

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;  
William L. Massey, and Norma Mead Brownell.

Greenbrier Pipeline Company, LLC

Docket Nos. CP02-396-000  
CP02-396-001  
CP02-397-000  
CP02-397-001  
CP02-398-000  
CP02-398-001

ORDER ISSUING CERTIFICATES, DENYING REHEARING, AND  
CLARIFYING PRIOR ORDER

( Issued April 9, 2003)

1. On October 31, 2002, the Commission issued a preliminary determination (October 31 order) addressing the non-environmental issues raised in this proceeding, finding that Greenbrier Pipeline Company, LLC's (Greenbrier) proposed Greenbrier Project was required by the public convenience and necessity.<sup>1</sup> Issuance of a certificate authorizing construction of Greenbrier's proposed facilities was reserved pending completion of the environmental review process.

2. On November 27, 2002, Floyd County, Virginia and Saltville Gas Storage Company, L.L.C. filed timely requests for rehearing of the October 31 order. On November 29, 2002, Paula M. Burnette filed a request for rehearing and on December 2, 2002, Greenbrier filed a timely request for rehearing and clarification of the October 31 order. Also on December 2, 2002, Michelle Bankey filed a timely request for rehearing<sup>2</sup> and Public Service Company of North Carolina, Inc. requested clarification of the October 31 order.

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<sup>1</sup>101 FERC ¶ 61,122 (2002).

<sup>2</sup>Although styled as motion to reconsider the October 31 order, Michele Bankey's filing is, in substance, a rehearing request.

3. We have now completed our environmental analysis of Greenbrier's proposal, and, for the reasons discussed below, we will grant Greenbrier's and Public Service Company of North Carolina, Inc.'s request for clarification, deny the requests for rehearing, and grant final certificate authorization, subject to environmental compliance conditions.

### **Background**

4. On July 3, 2002, Greenbrier filed an application for a certificate of public convenience and necessity under Section 7(c) of the NGA, to construct and operate pipeline facilities in West Virginia, Virginia, and North Carolina. As described more fully in the October 31 order, Greenbrier's project would extend from east of Clendenin, in Kanawha County, West Virginia, through West Virginia, southeastern Virginia and North Carolina, to its terminus near Stem, in Granville County, North Carolina, and comprises approximately 279 miles of pipeline,<sup>3</sup> two compressor stations, and related facilities to provide up to 600,000 dekatherms per day (Dth/d) of firm transportation service. Greenbrier also filed applications requesting blanket certificates pursuant to Subpart G and Subpart F of Part 284 of the Commission's regulations.

5. The October 31 order found, based on non-environmental issues, that the Greenbrier Pipeline Project is in the public interest because it will create supply diversity and new competition, and meet a portion of the growing energy market needs in the South Atlantic region. Specifically, the project will bring 600,000 Dth/d of gas to meet a variety anticipated loads, including local distribution companies' growth, new electric power plants, and other needs. In addition, through its interconnections with Dominion Transmission, Inc. (DTI), Greenbrier will provide its customers with access to a large market hub for the mid-Atlantic and northeast regions. The Greenbrier Project will also provide seasonal services, access to storage, and high-pressure deliverability. The Commission found that the public benefits of the proposed project will outweigh any adverse impacts.

### **Interventions**

6. Many landowners filed interventions, protesting and/or commenting on the proposed project based on environmental issues and concerns regarding the proposed route of the pipeline, and recommend alternative routing. A number of parties filed motions to intervene in Docket No. PF01-1-000, the pre-filing environmental review

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<sup>3</sup>In addition to a 275.6-mile-long, 20-, 24- and 30-inch diameter mainline, the Greenbrier Pipeline would have three lateral lines, a 1.0-mile-long, 12-inch diameter, a 2.1-mile-long, 10-inch diameter and a 0.7-mile-long, 30-inch diameter line.

process concerning Greenbrier's proposal; a number of parties filed their motions to intervene in the instant proceeding; and a number of parties filed motions in both dockets. In the October 31 order, the Commission granted intervenor status in this proceeding to all parties who filed motions to intervene in Docket No. PF01-1-000. Intervenors not listed in the October 31 order are listed in the attached Appendix A.

7. Since the issuance of the October 31 order, a number of motions to intervene out-of-time were filed.<sup>4</sup> We find that at this stage of these proceedings, granting these late intervention will not unduly disrupt this proceeding or place undue additional burdens on existing parties. Therefore, the late motions to intervene will be granted.

### **Rehearing Requests**

#### **Costs to Local Communities**

8. Floyd County, Virginia, Michelle Bankey, and Paula M. Burnette claim that the October 31 order discounts the proposed project's cost impact on the local communities along its route. These parties contend that further economic studies are needed to provide a complete record concerning the actual economic costs to the various local communities. Floyd County, Virginia also asserts that it opposes the project, contrary to the October 31 order's assertion that local governments and businesses support it. Paula M. Burnette adds that the Henry County, Virginia Board of Supervisors voted in February 2002 to oppose the project, reversing an earlier September 2001 resolution.

#### **Commission Response**

9. We cannot agree with the claims that local economic costs to local communities affected by Greenbrier's proposal have been in any way discounted, or that further information is needed to complete the record on this issue. As the Final Environmental Impact Statement for the Greenbrier Project (FEIS) notes, during project construction, local economies are likely to benefit from the increased spending and tax revenues. For example, Greenbrier estimates that 40 percent of the \$47 million payroll would be spent in the vicinity of the project, and that 75 percent of the \$104 million worth of construction materials would be purchased locally.<sup>5</sup> The local, county, and state tax revenues from sales and property taxes alone should increase as a result of the construction of the

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<sup>4</sup>These later intervenors include Paula M. Burnette, Marshall C. Long, Donald T. Caruth, Stephanie Stultz, and Jim Williams.

<sup>5</sup>See FEIS, Section 3.11.2.3, p.3-176.

project, which would result in a positive impact on these economies. Basically, the local economies will see an increase in economic activity along the pipeline route caused by employee purchases (e.g., food, clothing, and shelter) and purchases of supplies and services by Greenbrier's construction contractors. The local communities can expect a positive long-term impact from the increased property tax base and tax revenues from the project facilities.

10. If the adverse local economic impact referred to by Floyd and Henry Counties concerns the effect the project may have on property values, as stated in the October 31 order, compensation for the granting of a pipeline easement is determined as the result of negotiations between the pipeline company and the individual landowner.<sup>6</sup> These negotiations should include compensation for any damage to the property from construction or for any perceived loss of property value.<sup>7</sup> Typically, the landowners themselves are in the best position to determine the level of compensation and method of payment that would best suit their situation. If the parties cannot reach agreement, the landowners will be compensated for the economic value of their property through the eminent domain process.

#### **Actual need for project**

11. Michelle Bankey states that Greenbrier has not presented any facts illustrating an actual need for this project, in violation of Section 157.6 of the Commission's regulations.<sup>8</sup> She argues that the market data used to illustrate the project's need is from December of 2001 and is outdated and no longer accurate. Ms. Bankey further contends that markets are volatile, projected demands are substantially lower than earlier reports indicate, and the Commission should use up-to-date information. In this regard, Ms. Bankey claims that plans to build four of the planned power plants that the Greenbrier Project intends to serve have been scrapped, put on hold, or encountered problems in obtaining required permits.<sup>9</sup> Ms. Bankey argues that precedent agreements are not the

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<sup>6</sup>See Dominion Transmission, Inc. 93 FERC ¶ 61,095 (2000).

<sup>7</sup>See, e.g., Appeal of Geisler, 622 A.2d 408 (1993).

<sup>8</sup>18 C.F.R. § 157.6.

<sup>9</sup>Specifically, Ms. Bankey identifies the Dominion Person, Inc.'s Person County Plant, Mountain Valley, LLC's Granville County generating facility, the Mirant Gaston Power Plant, and El Paso Merchant Energy North America's power plant.

same as contracts and offer no assurance that a project will be completed.<sup>10</sup> Finally, Ms. Bankey questions the need for the Greenbrier project for the reason that a large portion of the project is slated to serve affiliates of Greenbrier, even though the Commission does not distinguish between precedent agreements with affiliates.

### **Commission response**

12. We affirm our finding in the October 31 order that strong market support for the Greenbrier Project demonstrates that the project is required by the public convenience and necessity. Greenbrier has 90 percent of the 600,000 Dt/d of the project's total capacity under precedent agreements for terms of 15 years. We find that 90 percent subscription of the project, by itself, warrants the project's approval. However, we recognize that precedent agreements, by themselves, may not provide sufficient assurance that a project will be constructed. That is why in the October 31 order we required Greenbrier to execute contracts for the level of service and the terms of service represented in the precedent agreements prior to commencing construction. We will adopt that condition in issuing the certificate herein. Regardless of the status of these particular precedent agreements, Greenbrier must execute firm transportation service agreements with its shippers covering 90 percent of the capacity of the project, as it has represented by its precedent agreements, prior to construction.<sup>11</sup> This condition provides the assurance that the project will not proceed without contractual support.

13. The Commission is confident that economic growth will continue in this region, requiring additional infrastructure to meet the growing need for both electric power and natural gas service. The Commission disagrees with the contention that the October 31 order relied on growth projections that are out of date in finding that the project is in the public convenience and necessity. While market projections play a part in justifying the need for a project, the preliminary determination did not rely solely on such studies in finding a need for Greenbrier's project. Rather, the October 31 order found that Greenbrier had demonstrated market support for its project because it had customers that subscribed 100 percent of the capacity of the project and no other entity has indicated that it can provide the requested service.

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<sup>10</sup>In a letter filed on February 13, 2003, Steven A. Minnich also raised a concern about the status of the precedent agreements, arguing that certain of them may no longer be valid.

<sup>11</sup>We note that Greenbrier currently has executed a firm transportation agreement with one of its shippers, the Public Service Company of North Carolina for 70,000 Dt/d.

14. Nevertheless, while predictions of future energy needs vary and can change over time, we find that current forecasts continue to project the need for additional infrastructure to meet growing energy demands in this area. For example, the October 31 order used the Energy Information Administration's (EIA) "Annual Energy Outlook 2002," data which projected that commercial, industrial, and residential natural gas consumption in the South Atlantic Region will increase from 1.759 quadrillion Btu in 2003 to 2.313 quadrillion Btu in 2020. The EIA has since updated that forecast in its "Annual Energy Outlook 2003," dated January 9, 2003. The EIA now projects that gas consumption in the South Atlantic Region will increase from 1.615 quadrillion Btu in 2003 to 2.220 quadrillion Btu in 2020. While the 2003 data shows a decline in the projection, it still forecast a significant increase in gas consumption over the same time frame. In addition, the 2003 forecast projects that demand for natural gas for electric generation in the South Atlantic Region will increase from 0.74 quadrillion Btu in 2003 to 1.27 quadrillion Btu in 2020 and that electricity consumption in the region will increase from 2.457 quadrillion Btu in 2003 to 3.596 quadrillion Btu in 2020. We find it abundantly clear that energy requirements in the region will continue to grow and that additional pipeline capacity will be needed to provide fuel to meet this growth.

15. It is also clear that the existing interstate natural gas pipeline capacity in this region cannot support this growth by itself. For example, Transcontinental Gas Pipe Line Corporation (Transco), the predominant interstate pipeline in the region, has stated that it does not have any available forward haul transportation capacity on its mainline in the area of the proposed interconnection with Greenbrier. The increasing demand for natural gas to feed consumer growth, as well as planned gas-fired electric power generators, continues to place a large burden on the local natural gas infrastructure. Thus, we believe that there is ample evidence that this area will need additional pipeline capacity in both the short and long term and that the market for natural gas-fired electric generation will continue to grow and will support the additional infrastructure Greenbrier will add. Further, the Commission believes that such infrastructure must be in place so that increased natural gas demand from electric power plants and local distribution companies can be served when needed and not be subject to delays.

16. Ms. Bankey asserts that the electric generators Greenbrier proposes to serve are speculative. Based on this and other reports which we received that several of the proposed gas-fired plants might not be built, on April 2, 2003, our staff issued a data request to Greenbrier to determine the status of each of the precedent agreements Greenbrier submitted in support of its proposal. On April 3, 2003, Greenbrier filed a response, in which it states that only Mirant Americas Development, Inc., has cancelled its precedent agreement for 60,000 Dth capacity. Greenbrier states that all other precedent agreements, for a total of 540,000 Dth of capacity, remain in effect. Greenbrier also states that it remains optimistic that its project will be needed to serve this demand.

Consequently, based on EIA projections for natural gas consumption in the South Atlantic region, Greenbrier is confident that, if necessary, it will be able to develop new capacity commitments. The Commission recognizes that since there is significant lead time associated with proposals to construct facilities, it is not unusual that the identities of the shippers may change or that capacity could become unsubscribed. In fact, given the evolving structure of the natural gas market, it is likely that such changes will be more common in the future. Here, three of Greenbrier's shippers intend to construct electric power plants. The development of such plants involves a long lead time and a regulatory approval process. These power developers, among other things, must obtain air permits and siting approvals, obtain clearances to sell power in interstate commerce, and find financing for their projects.<sup>12</sup> All of these factors make the timing for these projects inherently uncertain. While the Commission recognizes the volatility in the current market, we cannot change its continued developing nature, which is reacting in an increasingly timely manner to market forces. Given the evolving structure of this market, it is likely that market changes will continue. To help mitigate this uncertainty, the Commission has, and will continue to impose, certificate conditions, as appropriate, to protect the public interest, such as requiring contracts prior to construction.<sup>13</sup> In this manner, we will ensure that support for the project exists, even if it is ultimately provided by different shippers.

17. As Ms. Bankey notes, the Commission does not distinguish between precedent agreements with affiliates. The fact that the marketers are affiliated with the project

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<sup>12</sup>As noted in the FEIS, Dominion Mountain Creek and Mirant America have filed for and/or received various permits and state authorizations related to the development of their planned power plants. See FEIS, Section 1.5, p. 1-10 and 1-11. While the FEIS notes that no permit applications have been filed for the El Paso Merchant's Davidson County Project, that, in and of itself, does not constitute evidence that the project has been cancelled.

<sup>13</sup>The Commission has routinely certificated pipeline projects which have contractual commitments of less than 100 percent of the design capacity. See, e.g., ANR Pipeline Co., 90 FERC ¶ 61,171, at 61,560 (2000) (54 and 77 percent in the first and second year, respectively); Tennessee Gas Pipeline Co., 89 FERC ¶ 61,129, at 61,362 (1999) (60 percent of the proposed capacity subscribed under precedent agreements). See, also, Iroquois Gas Transmission, L.P., 98 FERC ¶ 61,273 (2002) in which the Commission granted a waiver of the requirement that contracts for 100 percent capacity subscribed under precedent agreement be filed, allowing Iroquois to commence construction based on contractual commitment for approximately 65 percent of the project's proposed capacity.

sponsor does not lessen the marketers' need for the new capacity or their obligation to pay for it under the terms of their contracts. In addition, in a competitive environment, a marketer still must offer its commodity at competitive prices to attract customers. Thus, affiliated marketers must face the same measures in attracting market share that non-affiliated marketers do.

### **Lack of Public Benefits to Affected Local Communities**

18. Ms. Bankey asserts that over 75 percent of the proposed pipeline route, through West Virginia and Virginia, would not benefit from any industrial development that Greenbrier claims would be stimulated by its project. Moreover, Ms. Bankey raises "social justice" issues, questioning whether the poor, elderly and minorities might be disproportionately affected by the proposed routing of the project.

19. The Floyd Unified Landowners Association (FULA) contends that Greenbrier's study of the economic impact of the project was insufficient to conclude that the project provides any benefit to Floyd County or Southwest Virginia.

### **Commission Response**

20. The Commission disagrees with assertions that the October 31 order did not take into account local economic impacts of the project, or that the project will disproportionately affect certain local interests. As we noted in the October 31 order, opposition to a pipeline because it does not propose local service is not sufficient to warrant a finding that the pipeline is not in the public interest.

21. We have identified below positive economic benefits to the region that will accrue from construction of the pipeline project. However, these benefits are not based on the economic reports filed by either Greenbrier or FULA. These benefits are based on the economic impact that the actual construction will have locally. While these benefits are transient in nature, except for the tax base created by the pipeline itself, they are not the basis for finding that a project is or is not in the public interest. Our findings go beyond the economic and environmental impact that a pipeline project may have on a particular geographic region.

22. While we believe that this project will help address local and regional energy needs, the Commission is required under the NGA to make decisions on the public interest of energy consumers on a national basis. Greenbrier's project will increase the flexibility and reliability of the interstate pipeline grid by offering greater access to gas supply sources that can help meet the fuel needs of anticipated electric generation facilities. In addition, this project will introduce pipeline-to-pipeline competition in this region for the



first time. The benefits of adding energy infrastructure accrue beyond the specific location of a proposed facility. The interstate pipeline grid crisscrosses the country connecting supply sources to end users. In the grid, gas can be transported long distances across numerous local and state jurisdictions. It is not necessary for an interstate pipeline to serve end-use customers in every jurisdiction that it crosses. If this were a requirement for making a public convenience and necessity finding, constructing interstate pipelines would be significantly hampered and a national transportation grid of pipelines could not exist. Thus, while the regional impact of a project is considered, ultimately, the Commission is charged with ensuring that the national energy infrastructure requirements are met. We note, however, that the ability to serve emerging local natural gas needs will be a reality that accompanies this project, while without it, that ability does not exist.

23. While Ms. Bankey asserts that over 75 percent of the pipeline route would not benefit from any new industrial development, the FEIS notes that various counties continue to seek local tap facilities.<sup>14</sup> For example, the Fayette County West Virginia Planning Commission indicated that it would like three taps; the Bland County Virginia Board of Supervisors indicated support for the project and requested a tap; the Floyd County Virginia Board of Supervisors, while opposing the project, want a tap if the project is approved; the Pulaski County Virginia Administrator wants two taps installed in the county; and the Montgomery County Virginia Board of Supervisors accepted Greenbrier's offer to provide a tap at no cost to the county. Clearly, local jurisdictions have expressed interest in having facilities installed that would allow them to receive natural gas service from Greenbrier.

24. The Commission finds nothing in the record regarding the allegation of disproportionate costs and adverse economic impact on Floyd and/or Henry Counties by the proposed project. Likewise wholly unsupported is the claim that the pipeline routing was influenced by identifying groups of people who would be less able to defend their interests.<sup>15</sup> These concerns are speculative and not grounded in fact. True, a pipeline by its nature will cause disruption by its construction. However, aside from the environmental impact of the construction itself, which is addressed in detail in the FEIS, we have no evidence that a natural gas pipeline will have adverse impacts on these

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<sup>14</sup>See FEIS, p.1-2.

<sup>15</sup>See FEIS, Section 3.11.4, p. 3-182 to 3-185, specifically, Table 3.11-6, racial and economic Composition Of Counties in the Vicinity of the Project, for a more detailed analysis. This analysis concludes that there is no statistical evidence that Greenbrier's proposed route would disproportionately affect minority or low income areas.

counties' economic interests. To the contrary, as noted above, local economies are likely to benefit from the increased spending and tax revenues.

### **Market Power Abuse**

25. Michelle Bankey argues that while Greenbrier claims to be a new company, it is no more than a partnership between two existing companies attempting to link distant geographic areas and create dependence on a centralized system. Ms. Bankey suggests that this, in turn, will allow Greenbrier to control a much larger market area, contrary to the Commission's goal of limiting the abuse of market power.

### **Commission Response**

26. The Commission disagrees. While Greenbrier is, in fact, a partnership between two existing companies, Greenbrier has been set up as an independent entity to provide new service to customers in emerging markets. As we stated in the October 31 order, Greenbrier is no different than any other interstate pipelines set up to provide service in the same manner.<sup>16</sup> Greenbrier is proposing to serve distinct, new markets that are not presently served by any entity, whether affiliated with Greenbrier or not. The simple fact that Greenbrier is affiliated with other energy entities does not disqualify it from attempting to provide a service that is clearly desired.

### **Alternatives Not Fully Considered**

27. In comments on the DEIS, the Floyd Unified Landowners' Association (FULA) states that using East Tennessee Natural Gas Company's (East Tennessee)Patriot Project<sup>17</sup> as an alternative to the Greenbrier Project has not adequately been explored. It contends that the Greenbrier DEIS states that certain facilities would need to be added to the Patriot Project in order to accommodate the Greenbrier volumes.<sup>18</sup> FULA states that Dominion suggests that the costs of such additional facilities would be more than the market would bear and cause cancellation of the project. FULA states that there is no mention that East Tennessee has confirmed the alternative system design costs for Patriot,

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<sup>16</sup>101 FERC ¶ 61,122 at 61,490.

<sup>17</sup>102 FERC ¶ 61,225 (2003).

<sup>18</sup>Section 4.2.2 of the Greenbrier DEIS states that the Patriot System Alternative would require about 103 miles of new 30-inch diameter pipeline and approximately 10,000 hp of additional compression to transport the proposed Greenbrier volumes in addition to the Patriot volumes.

and thus the record is incomplete. We note that the DEIS and FEIS found that the design of additional facilities for the Patriot System Alternative was only one factor under consideration. Equally important was whether East Tennessee would be able to construct a project to meet the cost and delivery date requirements of Greenbrier's shippers. The DEIS and FEIS ultimately eliminated the Patriot System Alternative from consideration.

28. The thrust of FULA's concern is whether East Tennessee agrees or disagrees with Greenbrier's assessment of the impact that the additional facilities would have on the Patriot Project. We find that the record is not incomplete on this matter. East Tennessee is a party to this proceeding and has been served with the relevant information regarding the Patriot System Alternative. East Tennessee has not objected to the characterization Greenbrier has made. We find that the analysis of the facilities that would need to be added to the Patriot Project is reasonable and in the absence of any information to the contrary conclude that the record is complete. In addition, we find that the Patriot System Alternative does not meet Greenbrier's objectives of directly creating supply diversity and new competition in the South Atlantic region. Use of this transportation arrangement would make Greenbrier subject to the requirements and limitations of East Tennessee's system and not allow Greenbrier to work directly with its customers. Moreover, it would require more pipeline and compression facility construction. The Patriot System Alternative could also not be expanded as easily since it would have already required the East Tennessee system to be looped for most of its entire length after the practical use of additional compression has been exhausted. Therefore, another loop may have to be constructed in some or all areas along this corridor to meet future energy needs. Further, East Tennessee has not proposed to provide Greenbrier with service and it has no obligation to meet the needs of another company's customers.

### **Regulatory Asset Treatment**

29. Greenbrier requests rehearing of the Commission's rejection of its proposed regulatory asset treatment of any revenue shortfall associated with placing its Section E facilities in service before the rest of the project. As part of its application, Greenbrier stated that a portion of its facilities, also known as Section E, is going into service six months prior to the remainder of the system facilities. Greenbrier requested approval to 1) cease calculation of Allowance of Funds Used During Construction (AFUDC) on the Section E facilities at the time they are placed in service, and 2) capture and defer as a regulatory asset any shortfall in revenue, or as a regulatory liability any excess revenue collected, compared to the cost of service for the Section E facilities from the time they are placed in service (on or about May 1, 2005) until the entirety of the project is placed in service (on or about November 1, 2005). Greenbrier states that the Commission denied the request to record a regulatory asset for the Section E facilities shortfall of revenue because Greenbrier could not document any assurance that it could recover such amounts

from its shippers. Greenbrier contends that regulatory asset treatment of any revenue shortfall would allow Greenbrier to offset part of the loss in AFUDC.

30. Greenbrier states that under the Commission's Uniform System of Accounts (USOFA),<sup>19</sup> a regulatory asset is recorded for costs that would otherwise be chargeable to expense when it is probable that the costs will be recovered in future rates. Greenbrier notes that the Commission's accounting requirements for regulatory assets and liabilities require the recognition of an asset or liability for any item that would ordinarily be included in net income determinations under the requirements of the USOFA, but for it being probable that the item will be recovered from, or returned to, customers in future rates. Greenbrier states that the term "probable" refers to that which can be reasonably expected but is neither certain nor proven.<sup>20</sup>

31. Greenbrier states that it advised the Commission Staff that any rate implications from the recording of either a regulatory asset or liability associated with the Section E facilities would not be implemented in rates until Greenbrier updated its rates. Greenbrier notes that it explained that it anticipated the regulatory asset or liability would be reflected in rates at that time under Commission precedent. Greenbrier states that it appears to have the necessary assurances of recovery because Greenbrier is fully subscribed.

32. Greenbrier believes the Commission's concern regarding the probability of recovery is caused by its negotiated rate customers. It notes in this regard that Greenbrier does have a contractual obligation to its negotiated rate customers not to increase their rates. To address what Greenbrier perceives as the Commission's concern, it attached three exhibits to its request for rehearing. Greenbrier argues that the attached exhibits provide the documentation necessary for the Commission to have assurance that Greenbrier will likely recover the proposed regulatory asset that may result from under recovery of Section E costs between the date the Section E facilities are placed in service and the date that the remaining Sections of the pipeline are placed in service.

33. Greenbrier estimates a revenue deficiency of \$1.0 million, using the best information available at the time of filing. Greenbrier states that the shortfall reflects the difference between the Section E negotiated rates and the recourse rates. Greenbrier further shows the results of modifying its negotiated rate, levelization model to include

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<sup>19</sup>Order No. 552, FERC Stats and Regs., Regulations Preambles, 1991-1996, ¶ 61,967 (1993).

<sup>20</sup> Id.

the projected Section E regulatory asset rate impact in the next rate proceeding. Greenbrier states this shows that Greenbrier could include a regulatory asset associated with Section E in the cost of service and still be within the negotiated rate cap provided overall costs in 2008 are less than those projected in its certificate application in this proceeding.

### **Commission Response**

34. Greenbrier plans to construct its pipeline in five sections, identified as A through E. Greenbrier will construct the Section E facilities first. The Section E facilities will be completed and placed in service approximately six months prior to the in-service date of the remainder of the project. Gas Plant Instruction 3.(17) of the Commission's Uniform System of Accounts, states:

When a part only of a plant or project is placed in operation or is completed and ready for service but the construction work as a whole is incomplete, that part of the cost of the property placed in operation, or ready for service, shall be treated as "Gas Utility Plant" and allowance for funds used during construction thereon as a charge to construction shall cease.

35. Gas Plant Instruction 3.(17) implements the principle that capital costs incurred after a project is completed and placed in service do not constitute valid construction costs but instead must be charged to expense in the period they are incurred and recovered from customers taking service in those periods. Greenbrier does not take issue with this requirement, but is concerned that it may not collect enough revenue between the date the Section E facilities are placed in service and the date the remainder of the project is placed in service (the interim period) to cover the Section E capital costs incurred during that same period. Greenbrier believes it must record a regulatory asset for this revenue shortfall. In Greenbrier's view, future rate recovery of the regulatory asset is assured because the pipeline is fully subscribed. We disagree.

36. Although Greenbrier is fully subscribed, the rates developed for the subscribed shippers do not provide for recovery of any potential shortfall in revenue related to the Section E facilities. Furthermore, Greenbrier has not provided any alternative evidence to suggest that such an outcome is likely to be forthcoming. In fact, Greenbrier's acknowledgment that it has an obligation not to increase the rates for negotiated rate shippers points to the opposite conclusion.<sup>21</sup> Contrary to Greenbrier's assertion, a

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<sup>21</sup>We also note that one of the primary shippers on Section E during the interim  
(continued...)

company cannot recognize a regulatory asset merely on a claim that recovery can be reasonably expected. Under the Commission's accounting rules, there must be probative evidence that will support such a contention before recognition of a regulatory asset can be justified.

37. Greenbrier apparently relied on our decision in Florida Gas Transmission Company (FGT) <sup>22</sup> as precedent for its request to recognize a regulatory asset for the Section E facilities. Its reliance on FGT is, however, misplaced.

38. In FGT, Florida Gas Transmission Company made a proposal similar to Greenbrier's (referred to in FGT as the "Ramp-up of deliveries to FP&L"). That proceeding is distinguishable from the present situation. First, FGT's application made clear that it would add the regulatory asset related to the ramp-up to its rate base and recover it in the cost of service applicable to its FTS-2 shippers. Greenbrier's rate plan does not contain a provision for recovery of the regulatory asset related to the Section E facilities. Second, we approved rolled-in rate treatment for FGT's Phase IV Expansion facilities. The costs of those facilities together with the related regulatory asset were expected to reduce rates for all FTS-2 shippers. Greenbrier, by contrast, is a newly created entity that is developing rates for services for the first time on an incremental basis. Finally, FGT's ramp-up proposal, which its customers initially protested, was resolved through negotiations with its customers. The negotiations resulted in a settlement agreement providing for rate recovery of the regulatory asset related to FGT's ramp-up proposal. The settlement provides the requisite assurance that FGT will recover the regulatory asset in rates charged to customers in future periods.

39. We also are not persuaded that the exhibits attached to Greenbrier's request for rehearing support recognition of a regulatory asset for this item. The exhibits demonstrate only that any revenue shortfall (*i.e.*, regulatory asset) will be less than the capital costs used to measure the shortfall. We fail to see how this provides any logical basis for concluding that other shippers have agreed to pay for any potential revenue shortfalls from providing service on the Section E facilities between their in service date and the in service date of the remainder of Greenbrier's facilities. Therefore, we deny Greenbrier's request for rehearing.

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<sup>21</sup>(...continued)

period is an affiliate of Greenbrier's majority owner. This also would tend to make recovery of any revenue shortfalls from other non-affiliated shippers less likely.

<sup>22</sup>88 FERC ¶ 61,142 (1999).

### **Postage Stamp vs. Distance-Sensitive Rates**

40. Saltville Gas Storage Company, L.L.C. (Saltville) requests that the Commission, on rehearing, reconsider its determination to approve Greenbrier's proposed postage-stamp recourse rates and require the pipeline to charge distance-sensitive recourse rates. Saltville contends that the postage-stamp rate structure would conflict with the Commission's rate policy in that it would inhibit the development of a market center in Virginia and discriminate against shippers, such as storage customers of the new Saltville storage facilities, that would require transportation service over less than the full length of the pipeline. Saltville states that the Commission's decision does not adequately reconcile the proposed recourse rates with the Commission's twin policies favoring distance sensitivity in ratemaking and the development of market centers. Saltville requests that the Commission direct Greenbrier to design recourse rates that fairly reflect the distance of haul.

### **Commission Response**

41. Saltville asserts that in the October 31 order, the Commission "acknowledged its policy favoring distance sensitivity in pipeline ratemaking, but then dismissed Saltville's comments" without elaboration. We disagree with this characterization. We stated in the October 31 order that:

Saltville cites the Commission's regulations that rates "must reasonably reflect any material variation in the cost of providing the service due to the distance over which the transportation is provided." However, Saltville has not articulated "any material variation in the cost of providing the service." We note that Saltville itself acknowledges that Commission policy with regard to distance sensitivity in rate making is not absolute. The Commission has not established a bright line distinction when a pipeline must design its rates based on zones or mileage, as opposed to the postage-stamp design proposed by Greenbrier.

42. In its rehearing request, Saltville again asks the Commission to make a bright line distinction as to when it is appropriate for the Commission to order pipelines to establish a postage-stamp rate design or a distance-sensitive rate design, but again Saltville has not detailed any material variation in the cost of providing the service.

43. Saltville reviews what it has accomplished in developing its new high-deliverability salt cavern, and then comments that "[t]his is hardly a speculative project." In fact, the Commission made no comment on the likelihood of the development of Saltville's project. In calling Saltville's concerns "premature and speculative," the

Commission, in the October 31 order, was referring to Saltville's assertion that Greenbrier's postage stamp rate would inhibit the development of a market center in Virginia. Saltville has still not provided any evidence that the proposed rate design will inhibit market development. Saltville cites two cases in which the court<sup>23</sup> or the Commission<sup>24</sup> has found that postage-stamp rates inhibited markets, and in which pipelines were directed to develop distance-sensitive rates.

44. In NorAm Gas Transmission Co. v. FERC (NorAm), NorAm stated that Tennessee Gas Pipeline Company (Tennessee) had a defined "production area," which consisted of all of zone 0 and part of zone 1, as well as a defined "market area," representing the remainder of Tennessee's rate zones. NorAm further alleged that Tennessee's production area costs were being unlawfully "bundled" with its market area costs, so that shippers using only Tennessee's market area zones were in effect paying a portion of the costs of Tennessee's production area facilities that they did not use. NorAm alleged that this "bundling" of costs inhibited the development of market centers downstream of Tennessee's production area. NorAm argued that Tennessee's rate structure, which combined production area and market area costs, would disrupt the efficient operation of the natural gas market, because it would require purchasers to pay the costs of production facilities that they do not use. NorAm further argued that competitors such as itself would suffer direct and tangible harm if Tennessee's rate scheme inhibited the creation of market centers. In order to reach markets in the Midwest and Northeast, NorAm argued, it must be able to take advantage of the seamless national pipeline grid envisioned by Order No. 636. If, as NorAm alleged, Tennessee's proposal frustrated the development of market centers, then competitors such as NorAm would be deprived of the ability to compete on a level playing field with Tennessee for sales in other geographic markets.

45. In Iroquois Gas Transmission System, L.P (Iroquois), as Saltville notes, the rates for Iroquois' shippers using only Zone 2 included costs associated with transportation through Zone 1. The Commission directed Iroquois to state its rates based on an intra-zone or additive methodology, so that a customer receiving gas in Zone 1 and delivering it to Zone 2 would pay for transportation in both zones, but a shipper receiving and delivering gas within a single zone would pay for transportation only for that zone.

46. Gas supplies on Greenbrier will be delivered for a brief period via the interconnect with Transcontinental. By November 2005, or at such time that the interconnect with Dominion is in service, all gas supplies will be delivered via the Dominion interconnect,

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<sup>23</sup> NorAm Gas Transmission Co. v. FERC, 148 F.3d 1158, 1160 (D.C. Cir. 1998).

<sup>24</sup> Iroquois Gas Transmission System, L.P., 62 FERC ¶ 61,167 (1993).



which is the beginning of Greenbrier's pipeline, approximately 200 miles upstream of the Transco-Greenbrier interconnect. Greenbrier is fully subscribed, therefore, all customers transporting gas on Greenbrier will be delivering gas to the Dominion interconnect and transporting it at least 200 miles to the Transco-Greenbrier interconnect or to points downstream of this interconnect.

47. In NorAm, Tennessee had defined zones, and the cost of providing service within one zone was being subsidized by shippers in other zone(s), to the detriment of potential market center development. Likewise, Iroquois had two defined zones, and customers within one zone were paying for transportation in the other zone, even if they hadn't transported gas through that zone. This is not the case in Greenbrier. There is no designated "production area" or "market area." There is no "Zone 1" or "Zone 2." Greenbrier has proposed a single zone for all of its 279 miles. All of Greenbrier's current customers will be using all or almost all of Greenbrier's system, since all customers receipt points are at the upstream end of the system, and all delivery points are at or downstream of the Transco interconnect. Greenbrier has appropriately allocated the cost of providing service on the whole system to all of its current customers who hold all of the capacity.

48. Saltville is concerned that Greenbrier's postage-stamp rate will inhibit a potential market center. This might be true if there were sources of gas supplies other than the Dominion-Greenbrier interconnect. Theoretically, if gas continued to be delivered at the Transco-Greenbrier interconnect in sufficient volumes, one could argue that customers downstream of the Transco-Greenbrier interconnect should not have to pay rates that included transportation on the 200 miles upstream of the Transco-Greenbrier interconnect. But this is not the case. Deliveries of gas from Transco are temporary. After an initial test period, all supplies will enter the Greenbrier system at the Dominion-Greenbrier interconnect, and will be transported along all or almost all of Greenbrier's system.

49. At such time that gas from Saltville's facilities can be delivered to Greenbrier by either of the pipelines Saltville mentions,<sup>25</sup> the shippers transporting gas from Saltville will not be able to transport gas on Greenbrier unless they acquire capacity from one of Greenbrier's current customers by means of a capacity release. In such a scenario, the primary capacity holder will still hold capacity along all of Greenbrier's system, and

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<sup>25</sup> Saltville refers to the intrastate facilities of Virginia Gas Pipeline Company and the interstate facilities of East Tennessee. Saltville asserts that either or both of these pipelines could connect directly with Greenbrier, and thereby provide Saltville an indirect connection with Greenbrier.

accordingly should be responsible for transportation costs along the whole system. Saltville may, however, be able to negotiate a rate with the primary holder for that segment of the released capacity from a future Saltville-Greenbrier interconnect to downstream delivery points.

50. For these reasons, the Commission denies Saltville's request for rehearing, and declines to direct Greenbrier to redesign its rates to reflect distance sensitivity.

### **Annual Right to Shape MDTQ Profile**

51. In the October 31 order, the Commission conditionally accepted Section 38 of the tariff, "Annual Right to Shape MDTQ Profile," subject to Greenbrier providing a full explanation of how this provision would work. The Commission questioned how Section 38 would be operated, and directed Greenbrier to answer those questions and provide examples of how Section 38 would be implemented

52. Greenbrier states that the MDTQ shaping provision was requested by potential customers in the course of negotiating precedent agreements for Greenbrier's capacity, and that it provides for Greenbrier's long-term firm shippers an annual election to adjust the seasonal mix of capacity entitlements. Greenbrier states that the MDTQ shaping provision can be useful to customers in two situations: (1) if there is unsubscribed capacity on the pipeline or (2) if two customers desire to make offsetting shaping elections.

53. Greenbrier offers the following examples, concerning three hypothetical firm customers designated as A, B, and C, that, in the aggregate, have contracted for all 600,000 Dth/d of firm winter capacity but only 590,000 Dth/d of summer capacity -- leaving 10,000 Dth/d unsubscribed in the summer. Customer A holds 200,000 Dth/d in the winter and 360,000 Dth/d in the summer; Customer B holds 230,000 Dth/d of year-round capacity; and Customer C holds 170,000 Dth/d of winter capacity.

54. In the first example of an annual shaping election, Customer B elects to shift 10,000 Dth/d of its winter capacity to the summer; neither of the other customers elects any change. This shift is possible only because of the existence of unsubscribed summer capacity. Because the reservation rate for winter service exceeds the summer rate, Customer B will be required to make a lump sum payment (of \$550,640<sup>26</sup> in the example) equivalent to the reduction in reservation charges. By means of this lump sum payment,

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<sup>26</sup> 100,000 Dth times the difference between the winter and summer rates per Dth.

the pipeline is kept whole, and the customer is allowed to change its seasonal entitlements.

55. In example two, Customers B and C each choose to adjust their seasonal entitlements, but in off-setting ways. Customer B moves 8,000 Dth/d of its entitlements back from the summer to the winter while Customer C shifts 8,000 Dth/d from winter to summer. Each shaping election is made possible by the existence of the other. Customer B still must make a lump sum payment (since it still holds less than its original amount of winter capacity), but the amount of the payment decreases significantly from the prior year. Customer C has now shifted from winter capacity to lower-priced summer capacity, so it too must make a lump sum payment. Again, the pipeline's total revenues remain constant. At this point, customers have contracted for all of the summer capacity or 600,000 Dth/d, but 10,000 Dth/d of winter capacity remains available.

56. In example three, Customer A reduces its summer entitlements by 8,000 Dth/d, resulting in a reduction in its reservation charges and a lump sum payment. Customer B shifts the last 2,000 Dth/d that it had moved to the summer in the first example back to the winter (a minimal lump sum payment is required due to rate rounding). This summer reduction along with Customer A's reduction allows Customer C to increase its summer entitlements by 10,000 Dth/d. The example also shows Customer C increasing its winter entitlement by 8,000 Dth/d -- resulting in a fully subscribed pipeline. Greenbrier's total revenues do increase in this final example, but only because of the sale of the previously unsubscribed summer capacity.

57. In addition to requesting examples of how the shaping elections would work, the Commission also raised a series of questions about Section 38 of Greenbrier's tariff. First, in the October 31 order, the Commission asked Greenbrier to explain why it has limited the applicability of the shaping election to FT customers with service agreements of fifteen years or more. Greenbrier notes that its tariff provides for two types of firm customers: "long-term customers" with terms of 15 years or more, and "open-term customers" with any shorter length of contract. Greenbrier states that the MDTQ shaping election is an aspect of the term-differentiated service options offered by Greenbrier. Greenbrier contends that offering the annual shaping election entails some costs to Greenbrier, both in terms of administering the process and, potentially, of being forced to remarket capacity in certain circumstances, but that Greenbrier accepts these costs in order to provide additional flexibility to customers willing to make the commitment to the pipeline involved in a long-term contract. Greenbrier asserts that it benefits from the certainty of long-term contracts, and seeks to provide an incentive to customers to commit to the long-term, and that customers who make that commitment have assumed certain risks and, accordingly, are entitled to additional flexibility compared to shorter-term customers.

58. The Commission notes in the October 31 order that Greenbrier explained, in its application, that "the election to adjust the seasonal mix of entitlements shall be for the remainder of the contract term unless changed as a result of future annual shaping elections." The Commission directed Greenbrier to make this aspect of the shaping elections clearer in the tariff itself. Accordingly, Greenbrier proposes to add a new fifth sentence at the end of Section 38.4 providing: "The MDTQ stated in such revised Exhibit A shall remain in effect for the remainder of the contract term unless changed as a result of future annual shaping elections."

59. Additionally, the Commission questioned in the October 31 order how the limitation that a customer may not request a winter period MDTQ at a level in excess of the quantity set forth in its original service agreement will benefit Greenbrier's customers, particularly LDCs. Greenbrier explains that this limitation on the shaping elections does not benefit customers; it protects Greenbrier. Greenbrier contends that it negotiated the terms of Section 38 with prospective customers and it did not offer, and need not have offered, the customers as much flexibility as conceivable. The importance of this limitation is clear if one assumes the existence of some unsubscribed capacity. Shifting entitlements from winter to summer -- which is allowed by the tariff mechanism -- can cause Greenbrier to remarket winter capacity; in contrast, shifting from summer to winter, which is not allowed, would force Greenbrier to remarket summer capacity. Based on the marketing of its capacity, Greenbrier believes that its winter capacity is in particularly high demand and desired by the market, so, it is willing to shoulder the burden associated with MDTQ shifting of remarketing winter capacity, but not summer capacity. Given that fact, Greenbrier included this limitation on the MDTQ shaping flexibility offered in Section 38 -- and none of the shippers that have executed precedent agreements opposed or questioned this limitation in pleadings with the Commission.

60. Greenbrier states that a shipper seeking more winter capacity could arrange to obtain that capacity in the release market. Further, Greenbrier asserts that in the event it becomes less than fully subscribed at some time, a customer also could obtain additional winter entitlements by directly contracting with the pipeline.

61. The October 31 order states that if a customer elects to decrease its MDTQ, it must pay an "up-front, annual negotiated lump sum payment . . . to compensate for any reduction in annual reservation charge responsibility caused by the revision of its MDTQ profile." The Commission directed Greenbrier to explain whether the lump sum payment is tied to the difference in reservation rates paid by the electing shipper due to the revision in its entitlements or to any total reservation rates received by the pipeline due to the revision of all shippers involved in load shaping. Greenbrier clarifies that the former is correct: a customer's reduction in annual reservation charges would be caused by the difference in reservation rates paid by that shipper after the shaping election.

62. The October 31 order also required Greenbrier to explain what advantages are available to Greenbrier's customers under Section 38 compared to what is available under the capacity release program. According to Greenbrier, if it has unsubscribed capacity at some point in time, customers could make an MDTQ shaping election to unilaterally move entitlements from winter to summer (or from summer back to winter, if the winter entitlement had been previously reduced) without the involvement of any other shipper -- unlike with a capacity release. This shaping would require a lump sum payment if winter entitlements are reduced. In the scenario of two customers electing, essentially, to swap entitlements by shifting summer and winter entitlements between them, the shaping election would be very similar to a capacity release. In that situation, Greenbrier is not aware of any advantage of using the Section 38 election rather than a capacity release.

### **Commission Response**

63. Significantly, Greenbrier acknowledges that it is not aware of any advantage of using the Section 38 MDTQ shaping provision, rather than a capacity release. We too are not aware of any advantage in using the shaping provision when the capacity release program offers sufficient flexibility to customers and sufficient protection to the pipeline. Shaping, on the other hand, may establish a "super class" of customers and insulate the pipeline from market forces.

64. The Commission's policies and regulations pertaining to capacity release provide that pipelines "must provide notice of offers to release or to purchase capacity,"<sup>27</sup> and that pipelines "must allocate released capacity to the person offering the highest rate . . . and offering to meet any other terms and conditions of the release."<sup>28</sup> These guidelines, along with a few others promulgated in various Commission orders, provide for a release capacity market in which shippers may offer competing bids for available capacity. The Commission has long held that shippers willing to pay the most for capacity, should be awarded the capacity. The process of bidding competitively helps to ensure the most efficient use of pipeline capacity. Greenbrier's shaping provision, on the other hand, would entirely bypass the Commission's policies and regulations with regard to capacity release.

65. The hallmark characteristic of Greenbrier's MDTQ shaping provision is, as Greenbrier suggests, essentially a "swapping" or trading of capacity between members of

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<sup>27</sup> § 284.8 (d) of the Commission's Regulations.

<sup>28</sup> § 284.8 (e) of the Commission's Regulations.

a select group of shippers. Long term firm customers of Greenbrier may, as a group, hold onto their firm capacity by trading it with one another, and never make it available for any potential new customers to bid for competitively. Because Greenbrier's capacity is fully subscribed for fifteen years, there is clearly the potential that this new pipeline may never be used by any shipper other than those who are already part of this current group of customers during this fifteen-year period.

66. A related characteristic of Greenbrier's MDTQ shaping provision is, as Greenbrier notes, that it provides some protection to Greenbrier from having to remarket capacity that might otherwise be released or turned back. It is reasonable for a pipeline to want to protect itself from turned back capacity, but not by bypassing Commission's capacity release policies, and not at the expense of barring potential new shippers from bidding competitively on such capacity. Capacity release, on the other hand, allows existing as well as potentially new customers, to bid competitively on capacity that an existing customer may decide it no longer needs. The provisions of a capacity release program offer adequate protections to the pipeline. The pipeline will still be paid any charges on the subject capacity, protecting it from any potential loss of revenue. If a firm shipper wishes to turn back capacity, the contract between the shipper and the pipeline may provide for sufficient notice to allow the pipeline to remarket the capacity, so that the pipeline could be protected. However, no matter how much protection a pipeline may seek from revenue reductions due to unsubscribed capacity, it is neither fair nor reasonable for a pipeline to implement a provision by which it is absolutely protected from the vagaries of the market, and by which new customers are prohibited from acquiring capacity that might otherwise be released or turned back.

67. For these reasons, Greenbrier is directed to delete Section 38, "Annual Right to Shape MDTQ Profile," from its tariff.

### **Requested Clarifications**

#### **Non-conforming service agreement**

68. Greenbrier and PSNC seek clarification that the Commission approved the Greenbrier - PSNC transportation agreement as a non-conforming service agreement in the October 31 order. PSNC states that early Commission approval of this agreement was a key element of the parties' negotiations. Greenbrier states that it expressly requested that the Commission approve the Greenbrier - PSNC agreement in comments it filed on July 29, 2002, to clarify its application. Greenbrier and PSNC contend that while the October 31 order did not expressly approve their transportation service agreement, the Commission's intent to do so seems clear from the requirement in that order that

Greenbrier "file a tariff sheet, listing the PSNC service agreement as a non-conforming agreement pursuant to Greenbrier's tariff."

69. As Greenbrier and PSNC believe, it was the intention of the Commission to accept the Greenbrier - PSNC service agreement as a non-conforming agreement when it directed Greenbrier to file a tariff sheet listing the subject agreement as such. Consequently, we will clarify that the Commission accepts the non-conforming service agreement between Greenbrier and PSNC.

### **Necessary infrastructure**

70. Michelle Bankey seeks clarification of Greenbrier's statement that it will provide the "necessary infrastructure" to provide natural gas service in certain areas of Southwest Virginia.

71. At this time, any such infrastructure is uncertain, since no potential customers have requested service from Greenbrier. However, as noted in the October 31 order, Greenbrier will consider installing local taps at its own expense to serve any customers that identify a need for gas at these locations. What exact facilities will be needed at any such tap locations depends on what any potential customer's needs are and are not included in the scope of this application. Greenbrier is being issued a blanket construction certificate under Part 157 of the Commission's regulations in this order that will allow it to build the tap facilities necessary to interconnect potential customers along its route.<sup>29</sup> While no specific taps have been identified, the Commission continues to believe that the potential to bring gas service to any area that has no gas service will be a real benefit to the region.

### **Environmental Analysis**

72. On April 15, 2002, the Commission issued a public-information notice, Pre-filing Environmental Review and Scoping for the Greenbrier Pipeline Project in Docket No. PF01-1-000, that explained the pre-filing process. This notice was sent to about 2,000 landowners and stakeholders, including the following: landowners within a surveyed 100-foot-wide corridor; landowners within a 400-foot-wide corridor that was under consideration but not yet surveyed; landowners with property that would be crossed by access roads; landowners with property off the right-of-way (ROW) that would

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<sup>29</sup>As long as the potential facilities meet the requirements set out in Subpart F of Part 157 of the Commission's Regulations.

potentially be affected; and other stakeholders in the region who had indicated an interest in the project.

73. On May 21, 2002, the Commission issued a Notice of Public Scoping Meetings and Site Visit for the Greenbrier Pipeline Project and Request for Comments on Environmental Issues. This notice was sent to more than 2,000 individuals, organizations, and interested parties, including Federal, state, county, and local agencies; state and local conservation organizations; elected officials (e.g., Federal and state representatives and senators, mayors, and governors); local libraries and newspapers; and property owners and other interested stakeholders along the route of the pipeline. The notice was also published in the Federal Register. Both notices requested written comments on environmental issues associated with the project. The May 21 notice also announced the location of four public scoping meetings (June 10 through 13, 2002, in Roxboro, North Carolina; Basset, Virginia; Riner, Virginia; and Mt. Hope, West Virginia).

74. On October 24, 2002, the FERC issued a Notice of Availability for the Draft Environmental Impact Statement for the Proposed Greenbrier Pipeline Project. The DEIS was filed with the U.S. Environmental Protection Agency (EPA). A formal notice indicating that the DEIS was available was published by EPA in the Federal Register on November 1, 2002, and the document was mailed to individuals and organizations on the mailing list prepared for the project and the Commission's official service list. The mailing list included more than 1,900 addresses, and written comments were due on December 16, 2002.

75. On November 1, 2002, the FERC issued a Notice of Meetings for the Greenbrier Pipeline Project Draft Environmental Impact Statement that announced public comment meetings would be held in Roxboro, North Carolina, and Floyd, Virginia, on November 18, 2002, and in Martinsville, Virginia, and Fayetteville, West Virginia, on November 19, 2002. The verbal comments received at these meetings and written comments received by the Commission were used to revise and prepare the final environmental impact statement (FEIS).

76. On February 28, 2003, the Commission issued the FEIS. Notification was published in the Federal Register by the EPA on March 7, 2003. The Commission mailed copies to more than 1,800 governmental agencies, groups, individuals, and other stakeholders on the environmental mailing list and service list for the project. More than 110 comments letters were received on the DEIS, and the comments are addressed in the body of the FEIS or Appendix M thereto. The following discussion summarizes the significant topics addressed by the FEIS.



77. Construction and operation of the Greenbrier Pipeline Project would result in mostly limited, but some permanent, adverse environmental impacts. Construction of the project, particularly through rugged and steep terrain, would modify the land's contours in some locations beyond the life of the project. The project would also modify the views of forested ridges and mountains by creating new or wider corridors. This impact on the visual quality of a region is an unavoidable adverse impact that is associated with the construction of linear type projects through mountain ranges. The project's impact would be significantly less severe than that associated with interstate highway construction through similar regions.

78. The project's impact would be most significant during the period of construction. Establishment of the pipeline ROW would result in long-term unavoidable impacts, including the loss of forest in the permanent ROW for the life of the project. After construction the entire construction work space in upland areas would be reseeded. The vegetation in the temporary portions of the construction ROW would be allowed to naturally regenerate. Our staff has developed mitigation measures that we believe would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of the Greenbrier Pipeline Project. We believe the environmental impacts associated with the project would be minimized if the project is constructed and operated in accordance with Greenbrier's proposed and our staff's mitigation measures. Therefore, we are recommending that all of the mitigation measures identified in the FEIS be attached as conditions to this certificate (see Appendix B).

79. The primary impacts on geologic resources would be associated with blasting activities during construction. There are 47 identified wells and springs located within 150 feet of the proposed pipeline centerline. The springs and wells within 30 feet of the pipeline are the most vulnerable to potential construction related impacts. All blasting activities would be conducted in accordance with Greenbrier's engineering and environmental specifications and blasting plans, as well as applicable local, state, and Federal requirements governing the use of explosives. These measures are designed to protect structures near the blasting zone that could be damaged by blasting activities. Greenbrier has indicated that it would conduct pre-blast surveys of buildings within 500 feet of the portion of the trench to be blasted. This would document the existing condition of structures and would establish a baseline for determining if blasting has caused any damage. Similar measures, pre- and post-monitoring, would be used at water wells within 150 feet of the construction ROW. If requested in writing by a landowner and the landowner grants access, Greenbrier would conduct similar measures for wells within 500 feet of the pipeline trench. Our staff has also recommended this offer be extended to potable springs that are actively being used by residents, and we agree that this is reasonable.

80. Numerous commentors are concerned about blasting effects on the water supplies (wells, springs, and local watertables) of homeowners, and have suggested that further study is needed. In particular, comments have informed us that residents in Floyd County, Virginia, are experiencing significant water supply problems and a high number of replacement wells are having to be drilled. This situation was being aggravated by a severe drought that was occurring in mid-2002. The Floyd County and Henry County Boards of Supervisors requested that the range for well pre- and post-testing for water quality and flow be extended to two and one mile, respectively, and that Greenbrier be required to set aside a bond sufficient to cover the cost of any well damage located within these ranges. The Floyd County Board also wanted a bond to cover the cost of constructing a public water treatment plant, public water supply, and appurtenances to be given to the county without cost. Our staff investigated blasting impacts on water wells. The obtained information on blasting effects indicates that cracking of rock is limited to the immediate vicinity of the trench. Greenbrier would also repair or replace any damaged structure or well caused by its construction activities. Therefore, blasting activities would not cause a significant impact on geologic resources, wells, or structures. Information on this is presented in Sections 3.1 and 3.3 of the FEIS.

81. We note that Greenbrier has agreed to work with the Floyd County Board of Supervisors in an attempt to address the water availability concerns of Floyd County citizens. A Floyd County Technical Advisory Committee was established to review available information and to determine if more testing or studies are needed. When and if more information is developed from the activities of this committee, Greenbrier and/or Floyd County can file this information with the Secretary of the Commission for appropriate action. However, we believe that the environmental conditions attached to this order are sufficient to address any reasonably foreseeable water problems throughout the project area. Blasting for pipelines routinely takes place in close proximity to structures with no adverse effects. The monitoring of wells, springs, and structures pre- and post-blasting will provide for mitigation of potential impacts. Our experience has shown that monitoring to a distance of one or more miles is unnecessary.

82. Recent rains and snow have helped to restore water availability throughout the project area. We cannot predict whether the drought will resume, or what the water supply situation will be in the planned construction years: 2004 and 2005. While Greenbrier's construction activities could impact water resources, we do not believe that trench excavation, to a depth of about 7.5 feet in most areas, will significantly affect ground water supplies. The trench will intersect the water table in low-lying areas, e.g., at stream crossings, but these shallow aquifers would experience only minor disturbances in water flow and recharge caused by construction activities, including blasting. Greenbrier would use its Spill Prevention, Containment, and Countermeasure Plan and Erosion and Sedimentation Control Plans (ESCPs) to cleanup, if needed, and restore and revegetate

construction work spaces. Therefore, impacts on groundwater supplies would be temporary and minor, and wells or other structures would not be significantly impacted. In the event that blasting damages a structure, Greenbrier is responsible for any damage and has established a program for monitoring to determine if its activities have adversely affected a structure or well. We believe this is sufficient.

83. The project is in an area of low-risk seismic activity. No active faults are along the route. Some portions of the project may be susceptible to subsidence, landslides and/or cross karst terrain. With implementation of mitigation measures for potential impacts associated with these features that are included in Greenbrier's ESCPs; Greenbrier's plan to monitor for slope failure; and implementation of our staff's recommendation that a qualified geotechnical/engineering firm conduct a comprehensive survey of abandoned and/or active mine shafts, caves and sinkholes beneath or close to the pipeline alignment; the project's construction and operation would not be significantly impacted by geologic or man-made hazards in the area.

84. The project would traverse a variety of soil types and conditions. The primary impacts associated with construction would be erosion, compaction, and loss of soil fertility. To minimize impacts to soil during construction and operation, Greenbrier would implement measures in its ESCPs, and there would be no significant impact on soil as a result of construction and operation of the project. Rapid restoration of the construction ROW contours and revegetation of the disturbed area would stabilize the soils and prevent erosion.

85. The proposed pipeline would cross 510 streams and rivers, and access roads would cross 116 additional streams. Of the 510 pipeline water crossings, four would be major crossings. The majority of streams crossed (74 percent) are minor (width less than 10 feet), and over half of the streams crossed are intermittent or ephemeral streams. Most of the streams would be crossed using dry construction methods to minimize introduction of sediments into the stream. Horizontal directional drilling (HDD) construction methods would be used at two major river crossings (New and Dan Rivers in Virginia) to avoid disturbance of the stream bed. Two other major river crossings (the Gauley and New Rivers in West Virginia) would be open cut because of their streambed materials (gravel) or location at a steeply sloped gorge, respectively. The most significant potential impacts from the project to surface waterbodies would be temporary increases in suspended sediment and turbidity during construction. These increases would continue until the disturbed bed and banks at stream crossings are re-stabilized, but are expected to be primarily temporary and minor.

86. Construction of the project would disturb about 34.5 acres of wetlands. During operation, about 14.4 acres of wetlands, including about 3.5 acres of currently forested

wetlands, would be maintained as herbaceous vegetative communities. Greenbrier would minimize wetland impacts by reducing the construction ROW width to 75 feet through wetlands. Additional mitigation measures for wetland impacts, especially those to forested wetlands, may be identified based on further agency consultation during the Federal and state permitting processes. We will require Greenbrier to file its wetland compensation plan developed in consultation with the U.S. Army Corps of Engineers and other agencies.

87. The project would impact five distinct upland vegetative cover types. These are forest land, shrub and brush rangeland, barren lands, agricultural/ pastureland, and urban land. The greatest impact would be to forests with a total of up to 3,089 acres of forest (74 percent of the acreage of all work areas) removed during construction activities. GPC would seed the temporary construction ROW and allow reforestation in these areas. Reforestation would not be permitted within the permanent upland ROW which would be maintained as herbaceous vegetative communities and this would impact about 1,400 acres for the life of the project. The construction and operation of the new aboveground facilities would permanently affect 16.6 acres.

88. Potential impacts to fishery resources could include sedimentation and increased turbidity during stream crossings, effects of blasting, alteration of stream or riparian cover, entrainment of fish or loss of flow during hydrostatic testing, and introduction of pollutants to water. Impacts to fisheries would be avoided, minimized, or mitigated in accordance with resource agency requirements and construction plans. Most impacts at stream crossings would be minimal and temporary since dry construction methods would be used at most crossings, the activity would be completed in less than 48 hours in most cases (excluding blasting), and seasonal construction timing restrictions would be followed. Preparation for blasting activities is expected to disperse most fishes from the impact area. Stream bank vegetation would be restored and/or replanted.

89. When water is withdrawn from streams for hydrostatic testing of the pipeline, Greenbrier would use screening to prevent the entrainment of fish. Greenbrier would also limit the rate at which it withdraws water from a stream to maintain sufficient flow to support aquatic life in the stream during withdrawals. Substantial concern was expressed by the public regarding the potential impact the project could have on water supplies and availability. Greenbrier plans to construct the project in 2004 and 2005 and we cannot predict what hydrologic conditions will be then. Our experience on other projects is that companies have not adversely impacted streams by withdrawing water from them. If sufficient water is not available in an area due to a drought, the water can be purchased and imported by truck from a "willing" commercial or public source, or the water can be transported within the pipeline from one area with adequate supply to another segment of the pipeline by moving it within the closed system. Our staff has also recommended that

Greenbrier prevent the spread of spring viraemia of carp (a serious viral disease of fishes) potentially associated with water withdrawn from the Dan River by requiring Greenbrier to discharge water obtained from this river back into it or near it. This will prevent the spread of this fish disease by not allowing the water to be discharged into or near a different waterbody unless the appropriate permitting agencies authorize alternative discharge locations. We believe this requirement is appropriate.

90. Twenty-two federally listed endangered and threatened species have been identified as potentially occurring in the vicinity of the project. Our staff has determined that with strict adherence to FWS-approved conservation measures, Greenbrier's proposed conservation measures, Greenbrier's ESCPs ( as modified by this FEIS), and our staff's recommended conservation measures listed in Table 3.7-2 of the FEIS, the project would not affect three species; is not likely to adversely affect 13 species; and may affect, but is not likely to adversely affect six species. The FEIS has been sent to FWS as our biological assessment and our staff has requested the FWS's concurrence on the determinations of effect. Greenbrier has completed some surveys for endangered and threatened species, and additional surveys will be required. Construction will not proceed in areas where threatened and endangered species could be affected until all mitigation measures have been finalized and consultation is completed with the FWS.

91. Construction could affect up to 4,201 acres of land. This total includes about 2,985 acres of pipeline construction ROW, 62 acres for aboveground facilities, up to 934 acres for access roads, 163 acres for extra work space and staging areas, and 56 acres for pipe and contractor yards. Of the 4,201 acres potentially impacted, about 1,862 acres would be impacted for the life of the project.

92. There are 16 residences within 50 feet of the pipeline's construction work space (the construction ROW and extra work space). Five of the residences are inside the construction work area, and three residences are within 25 feet of the construction ROW. Greenbrier filed site-specific construction plans for some of the residences located within 25 feet of the construction work area for our staff's review on December 20, 2002. These plans were not complete, and our staff has recommended that Greenbrier file the necessary information for the review and written approval of the Director of OEP prior to initiation of construction in the vicinity of those residences. We believe this is appropriate. Since Greenbrier will not construct portions of this project until 2004 and 2005, Greenbrier should also notify our staff if additional homes are constructed and occupied within 25 feet of the construction ROW. The notice would consist of a site-specific construction plan that is filed with the company's request to commence construction in an area. We also believe that Greenbrier should seek to obtain its construction ROW and extra work spaces as soon as possible to avoid conflicts with development that may occur along its permanent ROW.

93. Visual resources along the proposed route would be affected by the installation of some aboveground facility sites near roadways and the clearing of up to 3,089 acres of forest. However, the impact is not expected to be significant in most areas. Construction along the proposed route would have a significant impact on the view shed of the Hawks Nest State Park. However, our staff has recommended the use of the Hawks Nest Variation to mitigate impact on visual quality in the vicinity of the Hawks Nest State Park observation area. We agree and will require its use.

94. The FEIS also examined the impact on other recreational trails, conservation areas, and a camp along the route. The proposed project would cross Camp Carysbrook in Montgomery County, Virginia, and could adversely impact Camp Carysbrook if construction occurs during the summer camping season. Our staff recommends that Greenbrier avoid construction in the vicinity of the camp during the summer months and that the proposed access road on this property not be used. Recommendations in the FEIS require Greenbrier to pre-build this segment of the pipeline during low or non-use periods to avoid disruption of campers and their recreational activities, and to use an alternative access road to construct the project in this area. Greenbrier could use this access road permanently if Camp Carysbrook agrees. We believe that these measures would reduce impacts to an acceptable level and will require them.

95. The project would also cross the Jefferson National Forest, Appalachian Trail, and Blue Ridge Parkway. A total of about 0.6 mile of Federal lands will be crossed. The U.S. Forest Service and National Park Service, as cooperating agencies, assisted our staff with the preparation of the FEIS. Based on Greenbrier's mitigation measures, construction plans, and the agency assessments of impacts on their lands (see Appendices C, D, and E of the FEIS), the project will not have a significant impact on these Federal lands.

96. Cultural resource inventories have been conducted for the project, and reports documenting these investigations have been submitted to the appropriate state agencies. Fifty-two locations may be significant and require avoidance or additional study to determine if they are eligible for listing on the National Register of Historic Places. These sites include 35 prehistoric sites, eight historic structures, eight sites with both prehistoric and historic material, and one historic-period cemetery. Potential impacts to significant cultural resources would either be avoided, or mitigated by recovering scientific data in advance of construction (for archaeological sites) or a combination of historical research, drawings, and photographic recordation (for historic structures). When project plans are finalized, the significant resources that cannot be avoided will require the preparation of appropriate treatment plans in consultation with the appropriate state historic preservation officer and the Advisory Council on Historic Preservation to

assure that any adverse effects of project construction will be mitigated. Construction activities will not be allowed to commence in an area until the requirements of the National Historic Preservation Act have been fulfilled.

97. Construction and operation of the project facilities would not significantly increase total employment and population in the project area. Socioeconomic impacts associated with the project include the positive effect of a short-term creation of up to 610 construction jobs in 2004 (estimated to be 183 local and 427 non-local workers), up to 1,475 construction jobs in 2005 (estimated to be 442 local and 1,023 non local workers), and the associated increased economic activity along the pipeline route caused by employee purchases (e.g., food, clothing, and shelter) and Greenbrier's contractor's purchases of supplies and services. Three new permanent employment positions would be created, and these employees would work at the Eden Compressor Station in North Carolina.

98. Our staff evaluated the no-action and postponed-action alternatives, two project system alternatives, seven major route alternatives, 16 route variations, and two access road variations. The no-action, postponed-action, and the Transco System Alternatives do not satisfy the objectives of the project.

99. Seven major route alternatives were evaluated. Six of these alternatives were not considered superior to the proposed route and were either not considered further or have not been recommended. Commentors have expressed an interest in the Patriot System Alternative and the Patriot Alternative and believe they should be more fully explored and given careful consideration.<sup>30</sup> Commentors feel that one corridor would be less environmentally damaging than creating two corridors.

100. The Greenbrier Pipeline Project FEIS adequately addresses the Patriot System Alternative and the Patriot Alternative. The Patriot System Alternative does not meet Greenbrier's objectives of directly creating supply diversity and new competition in the South Atlantic region. Use of this transportation arrangement would make Greenbrier subject to the requirements and limitations of East Tennessee's transmission system and would require more pipeline and compression facility construction.

101. The Patriot Alternative would generally follow an existing ROW to East Tennessee's Patriot Extension in Wythe County, Virginia, and then would parallel East

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<sup>30</sup>An FEIS for the Patriot Project was issued in late September 2002, and we issued a Certificate authorizing construction and operation of the Patriot Project on November 20, 2002 (see Docket No. CP01-415-000, et al.).

Tennessee's approved but nonexistent Patriot Extension to its end point in Rockingham County, North Carolina. Our staff estimated that if the construction ROW for Greenbrier's facility can overlap a portion of East Tennessee's construction corridor it would reduce the amount of forest clearing by up to about 347 acres of forest. This is one of the major advantages of using this alternative and is identified by many commentors as a significant reason for suggesting that this alternative's route be followed. However, the alternative would require more miles of pipeline to be constructed affecting about 236 more acres of land, it would cross about 59 more perennial streams, traverse more wetlands, and be located within 50 feet of 22 more homes than the proposed route. About 9.5 more miles of the Jefferson National Forest would be crossed, and based on information contained in the record for the Patriot Project a less desirable crossing of the New River (which includes a New River Trail State Park crossing) is required in comparison to Greenbrier Pipeline Project's crossing of this river by the Interstate 81 bridges. Both routes would cross the Blue Ridge Parkway and Appalachian Trail, and would affect federally listed threatened and endangered species. As indicated in the FEIS, generally we prefer to site pipelines within or adjacent to existing ROWs to minimize the need to create new corridors. Greenbrier's route does follow existing ROWs and our staff has recommended alternative routing that increases the amount that is followed. However, in this case the advantage of following ROWs, existing and planned, is offset by the severity of some of the terrain that is crossed and the environmental impacts of construction activities along an alternative route that is about 20 miles longer. Both routes cross severe terrain, but the alternative crosses more than either route (proposed by either company) because it must be extended to reach the Patriot Extension's route. Therefore, our staff has concluded that the Patriot Alternative is not environmentally superior to Greenbrier's proposed route. We agree.

102. One major route alternative, the Eastern Mainline Alternative, is a 12.3-mile-long alternative that would follow and partially overlap the route of the Henry County Power Lateral which is also part of East Tennessee's Patriot Project. This alternative would avoid having two new corridors in the same area and would reduce the impacts associated with construction, operation, and maintenance of a pipeline ROW. This is in an area that has relatively gentle relief. Collocation of the pipelines in this area would reduce impacts on communities in Henry County, Virginia, and in Rockingham County, North Carolina. Our staff has recommended that the Eastern Mainline Alternative be incorporated into the project. Our staff also evaluated several variations along the southern portion of the Eastern Mainline Alternative and recommended that the Eastern Mainline Alternative Variation, Option 2, also be used. We concur with these routing changes and will require Greenbrier to use them.



103. Additional variations were evaluated in the FEIS, including two access road variations. We have considered them and agree that the use of these variations would help to reduce the impact of the project.

### **Conclusions**

104. Based on information provided by Greenbrier and developed from data requests; field investigations; literature research; alternative analysis; comments from Federal, state, and local agencies; and input from public groups and individual citizens, the FEIS concludes that construction and operation of the Greenbrier Project would result in limited adverse environmental impacts. As part of its review, Commission staff developed mitigation measures that it believes would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of the Greenbrier Project. The Commission has reviewed the information and analysis contained in the FEIS regarding the potential environmental effect of the project. Based on our consideration of this information, we agree with the conclusions presented in the FEIS and find that the Greenbrier Project, if constructed and operated in accordance with the recommended and proposed environmental mitigation measures, is environmentally acceptable. Therefore, we are including the environmental mitigation measures recommended in the FEIS as conditions to the certificate issued to Greenbrier. These conditions are set forth in Appendix B to this order.

105. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of the certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean 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.<sup>31</sup>

106. Greenbrier 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 Greenbrier. Greenbrier shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

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<sup>31</sup>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., et al.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

**Comments on the FEIS and Related Motions  
to Supplement the FEIS**

107. George W. Keatley, Clay County Commission (West Virginia), James and Mary Meadows, Phoebe A. Meadows, Floyd Unified Landowners' Association (FULA or Gini Cooper), Mercer County Commission (West Virginia), Diana Adkins, Jerry Warren, Retha Warren, Edward Gralla, Inge Terrill, Lemuel E. Farley, Kenneth D. Farley, Lora Leigh Giessler, Floyd County (Virginia) Board of Supervisors (Floyd County), Michelle Bankey, Neil K. Jeffries, and Jacob D. Layne filed comments on the FEIS and/or identified concerns about the project.

108. Floyd County's and FULA's comments included motions to hold the record in this proceeding open to supplement the FEIS. FULA claims that the FEIS should have included the updated status of precedent agreements, and that the FEIS's analysis of Patriot System Alternative (PSA) is legally deficient. FULA maintains that because of the harm to environment and landowners along Greenbrier's proposed route, PSA should be thoroughly evaluated. Moreover, FULA asserts that there is no showing of analysis or data behind conclusion that PSA would increase cost of gas supply, and that it is unlikely that ETNG could timely build modifications. Finally, FULA contends that Greenbrier's study of the economic impact of the project (Bonomo's Report) was insufficient to conclude that project provides any benefit to Floyd County or Southwest Virginia. FULA claims that the report was devoid of any scientific measurement of economic impact, and failed to consider environmental costs or adverse impacts. FULA claims that the IMPLAN model of analysis gives better indication of true impact, and requests that record be supplemented with independent analysis of balance between cost and need.

109. Floyd County's motion seeks to hold the record open in this proceeding to supplement the FEIS relating to the subject of the Greenbrier project's effect on Floyd County's groundwater. Floyd County requests that the Commission impose several other requirements including that Greenbrier be directed to select ATS International, Inc. to conduct groundwater studies of Floyd County, and to establish a \$250,000 fund to compensate property owners for damage to their water supply.

110. The following discussion addresses these comments and, for reasons discussed below, the motions to supplement the FEIS are denied.

111. Mr. Keatley states that on February 4, 2003, Greenbrier conducted an open house with stakeholders at Concord College in West Virginia, at which Greenbrier presented a drawing of a Bent Mountain Route. Mr. Keatley also states that Mr. Orndorff, a Greenbrier representative, indicated that "he was 98 % sure that the Bent Mountain Route would not be used." Mr. Keatley asks why this route was not studied in the FEIS.

112. The FEIS was prepared based on the filed information in the record. Scoping for the project was conducted in mid-2002, and timely comments on the DEIS were due on December 16, 2002. However, information on this "new" route, specifically its alignment, has not been filed with the Commission. Consequently, Greenbrier may make minor adjustments to its certificated alignment, particularly if affected landowners concur and the route change does not affect sensitive environmental resources. However, Greenbrier would need to file an amendment to its application to make significant changes to its alignment at this point in the proceeding. When and if an amendment is filed, an appropriate environmental analysis will be conducted.

113. Mr. Keatley and others ask why more public meetings were not held. The FEIS addressed this concern in Appendix M, comment response 3.1-4, page M-7. The FEIS was also mailed to the public library in Princeton, West Virginia. The critical notices for this project were appropriately published in the Federal Register, and copies of the EIS were mailed to stakeholders (see Appendix A of the FEIS). Therefore, more than a reasonable effort was made to notify the public about this project.

114. Mr. Keatley, Gini Cooper, and others have filed letters, including newspaper articles, concerning the status of negotiations or precedent agreements and how this affects the need for the project. These letters are part of the record in this proceeding, and these concerns over the public need for this project are addressed in both the October 31 order and elsewhere in this order.

115. Edward Gralla, Lora Leigh Giessler, and Inge Terrill raise more concerns about the placement of the pipeline in the vicinity of the Blue Mountain School, specifically involving shelter for children playing outside and that an "event" could render the school's driveway unusable.

116. The FEIS addresses pipeline safety and, in particular, the on-going process by the U.S. Department of Transportation to develop the integrity management program requirements for high consequence areas. We further note that the school is located on the opposite side of a ridge line away from the slope facing the authorized route, and that alternative paths (e.g., to the south via a cemetery or directly through Zion Church) are available if the school had to be evacuated for any reason and the access road was unavailable. As currently routed, the pipeline is about 650 feet from the school and we believe this is acceptable.

117. Gini Cooper indicates that, "[t]he DEIS and FEIS both state that the PSA (Patriot System Alternative) would increase the cost of gas to exceed what the market would bear, but provide no citations so that Dominion's financial analysis of this alternative can be

verified." Gini Cooper also believes that the EIS statement that indicates it is unlikely that East Tennessee could design, file, and construct a project to meet the requirements of GPC's shippers is insufficiently supported. We disagree.

118. The FEIS makes clear that the information concerning cost of gas was provided by Greenbrier. That information is found in Greenbrier's application at Resource Report 10, page 10-4. Furthermore, East Tennessee is a party to this proceeding, has received service of these documents, and has not taken exception to the estimates of the facility requirements for this system alternative. We further note that East Tennessee has not filed an application to provide this service. In addition, our engineering staff reviewed Greenbrier's estimate of the facility requirements and found it to be reasonable. Since another EIS would have to be prepared to expand facilities of this magnitude along the Patriot Project's corridor, when and if an application is filed by East Tennessee (which is also opposed by the stakeholders along this corridor), we concur with our staff that this is not a reasonable or preferred alternative. The alternative simply does not fulfill the purpose and need of the proposed project, which it to create supply diversity and new competition in the South Atlantic region.

119. FULA states that it believes the FEIS is not legally sufficient because it did not include "... the analysis of the Patriot System Alternative (PSA) by Duke/ETNG as requested by FULA on February 22, 2003." FULA's February 22, 2003 comments are untimely. While the Commission will address untimely comments if there is sufficient time available to include them, the comment period on the DEIS officially closed on December 16, 2002, and the FEIS had already been sent for printing prior to the Commission's receipt of FULA's request regarding the PSA. Furthermore, the FEIS addressed this alternative. See Appendix M, page M-2, of the FEIS.

120. FULA also requests that Greenbrier be required to identify all wells within a 500-foot corridor of the pipeline in Floyd County, Virginia, and to work with the Floyd County Technical Advisory Committee to notify and educate landowners about the option to have pre- and post-testing of their potable water wells. Greenbrier has already voluntarily agreed to conduct this testing if a landowner grants access and requests the testing. Greenbrier has also voluntarily worked with the committee. Therefore, we do not believe it is necessary to make this a requirement.

121. FULA also claims the FEIS does not identify the environmental costs or adverse impacts on communities. We disagree. Chapter 3 of the FEIS provides an analysis of the project's "environmental" impacts. It is not the purpose of an EIS to conduct an economic study that identifies monetary cost of environmental impacts. Economic studies, e.g., Dr. P. Kasturi and E. Wade's identification of economic multipliers/models, options and other

values, issues with whether adequate compensation is being received, and whether easement payments will leave a community, lie beyond the scope of an EIS.

122. Floyd County restates its concerns regarding the availability of ground water in its jurisdiction, the rapid rate of population growth (more than 16 percent in the past decade), seeks EPA notification of this situation, and believes it has an unstable groundwater supply serving its community. The FEIS details Floyd County's concerns and the FEIS was given to EPA. Floyd County believes a groundwater study of its county is needed to identify recharge areas and that the FEIS largely adopts studies that are general in scope and nature and do not sufficiently investigate the fragility of the current groundwater supply. We disagree.

123. The FEIS addresses Floyd County's concerns and discusses this issue in detail in Sections 3.1 and 3.3 (Geology and Water Resources, respectively) of the FEIS. The FEIS identifies numerous studies that have been conducted on this issue of blasting impacts on groundwater supply (e.g., Oriard, L.L.; Richmond, et al.; VPI; Matheson and Miller; Siskind and Fumanti; and other reports and studies). We believe that the FEIS contains more than sufficient information to support its finding that blasting to a depth of about 8 feet will not adversely impact ground water supplies and that the impact will be limited to the immediate vicinity of trench line.

124. Michelle Bankey is also concerned about groundwater issues and refers to statements in the Executive Summary as the basis for many of her concerns. The FEIS uses the information presented in the body of the document to support its findings, and the Executive Summary does not contain this level of information. She further notes that drought conditions have prevailed in the region for the past several years, and based on Floyd County's identification of rapid development (more than 16 percent in the past decade) in combination with drought conditions, these factors are likely to be significant contributors to water problems being encountered by the families in the region. Based on the filed information, well replacements were high in the county in 2002 and this was occurring without any project related pipeline construction activities. Our staff also observed new home construction in the area in 2002 that will add to water withdrawals from local groundwater resources. This continuing development will only place more demand on this resource, and it is disturbing or covering recharge areas with new roads and other impervious structures. The proposed project, a pipeline, will not increase groundwater demand (by using it on a daily basis) or create significant impervious surfaces. Therefore, we do not agree with Ms. Bankey that the project will result in significant changes in the quantity of available groundwater resources. We believe that the EIS has adequately addressed how blasting and trenching, with the identified mitigation and restoration measures, will impact water resources.

125. Floyd County acknowledges that two consulting firms, ATS International, Inc. and Draper Aden, both have the capability to perform a groundwater study for the project. Greenbrier has indicated that it is willing to retain Draper Aden for this study, but Floyd County wants the Commission to require Greenbrier to retain ATS International, Inc. to perform the study. As discussed above, we do not believe this study is needed. However, should a party seek to undertake such a study, either firm could conduct the work, and the party selecting the firm should be willing to cover the expense of its preferred consultant. If a groundwater study of Floyd County is conducted, this information can be filed with the Secretary of the Commission and the Director of the Office of Energy Projects will give it appropriate consideration.

126. Floyd County continues to seek funds (\$250,000) to be placed at its disposal to resolve landowner issues. Floyd County also seeks to retain these funds for its own use if it is not claimed by parties. Greenbrier is responsible for all of its construction-related damages, regardless of the type incurred, and if the company and an aggrieved party cannot resolve the issue, the appropriate jurisdiction for this issue is the courts. We will not entertain this request since it involves matters to be resolved in court according to applicable state law.

127. Floyd County also suggests that all streams should be bored unless the terrain does not allow this to occur. We do not agree that all streams need to be bored. There are other factors that impact whether a stream can be bored, and the FEIS has addressed this issue. Furthermore, the state of Virginia will issue permits for the stream crossings.

128. Lastly, Floyd County asks that Greenbrier be required to provide the county with "County Computer Added Design Map files" indicating the route of the pipeline across Floyd County so that the county can assess every potentially affected property owner. We note that Greenbrier will file alignment sheets with station positions for all facilities approved by this Order, and they will show the construction details for the project. These maps should provide the information Floyd County needs and they are available from our public files.

129. Michelle Bankey also takes exception with the characterizations of certain impacts described in the FEIS, e.g., if the EIS identifies an impact as "minor and short-term" (wildlife habitat changes, groundwater impacts, and impacts on local economies), she believes that many of these impacts are "significant and long-term". Since the FEIS identifies the impacts and only a difference of opinion as to severity of the impact is at issue, we believe that the EIS has identified the project impacts and that the necessary information has been developed for our Federal action. The FEIS has identified the significance criteria it used and this is sufficient.

130. Michelle Bankey indicates that since the surveys for endangered species have not been completed, any conclusion in the FEIS as to the impact on such species is speculative. The FEIS is our Biological Assessment (BA) under the Endangered Species Act and it has identified mitigation measures assuming that the federally listed species identified as potentially occurring in the project area are present. Our BA has been sent to the U.S. Fish and Wildlife Service (FWS) and the procedural aspects of the Endangered Species Act (ESA) will be fully complied with before any construction will be authorized to occur. Since construction is not planned to occur until 2004 and 2005, it is premature to conduct surveys since, for example, streams will need to be checked closer to the actual construction period to ensure they are properly protected. We have assumed a worst case situation and require appropriate mitigation for these species unless it is proven that they are not present. Our continuing coordination with the FWS will ensure that the requirements of the ESA are completed.

131. With the exception of the environmental concerns discussed or clarified above, no new environmental issues were identified that have not been previously addressed in the FEIS or in the Commission Orders for this project.

The Commission orders:

(A) A certificate of public convenience and necessity is issued in Docket No. CP02-396-000 to Greenbrier under Section 7 (c) of the NGA authorizing the construction and operation of the facilities described in this order, and more fully described in the October 31, 2002 preliminary determination and in the application, and as conditioned herein, and subject to the environmental conditions set forth in Appendix B.

(B) Greenbrier shall maintain separate books, accounts, and records for transportation provided under negotiated rates and for transportation provided under cost-based rates.

(C) Greenbrier shall file, not less than 30 days, nor more than 60 days, prior to its proposed effective date, rates and pro forma tariff sheets consistent with the discussion in the October 31 order and in this order, GISB, Order No. 637 standards, and negotiated rate authority in effect at that time.

(D) The authorizations granted above are conditioned on Greenbrier's compliance with Part 154 and paragraphs (a), (c), (e), and (f) of Section 157.20 of the Commission's regulations.

(E) Construction of the facilities authorized herein shall be completed and made available for service by November 1, 2005.

(F) Greenbrier must file executed firm contracts equal to the level of service and the terms of service represented in the precedent agreements, as discussed in the body of this order, prior to commencing construction.

(G) A blanket transportation certificate is issued in Docket No. CP02-397-000 to Greenbrier under Subpart G of Part 284 of the Commission's regulations.

(H) A blanket construction certificate is issued in Docket No. CP02-398-000 to Greenbrier under Subpart F of Part 157 of the Commission's regulations.

(I) The requests for rehearing are denied.

(J) The October 31 order is clarified, as detailed in the body of this order.

(K) Floyd County's and FULA's motions are denied, as discussed in the body of this order.

By the Commission.

( S E A L )

Magalie R. Salas,  
Secretary.



**APPENDIX A**

<b>Additional Intervenors</b>		
Alice Aaron	David Benson	Anthony J. Burkhart
Elva A. Adams	Teresa Benson	Margaret M. Burkhart
J. H. Adams	Teri Bergman	Antoinetta Burnett
Tammie L. Adams	Alice Blevins	Robert A. Burton
Tammy Alderman	Mr. And Mrs Kirby Blevins	Patricia B. Bynum
Sarah P. Altizer	T. M. Boger	Helen Campbell
James H. Anderson	C. R. Bondurant	Edna C. Cannaday
Alice Ashby	Nancy C. Bondurant	Melony Camdem
John Ashby	Nancy T. Booker	Patricia S. Capeney
Patsy Ashburn	Philip Booker	Ezeakius and LaWanda Castle
Ann H. Austin	Tim Bowman	Richard D. Caudill, Jr.
John J. Austin	Robert G. Branch	Jane Childress
Mildred Ayers	Willie Branscom	Ann R. Chombers
Sue Badgett	Michelle Brim	James R. Cietz
Alma E. Baker	Margaret J. Brown	Joyce C. Clark
Annie Ballan	Robert E. Brown	Nancy Clark
Daniel Ballan	Dr. Albert Bryant	Nancy Clark
Victoria Ballis	Curtis C. Bryant	Becky Cockram
Lori Barbas	David E. Bryant	James W. Cole
Todd W. Barnes.	Deborah Bryant	Susan M. Collins
Ben Barrow	Dollie K. Bryant	Karla Cooper
Nadine J. Barrow	Norma Jean Bryant	Roduskia Craig
Frank Bary	Norma Jean Bryant	Wendi Craig
Rhonda Beal	Arthur and Norine H. Buffkin	Martha Crawley
Bettie S. Bennett	John Burgess	V.Crawley

<b>Additional Intervenors</b>		
Woodrow H. Crenshaw	Alvin W. Draughon	Jane R. Franckle
Janice Critz	L. M. Duncan	John M. Franckle
Lisa Crockett	June H. Durand	Judy Franklin
Samuel S. And Ada M. Crockett	William A. Duarte	Bettye O. Fulcher
Troy Crowder	Bobby G. Eanes	Sue S. Galtress
Roger Custer	Susan Diane Eanes	William N. Galtress
Katrina Dalton	Donald W. Eanes	Jennifer Gauldin
Caroline Dance	Claude Earles	Ed Gralla and Randy Schwartz
Caroline Dance	Finney Edelen	Martha S. Green
Lorene Dance	Nancy Edelen	Rebecca M. Greer
Helen and Harry Dandridge	Johnny Edens	Wallace R. Gregory
Kate Daumen	Vicki Edens	Gwendolyn Gunn
Barbara Davis	Bob and Alice Elmore	William L. Hairfield
Carolyn B. Davis	Ronald W. England	Ervin Hairston
Daniel Davis	Janet W. English	Indiana S. Hairston
Lucy H. Davis	Lori Evans	Lloyd and Stephanie Hairston
Carol A. Deaton	Ted Evans	Lynn Handley
Donald Deaton	Larry Farran	Maynard G. Handy
Joan Dillard	Alfred Ferguson	Catherine Harcus
Tarlyn Dillard	Claude M. Flanagan	Glen H. and Juanita S. Harding
Antony B. Diller	Sally Hermes-Flanagan	Ann and Roy G. Harrell
Bonita S. Donriel	Robert L. Forney	Alvin C. Harris

<b>Additional Intervenor</b>		
Amy L. Donovan	John F. Jowar	Jeffrey L. Lovell
Marvin A. Donavant, Jr.	Kiley Kendall	Lisa S. Lovell
Mr. And Mrs. Mike Forrest	Lisa Kendrick	Trevis E. Lusk
Shavia Foster	Polly Kendrick	Dwight Mangum
David James	W. King	Jeanie Mann
Lynn James	Gean C. Knight	Robert W. Mann
Ethel H. Jamison	Thompson D. Knight	Ann W. Marls
Debra S. Jarrett	Ben and Estelle H. Koontz	Robert K. Marls
Catherine Johnson	Audrey and Curtis Kuykendall	Harold Marten
Deana Johnson	J. C. Kuykendall	Clyde Martin
Glen Johnson	Bonnie Lafave	Mr.& Mrs. George Martin
Lisa Johnson	John B Lafave, M.D.	J. T. Martin, Jr.
Michael G. Johnson	David and Shirley Landrum	Rashia Martin
Carolyn H. Johnston	Patsy G. Joyce	Robert P. Martin
Carolyn M. Johnston	Katherine R. Lawless	Willie W. Martin
John Wayne Johnston	Michael A. Lawless	Sarah K. May
Karen and David Jones	Edna Lawrence	Angie Mays
Doretha Jones	Ray Lawrence	Mary Jane Mayberry
Jeannette Jones	Burnette Lawson	Caroline M. Maydrian
Pat Jones	Sherry Lawson	Jackie McAdams
William H. Jones	William R. Lee	James M. McAlister
Jerry L. Jordan	Curtis Lester	Linda McAlister
Sally F. Jordan	David O. Lewis, M.D.	Vivian McDorman
J. Joyce	Paige Lewis	W. L. McDorman

<b>Additional Intervenors</b>		
Bobby G. Mcfaden	Deborah Neiman	Everett Peters
Natalie McKenie	Ann K. Nichols	Jennifer K. Peters
Pam McLaughlin	Samuel B. Nichols	Keith E. Peters
Deborah P. McPeek	Annie Kate Noel	Pam Phillips
Michael McPeek	James L. Noel	Roger Phillips
Linda S. Merriman	Valerie Norman	Jodi R. Plaster
Teresa Milligan	Mary Hane North	Todd W. Plaster
Steve Minnich	Jerry K. Oates	Joyce Price
Clifford L. Minter	Carolyn J. Oliver	Kevin L. Price
Ethel Minter	Franklin J. Ortiz, Jr.	Nancy C. Price
James R. Minter	Brenda Owens	Richard Price, DVM
Katherine K. Minter	Jane Owens	Charles L. Prillaman
Phillip Minter	Thomas A. Owens	Mrs. Charles L. Prillaman
Robin P. Minter	Wayne Owens	Hal W. Prillaman
Winifred Minter	Bonnie Pace	Kyle Prillaman
John G. Mitchell	E. Bradford Park	Paul Prillaman
Phyllis Mitchell	William Park	Patricia S. Prillaman
Dr. & Mrs. Matthew Mlot	Mr. And Mrs. Parkinson	Wanda Prillaman
G. Russell Moore	Douglas T. Payne	Barbara Proff
Jean C. Morris	Melonia Payne	Cris Prokosch
Denise P. Morison	Anne M. Perry	Laura Bowles Quirk
J. Mosser	Peter L. Perry	Linda Rasser
April Murphy	Deborah J. Peters	Ira G. Ratcliff
Jacqueline M. Myers	Deborah J. Peters	Martha Ratcliff

<b>Additional Intervenors</b>		
Lorene Rea	Jackie Severt	George M. Stewart, Jr.
Brenda Reeves	Lori Severt	Karen Stewart
Richard E. Reeves	Wilma D. Sheaton	C. Stone
Franklin D. Reid	Irma Sherman	Tamara Stone
Edna Riddle	Dawn Shiner	James Stone
Kevin B. Riddle	Gary U. Shupe	J. Stone
Christina M. Rigney	Elisha Sigle	Scott Stone
Alma Rilson	Sam Siller	James Stover
A. L. Robbins	Christy L. Smart	Dwight and Anne Stultz
Diane F. Robbins	Clinton Smart	Leoanrd W. Stultz
Robin Robertson	Dwayne Smart	Jean Sumner
Carroll J. Robertson	Hazel Smart	Waynan Swan, Jr.
Myrtle K. Robertson	Jonathan Smart	Carol S. Swanson
Natasha Rodgers	Terry Smart	Claude B. Swanson
Sue W. Rosser	Curtis S. Smith	Diane Switter
Edwin L. Ryder	D. Smith	Patricia B. Talley
Brian Scott Sapp	Howard Smith	Paul B. Tang, Jr.
Lillie L. Sapp	R. Keith Smith	Brian K. Taylor
Wendy Sawyers	Richard and Brenda Smith	Diane D. Taylor
Betty F. Scarce	Theresa Spears	Heather Taylor
Ester K. Schiller	Mr. & Mrs. William Spencer	Mark Taylor
Betty Scott	Edna Stanley	Mary Taylor
Delmo Scott	Gaynelle W. Stanley	Michelle L. Tilley
Mary Rives Scott	Patricia F. Stanley	Teresa D. Tilley
Shirley Seary	Betsy J. Steton	Kevin and Heidi Travis

<b>Additional Intervenor</b>		
David Turner	William R. Wells, Jr.	Daniel L. Wrcey
Mr. & Mrs. Douglas Turner	Anne Whitlock	Maurine Wrcey
Katherine Turner	Edgar Ronnie Whitlock	Sammy & Robin Wright
Juri D. Vault	Carolyn C. Wilson	David & Jennifer Wood
Diane H. Via	Drew E. Wilson	Rachel N. Wood
Beverly Vickers	John W. Whitlow	Rhoda Wood
Anne B. Viperman	Douglas C. Williams	Patsy L. Wood
K. Thomas Wagner	Telisha Williams	Neal Woods
Jeanne M. Wagner	Joan and Carl P. Wilkerson	Steven Yellin
Jennifer A. Wagner	Ann Wilson	Susan T. Yellin
Kaye M. Wagoner	Anthony J. Wilson, IV	Melva Young
Richard C. Wagoner, Jr.	Charles H. Wilson	Ray Young
C.D. Walker	Dolly Wilson	Tammy Young
Gena Walker	Joe Wilson	
Mary B. Walker	Opal Wilson	
Michael Q. Walker	Stella Wilson	
Ardier H. Warren	C. T. Wimbish	
Bruce M. & Frede B. Warren	Rebecca S. Wimbish	
Penny Watkins	Sandra A. Wimbish	
Stephanie L. Watts	Violet Wimbish	
Courtney Webb	Barbara P. Winn	
Randolph Wells	Eugene Wine	
Thomas V. Wells	Annelle F. Williams	

**APPENDIX B**

As recommended in the FEIS, this authorization includes the following conditions:

1. Greenbrier shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the FEIS, unless modified by this Order. Greenbrier must:
  - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (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 the Office of Energy Projects (OEP) before using that modification.
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
  - a. the modification of conditions of this Order; and
  - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions, as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
3. **Prior to any construction**, Greenbrier 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.
4. The authorized facility locations shall be as shown in the FEIS, 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, Greenbrier 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.

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

5. Greenbrier 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 route variations required herein or 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
  - e. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 120 days of the acceptance of this Certificate and before construction** begins, Greenbrier shall file an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP describing how Greenbrier



will implement the mitigation measures required by this Order. Greenbrier must file revisions to the plan as schedules change. The plan shall identify:

- a. how Greenbrier 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. what training and instructions Greenbrier 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 sessions;
  - e. the company personnel (if known) and specific portion of Greenbrier's organization having responsibility for compliance;
  - f. the procedures (including use of contract penalties) Greenbrier 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 onsite personnel;
    - (3) the start of construction; and
    - (4) the start and completion of restoration.
7. Greenbrier shall employ a team of (i.e., two or more environmental inspectors or as may be established by the Director of OEP) environmental inspectors per construction spread. The environmental inspectors shall be:
- a. responsible for monitoring and ensuring compliance with all mitigative 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 six 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.
8. Greenbrier shall file updated status reports prepared by the head environmental inspector with the Secretary on a **weekly basis** until all construction-related activities, including restoration and initial permanent seeding, are complete. On request, these status reports will also be provided to other Federal and state agencies with permitting responsibilities. Status reports shall include:
- a. the current construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
  - b. a listing of all problems encountered and each instance of noncompliance observed by the environmental inspectors 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, including:
    - (1) the identity of the caller and the date of the call;
    - (2) the identification number from the alignment sheet of the affected property and approximate milepost (MP);
    - (3) a description of the concern/problem; and
    - (4) an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved; and
  - f. copies of any correspondence received by Greenbrier from other Federal, state or local permitting agencies concerning instances of noncompliance, and Greenbrier's response.
9. Greenbrier must receive written authorization from the Director of OEP **before commencing service** for each component of the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the ROW is proceeding satisfactorily.

10. **Within 30 days** of placing the certificated facilities in service, Greenbrier 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 Greenbrier has complied with or will comply with. This statement shall also identify any areas along the ROW where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
11. Greenbrier shall notify landowners **three days** prior to blasting within 500 feet of occupied structures, and provide these landowners with a confirming notice **at least 24 hours** before blasting is scheduled to occur. This condition does not apply to tracts of land with no occupied structures within 500 feet of the trench center line.
12. Greenbrier shall conduct pre- and post-construction monitoring of springs being used as the water supply for homes within 500 feet of the trench if the owner of the residence provides Greenbrier with a written request and allows access to do the testing.
13. Greenbrier shall conduct a study to determine whether or not materials containing asbestos underlie the ROW in the vicinity of MP D-4.5. This study shall include additional review of the available literature on geologic formations in the area, if necessary. If this study indicates that asbestos may be present, then:
  - a. **Prior to construction**, surface conditions and/or test holes dug to trench depth or bedrock shall be inspected by a qualified geologist for evidence of asbestos rock, and if the geologist cannot make a positive determination, the samples shall be submitted to a laboratory for analysis.
  - b. If asbestos is found at concentrations deemed of concern by the state, Greenbrier shall develop mitigation measures, along with worker protection measures, before construction proceeds. The results of the study, the analysis of any cuttings, and the mitigation and protection measures, as appropriate, shall be compiled in a report and filed with the Secretary for review and written approval by the Director of OEP **prior to construction** near MP D-4.5.
  - c. During construction in this area a geologist shall inspect rocks "blasted" from the trench for significant concentrations of asbestos. If found,

Greenbrier shall take precautions to avoid/reduce spreading contaminated dust, and shall dispose of the rocks as deemed appropriate by the state.

14. Greenbrier shall conduct a comprehensive survey of abandoned and/or active mines, caves and/or sinkholes beneath or close to the pipeline alignment. Greenbrier shall:
  - a. have a qualified geotechnical/engineering firm review its construction route and plans and assist in developing either mitigation measures or route adjustments for locations where there are concerns about pipeline stability due to:
    - (1) the presence of underground mines, or
    - (2) the presence of or potential for sinkholes or caves.
  - b. where karst features or mines cannot be avoided, GPC shall identify the areas and the special engineering and construction precautions that will be implemented to prevent or minimize impacts to existing karst and groundwater flow patterns; and
  - c. this information shall be filed in a report to the Secretary for the review and written approval of the Director of OEP **prior to construction**.
15. Greenbrier shall verify the location of all wells and springs identified by landowners to be within 150 feet of the construction ROW that were not previously found by Greenbrier. **Prior to construction**, Greenbrier shall report the locations of these newly identified springs/wells to the Secretary in a report that provides the location and use of each of these wells and springs, and any planned mitigation measures.
16. Greenbrier shall use trench breakers or other flow-blocking materials in the trench backfill to maintain the original spring hydrology when constructing near springs.
17. Greenbrier shall revise Section 3.2 (Water Body and Wetland Crossings) of its Erosion and Sediment Control Plan (ESCP) for Virginia to include Section V.B.2.c of our staff's Wetland and Waterbody Construction and Mitigation Procedures (1994 version) [Procedures].
18. Greenbrier shall file with the Secretary a plan for the crossing of the Dan River if the directional drill is unsuccessful. This shall be a site-specific plan that includes scaled drawings identifying all areas that will be disturbed by construction. Greenbrier shall file the HDD alternative crossing plan concurrently with its

application to the U.S. Army Corps of Engineers (COE) for a permit to construct using the plan. The Director of OEP must review and approve the plan in writing **before Greenbrier can construct** the crossing.

19. For in-stream construction activity in the mainstream and in tributaries to Kimberling Creek, Walker Creek, and the New River in Virginia, Greenbrier shall coordinate its construction schedule with the Bland Correctional Facility water supply, the Bland County Water and Sewer Authority, and the City of Radford Water Treatment Facility, respectively, **at least one week prior** to the initiation of in-stream construction.
20. If culverts or other drainage diversion structures are installed on access roads by Greenbrier, the culverts shall meet the flow criteria of roadway design regulations of the relevant state or local agencies.
21. For access roads that are not inspected or maintained by state or local road agencies, Greenbrier shall conduct at least semi-annual inspections of the roadways and culverts **it installed** and clean out the culverts or conduct other maintenance, as needed.
22. Greenbrier shall revise Section 3.5.2 (Additional Work Space and Staging Areas) of its ESCPs for West Virginia and North Carolina and Section 3.2 (Water Body and Wetland Crossings) of its ESCP for Virginia to include Section VI.C.1.b of our Procedures (1994 version).
23. Greenbrier shall revise Section 3.12.4 (Permanent Revegetation) of its ESCPs for West Virginia and North Carolina to include either Section VI.E.3 of our Procedures (1994 version) or a statement defining the wetland monitoring plan developed in consultation with the appropriate state and Federal agencies.
24. Greenbrier shall file the final wetland (compensation) mitigation plan(s), developed in consultation with the U.S. Fish and Wildlife Service (FWS), COE, U.S. Environmental Protection Agency, and all applicable state agencies, with the Secretary.
25. If the Dan River or its tributaries are crossed with wet construction methods, Greenbrier shall coordinate with the FWS, North Carolina Wildlife Resources Commission (NCWRC), and Virginia Department of Game and Inland Fisheries (VADGIF) regarding possible measures to prevent the spread of spring viraemia of carp during any in-stream activity.

26. Greenbrier shall discharge all hydrostatic test water from the Dan River at or near the point of withdrawal unless the Virginia Department of Environmental Quality, North Carolina Department of Environment and Natural Resources (NCDENR), or other permitting agency authorizes alternative discharge locations or methods within their jurisdiction.
27. Greenbrier shall coordinate with the West Virginia Division of Natural Resources, Virginia Department of Conservation and Recreation/VADGIF, and NCWRC/NCDENR to verify the seasonal construction restrictions for all stream crossings. No earlier than six months prior to each planned construction year, Greenbrier shall file copies of its state agency consultations with the Secretary, and a revised table of stream construction timing restrictions, if applicable, **prior to construction** of that year's facilities.
28. Greenbrier **shall not begin any construction** or mitigation measures until:
  - a. Greenbrier has filed with the Secretary for review by the Director of the OEP all required survey reports, as indicated in Table 3.7-2 of the FEIS. These reports shall also be filed with the FWS;
  - b. the Secretary receives comments from the FWS regarding the project;
  - c. the OEP staff completes consultation with the FWS, if required; and
  - d. Greenbrier has received written notification from the Director of OEP that construction or use of mitigation may begin.
29. For each residence within 25 feet of the construction ROW, Greenbrier shall file:
  - a. a description of construction techniques that would be used;
  - b. a plan that limits excavation to a period when the pipe is ready for installation, and requires that the trench be backfilled immediately after pipe installation;
  - c. evidence of landowner concurrence if the construction work area and fencing are within 10 feet of a residence (MPS A-13.6 and E-18.85); and
  - d. a description of how Greenbrier would provide landowner notification, reduce the hazard of open trenches, and minimize noise and fugitive dust from construction activities.

This information shall be filed with the Secretary for the residences located at MPS A-13.6, B-51.6, C-11.51, C-22.87, C-36.52, E-18.84 and E-18.85 for the review and written approval of the Director of OEP **prior to construction** of the

relevant pipeline section. It shall also be filed for any additional residences that are constructed and occupied **prior to construction** of the project next to such homes.

30. Greenbrier shall consult with the owners of Camp Carysbrook to identify a time period when the camp has minimal use. Greenbrier shall construct the pipeline between about MPS C-39.0 and C-40.5 (across Camp Carysbrook and the Little River) during a time period when Camp Carysbrook is either not open to the public or is minimally used. If Greenbrier and the owners of Camp Carysbrook cannot negotiate a time window for construction **within 90 days after a final certificate is issued**, Greenbrier shall file a plan for fall/winter construction across this area in either the winter of 2003/2004 or 2004/2005, including any comments of the owners, for the review and written approval of the Director of OEP.
31. If Greenbrier intends to remove trees from the periphery of the site of the Eden Compressor Station along State Route 1752, Greenbrier shall file a site screening plan with the Secretary for review and written approval by the Director of OEP **prior to construction**. This plan shall include the specific species, number and layout of trees that will be used to screen the facility from nearby residents, including the time required for the vegetative screen to become effective.
32. Greenbrier shall develop a site screening plan for all aboveground facilities visible to nearby homes and Greenbrier shall file the plan with the Secretary for review and written approval by the Director of OEP **prior to construction**.
33. Greenbrier shall employ some screening plantings across the ROW between MP C-37 and MP C-39 along Calfee Knob to reduce the visibility of the pipeline corridor and to assist in blending the ROW into the background. Greenbrier shall prepare a site specific plan for Calfee Knob and file it with the Secretary for the review and written approval of the Director of OEP **prior to construction** of Section C of DG-1.
34. Greenbrier, working in conjunction with Dominion if necessary, shall file a noise survey with the Secretary **no later than 60 days** after placing the new Elk River Compressor Station in service to verify that:
  - a. Where the pre-construction noise level at noise sensitive areas (NSAs) is currently below an  $L_{dn}$  of 55 dBA (NSAs D, G, and I as identified in the FEIS), the noise level with operation of both the Cornwell Compressor Station and the new Elk River Compressor Station operating at full load does not exceed an  $L_{dn}$  of 55 dBA. If the measured sound level at any of

these NSAs exceeds an  $L_{dn}$  of 55 dBA, Greenbrier shall install additional noise control measures at Greenbrier's new Elk River Compressor Station **within one year** to meet that noise level requirement.

- b. Where the pre-construction noise level is currently at or above an  $L_{dn}$  of 55 dBA (NSAs C, E, F, H, and J as identified in the FEIS), the existing noise level shall not be exceeded with operation of both the Cornwell Compressor Station and Greenbrier's new Elk River Compressor Station operating at full load. If the measured sound level at any of these NSAs exceeds this  $L_{dn}$  noise level requirement, Greenbrier shall install additional noise control measures at Greenbrier's new Elk River Compressor Station **within one year** to meet the noise level requirement.

Greenbrier shall confirm compliance with the above requirements by filing a second noise survey with the Secretary **no later than 60 days** after it installs any needed additional noise controls.

35. With the exception of the Elk River and Eden Compressor Stations, the DG-2, DG-3, and DG-4 laterals, and Somerset, Mountain Creek, and Transco Meter Stations, Greenbrier shall defer construction and use of all facilities, including related staging and storage areas, temporary work areas, and new or to-be-improved access roads until:
  - a. Greenbrier files with the Secretary all additional required cultural resources inventory and evaluation reports and treatment plans;
  - b. Greenbrier files the comments of the appropriate state historic preservation officer and any other participants in the consultation process, including the Virginia Council on Indians, regarding all cultural resources reports and plans;
  - c. the Advisory Council on Historic Preservation has been given an opportunity to comment if any historic properties will be effected; and
  - d. the Director of OEP reviews and approves all cultural resource reports and plans and notifies Greenbrier in writing that it may proceed with mitigation or construction.

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



36. Greenbrier shall install safety fencing along the construction work area separating those cemeteries within 100 feet of the construction ROW from all work spaces during construction.
37. For all locations where the Greenbrier Pipeline Project will cross or be constructed along or within power line ROWs, Greenbrier shall, in consultation with U.S. Department of Transportation (DOT), develop a plan to:
  - a. conduct a stray current survey as soon as practical after the pipeline is buried;
  - b. identify and initiate prompt steps to mitigate detrimental effects of stray current; and
  - c. install and place in service the cathodic protection as soon as practical, but no later than three months, after completion of pipeline construction within or adjacent to a power line ROW.

Greenbrier shall file the plan and any additional DOT recommendations for construction across, along, or within power line ROWs with the Secretary **prior to construction.**

38. Greenbrier shall perform an in-line inspection of each section or segment of pipeline prior to placing it in service.
39. Greenbrier shall incorporate the Eastern Mainline Alternative in place of the proposed route between MPS D-45.6 and E-0.2.
40. Greenbrier shall incorporate the Hawks Nest Variation in place of the proposed route between MPS A-33.4 and A-35.8.
41. Greenbrier shall incorporate the Camp Carysbrook Access Road Variation into the project in place of access road C-AR40. Upon voluntary agreement with the owners of Camp Carysbrook, Greenbrier may use this access road as a permanent access road during the operation of the project.
42. Greenbrier shall use the Boyd Access Road Variation in the vicinity of MP C-48.7 for the route of access road C-AR52.
43. If the HDD method fails during construction of the project between MPS D-2.5 and D-3.0, Greenbrier shall use the Blue Ridge Parkway Variation.

44. Greenbrier shall incorporate the Mady Variation in place of the proposed route between MPS C-25.3 and C-26.2, if the affected landowners agree to the route of this variation.
45. Greenbrier shall incorporate the Blue Mountain School Variation, Option 3 in place of the proposed route between MPS C-50.7 and C-51.3.
46. Greenbrier shall incorporate the Eastern Mainline Alternative Variation, Option 2 to modify the southern portion of the Eastern Mainline Alternative between MP EMA-11.3 and MP E-0.7.
47. Greenbrier shall use the cofferdam method to cross the Little River and West Fork Little River outside the spawning season for warmwater fisheries (July 16 through April 15).