UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Nora Mead Brownell, and Suedeen G. Kelly.

Dominion Cove Point LNG, LP	Docket Nos. CP05-130-000, 001, and 002 CP05-132-000, 001
Dominion Transmission, Inc.	Docket No. CP05-131-000, 001

ORDER ISSUING CERTIFICATES AND GRANTING SECTION 3 AUTHORITY

(Issued June 16, 2006)

1. This order approves the applications filed by Dominion Cove Point LNG, LP (Cove Point LNG) and Dominion Transmission, Inc. (Dominion) in the captioned dockets to construct and operate facilities which comprise the Cove Point Expansion Project. This project includes the expansion of Cove Point LNG's existing import terminal and pipeline and Dominion's construction of new downstream pipeline and storage facilities.

2. On April 15, 2005, Cove Point LNG filed, in Docket No. CP05-130-000, an application under section 3 of the Natural Gas Act (NGA) requesting authority to expand its facilities at its liquefied natural gas (LNG) import terminal at Cove Point, Maryland. Concurrently, in Docket No. CP05-132-000, Cove Point LNG filed an application under NGA section 7(c) and Part 157 of the Commission's regulations for authorization to expand its Cove Point Pipeline facilities by constructing and operating approximately 47.8 miles of 36-inch diameter loop pipeline in Calvert, Prince George's and Charles Counties, Maryland.

3. In addition, on April 15, 2005, Dominion filed, in Docket No. CP05-131-000, an application under NGA section 7(c) and Part 157 of the Commission's regulations, requesting a certificate of public convenience and necessity authorizing construction

activities in Pennsylvania, New York, Virginia, and West Virginia to increase Dominion's pipeline and storage capacity.[1]

4. In this order, the Commission is approving Cove Point LNG's and Dominion's proposals, subject to the conditions set forth herein.

Background and Proposal

Background

5. Cove Point LNG owns and operates the Cove Point LNG Terminal in Lusby, Calvert County, Maryland and the Cove Point Pipeline facilities that extend approximately 88 miles from the LNG terminal to interconnections with Transcontinental Gas Pipe Line Corporation (Transco) in Fairfax County, Virginia and with Columbia Gas Transmission Corporation (Columbia) and Dominion in Loudon County, Virginia. Cove Point LNG was initially authorized in 1972 to construct and operate the Cove Point LNG Terminal and the Cove Point Pipeline as part of a project to import LNG from Algeria and transport natural gas to United States markets.[2] Shipments of LNG to the Cove Point LNG Terminal began in March 1978, were interrupted in April 1980, and ceased in December 1980. With the exception of a small amount of interruptible transportation service provided through the Cove Point Pipeline, the Cove Point facilities were not used from December 1980 to 1984.

6. In 1994, the Commission authorized Cove Point LNG to reactivate the mothballed onshore facilities and to construct a liquefaction unit for the purpose of storing domestic natural gas during the summer for use at peak times during the winter.[3] Cove Point LNG

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[1] Cove Point LNG's and Dominion's applications were supplemented on April 22, and April 28, 2005, in order to fulfill the Commission's minimum filing requirements. Cove Point LNG and Dominion submitted significant data responses and further supplements to their applications on July 5, July 8, July 28, August 5, August 9, August 14, December 5 and December 21, 2005, January 12 and January 17, 2006.

[2] The original certificate for the construction of these facilities was granted jointly to two entities, Columbia LNG Corporation and Consolidated System LNG Company. *Opinion No. 662*, 47 FPC 1624 (1972), *aff'd and modified, Opinion No. 622-A*, 48 FPC 723 (1972).

[3] *Cove Point LNG Limited Partnership*, 68 FERC ¶ 61,377 (1994), *reconsideration denied*, 69 FERC ¶ 61,292 (1994).

provides 10-day, 5-day and 3-day firm peaking services under Rate Schedules FPS-1, FPS-2, and FPS-3, respectively, and provides firm and interruptible transportation services under Rate Schedule FTS and ITS.

7. In 2001, the Commission authorized Cove Point LNG to construct new facilities and to reactivate and operate existing facilities to recommence LNG imports at the terminal.[4] LNG terminalling services are provided to shippers importing LNG pursuant to Rate Schedules LTD-1 and LTD-2. Cove Point LNG received its initial cargo of imported LNG in August 2003, and since that time imports through the terminal have provided approximately 325 million dekatherms (MMDth) of needed gas supplies to major Eastern United States markets, making the Cove Point LNG Terminal the most active LNG receiving terminal in the country. The two berths at the pier were also recommissioned in August 2003; the south berth will be in active use prior to completion of the Cove Point LNG Terminal Expansion.

8. In November 2003, Cove Point LNG was authorized by the Commission to construct and operate two new compressor stations on the Cove Point Pipeline to provide additional west-to-east firm transportation capacity.[5] In November 2004, the Commission authorized Cove Point LNG to place into service the fifth LNG storage tank, with a capacity of 2.8 billion cubic feet (Bcf) that was approved in the 2001 Reactivation Orders.[6] Thus, the Cove Point LNG Terminal presently has storage capacity of 7.8 Bcf and 1 MMDth/d of peak send-out capacity.

Proposal

9. Cove Point LNG's and Dominion's proposals together comprise the Cove Point Expansion Project. The applicants state that the Cove Point Expansion Project is designed to: (a) expand the existing Cove Point LNG Terminal to increase the volumes of LNG that can be imported, stored, regasified, and delivered; (b) expand the capacity of the Cove Point Pipeline; and (c) construct new downstream pipeline and storage facilities that will provide shippers enhanced access to firm natural gas storage capabilities and to additional natural gas markets throughout the northeastern United States. The applicants

[4] *Cove Point Limited Partnership*, 97 FERC ¶ 61,043 (2001), *order granting and denying rehearing in part, granting and denying clarification*, 97 FERC ¶ 61,276 (2001), *order denying rehearing and granting and denying clarification*, 98 FERC ¶ 61,270 (2002).

[5] *Dominion Cove Point LNG, LP*, 105 FERC ¶ 61,234 (2003).

[6] *Dominion Cove Point LNG, LP*, 109 FERC ¶ 61,239 (2004).

contend that by this proposal, new gas supplies will be delivered to where they are needed in the Mid-Atlantic and northeastern United States. In addition, the applicants state that the proposed facilities in Maryland would bring additional winter supplies to the Mid-Atlantic region, and the proposed facilities in Pennsylvania, Virginia, West Virginia, and New York would allow additional supplies to be stored in the summer and moved to the Northeast for use during periods of peak need in the winter.

Docket No. CP05-130-000 - The Cove Point LNG Terminal Expansion

10. In Docket No. CP05-130-000, Cove Point LNG proposes to expand its LNG terminal by installing two additional insulated LNG storage tanks, each capable of storing 160,000 cubic meters of LNG. Cove Point LNG states that this will increase the send-out capability by 800,000 Dth/d and increase storage capacity by approximately 6.8 Bcf. The Cove Point LNG Terminal, after this expansion, will have storage capacity of 14.6 Bcf and peak send-out capability of 1.8 MMDth/d. Other additions and modifications to support send-out of vaporized LNG include all necessary process equipment such as pumps, compressors and piping to handle LNG and the associated boil-off. Additional vapor management capacity will be installed in order to accommodate the boil-off gas associated with the new facilities and to improve the efficiency of the unloading operation. In addition, power generation will be installed to provide electricity for motor-driven equipment, lighting, controls and other ancillary facilities.

Proposed Facilities

11. Specifically, Cove Point LNG seeks authorization to construct and operate the following new facilities:[7]

Two 160,000 cubic meter LNG storage tanks;
Four vertical shell and tube vaporizers;
Two waste heat shell and tube vaporizers;
Four second-stage send-out pumps;
Three low pressure LNG tank withdrawal pumps;
One boil-off gas (BOG) recondenser;
Two 21.7 megawatt gas turbine generators;
Five non-cryogenic rotary screw BOG compressors;

[7] Cove Point LNG states that all components will be constructed in accordance with governing Federal and state regulations, including National Fire Protection Association (NFPA) Standard 59A for LNG facilities and the codes and standards referenced therein.

Seven water/ethylene glycol heaters;
Five hot water/ethylene glycol circulation pumps;
Four warm water/ethylene glycol circulation pumps;
One vent heater;
Two waste heat recovery units;
Two instrument air compressors;
Three emergency generators; and
Other related facilities and buildings.

12. Cove Point LNG states that the new facilities will be operated on an integrated basis with the existing LNG terminal facilities. According to Cove Point LNG, the expansion facility design will provide substantial operational benefits and improved reliability and flexibility of service for both expansion and existing customers.

Proposed Hackberry Rate Treatment

13. Cove Point LNG proposes to provide the expansion services to Statoil Natural Gas LLC (Statoil) on a "proprietary" basis, with deregulated rates and services in reliance on the Commission's policy announced in *Hackberry LNG, Inc. (Hackberry)*,[8] while continuing to provide service using the existing terminal capacity on a regulated basis, with regulated services and cost-of-service rates for both its existing section 3 import customers and its existing section 7 peaking customers. Cove Point LNG contends that applying *Hackberry* rate treatment for the proposed terminal expansion capacity will not require subsidization by its existing customers, degrade service or unduly discriminate in service terms and conditions against existing customers. Cove Point LNG is not seeking a determination of rolled-in rate treatment and understands that it will have the burden of proof in a future rate case to demonstrate that the proposed allocation of costs and rates between existing and expansion customers is just and reasonable. Cove Point LNG states that it and Statoil, the expansion shipper, are assuming the economic risk and costs

[8] 101 FERC ¶ 61,294 (2002). In *Hackberry*, the Commission announced a new policy for the regulation of LNG import terminals under section 3 of the NGA. Promulgated in recognition of the need to adopt a more light-handed approach to the regulation of LNG import terminals, the Commission decided not to impose traditional regulation on LNG import facilities, such as rates, tariffs, open-access requirements or other terms and conditions of service. The new policy, allowing for proprietary terminals and lifting of traditional regulation, was explicitly adopted to "provide incentives to develop additional energy infrastructure to increase much-needed supply into the United States, while at the same time ensuring competitive commodity prices and an open access interstate pipeline grid."

associated with the Cove Point LNG Terminal Expansion, due to Cove Point LNG's proposal of incremental rates under *Hackberry* rate treatment.

14. Cove Point LNG contends that its proposed LNG terminal expansion clearly furthers the principle goal of the *Hackberry* policy, which is to encourage the construction and operation of additional LNG import terminals in order to increase LNG imports into the United States. Cove Point LNG adds that this objective can be met at a lower cost and with less environmental impact by the expansion of existing terminals, rather than through the construction of greenfield facilities.

15. Cove Point LNG filed pro forma tariff sheets proposing new section 30 of the General Terms and Conditions (GT&C), providing a description of the proposed incremental terminal service. Cove Point LNG explains that while *Hackberry* rate treatment does not require disclosure of any terms and conditions of service, the tariff provisions at section 30 (Section 3 Firm Services) of the GT&C provide an explanation of the proposed service, specifying that the existing and expansion customers are treated in a not unduly discriminatory manner. Cove Point LNG further states that it will provide total cost information for the proposed incremental service in the context of any limited or general NGA section 4 rate case or NGA section 5 proceeding. Cove Point LNG indicates that any customer may utilize section 30 of the GT&C information to confirm the appropriate allocation of costs among customer classes[9] and that, consistent with the treatment of any other incremental project, the Cove Point LNG Terminal Expansion costs will be identified in any subsequent Cove Point LNG rate proceeding. Cove Point LNG is not proposing open access service for the Cove Point LNG Terminal Expansion, contending that under the *Hackberry* policy, open-access requirements are not applicable to LNG import terminals that are expanding their facilities.

Terminal Services

16. Cove Point LNG states that the proprietary Section 3 Firm Services to customers of the LNG Terminal Expansion, identified and described at GT&C section 30, will entail firm storage of up to 6.8 MMDth of LNG at the Cove Point LNG Terminal, and send-out of up to 800,000 Dth of regasifed LNG per day. Cove Point LNG states that Section 3 Firm Service customers will also be entitled to assign their entitlements to other parties, but all assignees are subject to the Section 3 Firm Service requirements as identified in the pro forma tariff sheet. Cove Point LNG states that it will not permit expansion customers to "overrun" the identified Section 3 Firm Service levels by reliance on

[9] Specifically, Cove Point LNG explains that under section 30, both the quantity and priority of the Section 3 Firm Services are specified.

existing facilities; nor will existing Rate Schedule LTD service customers be permitted to overrun their contract entitlements by reliance on the LNG Terminal Expansion capability. Cove Point LNG maintains that it will hold the expansion shippers to the provisions of its tariff governing gas quality.[10]

17. On May 27, 2005, Cove Point LNG filed new information to supplement its application for the LNG import terminal expansion.[11] The first item of new information, filed in Docket Nos. CP05-130-001, CP05-132-001 and CP05-131-001, is a Notice of Terms of Settlement of Matters Related to the Cove Point Expansion Proceedings (Notice). This Notice describes the principal terms of a May 24, 2005 settlement among Cove Point LNG and certain parties to these proceedings. Among other things, the Notice briefly describes certain additional filings to be made by Cove Point LNG regarding its LNG import terminal. The second item of new information, filed in Docket No. CP05-130-002, is one of these additional filings, specifically, revisions to Cove Point LNG's proposed GT&C section 30. As now revised, proposed section 30 more fully describes the relationship of certain aspects of Cove Point LNG's proposed expansion service to other provisions of its FERC tariff.

18. GT&C section 30 provides that Section 3 Firm Services will have a specified priority for purposes of various operating provisions of Cove Point LNG's FERC Gas tariff, such as timing of nominations, force majeure, interruptions and operational flow order requirements, and access to nitrogen injection facilities. While under a *Hackberry* framework, Cove Point LNG and its customer would not ordinarily be required to disclose any terms and conditions of service, Cove Point LNG and its expansion customer, Statoil, agreed to reference certain provisions at proposed section 30 to ensure that wherever the Section 3 Firm Services interact with existing services provided by

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[10] An October 2002 Settlement resolved a dispute between Washington Gas Light Company, Cove Point LNG, and the LTD-1 Shippers in the proceeding to reactivate the LNG terminal regarding the issue of LNG interchangeability and heat content. The October 2002 Settlement required the parties sponsor a study of interchangeability indices and adjustment gas composition, to be performed by TIAX, LLC (TIAX). Depending on the outcome of the TIAX study, Cove Point was required to make a tariff filing to revise its applicable LNG interchangeability indices and/or adjustment gas composition. The settlement was approved by the Commission and Cove Point LNG's tariff was revised to reflect gas quality standards consistent with the TIAX study. *See Cove Point LNG Limited Partnership*, 102 FERC ¶ 61,227 (2003).

[11] The new information is also relevant to the proposed Cove Point pipeline expansion application and Dominion's pipeline expansion application.

Cove Point LNG, both existing and expansion customers are treated in a not unduly discriminatory manner.

19. Section 30 also expressly permits the Section 3 Firm Service customer and the customers under Cove Point LNG's existing Rate Schedule LTD-1 to cooperate in the scheduling of ships to the Cove Point LNG Terminal.[12] However, Cove Point LNG states that as is currently the case for Rate Schedule LTD-1 Shippers, it will not require such coordination of the Section 3 Firm Service customer, nor will Cove Point LNG be apprised of the terms and conditions of any such customer arrangement.

Waiver Request

20. Cove Point LNG requests limited waivers of FERC Form No. 2 and Form No. 11 requirements in conjunction with the LNG Terminal Expansion. Specifically, Cove Point LNG states that while it will provide all associated cost data in accordance with 18 C.F.R. Part 201, and will maintain books and records as required by the Uniform System of Accounts, Cove Point LNG asks that it not be required to disclose the revenue associated with the LNG Terminal Expansion. Cove Point LNG contends that such a waiver is consistent with the Commission's acknowledgement, in *Hackberry* and elsewhere,[13] that to require disclosure of revenue through these reports prevents the parties from establishing market-based rates as necessary to implement the type of proprietary arrangements as proposed in this case. Cove Point LNG submits that the total cost information, as well as determinant and throughput data for all service classes that is available to the Commission and interested parties, provides all the tools necessary for appropriate oversight scrutiny and to establish just and reasonable rates for the LTD shippers.

Docket No. CP05-132-000 – The Cove Point Pipeline Expansion

21. In Docket No. CP05-132-000, Cove Point LNG seeks authorization to expand the Cove Point Pipeline that extends approximately 88 miles from the Cove Point LNG Terminal. The Cove Point Pipeline connects the Cove Point LNG Terminal to three

[12]This cooperation mechanism is referred to as the "Single Entity" or "Coordinating Buyer" provision of Rate Schedule LTD-1.

[13] *Hackberry LNG, Inc.*, 101 FERC ¶ 61,294 (2002); *Wycoff Gas Storage Company, LLC*, 105 FERC ¶ 61,027 (2003) at 61,244; *Seneca Lake Storage, Inc*., 98 FERC ¶ 61,163 (29002); *Egan Hub Partners, L.P*., 95 FERC ¶ 61,395 (2001); *Central New York Oil and Gas Company, L.L C*, 94 FERC ¶ 61,194 2001); *Petal Gas Storage, L.L.C.*, 92 FERC ¶ 61, 220 (2000), 90 FERC ¶ 61,243 (2000).

interstate pipelines: Transco, Columbia and Dominion. The proposed Cove Point Pipeline Expansion will add certain pipeline looping and related facilities to deliver the additional 800,000 Dth per day of natural gas received from, and made available by the expansion of, the Cove Point LNG Terminal to these interstate pipelines.

Proposed Facilities

22. The Cove Point Pipeline, otherwise known as TL-522, crosses the states of Maryland and Virginia, ending near Leesburg, Virginia. Cove Point LNG states that a partial pipeline loop crossing Calvert, Prince George's and Charles Counties in Maryland is required to transport the incremental volumes of natural gas from expansion of the Cove Point LNG Terminal. Specifically, Cove Point LNG proposes to construct a 36-inch diameter pipeline, TL-532, to parallel the existing TL-522 pipeline for 36 of 47 miles, or 75 percent of the new pipeline's length. Cove Point LNG states that the remaining 25 percent of the new pipeline route will deviate from the TL-522 route in order to minimize environmental and landowner impacts. Cove Point LNG proposes no new compression. Cove Point LNG estimates the cost of the proposed pipeline facilities to be $159,798,917.

Open Season

23. Cove Point LNG states that as a result of its March 16 to April 15, 2004 open season to solicit firm transportation service commitments on the Cove Point Pipeline Expansion facilities, it entered into a binding precedent agreement with Statoil for 700,000 Dth per day of firm transportation from the Cove Point LNG Terminal to the interconnection with Dominion, and for 100,000 Dth per day of firm transportation from the Cove Point LNG Terminal to the interconnection with Transco in Loudoun, Virginia, for an initial term of twenty years.

Proposed Rates

24. Cove Point LNG proposes to charge a firm incremental transportation rate of $3.6824 per Dth and a commodity charge equal to the currently effective commodity charge rate under Rate Schedule FTS to recover the cost of the proposed facilities. Cove Point LNG also proposes to assess the currently effective applicable surcharges and fuel retainage percentage for Rate Schedule FTS. The proposed recourse rates are designed using the Commission approved straight-fixed variable (SFV) rate design with billing determinates based on 800,000 Dth per day and annual throughput of 9,600,000. Cove Point LNG proposes an annual cost of service, based on the third full year of service of $35,350,882. The cost of service is based on: (1) operation and maintenance expense of $294,337; (2) deprecation expense of $7,974,431 based on the Commission-approved

5 percent depreciation rate; (3) other taxes of $3,994,973; and (4) pretax return of $23,087,141. The proposed capital structure is 40 percent debt and 60 percent equity, with an 8.5 percent debt cost and a 15 percent return on equity for an overall 18.27 percent pre-tax rate of return. The firm transportation service will be provided under the terms and conditions of Cove Point LNG's existing Rate Schedule FTS.

25. Cove Point LNG claims that because it and the expansion shipper will bear all financial risk associated with the capital costs of the expansion, existing customers will not be subsidizing the project. Moreover, Cove Point LNG understands that the burden of proof falls on it in a future NGA section 4 rate case to demonstrate that any proposed allocation of costs and rates is just and reasonable. Thus, Cove Point LNG contends this expansion of the Cove Point Pipeline can proceed without subsidies from, or undue discrimination against, existing customers.

Negotiated Rate

26. Cove Point LNG states that the expansion shipper will pay a negotiated rate for the firm transportation service rate that is designed to recover all of the costs of the proposed pipeline expansion. Cove Point LNG indicates that in accordance with GT&C section 29, it will file prior to the commencement of negotiated rate transportation service either the service agreement or numbered tariff sheets stating the name of any shipper paying a negotiated rate, the negotiated rate or rate formula, the applicable rate schedule, the applicable receipt and delivery points, contract quantities, contract duration and an affirmation that the agreement does not deviate in any material respect from the Form of Service Agreement. Cove Point LNG contends that it will keep separate and identifiable accounts for any quantities transported, billing determinates, rate components, surcharges and revenue associated with its negotiated rates in sufficient detail so that they can be separately identified in future rate cases.

Docket No. CP05-131-000 – Dominion's Certificate Application

27. Dominion proposes, under NGA section 7(c) and Part 284 of the Commission's regulations, to provide 700,000 Dth per day of firm transportation service and 6,000,000 Dth of firm storage service and 100,000 Dth per day of storage demand service for Statoil pursuant to a service agreement that provides for an initial 20-year term. To provide the proposed transportation service, Dominion proposes to install additional compression and construct 113 miles of 20 and 24-inch pipeline in Pennsylvania and West Virginia. The proposed storage service will be provided at existing storage fields in Pennsylvania, New York, and West Virginia by (1) turned back capacity resulting from a reverse open season; (2) unsubscribed storage service in DTI's SEE/MAS project; (3) unsubscribed demand and capacity in DTI's Northeast Storage

Project; and (4) increasing certificated working gas capacity at the Fink-Kennedy/Lost Creek storage complex in north central West Virginia. Dominion proposes to install additional compression to provide the proposed transportation and storage service. Dominion contends that the proposed facilities will also provide substantial operational benefits to its entire system and enhanced transportation options for its shippers.[14]

Proposed Facilities

28. Specifically, Dominion proposes to construct, operate and maintain the following facilities:

PL-1 EXT2 Pipeline Extension – The PL-1 EXT2 extension consists of approximately 81 miles of 24-inch-diameter pipeline and two new compressor stations in central Pennsylvania. The proposed pipeline facilities start at Dominion's existing PL-1 Pipeline near Perulack, Juniata County, Pennsylvania, and end at Dominion's existing Leidy Hub Station in Clinton County, Pennsylvania.[15] The two new compressor stations, the Centre Relay Station and Perulack Station, are located in Centre County and Juniata County, Pennsylvania, respectively. Dominion proposes to install one 7,700 horsepower (hp) gas-fired turbine and one 4,800 hp gas-fired turbine at the Centre Relay Station and one 4,735 hp gas-fired high-speed reciprocating engine/compressor

[14] Dominion is an interstate gas transmission business unit of Dominion Resources, Inc., a fully integrated natural gas and electric company. Dominion, an open-access pipeline operating under the Commission's regulations and an approved tariff, is engaged primarily in the business of storing and transporting natural gas for customers principally in New York, Ohio, Pennsylvania, West Virginia, Virginia, Maryland and the District of Columbia.

[15] At two locations in Franklin County, Pennsylvania, the maximum allowable operating pressure (MAOP) of the existing PL-1 line has been reduced. Since the pipeline was installed, the population density increased to the point that it was necessary to either reduce the MAOP or take other action pursuant to Department of Transportation pipeline safety regulations. Dominion chose to reduce the MAOP in this pipeline segment. This project requires that these pipeline sections must operate at the original MAOP, so Dominion will restore PL-1's original MAOP through a combination of pipeline replacement and retesting. In addition, Dominion will install overpressure protection on another portion of the existing PL-1 pipeline in Loudoun County, Virginia north of the Leesburg Compressor station. Dominion states that it will install this overpressure under its Part 157 blanket certificate authorization but that such construction activity will be part of its portion of the Cove Point Expansion project.

unit at the proposed Perulack Station. Dominion states that the PL-1 EXT2 extension will transport natural gas from the proposed Perulack Station to Dominion's South Point Market Center, Dominion's mainline system, the Leidy Hub in Clinton County, Pennsylvania, and interconnections with other major pipelines and multiple local distribution companies.

TL-492 EXT3, TL-453 EXT1, and TL-536 Pipeline Segments – TL-492 EXT3 consists of approximately 11 miles of 24-inch diameter pipeline loop that will parallel Dominion's existing TL-342 pipeline from the northern part of Wetzel County, West Virginia to Greene County, Pennsylvania. TL-453 EXT1 consists of approximately 12 miles of 24-inch diameter pipeline between Dominion's Harrison and Ellisburg Storage complexes in Potter County, Pennsylvania.[16] TL-536 is approximately 10 miles of 20-inch diameter pipeline, paralleling Dominion's existing LN-257-S pipeline between Dominion's Sharon Storage Pool and State Line compressor station also in Potter County, Pennsylvania. Dominion states that these three proposed pipeline segments will enable Dominion to use various storage facilities within its system to provide the expansion project's proposed storage service.

Leesburg and Chambersburg Compressor Station Modifications – The Leesburg and Chambersburg Compressor Stations, located in Loudoun County, Virginia and Franklin County, Pennsylvania, respectively, currently pump gas from north to south in the PL-1 pipeline. Dominion proposes to change the piping at each station to allow these stations to be capable of pumping gas from south to north as well.

Leidy Compressor Station – Dominion proposes to add two new measuring and regulating (M&R) facilities within the existing Leidy Station located at the Leidy Hub Complex in Clinton County, Pennsylvania. In addition, Dominion plans to install a pig launcher/receiver at the end of the PL1 EXT2 pipeline and replace approximately 0.1 mile of 16-inch diameter pipeline with 0.1 mile of 24-inch pipeline. Dominion states that one facility will control and measure the flow of gas between the new PL-1 extension and the Dominion mainline system, and the other will control and measure the flow of gas delivered into Transco's system.

Mockingbird Hill Compressor Station Upgrade – Dominion proposes to upgrade the 5,000 hp Solar turbine engine compressor located in Mockingbird Hill Compressor Station near Pine Grove, Wetzel County, West Virginia by replacing it with a 7,800 hp Solar turbine engine compressor package. Dominion states that relief valve and fuel gas

[16] As part of this project, Dominion will also install overpressure protection at Ellisburg, Harrison and Woodhull Compressor stations.

modifications will also be included, but that there will be no additional modifications to the structure.

Storage – Dominion states that it will provide the 6,000,000 Dth of firm storage service capacity and 100,000 Dth/d of storage deliverability through a combination of resources. First, turned-back capacity from the open season will provide 2,178,000 Dth of capacity and 27,424 Dth/d of deliverability. Second, Dominion identifies remnants of previously certificated firm storage capacity from the Market Areas Storage project, authorized by the Commission in Docket No. CP97-774-000, *et al*., and unsubscribed deliverability and capacity to be created by the Northwest Storage Project, which is pending before the Commission in Docket No. CP04-365-000; a combined additional 2,753,000 Dth of storage capacity and 10,302 Dth/d of deliverability. Third, Dominion proposes to increase its certificated working gas capacity level at the Fink-Kennedy/Lost Creek storage complex, located in north central West Virginia, by 1.039 Bcf, for a total working gas capacity of 87.539 Bcf, resulting in a cumulative total certificated capacity of 162.539 Bcf at that complex. This will provide an additional 1,068,000 Dth of storage capacity and 32,896 Dth/d of deliverability. Thus, out of these available storage capacity and deliverability sources, a total of 6,000,000 Dth of storage capacity and 61,284 Dth/d of last-day deliverability will be allocated to Statoil.

In addition, in order to provide the full 100,000 Dth/d of storage deliverability that Statoil seeks, Dominion also proposes to construct or upgrade additional compressor station-related facilities in order to increase Dominion's overall system injection and withdrawal capabilities to meet the proposed storage service obligations of the expansion project. First, Dominion will add one 3,550 hp gas fired, reciprocating engine/compressor unit to the Wolf Run Compressor station in Lewis County, West Virginia, for a total capacity of 7,100 hp.[17] Second, Dominion proposes to install additional dry bed dehydration equipment to the Quinlan Compressor Station in Cattaraugus County, New York, thereby increasing its peak dehydration capacity by an additional 100,000 Mcf/d and raising the total dehydration capacity and maximum certificated deliverability for this proposed station to 300,000 Mcf/d.[18]

[17] Dominion sought authorization to construct and operate the Wolf Run Compressor Station, with two 1,775 hp compressor units, as a part of its Northwest Storage Project, in Docket No. CP04-365-000.

[18] Dominion also sought authorization to construct and operate the Quinlan Compressor Station as part of its Northeast Storage Project.

Other Aboveground Facilities - Other facilities, all located in Lewis County, West Virginia, include certain station piping and equipment upgrades at the Sweeney Compressor Station, minor valve upgrades at the Lightburn Station, and uprates of several existing lines in the Fink-Kennedy/Lost Creek storage complex. Dominion states that all of this work will be performed under Dominion's existing Part 157 blanket certificate authorization.

29. Dominion estimates that the proposed facilities for the transportation and storage service will cost an estimated $242 million.

Open Season

30. Dominion states that it conducted an open season between March 16 and April 15, 2004 to solicit firm transportation and storage service commitments on the proposed pipeline facilities, as well as a reverse open season, between March 16 and March 30, 2004, to determine whether any of its existing customers desired to permanently release storage and/or transportation capacity that could be used to perform the proposed transportation and storage services. Dominion held a second reverse open season between March 4 and March 18, 2005, for storage capacity. Dominion states that it received 2,178,000 Dth in turned-back firm storage service entitlements, which will be used in combination with the new facilities to provide the proposed storage service.

31. Dominion states that the open season resulted in the execution of a binding agreement with Statoil for 700,000 Dth/d of firm transportation service and 6,000,000 Dth of firm storage capacity and 100,000 Dth/d of storage demand, representing all of the incremental firm transportation and firm storage service that will result from Dominion's proposal and open seasons, with a primary receipt point at the Cove Point Pipeline interconnection with Dominion in Loudoun County, Virginia, and various primary delivery points at Dominion South Point and certain locations along Dominion's system in Pennsylvania. These services will be provided under proposed rate schedule GSS-E. The scheduled commencement dates for these transportation and storage services will be coordinated with the in-service date of the Cove Point LNG Terminal expansion.

Proposed Rates

32. Dominion proposes to charge incremental rates for the proposed transportation and storage service, which it claims will recover the cost of the proposed facilities. Dominion states that it is proposing incremental transportation and storage rates because the rates developed to recover the cost of the transportation and storage service exceed the existing system rates for firm transportation under Rate Schedule FT and storage service under

Rate Schedule GSS.[19] Dominion proposes to apply its system-wide fuel retention rate for the transportation and storage services.

33. Dominion proposes an incremental transportation reservation rate of $4.4285 per Dth, which is higher than the existing firm transportation rate, and a usage rate based on the maximum Rate Schedule FT/FTNN rate. The proposed incremental transportation rates are based on an annual cost of service of $37,199,557 for the third full year of service, which consists of (1) operation and maintenance (O&M) expense of $1,836,347; (2) depreciation expense of $5,620,610; (3) other taxes of $3,642,155; and (4) pretax return of $26,100,445.

34. Dominion proposes incremental storage rates higher than the system storage rates on the proposed GSS-E rate schedule which applies to the expansion storage service in this proposal. The proposed incremental GSS-E storage rates consist of: (1) storage demand of $2.2951 per Dth; (2) storage capacity of $0.0369 per Dth; (3) injection charge of $0.0200 per Dth; (4) withdrawal charge of $0.0166 per Dth; and (5) authorized overruns of $1.0852 per Dth. The proposed rates are based on an annual cost of service of $5,307,164 for the third full year of service, which consists of: (1) O&M expense of $2,595,849; (2) depreciation expense of $430,980; (3) other taxes of $279,275; and (4) pretax return of $2,001,060.

35. Dominion's proposed pretax return of 13.70 percent for both the transportation and storage rates is based on its Commission-approved capital structure, which consists of 37.95 percent debt and 62.05 percent equity.[20] Dominion further proposes that the rates for the transportation and storage services are based on the third full year which results in a lower rate because the cost of service is less than the first year of service.

36. Dominion states that the cost of service underlying these incremental storage rates includes the cost of service associated with the new storage function facilities together with annual costs associated with unsubscribed demand and capacity elements from previous projects, as well as the turned-back storage service entitlements attributed to this project. Specifically, Dominion states that capacity associated with Dominion's SSE/MAS project is included at an annual level of $308,328; demand and capacity from

[19] Dominion states that pursuant to section 157.204 of the Commission's regulations, 18 C.F.R. § 157.204, it will file the applicable tariff sheet stating the incremental rates 30 to 60 days before commencement of service to incorporate the pro forma tariff sheets, as modified by subsequent filings, into its currently effective FERC Gas Tariff Third Revised Volume No. 1.

[20] *CNG Transmission Corp*., 85 FERC ¶ 61,261 (1998).

Dominion's Northeast Storage Project is included at a cost of $691,865; and demand and capacity to be turned back is included at a cost of $1,318,384.

Notice, Interventions, Protests and Comments

37. Notice of the applications was published in the *Federal Register* on May 5, 2005 (70 Fed. Reg. 23,857). Twenty-three parties filed timely motions to intervene.[21] Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.[22]

38. Ten parties filed untimely motions to intervene.[23] The Commission finds that granting these late-filed motions to intervene will not delay, disrupt, or otherwise prejudice this proceeding, or place an additional burden on existing parties. Therefore, for good cause shown, we will grant the late-filed motions to intervene.[24]

39. Several parties either protest the proposal to expand the Cove Point Project facilities or express reservations. ExxonMobil and ConocoPhillips, jointly, Public Citizen's Energy Program and Green Delaware, and Robert E. Rutkowski protest Cove Point LNG's proposal to provide the expansion services to Statoil on a "proprietary" basis, with deregulated rates and services under *Hackberry*, while continuing to operate the existing portion of the terminal on a regulated basis.

40. WGL and Consolidated Edison Company of New York, Inc. (Con Ed) contend that the Commission should not approve Cove Point LNG's proposal until Cove Point LNG takes appropriate steps to ensure that the increased deliveries of regasified LNG from Cove Point LNG's facilities will not damage WGL's infrastructure. KeySpan supports this position. Short of asserting that the regasified LNG is the cause of the increased leaks on WGL's system, Maryland Office of the People's Counsel, the Maryland Public Service Commission, and the Public Service Commission of the District

[21] The intervenors are listed in Appendix A to this order. Several parties filed interventions in only one of the three dockets, and those parties who limited their participation to less than all three dockets are identified.

[22] 18 C.F.R. § 385.214(a)(3) (2005).

[23] These parties are also identified in Appendix A. Previously, late interventors had been granted party status for the limited purpose of participating in the February 22, 2006 procedural conference in this proceeding.

[24] 18 C.F.R. § 385.214(d) (2005).

of Columbia argue that the Commission should determine the cause of the leaks and who is responsible for repair and preventing any damage to WGL's infrastructure.

41. Con Ed also questions whether Dominion's proposal to apply its system-wide fuel retention rates to its new services will result in subsidization of those services by existing customers. WGL questions the allocation of expansion project costs in CP05-132-000. We address these protests in detail, below.

42. Comments in support of the proposal were filed by Process Gas Consumers Group, Statoil, and New Jersey Natural Gas Company.

43. The applicants have filed answers to the protests and other parties have made filings in the course of this proceeding that are not permitted or otherwise provided for under our rules. However, we may, for good cause shown, waive a rule.[25] We find good cause to do so in this instance in order to achieve a complete, accurate and fully argued record in this proceeding, particularly in view of the significant safety and reliability of service issues, and issues of first impression regarding the application of the Commission's *Hackberry* policy in this proceeding. The positions of the various parties as proffered in these filings are described, where appropriate or relevant, in our addressing the protests and comments below.

Protests

Gas Quality

44. WGL describes itself as a captive customer of the Cove Point Pipeline, which is physically located in WGL's franchised service area. WGL is connected to the Cove Point Pipeline at six gate stations, which provide the sole source of supply for WGL's customers in Calvert and St. Mary's Counties, Maryland, as well as portions of Prince George's County, Maryland. On November 2, 2005, WGL filed supplemental comments protesting Cove Point LNG's proposal and requesting an evidentiary hearing. In its November 2 filing, WGL asserts that that Commission should deny Cove Point LNG's expansion application until such time as Cove Point LNG demonstrates that it has minimized the potential adverse impacts to WGL's infrastructure from increased deliveries of regasifed LNG.

45. WGL states that the November 2, 2005 filing supplements its initial comments filed on March 27, 2005, in which WGL reserved the right to comment further on gas quality issues once it developed further information regarding the high incidence of leaks

[25] *See* 18 C.F.R. § 385.101(e) (2005).

on its distribution system. According to WGL, these leaks were first noted in December 2003 in Prince George's County, and again during the 2004-2005 heating season. WGL states that this portion of its system receives its gas primarily from gate stations on the Cove Point pipeline.

46. WGL states that it retained ENVIRON International Corporation (ENVIRON), working with Polymer Solutions, Inc. and Akron Rubber Development Laboratory, to investigate the causes of the increased leak rates on WGL's system. WGL states that it received ENVIRON's report on July 1, 2005, in which ENVIRON concludes that increased leaks were the result of three contributing factors. Those factors include (1) the change in gas composition as a result of the re-introduction of regasified LNG, which has a lower concentration of heavy hydrocarbons (HHC)[26] than the domestic gas that WGL had traditionally received; (2) the age and condition of couplings; and (3) ground temperatures.

47. WGL claims that the only condition unique to the portion of its system that experienced a high number of leaks is the introduction of regasified LNG. WGL concludes, therefore, that the regasified LNG flowing from the Cove Point LNG terminal, consisting of fewer heavy hydrocarbons than its traditional domestic supplies, has directly lead to an increase in failure rates of mechanical couplings installed on its system between the 1940s through the 1970s.[27]

48. The increased leak rates experienced on WGL's system since the reactivation of Cove Point's LNG terminal in August 2003, are currently confined to an area in Prince George's County, Maryland. However, WGL claims that the proposed expansion of the Cove Point LNG terminal facilities from 750,000 Dth/d to 1.8 Bcf/d will result in the introduction of regasified LNG to virtually its entire system, located in Maryland, Virginia and the District of Columbia. WGL, asserting that this increase in the flow of regasified LNG will adversely impact its infrastructure, requests an evidentiary hearing to determine the extent of such adverse impact and any appropriate tariff or other mitigation

[26] The hydrocarbon gases that can be found in natural gas are: methane (C1), ethane (C2), propane (C3), butanes (C4), pentanes (C5), hexanes (C6), heptanes (C7), octanes (C8) and nonanes plus (C9+). In this proceeding heavy hydrocarbons, or HHC, refers to the hydrocarbon components of the gas stream that are pentanes (C5) and heavier, or C5+.

[27] WGL's Supplemental Comments, Protest and Request for Evidentiary Hearing (Protest), at page 2.

measure that should attach to any authorizations granted in this proceeding to ensure that the regasified LNG is interchangeable with the gas historically received by WGL.

49. WGL's claim that the increased leaks were caused by the introduction of regasified LNG into its system from Cove Point is strenuously disputed by Cove Point LNG, the existing LTD-1 Shippers,[28] and Norton McMurray Manufacturing Company (Normac), the manufacturer of the seals installed by WGL on its system.

50. As a preliminary issue, Cove Point LNG and the LTD-1 Shippers object to the late filing of WGL's protest, alleging that prejudice and delay will result if the Commission entertains it. Though filed some six months out-of-time, we will accept and consider WGL's November 2, 2005 filing. In its timely intervention, WGL commented that there was a potential problem with leaks associated with Cove Point LNG's proposal and that WGL was in the process of investigating the matter, putting the applicants and other interested parties on notice and thereby tempering any claimed prejudice. While WGL does not explain the delay between receiving ENVIRON's Report in July 2005 and filing its protest and request for an evidentiary hearing in November, WGL's fundamental claim is that there was no increased incidence of gas leaks on its system until WGL began receiving regasified LNG from the Cove Point LNG Terminal, at which time only that part of its system that received the regasified LNG began to experience increased leaks. This claim raises serious questions regarding the safety and reliability of the services proposed.

51. Both Cove Point and the LTD-1 Shippers also argue that since WGL's complaint is with regard to the quality of gas that is already flowing and existing gas quality standards in a Commission-approved tariff, WGL's appropriate course of action is to file a complaint under section 5 of the NGA, in which case WGL would have the burden of showing that the existing gas quality standards are unreasonable, and then of demonstrating that the standards it seeks to impose are reasonable. In essence, they contend that WGL is seeking to modify the rates, terms and conditions of pre-existing service provided by Cove Point LNG that is not the subject of this expansion proposal.

[28] The LTD-1 Shippers consist of Statoil, Shell NA LNG LCC, and BP Energy Company.

52. Both Cove Point LNG and the LTD-1 Shippers contend that, in any event, the ENVIRON Report is "fundamentally flawed" and "scientifically invalid."[29] These parties also complain WGL has failed to adequately quantify or qualify the alleged leaks. Cove Point LNG contends that the regasified LNG from the Cove Point LNG Terminal meets not only the stringent standards of its own tariff, but also meets the quality specifications of WGL's tariff, as well as the tariffs of "virtually every interstate pipeline in the country."[30] Beyond that, Cove Point LNG asserts that the age and current condition of WGL's seals is a major, if not sole, cause of any leak problems. Normac is certain that it knows the true cause of WGL's leaks to be WGL's application of hot tar around the seals as a means of corrosion control.[31] Finally, Cove Point LNG and the LTD-1 Shippers assert that ENVIRON failed to consider that operating pressure was a contributing factor. They contend that because ENVIRON did not conduct laboratory experiments to test the effects that pressure would have on leak rates, the ENVIRON Report did not properly evaluate the impacts that pressure would have on the leak rates experienced on WGL's system.

53. We note that contemporaneously with this order, the Commission is issuing its *Policy Statement on Provisions Governing Gas Quality and Interchangeability in Interstate Natural Gas Company Tariffs* (Policy Statement).[32] Consistent with the Policy Statement, Cove Point LNG must ensure that the regasified LNG it delivers to interconnecting pipelines meets the gas quality and interchangeability standards of the interconnecting pipelines' tariffs. Without question, at present the regasified LNG that is delivered to the Cove Point Pipeline meets the gas quality and interchangeability

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[29] Cove Point LNG's answer and request to reject WGL's untimely protest, filed November 15, 2005, at p. 28, and LTD-1 Shipper's answer and request to reject WGL's untimely protest, filed on November 17, 2005, at p. 21, respectively. Cove Point LNG and the LTD-1 Shippers provide lists of 12 and 7 flaws, respectively, as examples of the deficiencies in the July 2005 ENVIRON Report. *See* pp. 29-30 and 21-22 of Cove Point LNG's and the LTD-1 Shippers' respective answers to WGL's protest.

[30] Cove Point LNG's and Dominion's Answer and Request to Reject Protest, at p. 14.

[31] Mr. Glen McMurray, Normac's President, opened his presentation at the February 22, 2006 procedural conference, described below, in this proceeding by stating "I'm here to tell you that the hot tar was the root cause of the problem that WGL suffered." Conference Transcript (Tr.), at p. 63, lines 13 -14.

[32] 115 FERC ¶ 61,325 (2006).

standards of the Cove Point Pipeline, and WGL. Moreover, it is undisputed that Cove Point LNG will hold expansion shippers to its existing gas quality standards. Consequently, absent the assertions made in WGL's November 2, 2005 filing, Cove Point LNG's proposal appears to raise no issues of adverse impact to existing customers arising from the quality of the regasified LNG being delivered, or to be delivered from, the Cove Point LNG Terminal.

54. Cove Point LNG and the LTD-1 Shippers are correct, as recognized in the new Gas Quality Policy Statement and Commission precedent that a pipeline seeking modifications to an interconnecting pipeline' tariff provisions may file a complaint demonstrating that the interconnecting pipeline's tariff is not just and reasonable. The Commission would evaluate the complaint on its specific merits. However, the new Gas Quality Policy Statement and Commission precedent also recognize that potential adverse impacts and mitigation should also be addressed in proceedings for applications for authorization to construct facilities to store LNG and transport regasified LNG. To the extent that WGL alleges that the introduction of additional quantities of regasified LNG into its system will pose significant safety risks, it is incumbent on the Commission to ensure that Cove Point LNG's proposal will not result in unsafe or unreliable service adversely impacting other pipelines and their customers.

55. With that responsibility in mind, on February 22, 2006, the Commission held a procedural conference for the purpose of allowing the parties and Commission staff to discuss the pleadings filed regarding the quality of the natural gas delivered, and proposed to be delivered to WGL from the Cove Point LNG Terminal and the potential effects of the proposed Cove Point Expansion Project on WGL's facilities, and the procedural options for the continuing timely processing of Cove Point LNG's request to expand and modify its LNG terminal facilities. At the procedural conference, WGL, Normac, Cove Point LNG, and the LTD-1 Shippers made oral presentations addressing the causes of gas leaks on WGL's system, as well as the potential effects of the proposed expansion on WGL's infrastructure. Written presentations, with exhibits, were filed, as were comments prepared subsequent to the procedural conference in light of the conference presentations.

56. A record has been developed in this proceeding as a result of the oral and written presentations submitted at the February 22, 2006 conference, responses to Commission data requests that followed the conference, and the many filings addressing the issue of gas quality, from which the Commission is able to conclude that the increase in leak rates on WGL's system was not caused primarily by a change in C5+, but instead, other factors such as the application of hot tar to the couplings, increased operating pressure, and colder temperatures had a greater impact on leak rates. The Commission cannot rule out fluctuations in C5+ as a possible contributor to the increase in leak rates experienced by

WGL. The studies conducted on behalf of WGL do show that leaking mechanical couplings are affected by increasing and decreasing C5+ concentrations. However, the changes in leak rates resulting from the changes in gas composition are relatively small when compared to the other contributing factors mentioned above.

57. Specifically, the record upon which we base our conclusions includes the following: (1) all procedural conference presentations and all documents provided by participating parties to Commission staff immediately before, during and after the conference; (2) Procedural Conference comments and reply comments filed by WGL, Cove Point LNG and Dominion, Norton McMurray Manufacturing Company (Normac), LTD-1 Shippers, KeySpan Delivery Companies, Public Service Commission of Maryland, and Maryland People's Counsel; (3) responses to Commission staff's data requests filed with the Commission by WGL on April 18, 2006, by Normac on March 31, 2006, and by KeySpan on April 3, 2006; (4) WGL's filings in this proceeding, including its "Supplemental Comments, Protest and Request for Evidentiary Hearing" filed on November 2, 2005; "Motion to File and Answer of Washington Gas Light Company to Answer and Requests to Reject Filed by the LTD-1 Shippers and Dominion Cove Point LNG, LP and Dominion Transmission, Inc." filed on November 30, 2005; and "Answer of Washington Gas Light Company to Motion for Summary Disposition of Dominion Cove Point LNG, LP and Dominion Transmission, Inc." filed on December 29, 2005; (5) Cove Point LNG's and Dominion's filings in this proceeding, including the "Answer and Request to Reject the Untimely Protest and Request for Evidentiary Hearing of Washington Gas Light Company" filed on November 15, 2005; "Answer and Request to Reject the Untimely Motion and Answer of Washington Gas Light Company" filed on November 18, 2005; and "Dominion's Answer and Request for Commission Action in Response to the Answer of Washington Gas Light Company and the Late Interventions of the Public Service Commission of Maryland and the Maryland People's Counsel" filed on December 14, 2005; (6) LTD-1 Shippers' filing in this proceeding, including its "Answer to and Request of the LTD-1 Shippers to Reject Washington Gas Light Company's Supplemental Comments, Protest, and Request for Evidentiary Hearing" filed on November 17, 2005; and "Motion of the LTD-1 Shippers for Leave to Answer and Answer to Washington Gas Light Company" filed on December 15, 2005; (7) Normac's filings in this proceeding, including its "Motion of Norton McMurray Manufacturing Company for Leave to Intervene Out of Time for a Limited Purpose" filed on February 8, 2006; (8) Transco's "Answer of Transcontinental Gas Pipe Line Corporation to Protest" filed on December 19, 2005; (9) People's Counsel's "Motion of the Maryland Office of the People's Counsel for Leave to Answer and Answer to Dominion Cove Point LNG, LP" filed on December 28, 2005; and (10) City of Richmond's "Motion for Leave Out of Time" filed on February 10, 2006.

58. Our analysis, informed by the information presented at the conference, focused on three potential contributing, causative factors for the leaks on WGL's system. These factors are: (1) the changes in gas composition resulting from the introduction of regasified LNG, with lower concentrations of HHC; (2) application of hot tar to the compression couplings a method of corrosion protection; and (3) increased system operating pressure. Based on our review of the record and for the reasons detailed below, the Commission also finds that WGL's contention that the increased leaks were the result of Cove Point LNG's regasified LNG is based on a flawed analysis, as claimed by Cove Point LNG and the LTD-1 Shippers. While WGL and ENVIRON dismissed the application of hot tar and the increase in operating pressures on WGL's distribution system as possible contributing factors, we find that there is ample record information to conclude that they were substantial causative factors resulting in the leaks experienced by WGL. Our analysis and conclusions are as follows.

Heavy Hydrocarbons (HHC)

59. As noted, WGL relies principally on the study undertaken by ENVIRON, as detailed in the report dated July 1, 2005 as support for its claim that the regasified LNG from the Cove Point LNG terminal has caused the elastomer[33] seals in many mechanical couplings to shrink and start to leak. In that report, ENVIRON identified four potential causes for the increased leaks, namely, the age of the couplings, the change in gas composition, change in temperatures, and the application of hot tar to its mechanical couplings. According to the study, the only factor unique to that portion of WGL's system in Prince George's County where increased leaks were found is the change in the composition of the gas. On this basis, WGL asserts that the unique factor must be the causative factor.

60. WGL reports that its studies found that mechanical couplings were casued to leak by the change in the gas composition of WGL's supplies from historically domestic supplies with some heavy hydrocarbons (C5+), to unblended, regasified LNG, with virtually no C5+ gas components.[34] In response to this problem, WGL claims that it has

[33] An elastomer is a material that resumes its original shape when a deforming force is removed. In the context of seals or gaskets, this characteristic allows the seal, in compression, to prevent the passage of solids, liquids or gases.

[34] WGL's Procedural Conference Comments at pp.9-10; ENVIRON Presentation, slide 3; ENVIRON Report, pages 2 and 32-33; and Loftus Affidavit, ¶ 4.

engaged in a "detailed internal review" to study and determine the cause and possible solutions to the increase in leak rates.[35]

61. At the procedural conference, Mr. Benson, a principal at ENVIRON, presented some of the findings of the studies conducted on the elastomer seals. The studies showed that the elastomer seals used in the mechanical couplings will swell as C5+ is absorbed from the gas stream and will shrink as C5+ is desorbed and released back into the low-C5+ unblended regasified LNG stream.[36] WGL claims that a test by Natural Gas Technology Centre (NGTC) confirms its claim that the loss of C5+ content of the natural gas stream can shrink the elastomer seals and cause a change in the leak rate of couplings.[37] According to Mr. Benson, this is "very compelling evidence…(that) the leakage rate is affected by those C5+ constituents."[38]

62. During the procedural conference, WGL presented information that showed that the affected area in Prince George's County contains only 14 percent of the mechanical couplings installed on WGL's system.[39] WGL claims that the other 86 percent of the mechanical couplings have not yet received unblended, regasified LNG for significant periods of time. WGL states that it has identified that leaks were occurring on mechanical couplings installed on service lines of 2-inches and smaller. These couplings were manufactured by either Normac or Dresser Industries, Inc. (Dresser).[40] WGL states that these couplings were installed on its system during construction projects from the late 1940s through the 1970s.[41] WGL estimates that more than 75 percent of the mechnical couplings installed on its distribution system are Dresser couplings. WGL

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[35] Tr. at pp. 31:23-32:8.

[36] WGL's Procedural Conference Comments at p. 10.

[37] ENVIRON's Presentation, slide 8. ENVIRON's presentation immediately follows WGL's 38 page presentation, and summarizes the results from NGTC's test regarding the impacts of temperature and change in gas composition (C5+) on leak rates of mechanical couplings.

[38] Tr. at p. 42:16-19.

[39] *Id*., at p. 27:23-24

[40] Tr. at p. 39:12.

[41] *Id*., at p. 25:24 – 26:3.

claims that the Cove Point Expansion Project will dramatically increase the exposure of its distribution system to unblended, regasified LNG. Based upon the high leak rates of the mechanical couplings in Prince George's County, WGL contends that exposing the balance of its system to unblended, regasified LNG could have a detrimental impact on its system by increasing leak rates on previously unexposed mechanical couplings.

63. WGL states that neither Cove Point LNG, nor the LTD-1 Shippers have presented any evidence or conducted any studies either to support their assertions regarding the impact of regasified LNG on WGL's mechanical couplings,[42] or to refute WGL's detailed studies demonstrating how the significant increase in leak rates for mechanical couplings only occurred in areas of WGL's system that were exposed to vaporized LNG.[43]

64. Moreover, WGL notes that no party during the procedural conference disputed that the change in gas composition from historical supplies to unblended, regasified LNG in the affected area was a factor in causing an increase in leak rates.[44] WGL contends that Cove Point LNG has not ruled out the unblended, regasified LNG as a contributing factor to the increased leak rates in Prince George's County.[45] In fact, states WGL, Cove Point LNG could only claim at the Procedural Conference that the leaks were not "substantially" related to the regasified LNG.[46] Similarly, WGL claims that the LTD-1 Shippers do not assert that the unblended regasified LNG is not a factor to the increase in leak rates. WGL describes the LTD-1 Shippers' position to be that other factors have worked in tandem to cause the increase in leak rates.[47] Lastly, WGL states that even Mr. McMurray, representing Normac, agreed that the three factors identified by the ENVIRON Report can cause compression couplings to leak.[48]

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[42] WGL's Procedural Conference Comments, at p. 12.

[43] Tr. at pp. 20:24 – 21:18, 28:18 – 29:18 and WGL's presentation, slides 4-5, 18-19, and 29-32.

[44] WGL's Procedural Conference Comments, at p. 13.

[45] *Id*., at p. 13.

[46] Tr. at pp. 104:16-17, 123:11-12.

[47] *Id*., at p. 139:2-10; WGL's Procedural Conference Comments, at p. 13.

[48] Tr. at p. 91:10-15.

65. Normac maintains that the ENVIRON study did not provide an accurate testing environment.[49] According to Normac, ENVIRON's tests which showed that the gaskets would absorb hydrocarbons were conducted on pieces that had been cut from a gasket and then fully immersed in liquid hexane. Normac demonstrated at the conference that actually only "a very small part of the rubber gasket is actually exposed to gas."[50] Normac states that this portion of the gasket is the "wetted area." In addition, Normac explained that when torque is applied to create a seal, the gasket inside of the coupling is compressed by about 25 percent,[51] further reducing the ability of the gasket to absorb hydrocarbons.

66. Cove Point LNG characterizes WGL's evidence attributing the increased leaks of its seals to the reduction of HHC as "extraordinarily weak."[52] Cove Point LNG states that according to WGL's own evidence, namely the information included on slide 5 of ENVIRON's presentation at the procedural conference, the change in HHC is less than one percent change by volume. Cove Point LNG finds it hard to believe that a change this small would cause the "huge" problem WGL claims to exist.[53] Cove Point LNG states that, as explained by Normac,[54] the small shrinkage that resulted from the desorption of HHC is well within the seal's designed margin of safety. Cove Point LNG too notes that WGL's proposed solution of injecting hexanes into its system at Gardiner Road has not stopped the leaks.[55]

67. The LTD-1 Shippers claim that WGL's evidence taken together as a whole does not support its hypothesis that LNG was the cause of the increase in gas leaks. The LTD-1 Shippers also claim that other potential causes, such as cold temperatures, type or design of coupling, installation practices, gas pressure and ground conditions, only

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[49] Normac's Procedural Conference Comments, at p.13.

[50] Tr. at p. 72:6-10.

[51] *Id*., at pp. 21-24.

[52] Cove Point LNG's Procedural Conference Comments, at p 4.

[53] *Id.*, at p 5.

[54] Tr. at p. 79; *Id*.

[55] Tr. at p. 54.

received superficial consideration. The LTD-1 Shippers allege that any one of these conditions alone or together could have caused or contributed to the alleged increase in leak rates on WGL's' system.[56] Consequently, the LTD-1 Shippers state that WGL has not shown that regasified LNG from Cove Point has caused its compression couplings to fail or will cause the compression couplings to fail.[57]

68. WGL has developed a method of remediation to address the leaking seals with the belief that regasified LNG is the sole cause of the increase in gas leaks. However, Normac believes that WGL's new hexane injection plant located at the Gardiner Road gate station will not "cure" the underlying problems that WGL has with the elastomer seals which were damaged by the application of hot tar.[58] Normac states "(t)he real issue is that the gaskets have already been damaged beyond repair due to the use of hot tar. WGL cannot hope to effectively address leaks on its system until it acknowledges the real cause of these leaks."[59] Finally, Normac asserts that if injection of C5+ does not stop the seals from leaking, "the corollary must also be true: a reduction in C5+ cannot be the cause of the leak."[60]

69. The LTD-1 Shippers also observe that one of WGL's proposed "remedies" of injecting hexanes into the gas stream at Gardiner Road as a means of reversing the alleged shrinkage of the seals resulting from the desorption of HHC has not stopped the seals from leaking,[61] with results from Natural Gas Technologies Centre (NGTC) confirming that the re-injection of HHC into unblended LNG did not eliminate the leaks in previously leaking couplings.

Commission Determination

70. WGL's conclusion that the change in gas composition was one of the key contributors to the increase in leak rates is not supported by the evidence in the record of

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[56] LTD-1 Shippers' Procedural Conference Comments, at p .5.

[57] *Id.*, at p. 4.

[58] Tr. at p. 83, line 21; Normac's Procedural Conference Comments, at p. 12.

[59] Normac's Procedural Conference Comments, at p. 14.

[60] *Id*.

[61] *Id*.

this proceeding. In the April 2006 ENVIRON Report, NGTC conducted tests of complete mechanical couplings that were identified by WGL as leaking. Upon receipt of these couplings, NGTC conducted tests to verify the impacts and to develop a possible method of remediation in order to stop the leaks on WGL's mechanical couplings.[62] The tests conducted by NGTC showed that by increasing and decreasing the concentration of C5+, the leak rates would decrease or increase, respectively. However, NGTC submits that while increasing the concentration C5+ would reduce the leak rates in the mechanical couplings tested (*i.e*., couplings identified by WGL as having experienced leaks), NGTC could not eliminate the leaks entirely.[63] The Commission also notes that the WGL couplings tested by NGTC had been coated with hot tar.

71. The NGTC study also evaluated the impact that an increase or decrease in temperature would have on the leaks rates. The studies conducted by NGTC confirmed that changes in temperature can also influence the leak rates of the mechanical couplings. The studies clearly demonstrated that increasing the temperature would reduce the leak rates and decreasing the temperature would increase the leak rates. These results, NGTC claims, are consistent with the "observed phenomena in the field: leak reports generally increase each winter."[64]

72. When comparing the effects that a change in C5+ and temperature had on the mechanical couplings, NGTC concludes that a change in temperature of 20^{o}F "had a larger impact on leak rates than did the change of gas composition."[65] Upon inspection of the test results, the Commission notes that changes in C5+ concentrations changed the leak rates by up to 20-25 percent.[66] When the effects of C5+ concentrations are compared with the effects of temperature, the Commission concludes increase in leak rates attributed to the change in C5+ concentration is equivalent to increase in leak rates due to about a 4 to 5^{o} F change in temperature.[67] The Commission concludes that this

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[62] WGL's April 18 Data Response, at p. 10.

[63] April 2006 ENVIRON Report, at p. 2.

[64] *Id*.

[65] WGL's April 18 Data Response, FERC/WGL 1.4.6 of 34, Attachment A, April 2006 ENVIRON Report.

[66] April 2006 ENVIRON Report, Figure 11 "Summary of Effects of Gas Composition on Average Leak Rates for Channels #1 and #2", at p. 18.

[67] *Id*., Figure 15 "Effects of temperature on normalized average leak rate for all

direct comparison of the effects of temperature versus the change in gas composition clearly shows that while a change in gas composition will affect leak rates in mechanical couplings already determined to be leaking, the leak rates are substantially smaller than the effect of a reduced temperatures.

73. The Commission does not believe that the evidence is to demonstrate conclusively that the gas composition of the unblended, regasified LNG from the Cove Point LNG Terminal can be ruled out entirely as a contributing factor to the increase in gas leaks. However, it is clear that any shrinkage due to the desorption of C5+ was small, particularly when compared to other contributing factors, as discussed below, and would not have caused any increase in leak rates on WGL's system in the absence of those other more significant contributing factors, namely, the application of hot tar, increase in operating pressure and a decrease in temperatures.

Hot Tar

74. Normac asserts, without reservation that application of hot tar to compression couplings as a means of corrosion control was the "root cause" of the leaks on WGL's system. During the procedural conference, Normac's President, Gene McMurray, explained that the hot tar application process involved heating the tar to temperatures in excess of 400 degrees Fahrenheit and pouring this tar into a mold surrounding the coupling. Tests conducted by Naeve & Associates, Inc. on behalf of Normac (Naeve test) show that the coupling seal is exposed to temperatures in excess of 212 degrees Fahrenheit for a minimum of 45 minutes during this process. Mr. McMurray stated that exposure to this temperature for an extended period of time will change both the shape and the chemistry of the elastomer. According to Mr. McMurray, "when the hot tar is applied, it's similar to molding the gasket into a new shape, size, and set of properties."[68] Although Normac has designed the couplings to have a margin of safety which exceeds 800 percent, Mr. McMurry believes WGL's use of hot tar as corrosion protection very likely destroyed this margin of safety.[69]

75. The LTD-1 Shippers also claim that the hot tar used by WGL subjected the internal seals to excessive temperatures, changing their shape, chemistry, and destroying

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couplings", at p. 24.

[68] Tr. at p. 82

[69] *Id*., at p. 77. Mr. McMurray explains that Normac's gaskets are engineered to withstand pressures equal to 800 percent of their functional capability.

the design margin of safety.[70] The LTD-1 Shippers contend that the July 2005 ENVIRON Report also recognizes the impacts of the hot tar application process, referring to the report's conclusion that the temperatures caused by the hot tar could cause "cure shrinkage" which "would result in reduced sealing force" in the compression couplings.[71] The LTD-1 Shippers presented testimony of Dr. Loftus, the author for the ENVIRON Report, in another proceeding in which the ENVIRON Report was used to support a claim that the introduction of regasified LNG can cause leaks on distribution systems.[72] The LTD-1 Shippers state that Dr. Loftus testified that seals subjected to temperatures of 400 degrees Fahrenheit would turn into a "gooey mess,"[73] and that Dr. Loftus also acknowledged that the application of hot tar could cause the seals to age 30 years in a matter of minutes.[74]

76. Additionally, the LTD-1 Shippers claim that, based upon tests that were conducted by WGL in the late 1960s, WGL knew of the detrimental effects that the hot tar application would have on the compression couplings and should have begun addressing this problem much sooner.[75]

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[70] LTD-1 Shippers' Procedural Conference Comments, at p. 6.

[71] July 1, 2005 Report of Environ, at p. 12.

[72] *AES Ocean Express LLC v Florida Gas Transmission Company (AES)*, Docket No. RP04-249-001. We note that on May 2, 2006, WGL filed a letter to the Commission's Secretary, the purpose of which is to point out that since WGL was not a party in *AES*, "it would be wholly inappropriate for the Commission to consider in the present proceeding the findings made by the presiding judge in the *AES* case with respect to the Environ Study." We did not consider the judge's findings in AES in reaching our conclusions in this case. However, excepts from the transcript of that proceeding, together with accompanying exhibits, relating to the ENVIRON report, were submitted into the record of this proceeding by the LTD-1 Shippers, and reviewed and considered by us. WGL has had the opportunity in this proceeding to explain or rebut those excerpts and exhibits.

[73] *AES* Tr. at p. 1371-72

[74] *Id*., at p. 1380.

[75] LTD Shippers' Procedural Conference Comments, at Appendix-8.

77. The LTD-1 Shippers attach significance to a difference between ENVIRON's conclusion in its July 2005 report that the hot tar application was considered a "possible contributing factor" and could be "affected by differing practices between installation crews,"[76] and a chart as part of its procedural conference presentation showing that the hot tar application applies "universally" to WGl'S system.

78. Mr. Benson, a principal from ENVIRON, explained that the report evaluated and then dismissed the use of hot tar as corrosion protection for the mechanical coupling as a contributing factor to the increase in leak rates.[77] Mr. Benson stated that hot tar was eliminated as a contributing factor because WGL had been using this form of corrosion protection throughout its entire system until the early 1970s.[78] As such, the use of hot tar could not explain why there was an increase in leak rates that was occurring only in the affected area in Prince George's County. WGL states that if hot tar were the problem, the leak problem would have been more wide-spread throughout its entire distribution system.[79]

79. WGL states that it is entirely reasonable and necessary for it to provide corrosion protection in order to mitigate the possible damaging effects from corrosive soil conditions. Prior to the Pipeline Safety Act of 1968, WGL states that it developed and followed installation standards based upon ANSI Code B31.8 "Pressure Piping, Gas Transmission and Distribution Systems" guidelines on corrosion protection of buried steel pipe and joints.[80] WGL maintains that the use of "hot-applied" coating of coal tar or asphalt was accepted practices in the industry.[81]

80. WGL states that when applying tar for corrosion control, either a cardboard mold or a wrapping procedure with a fabric mesh or tar paper is used to contain the hot tar.

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[76] July 2005 ENVIRON Report at pp. 9 and 12.

[77] Tr. at p. 38:19-23; LTD Shippers' Procedural Conference Comments, at page 15; Loftus Affidavit, at ¶ 9.

[78] Tr. at p. 39:1-4.

[79] WGL's Procedural Conference Comments, at p.15.

[80] *Id.*, at p.16. Included as an attachment to its comments, WGL provided a document which includes "hot compounds" as one of a number of forms of corrosion coatings that can be used to protect the couplings.

[81] Staebler Affidavit, ¶ 3; WGL's Procedural Conference Comments, at p. 15.

WGL states that the Naeve test used a cardboard mold to house the heated tar; however, no such cardboard moldings were found in connection with the compression couplings removed from the ground by WGL. According to WGL, this indicates that WGL did not use cardboard molds for the use of applying heated tar. WGL contends that this is significant because the use of a cardboard mold would subject the compression coupling and the elastomer seals to greater volumes of heated tar then would the use of tar paper wrap, as used by WGL. WGL claims that the mold allowed more hot tar to come in contact with the compression coupling then the tar paper that WGL states that it has found with the leaking compression couplings removed from its system.[82] WGL adds that the greater volumes of tar associated with the cardboard molds would take longer to cool thereby subjecting the elastomer to high heat for a longer period of time. Conversely, states WGL, the use of less tar will result in less heat available for transfer to the compression coupling.

81. WGL also contends that the actual field conditions would cause the heat transfer effect to be different from those observed in the Naeve test. WGL states that there is a variation in ambient temperature conditions from the air and the ground which results in less of the heat from the hot tar remaining on the coupling around the seal. WGL also claims that the long pipe segments attached to each side of a coupling in the field act as a large heat sink to draw heat away from the coupling. WGL points out that these effects were not duplicated or reflected in the Naeve test. Therefore, asserts WGL, the lab test performed in the Naeve test is flawed because: (1) Mr. Naeve applied significantly more hot tar to the coupling than was used by WGL during the installation process; and (2) the lab conditions failed to accurately reflect the variation in ambient temperature conditions from the air and soil experienced in actual field conditions. Consequently, while WGL does not dispute the fact that the compression couplings would be subjected to heat from the tar used for corrosion control, WGL insists that the temperature data gathered by Mr. Naeve does not accurately reflect the impact that the heated tar would have on the compression coupling.

Commission Determination

82. We disagree with WGL's claim that the Naeve test was flawed. We believe that the Naeve test reflected installation practices that were characterstic of those used by WGL during the time in which mechanical couplings were installed on its system. We

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[82] WGL does not claim that it has not used cardboard molds in the past to apply hot tar.

find it significant that the cardboard mold was supplied by WGL to Normac.[83] WGL installed mechanical compression couplings over a 16-year period, from 1958 through 1974, during which period it is reasonable to expect some variance in installation practices and turnover in the personnel responsible for the installation of the many mechanical couplings in that period. Under those circumstances, the Commission believes that there is a subset of mechanical couplings that has experienced some adverse effects from the application of hot tar, and the use of cardboard molds may well have played a part.

83. WGL's own internal documents, some dating back to the mid-1960s, discuss the increased leaks rates associated with Normac couplings and results of tests conducted by Washington Gas employees on various Normac couplings. In one such document, dated March 18, 1966, Mr. Whiteley, a WGL employee, reports his results from testing conducted on Normac compression couplings.[84] Mr. Whiteley states that the report of gas leaks on new construction "seemed abnormally high and increasing" and further investigation showed that the leaks were originating, to a large extent, from the recently installed Normac couplings. The test conducted showed that both current and new stock Normac couplings lost significant amounts of torque, or the amount of force applied to the compression coupling when installed, after the application of hot tar. For both current and new couplings, the torque fell from over 87 ½ ft. lbs. to less than 20 ft. lbs, and Mr. Whiteley reported that the "nut ends were removed by hand." Based upon these results, Mr. Whiteley recommended that WGL discontinue the use of Normac couplings pending further design improvements by Normac.[85]

84. The Commission believes that the results of the tests conducted by WGL in the 1960s clearly show that the application of hot tar had an adverse effect on the elastomer

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[83] Mr. McMurray stated that the mold was obtained in the 1960s, at the request of WGL, so that Normac could conduct testing in order to resolve the problem. Tr. at p. 83:1-3.

[84] *AES* Tr., Exhibit LNG-86, at pp. 1-3.

[85] WGL explained in its April 18, 2006 data response that the "elastomer seals in the couplings did not fail after the use of hot tar" and therefore, WGL states that it "did not need to replace the couplings in its system at that time." *See* WGL's April 18 Data Response, answer to data request no. 13. WGL states that if leaks were discovered, the leaks were repaired. WGL also states that, based upon the recommendation by its employees who conducted these tests, WGL discontinued the use of Normac compression couplings.

seals in Normac compression couplings, both already installed in new construction and in inventory. These tests clearly show that the elastomer seals were incapable of maintaining the amount of torque applied during installation after the application of the hot tar to the compression couplings. Moreover, the findings from the tests conducted in the 1960s were consistent with the Naeve test findings. That test clearly shows the effect that 400° F hot tar can have on the elastomer seals contained within the compression coupling. The Naeve test showed that the mold or the shape of the elastomer seal was completely altered by the exposure to the heat from the hot tar and the pressure that was present when the coupling was tightened. In addition, Mr. McMurray stated that not only the shape had changed but also the physical properties of the rubber had changed as well as its ability to provide a sealing force necessary to prevent leaks.[86] This re-molded elastomer no longer had the design margin of safety that was incorporated in the original design of the elastomer seal.[87]

85. Indeed, even WGL's own ENVIRON Report considers hot tar application as a possible contributor to the increase in leak rates on WGL's system.[88] The ENVIRON report discusses how it was possible that an excess amount of hot tar, with a pouring temperature of 400°F, could have provided "a large enough thermal pulse to raise the seal temperature excessively." The report also says that the "(e)xcessive temperatures caused by the hot tar application could lead to post curing of the material, resulting in a higher extent of cure and thus cure shrinkage." This result, the report claims, would "reduce the sealing force." The report even discusses how these same effects were noted by WGL's own tests that were conducted in the 1960s. Under cross-examination, Dr. Loftus testified that the hot tar could adversely affect the seals by testifying that the application of hot tar could cause the seals to age the equivalent of 30 years in a matter of minutes.[89] Based upon these considerations, the ENVIRON Report recognizes the application of hot tar on the mechanical couplings to be a possible contributing factor. However, inexplicably, ENVIRON dismissed hot tar application as a factor that contributed to the increase in leak rates experienced by WGL without further research[90] or tests.

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[86] Tr. at pp. 83:10-21, 84:1-15.

[87] *Id*., at p. 85:17-23.

[88] The July 2005 ENVIRON Report at p. 11.

[89] *AES* Tr. at p. 1380.

[90] Dr. Loftus admitted that he did not speak to either Normac or Dresser, the manufacturers of mechanical compression couplings used on WGL's system. *AES* Tr. at p. 1087:5-11

86. By virtue of the tests conducted by its employees during the 1960s, WGL has shown that the application of hot tar on mechanical couplings, specifically Normac's, was having an adverse effect on the couplings ability to maintain torque which resulted in gas leaks. This is supported by Mr. Naeve's tests which demonstrated the same conclusion; the high temperatures to which the elastomer seals within the mechanical couplings were subjected could reshape the seals and reduce their ability to maintain adequate sealing force to prevent gas leaks.

87. The Commission is convinced that WGL's use of hot tar as a method of corrosion protection was a significant contributing factor that resulted in an increase in leak rates throughout Prince George's County. While all of the compression couplings may not have been adversely affected by the hot tar, the studies in the record of this proceeding, including the ENVIRON Report, show that there exists a subset of compression couplings on WGL's system that were damaged by the application of hot tar at the time of installation, and that it is these couplings that are contributing to the increase in leak rates experienced by WGL in Prince George's County.

System Operating Pressure

88. Cove Point LNG and the LTD-1 Shippers believe that pressure also was a contributing factor that was ignored by ENVIRON. LTD-1 Shippers note that ENVIRON has not conducted any laboratory experiments to test the effects that pressure would have on leak rates.[91] Cove Point LNG contend that WGL and the ENVIRON Report did not properly evaluate the impacts that pressure would have on the leak rates experienced on WGL's system. [92]

89. WGL states, contrary to the assertions of Cove Point LNG, that the operating pressures of its distribution system in Prince George's County have not changed for the last 23 years.[93] WGL states that it currently operates two high pressure distribution systems in Prince George's County, 20 *psig* and 50 *psig* systems. WGL states that the pressure from the third-party transmission systems is regulated and controlled at the gate

[91] LTD-1 Shippers Comments at Appendix-18; Tr. at p. 56

[92] Cove Point LNG Comments at pp. 6-7 (Dr. Loftus' discussion of the operating pressures on WGL's system during the hearing in *AES*); *AES* Tr. 1149; LNG-97, page 3 of 8).

[93] WGL's Procedural Conference Comments at p. 17.

stations at the point of interconnection with WGL's transmission system. Line pressures are further reduced at district regulators before entering its 20 *psig* and 50 *psig* distribution systems.[94] WGL claims that there have been no pressure deviations subsequent to the increase of pressure on Cove Point LNG's pipeline after the LNG terminal was reactivated. WGL also claims that it has also not increased the maximum operating pressure in the affected area in Prince George's County subsequent to the increase in pressure on the Cove Point Pipeline.[95]

90. In response to Commission staff's request for historical operating pressures on its service lines connected to the 20 *psig* and 50 *psig* distribution systems in Prince George's County, WGL states that it does not normally measure the pressures of its system on service lines, which are the facilities that extend from the main in the street to the customer's meter. According to WGL, pressures are typically recorded at gate stations, key district regulators, and at pressure recording telemetry devices placed strategically throughout the pipeline system. As part of its response, WGL provided monthly average pressure data from four pressure measuring telemetry devices located in the affected area in Prince George's County from January 2000 through January 2006. The four telemetry locations are Capital Heights (20 *psig* system), Eastover (20 *psig* system), Kettering (50 *psig* system) and Forestville (50 *psig* system). There were a total of nine months at Eastover (March 2005 – September 2005) and Kettering (June 2002 and July 2002) where WGL stated that the facilities were "out of service." There was no other mention of either missing data or telemetry outages by WGL.

91. In response to the increase in leak rates, WGL states that it temporarily reduced the operating pressures on the 20 *psig* and 50 *psig* distribution systems within the affected area during the spring of 2005 in an attempt to reduce the volumes of gas leaking. It restored normal operating pressures by October 2005 in preparation for the winter heating season. Even with this operational change, WGL maintains that increased operating pressures were not a contributing factor that caused the increase in leak rates.

92. Throughout its investigation into the cause of increased leak rates on its system, WGL has maintained that it has not increased maximum operating pressures on its distribution system. Therefore, WGL concludes that pressure was not a contributing factor to the increased leak rates. However, the Commission believes, based upon the evidence in this proceeding, that WGL has erred in dismissing this likely contributor and

[94] Tr. at pp. 57:2-17, 58:21 – 59:23.

[95] Staebler Affidavit; WGL's Comments at p. 18.

therefore incorrectly excluded the effects that pressure had on leak rates experienced on its system since December 2003.

93. The July 2005 ENVIRON Report recognizes that an increase in pressure could overcome marginal sealing forces and cause the compression couplings to leak.[96] However, ENVIRON dismissed this as a possible contributing factor. Dr. Loftus stated that WGL informed him that the most recent change or increase in pressures had occurred almost twenty years ago.[97] As part of the July 2005 ENVIRON Report, Dr. Loftus stated that "(i)n recent years the pressures in the affected parts of the system have not been increased, so this factor can be dismissed."[98] So, without either testing or conducting a detailed analysis of the operating pressures on WGL's system, ENVIRON prematurely eliminated pressure changes as a possible contributor.

94. As part of the April 2006 ENVIRON Report, NGTC discussed an incident regarding the compression couplings in one of its test groups where the gas pressure changed. NGTC reported that one of the two sets of the compression coupling samples (identified in the report as "Channel 1") had experienced a loss of pressure over a weekend. When the test samples were re-pressurized, NGTC noted that "in some couplings the effect of de-pressurization and re-pressurization resulted in a change in the leak rate at the same operating pressure."[99] NGTC's test results showed that the leak rates for all the test couplings were different. NGTC's results showed that of the nine test couplings, three showed increased leak rates (the leak rate for one coupling increased by 71%), five showed decreased leak rates and one remained unchanged.[100]

95. NGTC states that the effects of pressure and mechanical disturbances, particularly because of the very small leak paths in the couplings tested, "make it plausible that very small deformations of the seal under changing pressures can lead to a change in leak

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[96] P. 12; *see also, AES*, Tr. 1150:10-12.

[97] *AES* Tr. at p. 1147:19-25.

[98] July 2005 ENVIRON Report at P.12; *see also, AES* Tr. at p. 1147:19-22.

[99] April 2006 ENVIRON Report, at p. 17, (FERC/WGL 1.4.20 of 34, Attachment A).

[100] *Id.*, Table 5 "Example of Impact of De-Pressurization and Re-Pressurization (leak rates in liters/hour)."

effective area."[101] However, NGTC acknowledges the fact that additional testing would be required in order to correlate both the pressure transients and mechanical disturbances experienced in the lab versus the conditions experienced in the field under actual operating conditions.[102]

96. In an attempt to validate WGL's claim that the maximum operating pressures had not changed on its distribution system in Prince George's County, Commission staff requested pressure data from WGL. In its April 18 Data Response, WGL provides average monthly pressures from four key pressure measuring telemetry devices, Capital Heights, Eastover, Kettering and Forestville, located in the affected area in Prince George's County from January 2000 through January 2006. Upon close inspection of the data, Commission staff noticed that monthly data that WGL states was provided was in fact deficient. For each one of the telemetry devices, WGL failed to provide pressure data for almost one entire operational year. WGL excluded all pressure related data for nearly the entire 2003-2004 winter season and the entire 2004 summer season. Each one of the telemetry devices was missing pressure data from November 2003 through September 2004. In addition, Capital Heights was missing pressure data from September 2003 and Kettering was missing pressure data from May 2003 to September 2003. WGL provided no explanation why it had excluded nearly an entire year's worth of pressure data from the affected area in Prince George's County.

97. The Commission can only speculate what may have happened in WGL's high pressure distribution systems during the entire year of information that WGL neglected to provide. However, the one conclusion that can be made from the data is that some of the daily fluctuations in operating pressures experienced by WGL's service lines, attached to the 50 *psig* high pressure line, exceeded the average pressures reported by WGL.

98. Based upon the incomplete information that was provided by WGL, the average pressures on WGL's 50 *psig* high pressure line, as reported by the telemetry facilities at Forrestville,[103] had an upward trend from October 2000 until October 2003, when LNG from the Cove Point LNG facility started to flow regasified LNG into WGL's system. As shown in the graph below, the average monthly pressures for June and July 2003 were

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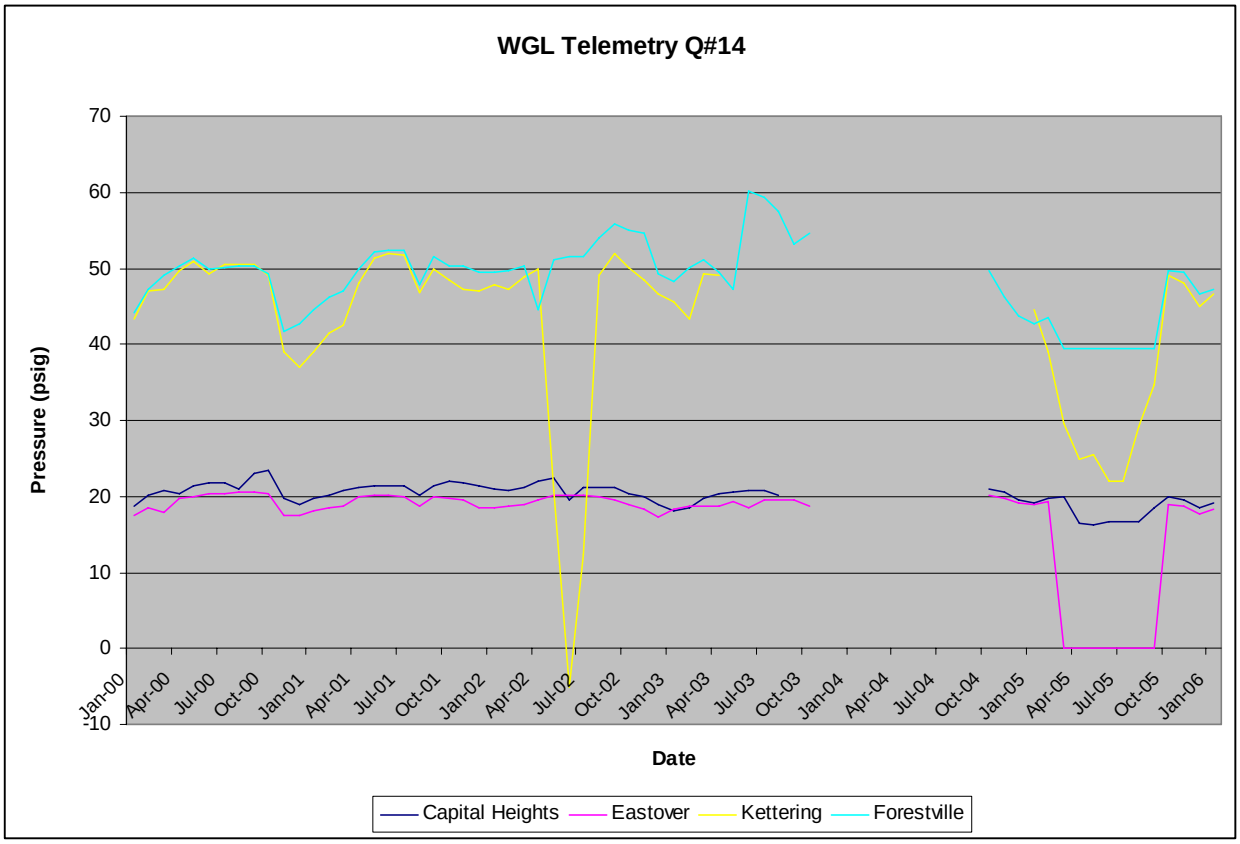
[101] April 2006 ENVIRON Report, at p. 17, (FERC/WGL 1.4.20 of 34, Attachment A).

[102] *Id*., at p. 18, (FERC/WGL 1.4.21 of 34, Attachment A).

[103] The drop in pressure at Kettering during the months of May through July 2002 was a result of the facility being out of service. WGL's April 18 Data Response, FERC/WGL 1-14.1 of 2, Attachment C.

60.1 and 59.4 *psig*, respectively. These pressures clearly exceed the 50 *psig* pressure that WGL states it has set and operated at for over twenty years.[104] These monthly averages, when compared with the graph below, clearly demonstrates WGL had increased the average operating pressure of at least one high pressure distribution system within Prince George's County, by about 10 psi, or approximately 10.6 percent.



The average yearly pressures for the Forrestville telemetry facility were as follows:

Calendar Year	Yearly Ave Pressure (*psig*)
2000	48.0
2001	49.5
2002	51.5
2003	53.1

[104] WGL states that its high pressure systems are designed to operate at 20 psig and 50 psig. *See* WGL's April 18 data Response, at p.31.

Since these data points reflect average monthly pressures, there were daily fluctuations in pressures that exceeded those values reported by WGL. Therefore, based upon the pressure data provided by WGL, there clearly was an increase in operating pressure on at least one of the high pressure systems in the Prince George's County. When combined with the observations that NGTC made regarding the impact of de-pressurizing and re-pressurizing the test samples in the April 2006 ENVIRON Report and the fact that WGL acknowledged the fact that it could reduce the leak rates on its system by reducing operating pressures during 2005, it would appear that pressure did contribute to the leak rates experienced in WGL's system in Prince George's County.

Commission Determination and Conclusion

99. The Commission believes that ENVIRON should have tested the effects of pressure on the leak rates instead of dismissing this possible contributor out-of-hand by accepting WGL's claim that pressures have not changed in the last twenty years. ENVIRON should have examined the daily fluctuations in pressures or transient conditions that every pipeline experiences on a daily basis resulting from time-varying loads. Even WGL admits that its system experiences pressure fluctuations "during the gas day based upon high flow volumes typically associated with high demand."[105] However, WGL and ENVIRON chose not to investigate this possible contributor. The Commission believes that increases in operating pressures had an impact on increased leak rates and that WGL prematurely dismissed this contributor without trying to quantify the impact that pressure had on increased leak rates.

100. In conclusion, we find that application of hot tar and the increase in operating pressures on WGL's distribution system were the more significant causative factors of the leaks experienced by WGL in Prince George's County, Maryland since the reactivation of the Cove Point LNG Terminal. While we cannot say with absolute certainty that the compression couplings would not have leaked absent the use of hot tar, increases in system pressure and colder temperatures, we believe, as does Normac that the shrinkage due to a change in HHC is well within the design margin of safety and should not have caused the leaks experienced by WGL. Moreover, we find that, as proposed, Cove Point LNG will deliver regasified LNG that meets the gas quality specifications of all interconnecting pipelines. In view of these considerations, we find that claims raised in WGL's November 2, 2005 filing provide no basis to deny the authorizations requested for the Cove Point Expansion Project.

[105] WGL's April 18 Response, at p. 32.

Hackberry Rate Treatment

101. Public Citizen's Energy Program and Green Delaware (collectively Public Citizen), Robert E. Rutkowski, and Exxon Mobil Gas & Power Marketing Company and Conoco Phillips Company, jointly, (Exxon/Conoco), object to applying *Hackberry* rate treatment to the expansion of the Cove Point LNG Terminal Expansion. Public Citizen and Mr. Rutkowski argue that allowing Cove Point LNG to be exempt from open season rules and cost-of-service regulations under *Hackberry* is unnecessary. Further Public Citizen and Mr. Rutkowski contend that: (1) Cove Point LNG will realize a financial windfall from the uncompetitive arrangement with Statoil; (2) suspending cost-of-service regulations will harm consumers; (3) Cove Point LNG's strong financial health precludes the necessity of the *Hackberry* subsidy; (4) with current record-high prices, the *Hackberry* indirect subsidy is unnecessary; and (5) the United States Congress has not sanctioned suspending market transparency rules. These protestors assert that Cove Point LNG's proposal should be denied, and that suspending market transparency rules is unnecessary and would invite uncompetitive practices which will harm consumers.

102. Exxon/Conoco object to Cove Point LNG's proposal to operate the expansion on a proprietary basis with both deregulated rates and services, while continuing to operate existing portion of the terminal on a regulated basis. Exxon/Conoco contend that the Commission has consistently rejected such a dual regulatory treatment approach; that Cove Point should be required to operate the entire LNG terminal under a single regulatory regime,[106] either (1) using the existing cost-of-service rate structure and rate schedule or (2) offering, under *Hackberry*, negotiated rates and service to both the existing and expansion facilities.

103. Exxon/Conoco state that under Cove Point LNG's proposal, while expansion capacity would remain nominally subject to the Commission's jurisdiction for rate and services purposes, Cove Point LNG would have virtually unfettered discretion to enter into whatever terms and conditions it could negotiate, essentially comparable to deregulated treatment. Additionally, Exxon/Conoco asserts that the potential for existing LTD-1 Shippers to subsidize the expansion services continues to exist under Cove Point LNG's scheme. Finally, Exxon/Mobil contends that the Commission should be concerned about the impact that a dual regulatory scheme has on potentially competing LNG projects and competition generally.

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[106] *Citing Transcontinental Gas Pipe Line Corp*., 110 FERC ¶ 61,337 (2005) and 102 FERC ¶ 61,074 (2003); *TriState Pipeline LLC*, 88 FERC ¶ 61,328 (1999); *Kansas Pipeline Co*., 73 FERC ¶ 61,190 (1995); *Tennessee Gas Pipeline Co*., 70 FERC ¶ 61,244 (1995).

104. On June 13, 2005, Cove Point LNG filed an answer to the protests regarding its proposal for *Hackberry* rate treatment for its proposed expansion. Cove Point LNG contends that, contrary to Exxon/Conoco's assertion, it is not seeking authority to allocate costs between regulated and deregulated services, maintaining that the proposal will have no effect on the rates paid by or costs allocated to existing shippers. Cove Point LNG argues that the existing customers will continue to pay the settlement rate approved by the Commission when the Cove Point LNG terminal was reactivated in 2001, and will be insulated from any cost or rate consequences from the Cove Point LNG Expansion Project. Cove Point LNG asserts that as required by the *Hackberry* policy, the financial risk of the expansion project falls on Cove Point LNG and the expansion customers, not on existing customers. While Cove Point LNG acknowledges that this is the first case in which an applicant is proposing *Hackberry* rate treatment for the expansion of an existing LNG terminal while existing customers will continue to receive service under cost-based rates, it contends that there will be no subsidization, no degradation of existing service, and no undue discrimination caused by the proposed rate treatment.

105. Cove Point LNG contends that Public Citizen's argument that it must show that the expansion would not take place but for *Hackberry* rate treatment is contradicted by the Commission's determination in *Hackberry* that such regulatory approach is necessary to spur the development of new LNG import terminal capacity. Further, Cove Point LNG points out that the certainty of access provided by *Hackberry* will allow Statoil to make significant investment[107] for the delivery of gas which will benefit consumers by creating incentives leading to an increase in supply. Cove Point LNG argues that Public Citizen loosely describes Cove Point LNG's request for *Hackberry* rate treatment as "collusive" and "anti-competitive," without providing any analysis or explanation to support concerns as to the anticompetitive effects of the proposal. Cove Point LNG also asserts that Public Citizen has failed to explain how the contract with Statoil might foreclose any competitor from reaching any ultimate consumers of natural gas nor have they attempted to refute Statoil's statement that its contract with Cove Point LNG will provide the certainty necessary to make significant long-term investments for the delivery of gas. Cove Point LNG argues that Public Citizen has made no attempt to support its allegations because the facts in the case do not support them.

Commission Determination

106. This is a case of first impression in which an applicant proposes *Hackberry* rate treatment for a portion of its LNG storage service while providing cost-of-service rates

[107] Statoil reports that it expects to invest up to $9 billion in gas field development, liquefaction, and LNG vessels in order to supply its LNG to the Cove Point facility.

for its other existing customers. The proposal raises a number of issues concerning how to ensure that Cove Point LNG's existing customers will not subsidize the Cove Point LNG Terminal Expansion to provide service for one customer and that service for the existing customers will not be degraded, nor will the existing customers be discriminated against. Further, because of the different rate treatment and the proposed incremental service, it is incumbent that Cove Point LNG isolate the costs between those assigned to the existing service using cost of service facilities and the costs assigned for the new service whose facilities will be under the *Hackberry* rate treatment. In addition, because of the constraints in receiving LNG shipments, it is important that all storage customers have access to the docking and LNG storage capability to ensure that such access is assigned on a not unduly discriminatory basis to all of Cove Point LNG's customers.

107. Cove Point LNG is an existing LNG terminal that offers open access service to its customers. Cove Point LNG's application was filed before Congress enacted the Energy Policy Act of 2005 (EPAct 2005),[108] which, among other things, amends section 3 of the NGA in regard to the Commission's authority to approve or deny applications for the siting, construction, expansion or operation of an LNG terminal. EPAct 2005 section 311(e)(4) amends section 3(e)(4) of the Natural Gas Act to provide that:

> An order issued for an LNG terminal that also offers service to customers on an open access basis shall not result in subsidization of expansion capacity by existing customers, degradation of service to existing customers, or undue discrimination against existing customers as to their terms or conditions of service at the facility . . . .

108. In accordance with the May 24, 2005 Settlement between Cove Pont LNG and the LTD-1 Shippers, Cove Point LNG's proposals require that only the expansion customer, Statoil, will pay for the Cove Point LNG's expansion terminalling services. Thus, we find that Cove Point LNG's other existing customers will not subsidize the proposals. In addition, we find that the proposals will result in no degradation of service to Cove Point LNG's existing customers or undue discrimination against existing customers as to their terms or conditions of service.

109. Cove Point LNG is proposing to charge incremental rates for the Cove Point LNG Terminal Expansion under *Hackberry* rate treatment, which provides for unregulated, market based rates. Commission policy concerning incremental rates is to ensure that there is a proper assignment of costs, that the respective shippers pay for the service they receive, and that the project can proceed without subsidies from the existing customers.

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[108] Pub L. No. 109-58, 119 Stat. 594, 984 (2005).

Cove Point LNG's existing customers should not pay for the Cove Point LNG Terminal Expansion if they do not benefit or receive service from the incremental facilities, nor should Cove Point LNG be permitted to shift any costs to them. By requiring Cove Point LNG to isolate the costs between its existing service based on cost- of-service rates and the new service based on *Hackberry* rate treatment, and by requiring Cove Point LNG to keep separate books and accounting of the costs attributable to the proposed incremental service, the Commission can protect the existing customers. Therefore, the Commission will require that the books be maintained with applicable cross-reference as required by section 154.309 of the Commission's regulations. This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 proceedings.

110. As discussed above, Cove Point LNG's application was filed before Congress enacted EPAct 2005. EPAct 2005 amended section 3 of the NGA to provide that the Commission shall not condition any order authorizing an LNG terminal on any regulation of the rates, charges, terms, or conditions of service. Exxon/Conoco argue that Cove Point LNG should be required to operate its LNG facility pursuant to only one form of rate treatment, either cost-of-service or *Hackberry* rates. However, EPAct 2005 expressly allows Cove Point LNG to provide service from its Cove Point LNG Terminal Expansion at *Hackberry* rates. We believe Exxon/Cononco's concerns are sufficiently addressed by our requirement that Cove Point LNG keep separate books and records for the costs associated with each service. Such disclosure will allow parties to track the various costs, to ensure that the existing customers are not subsidizing the Cove Point LNG Expansion Project. In any future NGA section 4 proceeding, Cove Point LNG will be required to separately present the costs for the new *Hackberry* service and the existing cost-based service, and parties will have the opportunity to question the proposed allocation of costs.

111. Our requirement that Cove Point LNG must isolate the cost of the Cove Point LNG Terminal Expansion and maintain separate books and records addresses Public Citizen's concerns that Cove Point LNG will realize a windfall from the financial arrangement with Statoil and that suspending the cost of service regulations will harm existing consumers. While Public Citizen's asserts that Congress has not sanctioned suspending market transparency rules, the EPAct 2005 provides for *Hackberry* rate treatment, encourages the development of LNG terminals, and recognizes with the proper measures in place to monitor the costs of the proposed facilities, consumers will be protected and have access to greater natural gas supply. Further, while Public Citizen makes numerous unpersuasive claims that the proposal will harm consumers and that it is anticompetitive, the requirement that Cove Point isolate and separately report the costs for the new service allows the parties an opportunity to review these costs and allocations

during any NGA section 4 or 5 proceeding to determine if the rates for the existing customers continue to be just and reasonable.

Protests in CP05-132-000-Cove Point LNG's Pipeline Expansion

Allocation of Expansion Project Costs

112. In connection with Cove Point LNG's proposal to expand the Cove Point Pipeline in Docket No. CP05-132-000, WGL questions whether or not system benefits for the expansion can be demonstrated at some future date, and opposes any suggestion that the peaking customers, for whom no change in tariff service is being proposed, should ever receive an allocation of the costs of the transmission expansion proposal which is being built specifically for a Rate Schedule LTD shipper.

113. Cove Point LNG contends it is not proposing to allocate any pipeline expansion costs to any existing customers, nor is it proposing to change the currently effective transportation rates. Cove Point LNG argues that since the costs of the expansion project will be borne by the expansion shipper which has agreed to take all of the increased capacity and deliverability of the facilities, it is not seeking a pre-determination of rolled-in rate treatment for its proposed investment. Cove Point LNG acknowledges that it will bear the burden of proof in a future NGA section 4 rate case to demonstrate that any proposed allocation of costs and rates is just and reasonable between the existing and expansion customers and that any party proposing a reallocation of such costs bears the burden of proof under NGA section 5. Cove Point LNG asserts that the allocation of costs of the expansion project are premature and that such cost allocation issues, if they arise, should be addressed and resolved in a future rate proceeding.

Commission Determination

114. Cove Point LNG is proposing incremental rate treatment for firm transportation service using the expansion capacity because the rates to recover the pipeline expansion costs exceed Cove Point LNG's existing system rate for firm transportation under Rate Schedule FT. The critical element in reviewing rate design, particularly incremental rates, is to ensure that there is a proper assignment of costs and that the respective shippers pay for the service they receive and the project can proceed without subsidies from the pipeline's existing customers. In this instance, Cove Point LNG's existing pipeline transportation customers should not pay for the expansion of the pipeline system if they do not benefit or receive service from the incremental facilities, nor should Cove Point LNG be permitted to shift any costs to them. To further protect the existing customers, we will require Cove Point LNG to keep separate books and accounting of the costs attributable to the proposed incremental service. Further, the books should be

maintained with applicable cross-reference as required by section 154.309 of the Commission's regulations. This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 rate case. Such measures protect the existing customers and address the concerns raised by WGL that the peaking customers will not be allocated any cost for the proposed incremental transportation service.

Time for Responses Should be Extended

115. WGL, Atlanta Gas Light Company, Virginia Natural Gas, Inc., and Public Service Company of North Carolina, Inc., (collectively, the FPS Shippers) filed a motion of extension of time in order to secure access to a settlement between the LTD Shippers and Cove Point LNG (May 24, 2005 Settlement), which modifies various terms and conditions of LTD service and seeks *Hackberry* rate treatment for the expansion capacity. The FPS Shippers contend that the May 24, 2005 Settlement will affect the timing of Cove Point LNG's next general NGA section 4 rate case and may affect the reliability and availability of FPS service by proposed changes to Rate Schedule LTD service and the expansion of Cove Point LNG's interconnection with Transco. The FPS Shippers contend that because of the delay in gaining access to the May 24, 2005 Settlement, the filing of comments at this time is impossible. Therefore, the FPS Shippers request an extension of time to file comments until 15 days after Cove Point LNG provides copies of the May 24, 2005 Settlement.

116. Cove Point LNG contends that, contrary to the assertion of the FPS Shippers, the May 24, 2005 Settlement is not intended to and does not affect the "reliability and availability of FPS service." Cove Point LNG argues that the May 24, 2005 Settlement envisions future filings, therefore any issues that the FPS Shippers may have can be fully addressed when those future filings are made. Cove Point LNG asserts that it has provided each of the FPS Shippers with copies of the May 24, 2005 Settlement pursuant to a non-disclosure agreement in order to address their concerns. Cove Point LNG also states that the FPS Shippers have had copies of the May 24, 2005 Settlement since July 1, 2005 and the revised section 30 tariff language since May 27, 2005; therefore they have had adequate time to file comments. Cove Point LNG contends that there is no justification for the request 15-day extension of time to respond.

Commission Determination

117. The FPS Shippers' request for a 15-day extension of time to file comments in this docket until after it receives a copy of the May 24, 2005 Settlement is denied. Cove Point LNG provided the FPS Shippers with a copy of the May 24, 2005 Settlement and filed on January 11, 2006 a redacted copy of the Settlement in the related filing in Docket

No. CP05-395-000. Since the request for extension of time filed on July 15, 2005, the FPS shippers have had an adequate amount of time to review the May 24, 2005 Settlement but have yet to file any further comments, therefore the request for extension of time is denied.

Protest in Docket No. CP05-131-000 - Dominion's Expansion Proposal

118. Con Ed filed a limited protest requesting that the Commission require Dominion to demonstrate that its fuel retention proposal will not result in subsidization by either Dominion's existing transmission or storage customers. Con Ed claims that Dominion's publicly available portion of the application does not reveal whether its proposal to apply its system-wide fuel retention rates to its new services will result in subsidization of those services by existing customers. Con Ed argues that just as the Commission requires applicants to demonstrate that their proposed rates for expansion projects will not result in subsidization from existing customers, the Commission has also required expansion customers to provide incremental fuel in order to avoid subsidization by existing customers.[109] Con Ed states that the Commission should require Dominion to provide the relevant information and, if necessary to avoid subsidization, require Dominion to impose incremental fuel-retention rates.

Answer to Protest

119. Dominion contends that its proposal will have no effect on the rates paid by or costs allocated to existing customers, that all of the transportation and storage capacity is fully subscribed and that all of the project's costs will be recovered through an incremental rate paid by the expansion shipper. Dominion argues because it is applying its existing system-wide fuel retention rate for the storage and transportation services, its existing customers will be insulated from recovering the project's costs. Dominion argues that the proper forum to examine the impact of the expansion project on the fuel retention rates is not in this proceeding but a subsequent section 4 rate proceeding when Dominion files to revise its existing fuel retention levels or in its next general rate case.

Commission Determination

120. Dominion is proposing incremental rate treatment for both the firm transportation and storage service because the developed rates to recover the expansion facility costs exceed the existing system rate for firm transportation under Rate Schedule FT and storage service under Rate Schedule GSS. The critical element in reviewing rate design,

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[109] *Transcontinental Gas Pipe Line Corporation*. 106 FERC ¶ 61,299 at P 122 (2004).

particularly incremental rates, is to ensure that there is a proper assignment of costs and that the respective shippers pay for the service they receive and the project can proceed without subsidies from the pipeline's existing customers. In this instance, Dominion's existing customers should not pay for the expansion of the system if they do not benefit or receive service from the incremental facilities, nor should Dominion be permitted to shift any costs to them. To further protect the existing customers, we will require Dominion to keep separate books and accounting of the costs attributable to the proposed incremental service. Further, the books should be maintained with applicable cross-reference as required by section 154.309 of the Commission's regulations.

121. Dominion proposes to add at least 24,335 horsepower in compression to provide the proposed incremental service, which represents 5 percent of the total horsepower compression on its system.[110] To recover the fuel costs to operate the compressors providing the incremental service, Dominion proposes to charge its system wide maximum fuel retention rate. While Dominion claims that it's existing customers will not be adversely affected by the project, it is unclear how the existing customers will be protected from paying for the substantial fuel cost to operate the approximately 5 percent increase in compression to provide incremental service for this one new customer. Dominion is therefore required in addition to tracking the costs for the proposed project separately to also track the fuel separately for the proposed service to insure that existing customers are not paying for the cost to operate the compressor station and that the fuel costs do not exceed the system wide maximum fuel retention rate. [111]

122. Concerning Dominion's proposed GSS-E Rate Schedule for the incremental storage service, it is unclear from the filing what priority the authorized overrun service will have in relation to interruptible overrun service provided under the ISS Rate Schedule. Commission policy dictates that authorized overrun and interruptible service are identical, requiring pipelines to revise their tariffs so that interruptible and overrun

[110] Dominion reported in its 2005 Form No. 567 that it has approximately 532,507 horsepower in compression to operate its transmission and storage compressor stations. DTI proposes to install at least 24,335 horsepower in compression, which represents 5 percent of the total existing compression to provide service for Statoil.

[111] Dominion does not have a tariff tracking provision to change its level of fuel retention. The fuel retention level remains fixed between rate cases. Parties can address any cross subsidy concerns when Dominion files its next section 4 rate change.

service have the same scheduling priority.[112] Dominion is directed to revise its tariff accordingly.

Discussion

Application of the Certificate Policy Statement

123. On September 15, 1999, the Commission issued a Policy Statement providing guidance as to how proposals for certificating new construction will be evaluated.[113] Specifically, the Policy Statement explains that the Commission, in deciding whether to authorize the construction of new pipeline facilities, balances the public benefits against the potential adverse consequences. Our goal 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, the avoidance of unnecessary disruptions of the environment and the unneeded exercise of eminent domain in evaluating new pipeline construction.

124. Under this policy, the threshold requirement for existing pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from the existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the 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 route of a new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of 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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[112] *Central New York Oil and Gas Co., LLC*, 114 FERC ¶ 61,105 (2006); *Portland Natural Gas Transmission System*, 106 FERC ¶ 61,289 at P 50 (2004); *TriState Pipeline L.L.C.*, 88 FERC ¶ 61,328 at 62,006 (1999); *Puget Sound Energy, Inc*., 84 FERC ¶ 61,347 at 62,516 (1998); *CNG Transmission Corp*., 81 FERC ¶ 61,346 at 62,592 (1997); *National Fuel Gas Supply Corp*., 63 FERC ¶ 61,291 at 63,024 (1993); *High Island Offshore System and U-T Offshore System*, 63 FERC ¶ 661,280 at 62,826 (1993); *Equitrans, Inc*., 63 FERC ¶ 61,009 at 61,063-064 (1993); and *Tennessee Gas Pipeline Co.*, 62 FERC ¶ 61,250 at 62,676 (1993).

[113] *Certification of New Interstate Natural Gas Pipeline Facilities* (Policy Statement), 88 FERC ¶ 61,227 (1999); *Order Clarifying Statement of Policy*, 90 FERC ¶ 61,128 (2000); *Order Further Clarifying Statement of Policy*, 92 FERC ¶ 61,094 (2000).

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

Docket No. CP05-132-000 – Cove Point Pipeline

Whether the Project Will Be Subsidized

125. The applicant in this case, Cove Point LNG, is an existing pipeline company. The threshold requirement for certification under the Policy Statement is that the pipeline is prepared to support the project financially without relying on subsidization from existing customers. Cove Point LNG is proposing incremental rate treatment for firm transportation service because the rates to recover the pipeline costs exceed the existing system rate for firm transportation under Rate Schedule FT. Cove Point LNG's proposed incremental rate is designed to recover the costs of the new expansion facilities. As stated above, in order to ensure that there is a proper assignment of costs and that the respective shippers pay for the service they receive and the project can proceed without subsidies from the pipeline's existing customers, we are requiring Cove Point LNG to keep separate books and accounting of the costs attributable to the proposed incremental service. Accordingly, we find that Cove Point LNG's proposal meets with the certificate policy statement's requirement that the new construction will not be subsidized by existing shippers.

Need For the Proposed Project

126. The Policy Statement also requires that a pipeline demonstrate that the need for a new project is balanced against any adverse impacts. Expansion of the Cove Point Pipeline facilities, as part of the Cove Point Expansion Project, will make available gas supplies which would otherwise be unavailable, providing shippers enhanced access to firm natural gas storage capabilities and to additional natural gas markets throughout the northern and eastern United States. By this proposal, new gas supplies will be delivered to where they are needed in the Mid-Atlantic and northeastern United States. The project will bring new gas supplies into the heart of the market area by providing new gas sources for the shippers on Dominion, Transco and Columbia pipeline systems, which serve most of the major eastern United States markets and where the demand for natural gas is growing. In addition, LNG is expected to play a vital role in meeting the increased demands for natural gas from all consuming sectors. The growing importance of LNG is evidenced by INGAA's July 2004 study which found that a delay as short as two years in the construction, of gas pipelines, storage facilities, and LNG import terminals will cost

the United States gas consumers more than $200 billion.[114] The Commission finds that the project will have substantial benefits.

Effect of the Project on Certain Interest Groups

127. Once the Commission determines that a proposed project will not be subsidized by existing shippers and that there is a need for the project, under the Policy Statement the Commission considers the effect the project will have on the pipeline's existing customers, competing pipelines and their captive customers, and landowners and communities along the proposed route of the pipeline project. We find that Cove Point LNG has designed sufficient incremental pipeline capacity for the additional firm transportation service being offered to Statoil such that there will be no degradation of firm service to any of Cove Point LNG's other customers. The proposed pipeline expansion facilities are designed to provide the expansion services and at the same time enable Cove Point LNG to meet all the existing customers' firm transportation demands. All existing firm and peaking customers will continue to receive their existing levels of service without degradation. The Commission concludes that Cove Point LNG's proposal will not have an adverse impact on Cove Point LNG's existing peaking or transportation customers.

128. The Cove Point Pipeline Expansion Project will not adversely affect existing pipelines which serve the region and their customers because the gas supplies to be made available through Cove Point LNG's facilities will be transported by existing pipelines serving the region to meet the growing demand for natural gas. There is no evidence that the Cove Point Expansion Project, or any segment thereof, will result in unsubscribed capacity on existing pipelines or otherwise adversely impact those pipelines' customers.

129. While the Cove Point Pipeline expansion will provide the eastern United States with access to significant new gas supplies, there should be *de minimis* economic impact on landowners since 75 percent of the new pipeline's length will parallel the existing Cove Point Pipeline and the remaining 25 percent of the new pipeline route will deviate from existing pipeline route in order to minimize environmental and landowner impacts.

Negotiated Rates

130. Regarding the required rate filings associated with the negotiated transportation rates proposed herein, Cove Point LNG states that it will make the requisite negotiated

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[114] *An Updated Assessment of Pipeline and Storage Infrastructure for the North American Gas Market: Adverse Consequences of Delays in the Construction of Natural Gas Infrastructure*, the INGAA Foundation, July 2004. .

rate filings after the service agreements are executed and prior to the commencement of service. In order to comply with the Alternative Rate Policy Statement,[115] and the Commission's decision in *NorAm Gas Transmission Co.*,[116] the Commission is directing Cove Point LNG to file either its negotiated rate contracts or numbered tariff sheets not less than 30 days and not more than 60 days prior to the commencement of service on the pipeline expansion facilities, stating for each shipper the negotiated rate, the applicable gas volume to be transported, and an affirmation that the affected service agreements do not deviate in any material respect from the form of service agreement in Cove Point LNG's FERC Gas Tariff. Cove Point LNG must also disclose all consideration received that is associated with the agreement. Finally, Cove Point LNG must also maintain separate and identifiable accounts for volumes transported, billing determinants, rate components, surcharges and revenues associated with its negotiated rates in sufficient detail so that they can be identified in Statements G, I, and J in any future NGA section 4 or 5 rate case.

Cove Point LNG's Rate of Return

131. Cove Point LNG's current Commission-approved capital structure is 40 percent debt and 60 percent equity, with a return on equity of 13 percent and debt cost of 8.5 percent deriving a pretax return of 16.28 percent.[117] While Cove Point LNG is proposing to use the Commission-approved, system-wide capital structure and debt cost, the proposed return on equity of 15 percent and pretax return of 18.27 percent deviates from the system-wide approved rate of return, reflecting a 200 basis point increase in the

[115] *Alternative to Traditional Cost-Of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines, Alternative Rate Policy Statement*, 74 FERC ¶ 61,076 (1996), *reh'g and clarification denied*, 75 FERC ¶ 61,024 (1996), *reh'g denied*, 75 FERC ¶ 61,066 (1996); petition for review denied, *Burlington Resources Oil & Gas Co. v. FERC*, Nos. 96-1160, *et al*., U.S. App. Lexis 20697 (D.C. Cir. July 20, 1998).

[116] *NorAm Gas Transmission Co*., 77 FERC ¶ 61,011 (1996) (NorAm).

[117] *Cove Point LNG Limited Partnership*, 97 FERC ¶ 61,043 (2001), *order approving uncontested amendment to settlement and settlement*, 102 FERC ¶ 61,227 (2003).

return on equity. Cove Point LNG claims that the different equity components are more analogous to a new interstate pipeline providing service to a new LNG import terminal[118] with the proposed pipeline transporting gas for a new customer receiving service under *Hackberry* rate treatment. Further, Cove Point LNG argues that the Commission does not have a policy that dictates that rate of return for expansion projects be the same as the underlying existing, system-wide, citing *Granite State Gas Transmission, Inc.* [119] in which the Commission approved a rate of return for an LNG plant without reference to the company's overall existing rate of return.

132. Commission policy requires that rates for a mainline expansion project in a NGA section 7(c) proceeding be designed on the pipeline's approved capital structure and rate of return, with the Commission reducing the proposed rate of return to that approved in the last rate case when the pipeline proposes a higher rate than its approved rate of return.[120] Further, when pipelines propose incremental rate projects, such as Cove Point LNG's proposal for the Cove Point Pipeline, the Commission approves rates which are designed on the pipeline's approved rate of return in its last rate case.[121] In addition, all the projects cited by Cove Point LNG to support its request for a 15 percent return on equity were new interstate pipelines serving LNG plants, proposing initial rates with a 14 return on equity, 100 basis points lower than the 15 percent rate of return proposed by Cove Point LNG. Cove Point LNG has failed to justify why this pipeline expansion project should be accorded a higher rate of return than its Commission-approved 13 percent rate of return on equity. Thus, consistent with Commission policy on expansion and incremental projects, Cove Point LNG is required to revise its proposed recourse rates for the Cove Point Pipeline expansion capacity using its Commission-approved 13 percent rate of return and pretax return of 16.28 percent.

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[118] Cove Point LNG cites *San Patricio Pipeline, LLC*, 112 FERC ¶ 61,101 (2005); *Mill River Pipeline, LLC*, 112 FERC ¶ 61,070; *AES Ocean Express LLC*, 111 FERC ¶ 61,219 (2005); *Cheniere Corpus Christi Pipeline Co*., 111 FERC ¶ 61,081 (2005).

[119] *Granite State Gas Transmission, Inc*., 83 FERC ¶ 61,194 (1998).

[120] *Northwest Pipeline Corp.*, 98 FERC ¶ 61,352 at 61,499 (2002) and *Kern River Gas Transmission Co.*, 95 FERC ¶ 61,022 at 61,056 (2001).

[121] *Texas Eastern Transmission, LP*., 99 FERC ¶ 61,383 at 62,625 (2002); *Kern River Gas Transmission Co.*, 98 FERC ¶ 61,205 at 61,721-22 (2002); *Trailblazer Pipeline Co.*, 95 FERC ¶ 61,258 at 61,903 (2001); *Transcontinental Gas Pipe Line Corp*., 93 FERC ¶ 61,241 at 61,788 (2000); *Algonquin Gas Transmission Co*., 87 FERC ¶ 61,262 at 61,990 (1999).

Docket No. CP05-131-000 – Dominion's Expansion

Whether the Project Will Be Subsidized

133. The applicant in this case, Dominion is an existing pipeline company. As discussed above, the threshold requirement for certification under the Policy Statement is that the pipeline is prepared to support the project financially without relying on subsidization from existing customers. Dominion is proposing incremental rate treatment for both the firm transportation and storage service, which it claims will recover the costs of the proposed facilities, because the developed rates to recover the expansion facility costs exceed the existing system rate for firm transportation under Rate Schedule FT and storage service under Rate Schedule GSS. As stated above, in order to ensure that there is a proper assignment of costs and that the respective shippers pay for the service they receive and the project can proceed without subsidies from the pipeline's existing customers, we are requiring Dominion to keep separate books and accounting of the costs attributable to the proposed incremental service. Accordingly, we find that Dominion's proposal meets with the certificate policy statement's requirement that the new construction will not be subsidized by existing shippers.

Need For the Proposed Project

134. The certificate policy statement also requires that a pipeline demonstrate that the need for a new project is balanced against any adverse impacts. As part of the Cove Point Expansion Project Expansion, the need for, and substantial benefits derived from, the Cove Point Pipeline expansion discussed above, also apply to Dominion's proposed facilities.

Effect of the Project on Certain Interest Groups

135. There is no evidence that Dominion's project will adversely affect its existing customers. We find that Dominion has designed sufficient incremental pipeline capacity and incremental storage capacity for the additional firm transportation and storage services being offered to Statoil such that there will be no degradation of firm service to any of Dominion's other customers. Further, Dominion's proposed additional facilities will provide operational benefits on its system, as well as enhanced transportation and supply options for shippers. Existing customers will benefit from the facility additions on its system and the increased volumes of regasifed LNG being delivered to the Leidy Hub and South Point market center, thereby improving the liquidity of those hubs.

136. Additionally, there is no evidence that Dominion's proposed project will have any adverse impact on existing pipelines and their captive customers. In fact, the evidence indicates that Dominion's proposal responds to market demand for additional firm transportation and storage capacity on its pipeline. Rather than replacing any existing service provided by other pipelines, Dominion's proposal will increase transportation and supply options available to shippers on those systems.

137. Finally, while Dominion's proposed expansion project will provide the eastern United States with access to significant new gas supplies, there should be *de minimis* economic impact on landowners. The pipeline route selected by Dominion follows existing pipeline corridors. Dominion has entered into discussions to obtain survey permission from all landowners affected by the proposed pipelines, and has begun negotiations for acquisition of land rights as necessary.

Dominion's Rates

138. Dominion's proposed rates are based on the third full year cost of service. While the Commission generally prefers that rates be based on the first year average, in this instance the third year cost of service results in a lower rate, therefore the Commission will accept the proposed incremental rates for storage and transportation based on the third full year cost of service.

Dominion's Rate-of-Return

139. Dominion's proposed capital structure of 37.95 percent debt and 62.05 percent equity with a pretax return of 13.70% for the incremental service is consistent with Dominion's currently approved system-wide levels.[122] The Commission has approved a capital structure for incremental service that reflects the system-wide approved capital structure and pre-tax return and will do so here, as consistent with Commission policy. [123]

[122] *CNG Transmission Corp.*, 85 FERC ¶ 61,261 (1998).

[123] *Texas Eastern Transmission, LP.*, 99 FERC ¶ 61,383 at 62,625 (2002); *Kern River Gas Transmission Co.*, 98 FERC ¶ 61,205 at 61,721-22 (2002); *Trailblazer Pipeline Co.*, 95 FERC ¶ 61,258 at 61,903 (2001); *Transcontinental Gas Pipe Line Corp.*, 93 FERC ¶ 61,241 at 61,788 (2000); *Algonquin Gas Transmission Co.*, 87 FERC ¶ 61,262 at 61,990 (1999).

Section 3 Authority

140. Because the proposed LNG terminal facilities will be used to import gas from foreign countries, the construction and operation of the facilities and site of their location require approval by the Commission under NGA section 3.[124] The Commission's authority over facilities constructed and operated under section 3 includes the authority to apply terms and conditions as necessary and appropriate to ensure that the proposed construction and siting is in the public interest.[125] Section 3 of the NGA provides that the Commission "shall issue such order on application…" if it finds that the proposal "will not be inconsistent with the public interest."

141. In recent years, the Commission has chosen to exercise a less intrusive degree of regulation for new LNG import terminals, and does not require the applicant to offer open-access service or to maintain a tariff or rate schedules for its terminalling service.[126] On August 8, 2005, the Energy Policy Act of 2005 (EPAct 2005) was signed into law. Section 311 of EPAct 2005 amends section 3 of the NGA regarding the Commission's authority over the siting, construction, expansion or operation of an LNG terminal. [127] As pertinent here, section 311(c) of EPAct 2005 adds a new NGA section 3(e)(3) providing that, before January 1, 2015, the Commission shall not condition an order approving an application to site, construct, expand or operate an LNG terminal: (1) on a requirement that the LNG terminal offer service to customers other than the applicant, or any affiliate of the applicant securing the order; (2) any regulation of the rates, charges,

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[124]The regulatory functions of section 3 were transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act (Pub. L. No. 95-91, 42 U.S.C. §§7101, *et seq.*). In reference to regulating the imports or exports of natural gas, the Secretary subsequently delegated to the Commission the authority to approve or disapprove the construction and operation of particular facilities, the site at which facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry or exit for exports. DOE Delegation Order No. 00-044.00, 67 Fed. Reg. 8,946 (2002). However, applications for authority to import natural gas must be submitted to the Department of Energy. The Commission does not authorize importation of the commodity itself.

[125]*Distrigas Corporation v. FPC*, 495 F.2d 1057, 1063-64, *cert. denied*, 419 U.S. 834 (1974); *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231 (2001).

[126]*See Hackberry LNG Terminal, L.L.C.*, 101 FERC ¶ 61,294 (2002), *order issuing certificates and granting reh'g*, 104 FERC ¶ 61,269 (2003) (Hackberry).

[127] Energy Policy Act of 2005, Pub. L. No. 109-58, § 311, 119 Stat. 594, 685 (2005).

terms or conditions of service of the LNG terminal; or (3) a requirement to file schedules or contracts related to the rates charges, terms or conditions of service of the LNG terminal. Our authorization here is consistent with new NGA section 3(e)(3).

142. The Commission recognizes the important role that LNG will play in meeting future demand for natural gas in the United States and has noted that the public interest is served through encouraging gas-on-gas competition by introducing new imported supplies. The record in this case shows that the Cove Point LNG Terminal expansion will be a source of such additional supplies of natural gas. The economic risks will be borne by Cove Point LNG. The project should provide these benefits without adverse impacts on adjoining landowners, existing pipelines, or the environment. All construction onshore and offshore will take place on lands already dedicated to Cove Point LNG facilities or within existing rights-of-way. Further, the environmental conditions set forth in this order will ensure that the adverse environmental impacts will be limited. In view of these considerations, we find that the Cove Point LNG Terminal Expansion is not inconsistent with the public interest, provided Cove Point LNG adheres to the safety and environmental conditions specified in Appendix B to this order.

Cove Point LNG's Waiver Request

143. Cove Point LNG requests a limited waiver of FERC Form Nos. 2 and 11 requirements such that revenues associated with the Cove Point LNG Terminal Expansion need not be disclosed. Our accounting and reporting rules require the maintenance of books and records and the preparation and filing of financial statements for the entire jurisdictional entity. Granting Cove Point LNG's request for waiver of reporting revenues for the Cove Point LNG Terminal Expansion would render its financial statements incomplete and misleading. For example, accounting and reporting rules do not allow the preparation of an Income Statement which excludes revenues related to part of an entity's operations, while including the costs from that same part of its operations in its results of operations. Additionally, many of the assets, liabilities, and capital of a reporting entity are applicable on a joint and non-severable basis to all the business activities of an entity. Consequently, it is not possible to waive reporting requirements for only part of the operations of a natural gas company that has both cost of service and market based rate activities.

144. Furthermore, this is a case involving bifurcated rate treatment with *Hackberry* and cost of service rates. The Commission has consistently denied waiver of our accounting and reporting requirements in cases where the reporting entity has both cost and market

based operations within the same reporting entity and we will continue to do so here.[128] The cases cited by Cove Point LNG in which the Commission waived the reporting requirements involved companies who operate solely under *Hackberry* or market-based rate treatment and do not involve the bifurcated rate treatment in this proceeding, in which Cove Point is required to file a Form No. 2 based on its cost of service rate treatment. Further, Cove Point LNG's parent Dominion Resources, Inc., is required in its Form 10K filing with the Securities and Exchange Commission to report revenue from the Cove Point LNG Terminal Expansion, so such information will be publicly available.

145. For the above stated reasons, the Commission will deny Cove Point LNG's request for limited waiver of reporting revenues for the Cove Point LNG Terminal Expansion in its FERC Form Nos. 2 and 11. Cove Point LNG is required to report total cost information including revenues, determinants, and throughput data for all service classes, including the Cove Point LNG Terminal Expansion, in its FERC Nos. 2 and 11, as applicable.

Annual Charge Adjustment

146. Cove Point LNG proposes to not collect FERC's Annual Charge Adjustment (ACA) for its proposed service from the Cove Point LNG Terminal Expansion, contending that such a proposal is consistent with *Ingleside Energy Center, LLC.*[129] Instead, Cove Point LNG proposes to collect the ACA charge on the commodity portion of the incrementally priced transportation offered under Rate Schedule FT and to continue to collect ACA charges on withdrawals under Rate Schedule FPS-1, FPS-2, FPS-3, LTD-1, and LTD-2 unless the Commission were to find that such collections are no longer required, as they are already covered through ACA charges associated with transportation on the Cove Point Pipeline.

147. The ACA charge is designed to recover the Commission's operating costs. The Commission's regulations require that a company must reflect the ACA unit charge in each of its rate schedules applicable to sales or transportation deliveries.[130] Any company

[128] *Hackberry LNG Terminal, L.L.C.*, 101 FERC ¶ 61,294 at P67-68 (2002); *PECO Energy Co.*, 88 FERC ¶ 61,330 at p 62,020-021 (1999); *Transok*, 97 FERC ¶ 61,362 at p 62,683 (2001).

[129] *Ingleside Energy Center, LLC*, 112 FERC ¶ 61,101 (2005).

[130] Section 154.402(a) of the Commission's regulations, 18 C.F.R § 154.402(a) (2005).

that transports or sells natural gas including an LNG terminal or storage provider is required to assess an ACA charge on the volumes transported or delivered. Further, the Commission determines each company's ACA charge based upon the throughput data reported on the pipeline or storage company's FERC Form No. 2 or 2-A at page 520, entitled "Gas Account – Natural Gas." Cove Point LNG's FERC Form No. 2-A at page 520 explains in footnote 7 how it should report its volumes on lines 17-27 to determine its ACA charge. Cove Point LNG is required to comply with the reporting requirements of its Form 2-A for reporting volumes to assess an ACA charge.

Other Tariff Issues

148. Cove Point LNG proposes to modify section 30(a) of its pro forma tariff to include seven provisions for its incremental services which provide, among other things, that the proposed service is the equivalent to certain sections of Rate Schedule LTD-1 service including: (1) timing and contents of nominations and LNG discharge (2) retainage and creditworthiness; (3) natural gas quality; (4) utilization of the coordinating buyer provisions of section 2.5 of Rate Schedule LTS-1; (5) LNG discharging service for any buyer's tanker not meeting the specifications of section 5.3(a) of Rate Schedule LTD-1; (6) nitrogen injection allocation priorities; and (7) the right to initiate and to participate fully in proceedings before the Commission concerning Cove Point LNG's tariff. Cove Point LNG's pro forma tariff references that such provisions relate to the May 24, 2005 Settlement. While the Commission finds that these seven provisions for the incremental services are appropriate to be included in the tariff, the reference to the May 24, 2005 Settlement should be removed. Since, the May 24, 2005 Settlement is not being considered in this proceeding, Cove Point is required to revise its tariff to remove that clause referring to the May 24, 2005 Settlement from section 30(a) of the GT&C.

149. Although the incremental capacity at Cove Point LNG's terminal is being approved under NGA section 3 and not section 7, the principles of the Commission's Certificate Policy Statement apply nonetheless. In fact, section 311(e)(4) of EPAct 2005, discussed above, specifically applies to Cove Point LNG's circumstances as an LNG terminal also offering services on an open-access basis. That section prohibits subsidization by, degradation of service to, or undue discrimination in terms and conditions of service against, existing customers.

150. We find that Cove Point LNG has designed sufficient incremental terminal storage and vaporization capacity for the additional firm terminal service being offered to Statoil, albeit as a customer outside of Cove Point LNG's LTD Rate Schedule for firm terminal service to other LNG importers. We find that there will be no degradation of firm terminal or peaking service to any of Cove Point LNG's other customers. As evidenced by the May 24, 2005 Settlement, the LTD shippers have agreed to Cove Point LNG's

arrangements with Statoil and the details of that arrangement are set forth in the new section 30 of Cove Point LNG's tariff's GT&C. While section 30 does allow for some differences in Cove Point LNG's services to Statoil and the LTD customers, we are satisfied that there will be no undue discrimination against the existing LTD customers as to their terms and conditions of service in the critical tariff areas, such as nominations, scheduling and operating conditions,. As discussed below, we are concerned about the potential difference in one specific function of Cove Point LNG's treatment of Statoil and the existing LTD customers.

151. Since the proposal will double the size of Cove Point's LNG plant, the issue of the docking capability for the scheduling of LNG tankers becomes a greater issue. Further, it is important that parties not be unduly discriminated against when attempting to unload LNG. Currently the LTD-1 shippers, which deliver LNG at Cove Point, have elected to act as a "single entity" under Cove Point LNG's tariff,[131] which allows the shippers to decide the shipping schedule among themselves and submit a single schedule to Cove Point. Cove Point LNG proposes to include in section 30(a)(4) of its pro forma tariff, a provision which establishes the option for the Expansion Shipper to act as a Coordinating Buyer along with the existing shippers under Rate Schedule LTD-1. To ensure that parties are not unduly discriminated against, Cove Point LNG is required to provide information on the docking and coordination of scheduling LNG tankers in its semi-annual operational report filed pursuant to the Commission's October 12, 2001 Order.[132] Cove Point LNG should confirm in each semi-annual report whether all importers are fully and successfully participating in the "single entity" scheduling process at section 2.5 of Rate Schedule LTD-1.

Environmental

Public Review and Comment

152. On August 17, 2004, Commission staff approved Dominion's and Cove Point LNG's request to use the Commission's pre-filing process for this Project. Pre-filing is an environmental review process that allows and encourages early involvement by citizens, governmental entities, and other interested parties. The purpose of the pre-filing process is to involve interested stakeholders early in the project planning process and to identify and resolve issues prior to filing of the formal application. Four public scoping meetings were held during the pre-filing process to receive comments on issues to be

[131] Section 2.5 of Rate Schedule LTD-1 at First Revised Sheet No. 22, Cove Point LNG's FERC Gas Tariff, Original Volume No. 1.

[132] *Cove Point LNG Limited Partnership*, 97 FERC ¶ 61,043 (2001).

included in the draft environmental impact statement (DEIS). The U.S. Corps of Army Engineers (Corps) and the U.S. Department of Transportation, Office of Pipeline Safety (DOT) also participated in the scoping meetings. Commission staff also conducted site visits, open to the public, of portions of the proposed pipeline routes.

153. On October 14, 2004, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Cove Point Expansion Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings and Site Visits* (NOI). The NOI was sent to approximately 1,500 interested parties including federal, state, and local officials; agency representatives; conservation organizations; local libraries and newspapers; and property owners along the proposed pipeline routes.

154. Commission staff issued a DEIS addressing the Cove Point Expansion Project on October 28, 2005. Commission staff issued the final environmental impact statement (FEIS) and a formal notice of availability on April 28, 2006. The DEIS and FEIS were mailed to approximately 1,550 interested parties, including federal, state, and local agencies, elected officials, newspapers, public libraries, intervenors in this proceeding, and other interested parties (*i.e.*, landowners, other individuals, and environmental groups who provided scoping comments). The FEIS addresses the issues, concerns, and comments raised in response to the DEIS.[133] The FEIS also addresses: geology; soils; water resources; wetlands; vegetation; wildlife; endangered and threatened species; land use, recreation, and visual resources; socioeconomics; cultural resources; air quality and noise; reliability and safety; alternatives to the proposed project; and cumulative impacts

155. The FEIS addressed 47 comment letters filed in response to the DEIS. The primary concerns of the comments filed in response to the DEIS related to alternative routes for Cove Point LNG's proposed TL-532 pipeline route in Calvert County, Maryland; alternative locations for Dominion's the proposed Centre Relay Compressor Station in Centre County, Pennsylvania; and the construction's effects on preserved farmland properties in Calvert County, Maryland. The FEIS also incorporates comments of the U.S. Coast Guard, Army Corps of Engineers, who participated as cooperating agencies.

156. Section 3(c) of EPAct 2005 adds a new NGA section 3(f)(3) which requires the Commission to obtain the concurrence of the Secretary of Defense before authorizing the siting, construction, expansion, or operation of LNG facilities affecting the training or activities of an active military installation. Based on Staff's correspondence with the

[133] Issues and concerns raised during the scoping process are summarized in Table 1.4-1 of the FEIS.

U.S. Department of Defense (DOD) in this proceeding, the Commission concludes that there is no effect on military installations from this project. Therefore, no concurrence from the Secretary of Defense is required by new NGA section 3(f)(3). By letter dated May 5, 2006, Staff notified the DOD of this conclusion.

157. Based on information presented by Dominion and Cove Point LNG and developed from responses to data requests, field investigations, literature research, alternative and route variation analysis, and contacts with federal, state, and local agencies and individual members of the public, the FEIS determined that constriction and operation of the Cove Point Expansion project would result in limited adverse environmental impact.

158. The Maryland Department of Planning and State Clearinghouse (State Clearinghouse) provided comments on the FEIS. State Clearinghouse's comments included comments from The Maryland Department of Public Safety and Correctional Services, the Maryland Environmental Science, and the Maryland Department of Planning, the Maryland Department of Natural Resources (MDNR) and Charles County, Maryland (Charles County). The State Clearinghouse concludes that the FEIS is consistent with qualifying comments, and contingent upon certain actions from the applicant considering and addressing any problems or conditions that may be identified by their review. MDNR and Charles County found the project to be generally consistent with their plans, programs, and objective, but included certain qualifying comments. MDNR states that it is still working with the applicant on the potential impacts of the proposed action to existing conservation easements. Charles County Department of Utilities is concerned about the effects of construction of the TL-532 loop crossing other existing utilities within the county, particularly with a major sewer collection mainline. Charles County states that it would like to be closely involved in the design of the TL-532 pipeline. The Maryland Department of Public Safety and Correctional Services, the Maryland Environmental Science, and the Maryland Department of Planning found the project to be consistent with their plans, programs, and objectives.

159. The Commission appreciates the comments provided by the State Clearinghouse, MDNR, Charles County, and The Maryland Department of Public Safety and Correctional Services, the Maryland Environmental Science, and the Maryland Department of Planning. We encourage Cove Point LNG and Dominion to continue to work with the state and local government agencies to identify and address their concerns for the life of the project.

Alternatives

160. Our staff's alternatives analysis included the evaluation of major pipeline route alternatives and minor pipeline route variations. The FEIS evaluated seven major route

alternatives and 10 minor route variations that were either identified in Dominion's and Cove Point LNG's application or were identified during the scoping process. All of these alternatives were on either the TL-532 or the PL-1 EXT2 Pipelines. The FEIS determined that none of the pipeline route alternatives or variations would reduce environmental impacts to such an extent that they would be environmentally preferable to the proposed route.

161. The FEIS also included evaluations of the need for alternative sites for the two new compressor stations proposed as part of the project. No environmental issues with the proposed site of the Perulack Compressor Station were identified that would warrant review of alternative sites.

162. Dominion identified the Start Point Compression Alternative as a potential system alternative to its proposed PL-1 EXT2 Pipeline and Centre Relay Compressor Station. The alternative would eliminate the need for the Centre Relay Compressor Station, but would increase the size of the 81-mile PL-1 EXT2 Pipeline from 24 to 36 inches in diameter.

163. The FEIS concluded that construction of a pipeline, even at 36-inch diameter size, is considered a temporary, but long-term impact, compared to the permanent impact of constructing of new compressor station, which is a fixed, aboveground facility, permanently altering the use of the land. In general, the long-term impacts of forest clearing associated with the pipeline construction are preferred to the permanent impact of constructing and operating the Centre Relay Compressor Station. However, the environmental impacts of Dominion's PL-1 EXT2 pipeline and the Centre Relay Station are fully disclosed in section 4 of the FEIS . The FEIS states that Dominion selected the proposed Centre Relay Compressor Station site (which is currently farmed) in consultation with the Centre County planning officials. The FEIS concludes that construction of the Centre Relay Compressor Station facilities as proposed, with appropriate mitigation measures, would be an environmentally acceptable action.

164. Moreover, in addition to environmental impacts, Dominion has indicated that use of 36-inch-diameter pipeline would significantly increase initial project cost. Dominion also stated some further benefits of the proposed facility design. After further consideration, we do not object to the construction and operation of the Centre Relay Compressor Station, as proposed in Dominion's application.

165. Concerns About Pipeline Expansion (CAPE) filed comments on the FEIS, and petitions the Commission to approve a modification of the final route of Cove Point LNG's proposed TL-532 loop in Calvert County, Maryland to one of the more

environmentally suitable options proposed by CAPE. CAPE is concerned about how the route determination process involving CAPE alternatives were studied.

166. The applicant and our staff are responsible for evaluating alternatives that may be constructed to accomplish the same project objectives as the proposed project facilities. During the pre-filing process, our staff held various site visits and meetings with stakeholders and asked Cove Point LNG to evaluate numerous system and route alternative variations that were identified. The FEIS includes a complete evaluation of all identified alternatives, including several variations of CAPE's recommended alternatives. Cove Point LNG and/or Commission staff evaluated modified route variations, or "tweaked" variations of CAPE's proposed alternatives in consideration of pipeline construction right-of-way width requirements and/or the system operational requirements necessary to safely construct and operate a 36-inch-diameter pipeline.

167. The FEIS concludes that in conducting a reasonable analysis, it is important to consider the environmental advantages and disadvantages of the proposal, and to focus the analysis on those alternatives that may reduce impacts and/or offer a significant environmental advantage. Although many of CAPE's identified alternatives appear to offer a significant environmental advantage by paralleling other infrastructures, they are not considered feasible because there are site-specific construction constraints, operational risks, or prohibited use (at the state level) associated with the alternatives. Therefore, our staff did not recommend the use of these alternatives because they cannot be constructed to meet the project's objectives.

168. Based on our staff's and the Corps' independent review of potential route alternatives identified by CAPE, Cove Point LNG and other stakeholders, the FEIS concludes that the proposed route is the environmentally preferred alternative (with implementation of the mitigation measures proposed by Cove Point LNG, and as required herein). The proposed route is the most constructible of the routes that were analyzed in the EIS and the conclusions in the FEIS are based on our staff's field work, the available mapping of the area, and consultations with the relevant agencies and stakeholders.

169. As stated in the FEIS, Cove Point LNG is proposing to loop its existing TL-522 pipeline. Dominion's proposed TL-532 loop is paralleling existing infrastructure to the maximum extent practicable (7.1 miles of the 12-mile segment evaluated for this section, or 85 percent). Looping is standard practice for the industry when expanding pipeline systems, and it is sometimes necessary to construct "greenfield variations" to avoid commercial and/or residential development that has been constructed over time.

170. CAPE also states that its proposed "Parran Road Loop" and "Broomes Island Connector" alternative routes were not studied. The Commission is not aware of any

CAPE alternatives in the record known as the "Parran Road Loop" and "Broomes Island Connector". Staff conducted a query search on the eLibrary system and did not locate any reference to these alternatives.

171. CAPE states that Potomac Electric Power Company (PEPCO) is planning on constructing a high voltage transmission line in Calvert County, which would use the existing PEPCO and BG&E powerline right-of-way that mirrors CAPE's alternatives. CAPE believes that the pipeline could be concurrently placed in the same corridor at the same time the powerline is constructed. PEPCO's new project that CAPE refers to (which would link Northern Virginia with Delmarva and lower New Jersey, known as the Mid-Atlantic Power Pathway) is currently being planned and has not yet been authorized at the state level. Although pipelines and electric transmission lines often share utility corridors and both infrastructures are typically linear, the construction of electric transmission facilities and the construction of pipeline utilities are not synonymous and each require specific planning and right-of-way construction workspace. It is too early in planning of PEPCO's project to speculate what new facilities it would require to be able to conduct a thorough environmental analysis at this time.

172. CAPE also requests an overall comprehensive energy plan for Calvert County and asks if there are additional uses planned for the new TL-532 right-of-way. Any comprehensive energy or land use plan is the function of local and state governments, not the Commission. In the FEIS, the Commission staff would have studied any known proposed additional uses for proposed natural gas rights-of-way. At this point in time, no such cumulative projects and impacts have been identified. We note that Environmental Condition No. 5 limits the approval of the use of the new TL-532 right-of-way solely to the proposed project unless further authorization is sought, as appropriate.[134]

173. CAPE also states there are flaws in the FEIS, specifically referring to the statistics in several tables in the Section 3 (Alternatives), stating that the Commission seems to favor comparing wetland impacts over other legitimate resources areas. Wetlands are just one of several environmental resources that are compared and balanced against the proposed route. The acreages, mileage, and feet measures in the analysis are estimates and are logical choices based on the characteristics of the resource. They are consistent across alternatives within each resource to allow the reader to compare the effects.

[134] Dominion's exercise of eminent domain authority granted under NGA section 7(h) in any condemnation proceeding must be consistent with the facilities and locations authorized in the Commission's certificate order. Dominion's right of eminent under section 7(h) does not authorize it to increase the size of its natural gas pipeline or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

174. CAPE states that much work needs to be done to minimize the use of land under agricultural preservation agreements, and that CAPE knows of no action by Cove Point LNG or the Commission in response to the concern about using lands in restricted preservation.

175. We disagree. The FEIS fully describes the effects of pipeline construction on agricultural preservation lands, and discloses the mitigation measures proposed by Cove Point LNG. In addition, environmental condition number 13 of the FEIS requires that Cove Point LNG incorporate the measures identified by the Maryland Agricultural Land Preservation Foundation in its comment letter on the DEIS.

176. CAPE claims that the need for pipeline capacity must be directly linked to the projected amount of gas expected to be unloaded from LNG ships. CAPE states that based on an expected 200 ships per year when the proposed expansion is in service, the proposed incremental capacity is oversized. However, the proposed incremental pipeline capacity of 800,000Mcf/d is designed to match the amount of vaporization capacity that Statoil has contracted for from Cove Point LNG.[135]

177. We received comments from the Cove Point Beach Association (CPBA). The CPBA is concerned that if there is a problem or accident at the Cove Point terminal, the citizens would have no escape plan and Cove Point LNG employees would join hundreds of cars on County Route 497, which is the main road that the terminal is located off of. CPBA states that Route 497 is narrow, has only two-lanes and has no shoulder.

178. The Energy Policy Act of 2005 requires that each LNG terminal operator develop an Emergency Response Plan prepared in consultation with the U.S. Coast Guard and state and local agencies, and that it must be approved by the Commission prior to the start of construction. Cove Point LNG has an Emergency Response Plan in place for the existing Cove Point LNG import terminal. However, we are requiring that Cove Point LNG file an updated Emergency Response Plan to reflect the proposed expansion activities (Condition number 48). In addition, the updated Emergency Response Plan must include a Cost-Sharing Plan identifying the mechanisms for funding project-specific security costs and safety/emergency management costs that would be imposed on state and local agencies (Condition number 49).

[135] CAPE is correct if one considers conversion of the expected annual LNG throughput to an average day capacity; however, the customer for the expansion service has contracted for an additional daily capacity so that it can meet the generally higher daily demands of the seasonal gas market.

179. The development of the updated Emergency Response Plan with the Cost-Sharing Plan will require involvement by the affected state and local agencies prior to filing with the Commission. Project-specific security resources are identified in conjunction with port stakeholders as input to the Coast Guard's Waterway Suitability Report, while safety and emergency response resources are determined from the specific procedures in the Emergency Response Plan. The resulting Cost-Sharing Plan must specify the resources that Cove Point LNG will provide, with an acknowledgement from each state and local agency designated to receive resources. Although it is recognized that portions of the updated Emergency Response Plan may contain facility design or security information that will of necessity be designated as CEII, procedures related to offsite emergencies and evacuation should be designated as Public.

180. Also, CPBA asks if Cove Point LNG has applied for its storm water permits, wetlands, and other Clean Water Act permit authorities for the terminal expansion; and asks if Cove Point LNG has a storm water retention basin with enough capacity to handle increased storm water associated with new construction, particularly to control runoff from construction into Webster Pond. CPBA is also concerned about air quality in general in Calvert County, and also at the terminal.

181. As stated in the FEIS, Cove Point LNG would be required to install erosion and sediment controls during construction that would minimize on-site erosion, and contain sediments from stormwater runoff within the site. Cove Point LNG's stormwater management plans incorporate measures from FERC's Upland Erosion Control, Revegetation, and Maintenance Plan. During operation of the proposed expansion facilities at the LNG terminal, Cove Point LNG would be required to comply with its plan and with general storm water management permit conditions or project-specific storm water management conditions required of Cove Point LNG by the MDE and the Corps. Similarly for wetlands, Cove Point LNG has applied at the Corps for jurisdictional determination for the additional expansion facilities; and at the MDE for Tidal Wetlands Act, Nontidal Wetlands Act, and the Waterways Construction Act. Cove Point LNG has also applied for its permit to amend its existing air emissions permit for the Cove Point terminal with the MDE, pursuant to Clean Air Act provisions.

182. We received another comment from a property owner affected by the TL-532 pipeline loop in Charles County, Maryland, Ms. Jean Luning-Johnson. Ms. Luning-Johnson is concerned that the proposed pipeline, as presented to her by Cove Point LNG, would cross the middle of her property at its widest point. She is concerned about the pipeline's impact on the value of the property and the ability to develop it. Ms. Luning-Johnson also enclosed a map of her property, which designates Cove Point LNG's proposed route and her preferred location for the pipeline. Ms. Luning-Johnson's preferred location basically places the pipeline adjacent to her property line, and enters

and exits her property at the same point as Cove Point LNG's proposed route. However, a small portion of Ms. Luning-Johnson's preferred location appears to cross through a wetland and/or the wetland buffer.

183. The Commission encourages Cove Point LNG to continue to work with Ms. Luning-Johnson regarding the proposed pipeline that affects her property. In order to ensure that this newly identified wetland is properly delineated, we will require, as environmental condition number 75 of Appendix B that Cove Point LNG consult with the Maryland Department of the Environment to modify its wetland and waterways permits for construction, if it determines that its route through Ms. Luning-Johnson's property (at about station number 927+60) would affect the wetland or wetland buffer.

FERC Safety and Coast Guard Coordination

184. The Coast Guard cooperated in the preparation of the FEIS and plays an important role with regard to maritime issues. On June 14, 2005, a Navigation and Vessel Inspection Circular – Guidance on Assessing the Suitability of a Waterway for Liquefied Natural Gas (LNG) Marine Traffic (NVIC 05-05). The purpose of this NVIC 05-05 is to provide Coast Guard Captains of the Port (COTP)/Federal Maritime Security Coordinators (FMSC), members of the LNG industry, and port stakeholders with guidance on assessing the suitability and security of a waterway for LNG marine traffic. It provides specific guidance on the timing and scope of the waterway suitability assessment (WSA), which will address both safety and security of the port, the facility, and the vessels transporting the LNG.

185. The WSA process addresses the transportation of LNG from an LNG tanker's entrance into U.S. territorial waters, through its transit to and from the LNG receiving facility, and includes operations at the vessel/facility interface. In addition, the WSA addresses the navigational safety issues and port security issues introduced by the proposed LNG operations. The Coast Guard's letter to the Commission on the WSA identifies the relevant safety and security issues from the broad viewpoint of impact on the entire port, as well as provides a detailed review of specific points of concern along the LNG tanker's proposed transit route. The WSA will be reviewed on an annual basis and updated as needed until the facility is placed in service.

186. On January 17, 2006, Cove Point LNG submitted the WSA to the Coast Guard Sectors Baltimore and Hampton Roads. On February 14, 2006, the Coast Guard issued a public notice and request for comment to solicit public comments. The WSA and public comments will be considered by the Coast Guard as it evaluates whether it can issue a Letter of Recommendation finding the waterway suitable for the proposed increase in

LNG traffic, and if so, what actions and resources would be necessary to make Chesapeake Bay suitable for increased LNG traffic to Cove Point.

187. The Coast Guard will present, in its LOR and LNG Operations Plan, its own conclusions and recommendations, prior to construction and operation. The LOR will address the suitability of the Chesapeake Bay for an increase in LNG ship transportation, and the Coast Guard's LNG Operations Plan will address issues related to the public impact of safety or security zones for LNG vessels.

188. Likewise, the Corps will present its own conclusions and recommendations in the waterway and wetland permits it may issue pursuant to section 10 of the River and Harbors Act and section 404 of the Clean Water Act.

189. If the Coast Guard issues a LOR finding the waterway suitable for an increase in LNG marine traffic; the arrival, transit, cargo transfer, and departure of additional LNG ships in the Chesapeake Bay would be required to adhere to an updated version of the Coast Guard's *LNG Operating Management Plan*, developed by the Coast Guard Sectors Baltimore and Hampton Roads, in conjunction with state and local law enforcement officials and emergency response officials. In addition, Cove Point LNG updates its Operations and Emergency Manuals in consultation with the Coast Guard. These updated procedures would be developed to ensure the safety and security of all operations associated with LNG ship transit and unloading.

190. The FEIS evaluated the safety of both the proposed Cove Point Expansion Project and the related LNG vessel transit through the Chesapeake Bay. The analysis identified the principal properties and hazards associated with LNG, presented a summary of the design and technical review of the cryogenic aspects of the LNG terminal, discussed the types of storage and retention systems, analyzed the thermal radiation and flammable vapor cloud hazards resulting from credible LNG spills, analyzed the safety aspects of LNG transportation by ship, and reviewed issues related to security and terrorism. Requirements for safety of the terminal are in the Coast Guard regulations in 33 CFR Part 127 and for maintaining security are in 33 CFR Part 105 and will be approved by the Captain of the Port.

191. With respect to the onshore facility, a cryogenic design and technical review of the proposed terminal design and safety systems was completed and reported in the FEIS. That review noted several areas of concern, and as a result, the FEIS recommends 33 Environmental Conditions to make certain modifications to the terminal design. Information pertaining to these modifications is to be filed for review and approval by the Director of OEP prior to initial site preparation, prior to construction of final design, prior to commissioning, or prior to commencement of service as indicated by each specific

recommendation. The FEIS also evaluated the thermal radiation and flammable vapor dispersion exclusion zones of the proposed LNG terminal. The analysis found that no excluded uses are within these areas.

192. In addition, the FEIS discussed the Department of Energy's (DOE) study by Sandia National Laboratories entitled, Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water (Sandia Report) December 2004. The report evaluated an LNG cargo tank breach using modern finite element modeling and explosive shock physics modeling to estimate a range of breach sizes for credible accidental and intentional LNG spill events. Based on the Sandia Report breach sizes, thermal radiation and flammable vapor hazard distances were calculated in the FEIS for an accident or an attack on an LNG vessel. For the nominal intentional breach scenarios (5- to 7-square-meter holes in an LNG cargo tank), the estimated distances ranged from: 4,265 to 4,745 feet for a thermal radiation of 1,600 Btu/ft^2-hr, the level which is hazardous for persons located outdoors and unprotected; 3,330 to 3,665 feet for 3,000 Btu/ft^2-hr, an acceptable level for wooden structures; and 1,990 to 2,200 feet for 10,000 Btu/ft^2-hr, a level sufficient to damage process equipment, for these size holes respectively.

193. Based on the extensive operational experience of LNG shipping, the structural design of an LNG vessel, and the operational controls imposed by the Coast Guard and the local pilots, a cargo containment failure and subsequent LNG spill from a vessel casualty – collision, grounding, or allision – is highly unlikely. For similar reasons, an accident involving the onshore LNG import terminal is unlikely to affect the public. As a result, the FEIS determined that the risk to the public from accidental causes is negligible.

194. Unlike accidental causes, historical experience provides little guidance in estimating the probability of a terrorist attack on an LNG vessel or onshore storage facility. For a new LNG import terminal proposal having a large volume of energy transported and stored near populated areas, the perceived threat of a terrorist attack is a serious concern of the local population and requires that resources be directed to mitigate possible attack paths. If the Coast Guard issues a Letter of Recommendation finding the waterway suitable for LNG marine traffic, the operational restrictions that would be imposed by the Virginia and Maryland Pilots on LNG vessel movements through this area, as well as the requirements that the Coast Guard would impose, would minimize the possibility of a hazardous event occurring along the vessel transit area. While the risks associated with the transportation of any hazardous cargo can never be entirely eliminated, we are confident that they can be reduced to minimal levels and that the public will be well protected from harm.

195. Residents in Calvert County, Maryland are concerned about public safety impacts because of the proposed expansion at the LNG terminal, combined with concern for the planned expansion at the nearby Calvert Cliffs Nuclear Power Plant, which is owned and operated by Constellation Energy. As stated above, our cryogenic design and technical review of the proposed terminal design and safety systems was completed and reported in the FEIS and 33 Environmental Conditions (see Appendix B) requires Cove Point LNG to make certain modifications to the terminal design prior to initial site preparation, for the review and approval of the Director of OEP. In addition, if Constellation Energy makes an application with the Nuclear Regulatory Commission (NRC) for an expansion at its existing power plant, the NRC would evaluate public safety by implementing risk-informed approaches to reactor safety matters, analyzing in great detail the likelihood and consequences of any event which might jeopardize the safety of the nuclear plants. The NRC would have overall jurisdiction in whether to approve or disapprove Constellation's project.

196. Residents in Calvert County are also concerned with that the construction and operation of this expansion would result in an increase of shipment of LNG via ships at the existing terminal. Currently, the terminal receives about 90 LNG ships annually. The maximum number of ships that could be presently accommodated at the facility on an annual basis is about 120. Cove Point LNG would expect to receive about 200 ships per year should the proposed facilities be placed in service, which would be a substantial increase in the number of ships arriving at the terminal. However, considering the total number of deep draft vessels that traverse Chesapeake Bay past Cove Point, the increase in LNG ship traffic over time would be a modest increase in overall ship traffic, and is not likely to significantly affect public safety.

197. We have reviewed the information and analysis contained in the FEIS regarding the potential environmental effects of the project. Based on our consideration of this information, we agree with the conclusions presented in the FEIS and find that the Cove Point Expansion Project is environmentally acceptable, if the project is constructed and operated in accordance with the conditions discussed above and the FEIS's other recommended environmental mitigation measures in Appendix B to this order. Thus, we are including the environmental mitigation measures recommended in the FEIS as conditions to the authorizations granted by this order for the Cove Point Expansion Project.

198. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. We encourage cooperation between interstate pipelines and local authorities. This does not mean, however, that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by

this Commission.[136] Dominion and/or Cove Point LNG shall notify the Commission's environmental staff by telephone or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Dominion and/or Cove Point. They shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

199. At a hearing held on June 15, 2006, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorizations sought herein, and upon consideration of the record,

The Commission orders:

(A) In Docket No. CP05-130-000, Cove Point LNG is authorized under section 3 of the Natural Gas Act to site, construct, and operate its proposed incremental facilities at its LNG terminal at Cove Point, Maryland, as more fully described in this order and in the application.

(B) In Docket No. CP05-132-000, a certificate of public convenience and necessity is issued to Cove Point LNG under section 7(c) of the Natural Gas Act authorizing it to construct and operate its proposed incremental pipeline facilities, as more fully described in the order and in the application.

(C) In Docket No. CP05-131-000, a certificate of public convenience and necessity is issued to Dominion under section 7(c) of the Natural Gas Act authorizing it to construct and operate its proposed incremental pipeline facilities, as more fully described in the order and in the application.

(D) The authorizations in the above paragraphs are conditioned on Cove Point LNG's and Dominion's compliance with Part 154 and paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations.

(E) Cove Point LNG and Dominion shall submit revised actual tariff sheets that comply with the requirements contained in the body of this order between 60 and 30 days prior to the proposed services going into effect.

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[136] *See, e.g., Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Commission*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

(F) Cove Point LNG is required to revise its recourse rates in accordance with the discussion in the body of the order, filing the revised recourse rate and work papers supporting the rate within 30 to 60 days prior to the service going into effect.

(G) Dominion is required to track the fuel costs separately for the proposed incremental service.

(H) Construction of the facilities authorized herein shall be completed within three years from the date of a final order in this proceeding in accordance with section 157.20(b) of the Commission's regulations.

(I) Cove Point LNG and Dominion must execute a firm natural gas transportation contract(s) equal to the level of service and in accordance with the terms of service represented in its precedent agreement(s) prior to commencement of construction.

(J) Cove Point LNG and Dominion shall notify the Commission's environmental staff by telephone and/or facsimile of any environmental non-compliance identified by other federal, state or local agencies on the same day that such agency notifies Cove Point or Dominion. Cove Point LNG and Dominion shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

(K) Cove Point LNG and Dominion shall comply with the environmental conditions contained in Appendix B to this order.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

APPENDIX A

Cove Point Interventions

Out of Time:

Public Service Commission of the District of Columbia
City of Richmond, Virginia
Norton McMurray Manufacturing Company
Public Service Commission of Maryland
Property Owners Association of Chesapeake Ranch Estates
Atlanta Gas Light Company and Virginia Natural Gas, Inc.
Mirant Americas Energy Marketing, LP
Doswell Limited Partnership, *et al*.
NiSource Distribution Companies
Maryland Office of the People's Counsel

Timely:

Calvert Cliffs Nuclear Power Plant
The KeySpan Delivery Companies
Baltimore Gas and Electric Company
Maryland Conservation Council and Sierra Club
Process Gas Consumers Group
New Jersey Natural Gas Company
Washington Gas Light Company
BG LNG Services, LLC
ExxonMobil Gas & Power Marketing Company,
a division of ExxonMobil Corporation
ConocoPhillips Company -
Cloria A. Jackson
Statoil Natural Gas LLC
PSEG Energy Resources & Trade LLC
Maryland State Agencies, Maryland Energy Administration
and Power Plant Research Program of DNR
Columbia Gas Transmission Corp.
Transcontinental Gas Pipe Line Corporation
Public Citizen's Energy Program and Green Delaware (CP05-130-000 only)
Philadelphia Gas Works
Shell NA LNG,LLC
Robert E. Rutkowski

BP Energy Company
Southern LNG, Inc
Public Service Company of North Carolina
Consolidated Edison Company of New York, Inc. (CP05-131-000 only)
East Ohio Gas Company, d/b/a Dominion East Ohio, The Peoples Natural gas Company d/b/a Dominion Peoples, and Hope Gas, Inc. d/b/a Domionion Hope, (CP05-130-000 only)
Texas Eastern Transmission, LP (CP05-131-000 only)

APPENDIX B

Environmental Conditions for
Cove Point LNG – Docket Nos. CP05-130 and CP05-132
and Dominion Docket No. CP05-131

1. Dominion **(through out this appendix, Dominion refers to either Cove Point LNG or Dominion or both, as applicable)** shall follow the construction procedures and mitigation measures described in its application, supplemental filings (including responses to staff data requests) and as identified in the Environmental Impact Statement (EIS), unless modified by this Order.

   Dominion must :

   a. request any modification 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 FERC's Office of Energy Projects (OEP) **before using that modification**.

2. For LNG facilities, the Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of life, health, property and environment during construction and operation of the project. This authority shall allow:

   a. the stop-work authority and authority to cease operation; and
   b. the design and implementation of any additional measures deemed necessary to assure continued compliance with the intent of the conditions of the Order.

3. For pipeline facilities, the Director of OEP has delegation 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 this Order; and
   b. the design and implementation of any additional mitigation measures deemed necessary (including stop work authority) to assure continued compliance with the intent of environmental conditions as well as the avoidance or mitigation of

adverse environmental impact resulting from project construction and operation.

4. **Prior to any construction**, Dominion 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 environmental inspector'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.

5. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets, and shall include all of the staff's recommended facility locations. **As soon as they are available, and before the start of construction**, Dominion 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 this Order. All requests for modifications of environmental conditions of this Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

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

6. Dominion 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, and 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 of 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 which 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 affect sensitive environmental areas.

7. **At least 60 days before the start of construction**, Dominion shall file an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP describing how Dominion will implement the mitigation measures required by this Order. Dominion must file revisions to the plan as schedules change. The plan shall identify:

a. how Dominion 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 onsite construction and inspection personnel;
b. the number of environmental inspectors assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
c. company personnel, including environmental inspectors and contractors, who will receive copies of the appropriate material;
d. the training and instructions Dominion will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
e. the company personnel (if known) and the specific portion of Dominion's organization having responsibility for compliance;
f. the procedures (including use of contract penalties) Dominion 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) the mitigation training of on-site personnel;

(3) the start of construction; and
(4) the start and completion of restoration.

8. Dominion shall develop and implement an environmental complaint resolution procedure. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the Project and restoration of the right-of-way. **Prior to construction**, Dominion shall mail the complaint procedures to each landowner whose property would be crossed by the Project.

   a. In its letter to affected landowners, Dominion shall:
      (1) provide a local contact that the landowners shall call first with their concerns; the letter shall indicate how soon a landowner shall expect a response;
      (2) instruct the landowners that, if they are not satisfied with the response, they shall call Dominion's Hotline; the letter shall indicate how soon to expect a response; and
      (3) instruct the landowners that, if they are still not satisfied with the response from Dominion's Hotline, they shall contact the Commission's Enforcement Hotline at (888) 889-8030.

   b. In addition, Dominion shall include in its weekly status report a copy of a table that contains the following information for each problem/concern:
      (1) the date of the call;
      (2) the identification number from the certificated alignment sheets of the affected property;
      (3) the description of the problem/concern; and
      (4) an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.

9. Dominion shall employ a team of environmental inspectors (at least two per construction spread with one available at the LNG terminal, as appropriate, during site preparation). The environmental inspectors shall be:

   a. responsible for monitoring and ensuring compliance with all mitigation measures required by this 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 6 above) and any other authorizing document;

c. empowered to order correction of acts that violate the environmental conditions of this 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 this Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
f. responsible for maintaining status reports (see condition 10).

10. Dominion shall file updated status reports prepared by the head environmental inspector with the Secretary on a weekly basis **until all construction and restoration activities are complete**. On request, these status reports shall also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:

a. the current construction status of the project, 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 environmental inspector(s) 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. corrective actions implemented in response to all instances of noncompliance, and their cost;
d. the effectiveness of all corrective actions implemented;
e. a description of any landowner/resident complaints which may relate to compliance with the requirements of this Order, and the measures taken to satisfy their concerns; and
f. copies of any correspondence received by Dominion from other federal, state or local permitting agencies concerning instances of noncompliance, and Dominion's response.

11. Dominion must receive written authorization from the Director of OEP **before commencing service** of the expansion facilities at the LNG terminal and each component of the pipeline facilities of the project. Such authorization will only be granted following a determination that the LNG expansion facilities have been constructed in accordance with FERC approval and applicable standards, and can be expected to operate safely as designed. For the pipeline components of the project, such authorization will only be granted if it is determined that

rehabilitation and restoration of the pipeline right-of-way and other areas affected by the project are proceeding satisfactorily.

12. **Within 30 days** before placing the authorized facilities in service, Dominion shall file an affirmative statement with the Secretary, certified by a senior company official:

    a. that the facilities have been constructed 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 Dominion 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.

13. Dominion shall incorporate the measures identified by the MALPF (see comment letter S9-25) into easement negotiations for any properties with MALPF preservation agreements or district designations that would be affected by the TL-532 Pipeline.

14. Dominion shall consult with the PADEP and Texas Eastern prior to construction of its proposed tie-in to the Texas Eastern system at Perulack, and determine the need for special construction measures to address the potential for encountering PCB-contaminated soils.

15. Dominion shall contact the Pennsylvania Geological Survey to identify specific areas along the PL-1 EXT2 Pipeline where the geologic conditions could result in acid rock drainage as a result of construction of the pipeline. Dominion shall also consult with the Pennsylvania Geological Survey and the PADEP to develop site-specific mitigation plans if necessary, and file these plans with the Secretary before construction.

16. Dominion shall update site-specific construction drawings and plans for each HDD crossing to identify specific federal, state, and local agencies who may require to be consulted during the HDD activities in the event of a HDD failure or frac-out. Dominion shall file the updated plans and drawings with the Secretary for review and written approval by the Director of OEP, prior to construction.

17. Dominion shall <u>not</u> use access road AR-1 for construction and operation of its TL-492 EXT3 Pipeline, unless it can provide justification as to why the construction of the new access road is necessary. In addition, if Dominion decides to provide justification for use of AR-1, Dominion shall also provide documentation of landowner approval for the use of the AR-1 access road.

18. Dominion shall limit vegetation removal above HDD paths to the maximum extent practicable, except for clearing of brush and saplings using hand tools to facilitate the use of HDD tracking systems and installation of pipeline markers. No vegetation shall be removed with power tools or construction equipment without **prior written approval** by the Director of OEP.

19. Dominion shall consult with the Chesapeake Bay Critical Area Commission regarding any additional mitigation measures to be implemented during the construction and operation of the TL-532 Pipeline across St. Leonard Creek, Hunting Creek, and the Patuxent River. Dominion shall file copies of correspondence and any resulting mitigation plan with the Secretary for review and written approval by the Director of OEP **prior to construction**.

20. Before construction, Dominion shall complete consultations with the Pennsylvania Department of Conservation and Natural Resources (PADCNR) to determine if any unique natural communities or other sensitive areas would be crossed by its pipeline facilities. Dominion shall file with the Secretary **before construction**, mitigation plans developed through these consultations. The mitigation plans shall include all correspondence, telephone logs, and locations of each area by milepost, crossing length, acreage of vegetative community affected, and any proposed mitigation.

21. Dominion shall file with the Secretary any wetland compensatory mitigation plan(s) it may develop in response to the U.S. Army Corps of Engineers (Corps) or other agency recommendations, **before implementation**.

22. In the event that Dominion cannot complete an HDD crossing of the Juniata River, Dominion shall file a site-specific alternative crossing plan. This plan shall be developed in coordination with the NOAA Fisheries, Corps, PADCNR, and Pennsylvania Fish and Boat Commission (PAFBC) as applicable. The plan shall include a description of the mitigation measures Dominion would implement to minimize the extent and duration of construction activity that could affect the American shad, and any essential fish habitat. In addition, Dominion shall not begin a crossing of the Juniata River **until**:

    a. the FERC evaluates the potential impact of a non-HDD crossing of the Juniata River on the American shad;
    b. the FERC, Corps, and NOAA Fisheries determine that the alternate crossing and mitigation plan are acceptable; and
    c. the Director of OEP notifies Dominion in writing that it may proceed with an alternative river crossing.

23. Dominion shall not withdraw water for hydrostatic testing from the Patuxent River or Hunting Creek between February 15 and June 15 of any year.

24. Dominion shall not conduct the crossing of Hunting Creek between February 15 and June 1 of any year.

25. Dominion shall not withdraw water for hydrostatic testing from the Juniata River between March 15 and July 15 of any year.

26. Dominion shall consult with the Pennsylvania Game Commission to develop construction and restoration plans for those portions of state lands crossed by the PL-1 EXT2 Pipeline and TL-492 Pipeline (State Game Lands 92, 113, 215, and 179). The final plans shall be filed with the Secretary **before construction**.

27. Dominion shall prohibit project-related construction activities on the TL-532 Pipeline from December 15 through June 15 of any year within one quarter mile of the bald eagle nest site near S1MP22.9, unless there is clear evidence that the nest is inactive. In addition, Dominion shall not begin construction activities **until**:

    a. the staff completes consultation with the FWS and NOAA Fisheries; and
    b. Dominion has received written notification from the Director of OEP that construction may begin.

28. Dominion shall incorporate the following NOAA Fisheries guidelines into its Terminal Use Agreement with LNG ship operators. In all coastal and offshore waters along the east coast of the U.S. and Canada:

    a. If a right whale sighting is reported within 20 nautical miles of a ship's position, post a lookout familiar with spotting whales;

    b. If a right whale is sighted from the ship, or reported along the intended track of a large vessel, mariners shall exercise caution and proceed at a slow, safe speed when within a few miles of the sighting location, bearing in mind that reduced speed may minimize the risk of ship strikes;

    c. Do not assume right whales will move out of your way. Right whales, generally slow moving, seldom travel faster than 5-6 knots. Consistent with safe navigation, maneuver around observed right whales or recently reported sighting locations. It is illegal to approach closer than 500 yards of any right whale (see 50 CFR 222.32, Chapter 2);

    d. Any whale accidentally struck, any dead whale carcass spotted, and any whale observed entangled in fishing gear shall be reported immediately to

the U.S. or Canadian Coast Guard noting the precise location and time of the accident or sighting; and

e. In the event of a strike or sighting, the following information shall be provided to the U.S. Coast Guard: Location and time of the accident or sighting; wind speed and direction; speed of the vessel; size of the vessel; water depth; description of the impact; fate of the animal, if known; and species and size, if known.

29. Dominion shall continue to consult with MDNR regarding mitigation that may be appropriate to avoid or minimize impact on state listed rare species in Maryland. Dominion shall file the results of its consultation, including a description of final agreed upon mitigation measures, with the Secretary, prior to construction.

30. Dominion shall continue to consult with the PADCNR regarding additional surveys or mitigation that may be appropriate to avoid or minimize impact on state listed plants along the TL 492 EXT3 and PL1 EXT2 Pipelines in Pennsylvania. Dominion shall file the results of its consultation, including a description of final agreed upon mitigation measures, with the Secretary, prior to construction.

31. In the event that new residences are built prior to Project construction, Dominion shall update table 4.8.2.1-1 of this EIS for the residences located within 50 feet of the construction work areas (*i.e.*, construction right-of-way and extra temporary work space) and file this information in its initial Implementation Plan with the Secretary **before construction**. For all residences that would be 25 feet or closer to the construction work area, Dominion shall file a site-specific plan with the Secretary for review and written approval of the Director of OEP **before construction**.

32. Dominion shall develop, in consultation with the affected landowners or land managing agencies, site-specific construction and restoration plans, as necessary, for those areas listed in table 4.8.3.1-1 of this EIS. Consultations shall include discussion of the need for construction timing restrictions and/or special construction techniques and restoration measures. Dominion shall file documentation of consultation, and any resulting site-specific plans, with the Secretary **before construction**.

33. Dominion shall consult with the PAFBC Bureau of Boating Office to determine if specific mitigation measures would be required during open-cut crossings of any Pennsylvania waterbodies to ensure safe navigation for recreational boaters. Dominion shall file documentation of this consultation, and any resulting site-specific plans, with the Secretary **before construction.**

34. Dominion shall not begin construction of the project **until** it files with the Secretary a copy of the determination of consistency with the Coastal Zone Management Program issued by the Maryland Department of the Environment.

35. Dominion shall defer construction and use of facilities, and use of staging, storage, temporary work areas, and new or to-be-improved access roads, **until** the Director of OEP notifies Dominion in writing that it may proceed with the data recovery plans or construction.

36. Dominion shall not begin construction activities in Maryland or Pennsylvania **until** Dominion files with the Secretary, for review and written approval by the Director of OEP, a full air quality analysis identifying all mitigation measures required to demonstrate conformity and submits detailed information documenting how the project would demonstrate conformance with the applicable SIP in accordance with Title 40 CFR Part 51.858. The documentation should address each regulatory criteria listed in Part 51.858; provide a detailed explanation of whether or not the project would meet each requirement; and for each criteria being satisfied, provide all supporting information on how the project would comply. Should any element of the project change substantially, Dominion should resubmit the aforementioned information so that OEP staff may determine the Conformity Determination of the revised action.

37. Dominion shall file with the Secretary a revised acoustical analysis and mitigation plan for the additional horsepower proposed at the Wolf Run Compressor Station, for the review and approval of the Director of OEP. Dominion shall demonstrate that noise at the nearest noise-sensitive areas (NSA), including the location of Mr. Smith's planned cabin, is below 55 dBA L_{dn}.

38. Dominion shall file with the Secretary**, prior to construction,** a drilling noise analysis and a mitigation and compliance plan **f**or each residence near the Hunting Creek and Patuxent River crossings where the L_{dn} sound level from HDD drilling activities would be greater than 55 dBA**.** This plan shall demonstrate that noise due to drilling operations would be below 55 dBA L_{dn} at the nearest NSAs, specify all noise mitigation equipment necessary to reduce noise below 55 dBA L_{dn}. Dominion shall detail the method by which they would ensure compliance. Where surveys indicate that noise attributable to drilling exceeds 55 dBA L_{dn}, Dominion shall:

    a. immediately stop drilling and mitigate the noise at the affected NSAs to reduce the noise levels at those NSAs to 55 dBA L_{dn} or below, or
    b. offer temporary housing until L_{dn} levels at the NSAs are 55 dBA or below.

39. Dominion shall file noise surveys with the Secretary **no later than 60 days** after placing the expansion facilities in service at the Cove Point LNG Terminal. If the noise attributable to the operation of all of the equipment at the LNG terminal exceeds an L_{dn} of 55 dBA at any nearby NSAs, Dominion shall file a report on what changes are needed and shall install the additional noise controls to meet the level within 1 year of the in-service date. Dominion shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.

40. For the proposed Perulack and Centre Relay Compressor Stations, and for the additional compression/upgrades proposed at the Mockingbird Hill and Wolf Run Compressor Stations, Dominion shall file a noise survey with the Secretary **no later than 60 days** after placing each of the authorized compressor station facilities and/or upgrades (Perulack, Centre Relay, Mockingbird Hill Upgrade, and Wolf Run Compressor Station expansion) in service. If the noise attributable to the operation of any of these facilities at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Dominion shall install additional noise controls to meet that level within 1 year of the in-service date. Dominion shall confirm compliance with the L_{dn} of 55 dBA requirement by filing a second noise survey for each station with the Secretary **no later than 60 days** after it installs the additional noise controls.

41. If the Coast Guard issues a LOR finding the waterway to be suitable for increased LNG marine traffic, Dominion shall coordinate, as needed, with the Coast Guard to define the responsibilities of Dominion's security staff in supplementing other security personnel and in protecting the LNG ships and terminal.

42. Dominion shall annually review its waterway suitability assessment for the Project; update the assessment to reflect changing conditions; provide the updated assessment to the Captain of the Port/Federal Maritime Security Coordinator, Sector Baltimore and Sector Hampton Roads for review and validation and for any appropriate action; and provide a copy to the FERC staff.

The following measures shall apply to the LNG terminal expansion facilities design and construction details. Information pertaining to these specific recommendations shall be filed with the Secretary for review and approval by the Director of OEP either: prior to initial site preparation; prior to construction of final design; prior to commissioning; or prior to commencement of service as indicated by each specific recommendation. Items relating to Resource Report 13: *Engineering and Design Material* and security should be submitted as critical energy infrastructure information (CEII) pursuant to 18 CFR §388.112 and PL01-1. Information pertaining to items such as: offsite emergency response; procedures for public notification and evacuation; and construction and operating reporting requirements

shall be subject to public disclosure. All information shall be submitted a minimum of 30 days before approval to proceed is required.

43. A complete plan and list of the hazard detection equipment shall be filed **prior to initial site preparation**. The information shall include a list with the instrument tag number, type and location, alarm locations, and shutdown functions of the proposed hazard detection equipment. Plan drawings shall clearly show the location of all detection equipment.

44. Dominion Cove Point LNG shall provide a technical review of its proposed facility design that:

    a. identifies all combustion/ventilation air intake equipment and the distances to any possible hydrocarbon release (LNG, flammable refrigerants, flammable liquids, and flammable gases); and
    b. demonstrates that these areas are adequately covered by hazard detection devices and indicate how these devices would isolate or shutdown any combustion equipment whose continued operation could add to or sustain an emergency.

    Dominion Cove Point LNG shall file this review **prior to initial site preparation**.

45. A complete plan and list of the fixed and wheeled dry-chemical, fire extinguishing, and high expansion foam hazard control equipment shall be filed **prior to initial site preparation**. The information shall include a list with the equipment tag number, type, size, equipment covered, and automatic and manual remote signals initiating discharge of the units. Plan drawings shall clearly show the planned location of all fixed and wheeled extinguishers.

46. Facility plans showing the proposed location of, and area covered by, each monitor, hydrant, deluge system, hose, and sprinkler, as well as piping and instrumentation diagrams, of the fire water system shall be filed **prior to initial site preparation**.

47. A copy of the hazard design review and list of recommendations that are to be incorporated in the final facility design shall be provided **prior to initial site preparation**.

48. Dominion shall develop an updated Emergency Response Plan (including evacuation) as needed to reflect the proposed expansion activities and coordinate procedures with the Coast Guard, state, county, and local emergency planning groups, fire departments, state and local law enforcement, and appropriate federal agencies. This plan shall include at a minimum:

a. designated contacts with state and local emergency response agencies;
b. scalable procedures for the prompt notification of appropriate local officials and emergency response agencies based on the level and severity of potential incidents;
c. procedures for notifying residents and recreational users within areas of potential hazard;
d. evacuation routes/methods for residents along the route of the LNG marine transit, the Cove Point area, and other public use areas that are within any transient hazard areas;
e. locations of permanent sirens and other warning devices; and
f. an "emergency coordinator" on each LNG vessel to activate sirens and other warning devices.

The Emergency Response Plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to initial site preparation**. Dominion shall notify FERC staff of all planning meetings in advance and shall report progress on the development of the updated Emergency Response Plan at 3-month intervals.

49. The Emergency Response Plan shall include a Cost-Sharing Plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state and local agencies. In addition to the funding of direct transit-related security/emergency management costs, this comprehensive plan should include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. The Cost-Sharing Plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to initial site preparation**.

50. The **final design** of the hazard detection equipment shall identify manufacturer and model.

51. The **final design** of the hazard detection equipment shall provide flammable gas and UV/IR hazard detectors with local instrument status indication as an additional safety feature.

52. The **final design** of the fixed and wheeled dry-chemical, fire extinguishing, and high expansion foam hazard control equipment shall identify manufacturer and model.

53. The **final design** shall include details of the LNG tank tilt settlement and differential settlement limits between each LNG tank and piping and procedures to be implemented in the event that limits are exceeded.

54. The **final design** shall include resistance temperature detectors (RTDs) in the outlet stacks of the LNG tank relief valves to continuously monitor for relieving and fire conditions.

55. The **final design** shall include provisions to measure the discharge flow of each LNG pump.

56. The **final design** shall specify, in the piping specifications for hazardous fluids, that pipe and nipples two inches and less shall not be less than schedule 80.

57. The **final design** shall include a separate line from the minimum flow recycle valve ADV-3142 to the LNG storage tanks.

58. The **final design** shall include provisions to ensure that glycol/water circulation is operable at all times when LNG is present in the LNG sendout pump discharge piping or when the temperature in the LNG inlet channel to any vaporizer is below 0°F.

59. The **final design** shall include automatic shutoff isolation valves for the boiloff compressors, located on the suction and discharge located outside of the boiloff compressor building.

60. The **final design** shall include a fire protection evaluation carried out in accordance with the requirements of NFPA 59A, chapter 9.1.2.

61. The **final design** shall include details of the shut down logic, including cause and effect diagrams for alarms and shutdowns.

62. The **final design** shall include emergency shutdown of equipment and systems activated by hazard detection devices for flammable gas, fire, and cryogenic spills, when applicable.

63. The **final design** shall include details of the air gaps to be installed downstream of all seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system. Each air gap shall vent to a safe location and be equipped with a leak detection device that: shall continuously monitor for the presence of a flammable fluid; shall alarm the hazardous condition; and shall shutdown the appropriate systems.

64. The **final design** shall include a HAZOP review of the completed design. A copy of the review and a list of the recommendations shall be provided.

65. All valves including drain, vent, instrument root, main, and car sealed valves shall be tagged in the field during construction and **prior to commissioning**.

66. Operation and Maintenance procedures and manuals, as well as safety procedure manuals, shall be filed **prior to commissioning**.

67. The contingency plan for failure of the LNG tank outer shell shall be filed **prior to commissioning.**

68. A copy of the criteria for horizontal and rotational movement of the inner vessel for use during and after cool down shall be filed **prior to commissioning**.

69. The FERC staff shall be notified of any proposed revisions to the security plan and physical security of the facility **prior to commencement of service**.

70. Progress on the construction of the LNG terminal shall be reported in monthly reports filed with the Secretary. Details shall include a summary of activities, problems encountered and remedial actions taken. Problems of significant magnitude shall be reported to the FERC **within 24 hours**.

The following recommendations shall apply throughout the life of the facility:

71. The facility shall be subject to regular FERC staff technical reviews and site inspections on at least an **annual** basis or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, Dominion shall respond to a specific data request including information relating to possible design and operating conditions that may have been imposed by other agencies or organizations. Up-to-date detailed piping and instrumentation diagrams reflecting facility modifications and provision of other pertinent information not included in the semi-annual reports described below, including facility events that have taken place since the previously submitted annual report, shall be submitted.

72. **Semi-annual** operational reports shall be filed with the Secretary to identify changes in facility design and operating conditions, abnormal operating experiences, activities (including ship arrivals, quantity and composition of imported LNG, vaporization quantities, boil-off/flash gas, etc.), plant modifications including future plans and progress thereof. Abnormalities shall include, but not be limited to: unloading/shipping problems, potential hazardous conditions from offsite vessels, storage tank stratification or rollover, geysering, storage tank pressure excursions, cold spots on the storage tanks, storage tank vibrations and/or vibrations in associated cryogenic piping, storage tank settlement, significant equipment or instrumentation malfunctions or failures, non-scheduled maintenance or repair (and reasons therefore), relative movement of storage tank inner vessels, vapor or liquid releases, fires involving natural gas and/or from other sources, negative pressure (vacuum) within a storage tank and higher than predicted boiloff rates. Adverse weather conditions and the effect on

the facility also shall be reported. Reports shall be submitted **within 45 days** after each period ending **June 30 and December 31**. In addition to the above items, a section entitled "Significant plant modifications proposed for the next 12 months (dates)" also shall be included in the semi-annual operational reports. Such information would provide the FERC staff with early notice of anticipated future construction/maintenance projects at the LNG facility.

73. In the event the temperature of any region of any secondary containment, including imbedded pipe supports, becomes less than the minimum specified operating temperature for the material the Commission shall be notified **within 24 hours** and procedures for corrective action shall be specified.

74. Significant non-scheduled events, including safety-related incidents (*i.e.*, LNG or natural gas releases, fires, explosions, mechanical failures, unusual over pressurization, and major injuries) and security-related incidents (*i.e.*, attempts to enter site, suspicious activities) shall be reported to FERC staff. In the event an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, notification shall be made **immediately,** without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. In all instances, notification shall be made to FERC **within 24 hours**. This notification practice shall be incorporated into the LNG facility's emergency plan. Examples of reportable LNG-related incidents include:

    a. fire;
    b. explosion;
    c. estimated property damage of $50,000 or more;
    d. death or personal injury necessitating in-patient hospitalization;
    e. free flow of LNG for five minutes or more that results in pooling;
    f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability, structural integrity, or reliability of an LNG facility that contains, controls, or processes gas or LNG;
    g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes gas or LNG;
    h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes gas or LNG to rise above its maximum allowable operating pressure (MAOP) (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure limiting or control devices;

i. a leak in an LNG facility that contains or processes gas or LNG that constitutes an emergency;

j. inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank;

k. any safety-related condition that could lead to an imminent hazard and cause (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes gas or LNG;

l. safety-related incidents to LNG vessels occurring at or en route to and from the LNG facility; or

m. an event that is significant in the judgment of the operator and/or management even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

In the event of an incident, the Director of OEP has delegated authority to take whatever steps are necessary to ensure operational reliability and to protect human life, health, property or the environment, including authority to direct the LNG facility to cease operations. Following the initial company notification, FERC staff would determine the need for a separate follow-up report or follow-up in the upcoming semiannual operational report. All company follow-up reports shall include investigation results and recommendations to minimize a reoccurrence of the incident.

75. Cove Point LNG shall consult with the Maryland Department of the Environment to modify its wetland and waterways permits for construction, if it determines that the TL-532 pipeline through Ms. Luning-Johnson's property (about station number 927+60 in Charles County, Maryland) would affect the wetland or wetland buffer