Director of OEP for any newly identified pipe or contractor yards proposed for use for this project.

84. The WWTBS questioned whether Transco needs to obtain local and state permits for road crossings. As stated in its application, Transco plans to acquire road crossing permits from the appropriate state or local jurisdiction.

**21. Chester County Commissioners and Chester County Planning Commission**

85. The Chester County Planning Commission (CCPC) provided several dozen comments about the replacement pipeline and the EA. The CCPC commented on the project's consistency with local planning efforts and permitting requirements, coordination efforts with local agencies, potential environmental impacts, analyses described and recommendations made in the EA. Specifically, the CCPC expressed concern with blasting, karst terrain, soils, erosion, vegetative clearing and revegetation, groundwater, surface water flow and run-off, waterbody crossings, hydrostatic testing, wetlands, Exton Park, workspaces, threatened and endangered species, utility crossings, proximity to residences, recreational areas, visual resources, cultural resources, public safety, cumulative impacts, alternatives considered, and the accuracy of maps. We believe the CCPC's concerns have been addressed in the EA as well as the preceding sections of this order.

86. Additionally, the CCPC filed several policy statements and objections to Transco's project. We have reviewed these concerns and believe that based on Transco's commitments, the implementation of the site-specific plans and procedures, and Transco's adherence to the environmental conditions included in this order, construction and operation of the replacement pipeline will not result in significant impacts to the environment. We also acknowledge the CCPC's request for copies of documentation supporting statements and conclusions made in the EA. All documentation related to this project has been entered into the administrative record which is available for public review on our Internet website at [www.ferc.gov](http://www.ferc.gov).

**22. Aqua Pennsylvania**

87. Aqua Pennsylvania (Aqua) expressed concerns about construction of the replacement pipeline route and potential impacts to its water supply wells. Transco proposes to deviate from replacing Mainline A on the Aqua property, and would construct a new pipeline instead to reduce impacts on existing water supply wells. Based on Transco's proposal as outlined in the EA, Aqua suggested an alternative that would

replace Mainline A, as is proposed for most of the Downingtown Replacement, instead of deviating as currently proposed. Recognizing Aqua's concerns, Environmental Condition No. 33 requires Transco to file for review by the Director of OEP an evaluation, developed in consultation with Aqua, of an alternative that would replace Mainline A between mile posts 1719.00 and 1720.00.

**C. Wind Gap Loop**

88. The Lehigh Valley Planning Commission (Lehigh Valley) commented that they were concerned about construction impacts on wetlands, streams, and other environmentally sensitive areas that will be crossed by the Wind Gap Loop. Lehigh Valley supports the mitigation measures outlined in the EA and recommends that Transco implement these measures. We reiterate that Transco will be required to implement mitigation measures as outlined in the EA.

89. The Plainfield Township commented that the cumulative impacts of Transco's existing crossings of the Little Bushkill Creek have been negative. They recommend that bio-engineering techniques, such as the planting of shallow rooted grasses and shrubs along stream banks, should be incorporated to minimize long-term impacts on streams. Transco must implement restoration measures identified in its Procedures and Soil Erosion and Sediment Control Plans. We believe that implementation of the mitigation measures, as well as adherence to state and federal permits, will minimize impacts to this waterbody.

90. The Pennsylvania Game Commission (PGC) initially commented that it opposed Transco's plans for crossing state game lands. However, the PGC has since met with Transco and has agreed to amend Transco's existing right-of-way agreement for crossing the state game lands. The PGC has indicated that all objections will be withdrawn upon final execution of this agreement with Transco.

91. The Pennsylvania Department of Conservation and Natural Resources expressed concern about erosion on steeper slopes, and suggested native seed mixes for site restoration and revegetation. As described in the EA, we believe that the implementation of Transco's project-specific plans and procedures and its adherence to the environmental conditions of this order will effectively minimize erosion impacts. Additionally, in consultation with local soil conservation districts, Transco has developed site-specific plans that identify seed mixes for restoration.

**D. Mountain View Loop and Turnpike Loop**

92. The U.S. Fish and Wildlife Service filed comments regarding the two New Jersey segments of the proposed project. It stated its conclusion that the project is not likely to adversely effect a federally listed or candidate species so long as Transco incorporates the

specific mitigation measures in the EA and does not engage in tree clearing from April 1 to September 30.

## V. Conclusion

93. For the reasons discussed above, we find the benefits of Transco's proposed Sentinel Expansion Project outweigh any potential adverse effects. Accordingly, we conclude that the proposed project is required by the public convenience and necessity.

94. The Commission on its own motion received and made a part of the record all evidence, including the application and exhibits thereto, submitted in this proceeding, and upon consideration of the record,

### The Commission orders:

(A) A certificate of public convenience and necessity is issued to Transco authorizing it to construct and operate the Sentinel Expansion Project as described in its application, subject to the conditions set forth herein, including the environmental conditions in Appendix B.

(B) Transco shall complete construction of and make available for service the facilities authorized within two years from the date of this order in accordance with section 157.20(b) of the Commission's regulations.

(C) The certificate issued to Transco is conditioned on its compliance with the NGA and all relevant Commission regulations, in particular with Part 154 and paragraphs (a), (b), (c), (e), and (f) of section 157.20 of the regulations.

(D) Transco shall execute contracts that reflect the levels and terms of service represented in its precedent agreements prior to commencing construction of the proposed facilities.

(E) In accounting for the additional cost of service associated with the authorized modifications to meter stations to provide expansion services for certain shippers, Transco shall recognize the difference between the depreciation included in rates and the depreciation recorded for financial accounting and reporting purposes as a regulatory liability consistent with Part 201 of the Commission's regulations.

(F) Transco shall either allocate appropriate levels of its estimated costs of service for Phase 1 and Phase 2 services to interruptible services and recalculate its rates or, alternatively, provide a mechanism to credit 100 percent of interruptible revenues from services using the expansion capacity to its firm and interruptible shippers.

(G) At least thirty days but not more than sixty days prior to commencing Phase 1 expansion service, Transco must file actual tariff sheets setting forth its Phase 1 incremental recourse rates. At least thirty days but not more than sixty days prior to commencing Phase 2 expansion service, Transco must file actual tariff sheets setting forth its Phase 2 incremental recourse rates.

(H) At least thirty days but not more than sixty days prior to the commencement of firm transportation service, Transco must file with the Commission its Rate Schedule FT service agreements for the Sentinel shippers reflecting any negotiated reservation rates, the applicable receipt and delivery points, and the volumes to be transported.

(I) The certificate issued in Ordering Paragraph (A) above is conditioned on Transco's compliance with the environmental conditions included in Appendix B to this order.

(J) Transco shall notify the Commission's environmental staff by telephone, email, and/or facsimile of an environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Transco. Transco shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

**Appendix A**  
**Transcontinental Gas Pipe Line Corporation**  
**Docket No. CP08-31-000**

**Commenters on the Sentinel Expansion Project**

**Commenters on Application**

U.S. Senator Robert P. Casey  
U.S. Representative Jim Gerlach  
Pennsylvania Senator Andrew Dinniman  
Commonwealth of Pennsylvania, Harrisburg  
East Caln Township  
Malvern Hunt HOA  
Montgomery Township  
Montgomery Township Environmental Commission  
Sourland Planning Council  
U.S. Fish and Wildlife Service  
West Whiteland Township  
Julie Bentley and John Morrow  
Mark T. and Cheryl A. Bradley  
John D'Asaro  
Paul and Irene Dunlap  
Helenmarie Hogue  
John and Joan Hohwald  
Jordan Horrow  
John Lauber  
Michael Maher  
Lisa Matson  
Lisa and Michael Matson  
William McQueen  
Catherine Wang  
Donald Wilson

**Commenters on Environmental Assessment**

U.S. Senator Robert P. Casey  
U.S. Representative Jim Gerlach  
Pennsylvania Senator Andrew Dinniman  
Pennsylvania Representative Duane D. Milne, Ph.D.  
Pennsylvania Representative Curt Schroder  
Aqua Pennsylvania  
Chester County Commissioners

Chester County Planning Commission  
Chester County Water Authority  
Chester County Water Resources Authority  
Commonwealth of Pennsylvania  
County of Chester, Pennsylvania  
Downingtwn Municipal Water Authority  
East Caln Township  
East Whiteland Township  
Lehigh Valley Planning Commission  
Malvern Hunt HOA  
Pennsylvania Department of Conservation and Natural Resources  
Pennsylvania Game Commission  
West Caln Township  
West Whiteland Township  
Mark T. and Cheryl A. Bradley  
Thomas J. Burke  
Eleas Conzaitis  
John and Cindy D'Asaro  
Michael G. Deegan, Esq.  
Dyanne Delaney  
Joseph and Dyanne Delaney  
Thomas J and Dawn L. Doty  
Michael Dowger  
Paul Eisenhardt  
Lynda Farrell  
Steven Farrell  
Steven and Lynda Farrell  
David Faunce  
David and Inger Goodroad  
Helenmarie Hogue  
John and Joan Hohwald  
Jordan and Jacqueline Horrow  
Donald O. Kennedy  
Edward and Carole Kirkbride  
Joyce Lambert  
Michael Maher  
Lisa and Michael Matson  
Rebecca O. McCallum  
Henry and Margaret McHugh, Michael and Erin Heilig  
Dennis and Cynthia McManus  
Andrew and Kathleen P. Moody  
Mary Moris  
David Nonnemacher

Laurie Nonnemacher  
Evelyn Ponall  
Charles Rogers  
Walter and Reva Rolfs, Steven Morse, Henry and Margaret McHugh, Michael and Erin  
Heilig  
Brent and Charlene Robinson  
John A. Robinson  
Sue Ryder-Scott  
Susan R. and Daniel P. Scott  
Jeffrey and Michael Stein  
David Stevenson  
Randolph and Ann Stinson  
Michael Sweeney  
Dennis and Deborah J. Sworden  
Mandy VanOostrom  
Lenet Virgilio  
Matthew Virgilio  
Cathlene Wagner  
Catherine Wang  
Geoff and Theresa Weiss  
Don and Lynn Wilson  
Karen Zajick  
Guochang Zhao  
Chesapeake Utilities Corporation  
Delmarva Power  
Hess Corporation  
Pivotal Utility Holdings  
PSEG Energy  
Transcontinental Gas Pipe Line Corporation

**Appendix B**  
**Transcontinental Gas Pipe Line Corporation**  
**Docket No. CP08-31-000**

**Environmental Conditions for the Sentinel Expansion Project**

As recommended in the Environmental Assessment (EA), this authorization includes the following conditions:

1. Transco shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Commission's Order. Transco must:
  - a. Request any modifications to these procedures, measures, or conditions in a filing with the Secretary;
  - b. Justify each modification relative to site-specific conditions;
  - c. Explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. Receive approval in writing from the Director of OEP before using that modification.
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
  - a. The modification of conditions of the Commission's Order; and
  - b. The design and implementation of any additional measures deemed necessary (including stop work authority) to ensure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
3. **Prior to construction**, Transco shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors, and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.
4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, Transco shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for

all facilities approved by the Commission's Order. All requests for modifications of environmental conditions of the Commission's Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Transco's exercise of eminent domain authority granted under Natural Gas Act (NGA) section 7(h) in any condemnation proceedings related to the Commission's Order must be consistent with these authorized facilities and locations. Transco's right of eminent domain granted under NGA section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future needs or to acquire a ROW for a pipeline to transport a commodity other than natural gas.

5. Transco shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director OEP **before construction in or near that area.**

This requirement does not apply to extra workspace allowed by the *Upland Erosion Control, Revegetation, and Maintenance Plan*, minor field realignments per landowner needs, and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. Implementation of cultural resources mitigation measures;
  - b. Implementation of endangered, threatened, or special concern species mitigation measures;
  - c. Recommendations by state regulatory authorities; and
  - d. Agreements with individual landowners that affect other landowners or could adversely affect sensitive environmental areas.
6. **Within 60 days of the acceptance of a Certificate and prior to the start of construction, Transco shall file** an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP describing how Transco will implement the mitigation measures required by the Commission's Order.

Transco must file revisions to the plan as schedules change. The plan shall identify:

- a. How Transco will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to on-site construction and inspection personnel;
  - b. The number of EI's assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
  - c. Company personnel, including EI's and contractors, who will receive copies of the appropriate material;
  - d. The training and instructions Transco will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change);
  - e. The company personnel (if known) and the specific portion of Transco's organization having responsibility for compliance;
  - f. The procedures (including use of contract penalties) Transco will follow if noncompliance occurs; and
  - g. For each discrete facility, a Gantt or PERT chart (or similar project-scheduling diagram), and dates for:
    - (1) The completion of all required surveys and reports;
    - (2) Mitigation training of on-site personnel;
    - (3) Start of construction; and
    - (4) Start and completion of restoration.
7. Transco shall employ at least one EI per construction spread. The EI shall be:
- a. Responsible for monitoring and ensuring compliance with all mitigation measures required by the Commission's Order and other grants, permits, certificates, or other authorizing documents;
  - b. Responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition number 6 above) and any other authorizing document;
  - c. Empowered to order the correction of acts that violate the environmental conditions of the Commission's Order and any other authorizing document;
  - d. A full-time position, separate from all other activity inspectors;
  - e. Responsible for documenting compliance with the environmental conditions of the Commission's Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and

- f. Responsible for maintaining status reports.
8. Transco shall file updated status reports prepared by the lead EI with the Secretary on a **weekly basis until all construction and restoration activities are complete for each phase of the project**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. The current construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
  - b. A listing of all problems encountered and each instance of noncompliance observed by the EI during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
  - c. A description of the corrective actions implemented in response to all instances of noncompliance, and their cost. For all damaged utilities and/or service interruptions, this shall include a description of steps taken to restore the utility to preconstruction conditions or better;
  - d. The effectiveness of all corrective actions implemented;
  - e. A description of any landowner/resident complaints that may relate to compliance with the requirements of the Commission's Order, and the measures taken to satisfy their concerns; and
  - f. Copies of any correspondence received by Transco from other federal, state, or local permitting agencies concerning instances of noncompliance, and Transco's response.
9. Transco must receive written authorization from the Director of OEP **before commencing service** from each segment of the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the ROW and other areas are proceeding satisfactorily.
10. **Within 30 days of placing the certificated facilities in service**, Transco shall file an affirmative statement with the Secretary, certified by a senior company official:
- a. That the facilities have been constructed and installed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
  - b. Identifying which of the certificate conditions Transco has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

11. **Prior to construction,** Transco shall revise its Plan and Procedures to be consistent with Table 5 of staff's Environmental Assessment (EA). In addition, Transco shall provide the following information:
- a. A table identifying the locations and justification for the overnight storage and refueling of equipment (excluding pumps) within 100 feet of wetlands and waterbodies; and
  - b. Site-specific construction plans for all ATWS within 50 feet of a wetland or waterbody. The plans shall identify the locations of erosion and sedimentation control measures. Where applicable, the plans shall also identify the location of spoil storage areas within 10 feet of a waterbody and identify mitigation measures to minimize the flow of spoil or heavily silt-laden water into the adjacent waterbody.

Transco shall also revise its Plan such that for the Downingtown Replacement any extra workspace needed by Transco must be filed with the Secretary for review and written approval by the Director of OEP.

Transco shall file its revised Plan and Procedures, including the table and site-specific construction plans, with the Secretary for review and written approval by the Director of OEP.

12. **Prior to construction,** Transco shall file with the Secretary for review and written approval by the Director of OEP, a Blasting Plan. The Blasting Plan shall include:
- a. Procedures for notifying nearby residents and applicable local authorities prior to blasting;
  - b. Descriptions of mitigation measures that would be implemented during construction to avoid damage to residences, structures and other features such as water wells, streams, steep terrain, existing pipelines, and other utilities resulting from blasting vibrations;
  - c. A schedule identifying when blasting would occur within each waterbody greater than 10 feet wide or within any designated coldwater fishery.

Transco shall file its waterbody blasting schedule with the Secretary **within 30 days** of the acceptance of a certificate and revise it as necessary to provide **at least 14 days advance notice prior to blasting**. Changes within this last 14-day period must provide for **at least 48 hours advance notice prior to blasting**.

13. **Prior to construction,** Transco shall file with the Secretary for review and written approval by the Director of OEP, a list identifying all the hydrostatic test water source locations and the approximate volumes, discharge locations, and discharge rates.
14. **Prior to construction,** Transco shall file with the Secretary a copy of the finalized wetland mitigation plans developed in consultation with the US Army Corps of

Engineers, Pennsylvania Department of Environmental Protection, and the New Jersey Department of Environmental Protection.

15. If tree clearing is required between April 1 and September 30 along the Conyngham or Mountain View Loops in areas known to contain Indiana Bat habitat, Transco shall consult with the US Fish and Wildlife Service Pennsylvania and New Jersey field offices to determine appropriate impact minimization measures for the Indiana Bat. Transco shall file the results of this consultation, including any recommended mitigation, with the Secretary for review and written approval by the Director of OEP **prior to conducting tree-clearing activities.**
16. **Prior to construction,** Transco shall file with the Secretary for review and written approval by the Director of OEP, copies of the Unanticipated Discovery Plans that are prepared in accordance with the FERC Guidelines for Reporting on Cultural Resources Investigations for Pipeline Projects.
17. **Prior to construction of the Downingtown Replacement,** Transco shall provide individual site-specific residential plans to the owner of each residence located within 50 feet of construction work areas and provide the owner one month to review and comment on these plans. Transco shall file these plans along with any comments from the property owner(s) with the Secretary for review and written approval by the Director of OEP. Transco shall identify how it would keep residents informed of the progress of construction in the vicinity of their respective residences and provide evidence of landowner concurrence if construction areas would be located within 10 feet of a residence. The site-specific residential plans shall include:
  - (1) A dimensioned site plan that clearly shows:
    - i. The location of the residence in relation to the new pipeline and any existing pipelines and/or other utilities (including septic systems);
    - ii. The boundaries of all permanent and temporary construction work areas;
    - iii. Other nearby structures and residential features (including decks, pools, swings, fences, driveways, etc); indicating, which would be removed and any areas with restrictions after construction;
    - iv. Trees and other landscaping; indicating which would be removed and where trees would not be allowed after construction;
    - v. The location of topsoil and subsoil storage piles;
    - vi. Equipment travel lanes;
    - vii. Safety fencing and other safety features; and
    - viii. The distances between construction work areas and permanent structures.
  - (2) A detailed description of the construction techniques that will be used (such as reduced pipeline separation, centerline adjustment, use of stove-pipe or drag-

section techniques, working over existing pipelines, pipeline crossover, bore, utility crossing, etc.);

- (3) An estimation of the amount of time required for construction;
- (4) A description of restoration and revegetation measures and procedures for the property.

In addition, Transco shall file a detailed description of the measures it will implement to ensure the public safety during construction activities; minimize and mitigate impacts from dust, noise, and vibration.

Transco shall not exercise eminent domain authority granted under section 7(h) of the Natural Gas Act to acquire permanent rights-of-way until the required site-specific residential construction plans have been reviewed and approved by the Director of OEP.

- 18. **Prior to construction**, for residences closer within 25 feet of the construction work area along the along the Conyngham, Wind Gap, Mountain View and Turnpike Loops, Transco shall file a site-specific plan with the Secretary for review and written approval of the Director of OEP. The plan shall include:
  - (1) A description of construction techniques to be used (such as reduced pipeline separation, centerline adjustment, use of stove-pipe or drag-section techniques, working over existing pipelines, pipeline crossover, bore, etc.), and include a dimensioned site plan that shows:
    - i. The location of the residence in relation to the new pipeline and, where appropriate, the existing pipelines;
    - ii. The edge of the construction work area;
    - iii. The edge of the new permanent ROW and where the new permanent ROW is reduced;
    - iv. Other nearby residences, structures, roads, or waterbodies; and
    - v. Trees and other landscaping on the edge of the construction ROW that will not be cleared.
  - (2) A description of how Transco will ensure the trench is not excavated until the pipe is ready for installation and the trench is backfilled immediately after pipe installation.
  - (3) Evidence of landowner concurrence if the construction work area and fencing will be located within 10 feet of a residence.
- 19. **Prior to construction of the Turnpike Loop**, Transco shall consult with the New Jersey Department of Environmental Protection and ExxonMobil regarding groundwater monitoring wells requiring relocation at the Bayway Refinery site,

and file copies of correspondences confirming their concurrence with the proposed well relocations.

20. **Prior to construction of the Turnpike Loop**, Transco shall file with the Secretary a copy of the Coastal Zone Consistency Determination issued by the New Jersey Department of Environmental Protection.
21. **Prior to construction of the Wind Gap Loop**, Transco shall finalize consultations with the National Park Service, the Pennsylvania Historical and Museum Commission, and other consulting or interested parties, such as the Pennsylvania Game Commission, the Appalachian Mountain Club, and the Appalachian Trail Conservancy, regarding impacts on the Appalachian Trail (AT) and appropriate mitigation measures. Transco shall file with the Secretary documentation of all correspondence with these agencies, including any recommend mitigation measures to avoid, reduce, and/or mitigate effects on the AT.
22. **Prior to construction at the PECO-West Parkesburg M & R Station, the facility modification at the DP&L Lateral (MP 1711.66), and the modifications at the 195A20 Valve Site**, Transco shall file copies of the Phase I cultural resources report for these three areas in Pennsylvania with the State Historic Preservation Office and the Secretary for review and written approval by the Director of OEP.

All material filed with the Commission containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “**CONTAINS PRIVILEGED INFORMATION—DO NOT RELEASE.**”

23. **Prior to construction of the Mountain View Loop**, Transco shall adopt Alternative Route MV-2 as identified in staff’s EA. In addition, Transco shall provide documentation of consultation with the US Fish and Wildlife Service, US Army Corps of Engineers, New Jersey Department of Environmental Protection, and New Jersey State Historical Preservation Office regarding the revised alignment, including any recommendations or mitigation measures.
24. **Prior to construction of the Downingtown Replacement**, Transco shall file with the Secretary for review by the Director of OEP a reevaluation of the feasibility of relocating the Level 3 Communications (Level 3) fiber optic cable. Through the Malvern Hunt neighborhood, along McIlvain Drive and where the relocation of the fiber optic cable is feasible, Transco shall 1) file revised alignment sheets showing the relocation of the Level 3 fiber optic cable, and the relocated Replacement pipeline including the limits of both the permanent and temporary workspaces; 2) indicate whether Mainline “A” would be abandoned in place or removed; and 3) based on the relocation of the fiber optic cable, file revised typical construction cross section figures depicting the usage of the right-of-way.

- The filing shall identify when the Level 3 fiber optic cable would be lowered in relation to the proposed installation of the Downingtown Replacement pipeline.
25. **At least 60 days prior to construction of the Downingtown Replacement,** Transco shall file for review and written approval by the Director of OEP a third-party environmental compliance monitoring program and proposals from potential contractors to provide compliance monitoring services for the construction of the Downingtown Replacement.
  26. **Prior to construction of the Downingtown Replacement,** Transco shall file with the Secretary for review and written approval by the Director of OEP, a Karst Topography Plan, developed in consultation with the appropriate state and local agencies that identifies karst features (by milepost) and mitigation measures for crossing any such features. This plan shall also indicate how areas with these features would be monitored during the life of the project and what steps would be taken if any of these areas were to destabilize in the future.
  27. **Prior to construction of the Downingtown Replacement,** Transco shall file with the Secretary for review and written approval by the Director of OEP, a Residential Access and Traffic Mitigation Plan that identifies potential road closures, and measures that Transco would implement to minimize construction traffic impacts on affected residents. This plan shall identify procedures for notifying residents about planned road closures and disturbances. This plan shall specifically address the Malvern Hunt neighborhood, affected condominium and apartment complexes, and the residential areas located in the vicinity of Balderston Drive, Whitford Hills Road, South Woodmont Drive, McIlvain Drive and Norwood Road.
  28. **Prior to construction of the Downingtown Replacement,** Transco shall file with the Secretary for review and written approval by the Director of OEP, a site-specific plan for the crossing of Brandywine Creek. This plan shall include a detailed description of the proposed crossing method described at the staff's July 9, 2008 public site visit; measures to be implemented during severe weather conditions, procedures to ensure coordination with the appropriate state and local agencies as well as the owner of the Shady Acres Campground; and clearly show all required workspaces, distances, and trees or other features that would be cleared during construction.
  29. **Prior to construction of the Downingtown Replacement,** Transco shall file with the Secretary for review and written approval by the Director of OEP, a Downingtown Municipal Water Authority (DMWA) Protection Plan, developed in consultation with the DMWA, describing how Transco will coordinate with the DMWA to address potential impacts to its Brandywine Creek water treatment plant and the specific measures that will be implemented by Transco during construction to ensure the integrity of DMWA's operations.

30. **Prior to construction of the Downingtown Replacement**, Transco shall file with the Secretary for review and written approval of the Director of OEP a final site-specific Struble Trail crossing plan, based on consultations with the Chester County Parks and Recreation Department. The plan shall describe how the trail would be used during construction and how recreational use of the trail will be maintained during construction.
31. **Prior to construction of the Downingtown Replacement**, Transco shall file for review and written approval by the Director of OEP site-specific crossing plans for the crossings of Ludwig's Run and Norwood Road. The Ludwig's Run crossing plans shall include a description of restoration measures that Transco will implement following installation of the pipeline. The Norwood Road crossing plan shall also include a description of the temporary and permanent measures that will be implemented to assure and maintain stability of the side slope cut on the Wilson Property between Ludwig's Run and Norwood Road.
32. **Prior to construction of the Downingtown Replacement**, Transco shall file with the Secretary for review and written approval by the Director of OEP, an Aqua America Public Water Supply Well Plan, developed in consultation with Aqua America, describing how Transco would protect the integrity of existing Aqua America wells.
33. **Prior to construction of the Downingtown Replacement**, Transco shall evaluate in consultation with Aqua America a route variation between mileposts 1719.00 and 1720.00 that would replace the existing Mainline "A." Transco shall include in this evaluation the amount of land potentially impacted and a description of impacts to land use(s), water resources including public water supply wells and streams, karst terrain, and residences. Transco shall file this evaluation with the Secretary for review by the Director of OEP and indicate the feasibility of implementing a pipeline route variation between these two mileposts.
34. **Prior to construction at Compressor Station 200**, Transco shall provide a sound survey of the site property line and nearby noise sensitive areas (NSAs) for Compressor Station 200, when operated at full load. Transco shall include a large scale (1:3,600 or greater) plot plan identifying the NSAs and noise measurement locations and shall identify the time of day, duration of measurements, weather conditions, wind speed and direction, and other noise sources present during this survey.
35. Transco shall file a sound survey with the Secretary **no later than 60 days after placing the modified facilities at Compressor Station 200 in service**. If the noise attributable to the operation of the Compressor Station at full load exceeds the preconstruction noise levels at the noise measurements locations used in the preconstruction sound survey, Transco shall install noise controls to meet the previously measured noise levels within one year of the in-service date. Transco

shall confirm compliance by filing a second noise survey with the Secretary **no later than 60 days after it installs the noise controls.**