

46 Questions for the MVP Environmental Impact Study

Over the past year I have contributed roughly 100 pages of commentary, analysis, and research designs to the discussion of the Mountain Valley Pipeline proposal. Like many other members of the public I am unsure to what extent my concerns have been processed—either by the Commission or by the applicant. This remains true even after reading through the comments posted to the docket by the FERC, the Forest Service, and the EPA in response to the applicant’s recent submissions. While many of the issues I have raised are dealt with in some detail by the three agencies, other concerns I have raised in my contributions find no further voice.

Upon re-reading the MVP’s “Response to Scoping Comments” memorandum, it is quite clear that in many cases the company’s paraphrases of citizens’ concerns are designed to either minimize their significance or to sidestep the more difficult issue raised in a comment and substitute a far simpler one. A case in point: in a mid-April comment evaluating the proposed crossing of the Greenbrier River, I mentioned a nearby instance of probable Karst geology (locally known as the ‘turnhole’) to illustrate why a careful evaluation of the crossing is needed. In Comment 41, the company dismissed my reference to the turnhole on the grounds that it is more than 1,000 feet from the crossing site (I had said about 5 miles downstream)—as though the big problem raised (that similar unstable geology might be present at the crossing) could therefore be ignored or had already been dealt with in some other report. Such evasions are not reassuring.

Moreover, this inclination to simply ignore what they do not wish to see (or have others see) has gotten Mountain Valley Pipeline LLC into some difficulties—as in the legal decision in Monroe County, West Virginia, where the company resisted acknowledging the need to demonstrate that the project provides for “public use”—an omission which led the circuit judge to prohibit the company from entering private property without the owners’ permission. [This issue itself was dealt with—inaccurately, or so it currently seems—in MVP Comment 79, where the company asserts its right to survey against landowner wishes.] Such tendencies by the company leave one unsure of being heard, no matter how reasonable one’s concerns.

In studying the FERC docket while preparing this comment, I find that MVP has given partial or inadequate responses to only 21 of the 38 issues I raised between April 1 and June 16. Since many of these issues required multi-part answers, I further totaled those sub-divisions: there are 126 subsections. MVP has responded to only 28 of these, and to only one completely (i.e., providing a list of all named and unnamed streams crossed by the preferred route). Since some of these subsections require as many as 151 data points (as in the discussion of stream

crossing procedures), readers can judge for themselves how thoroughly the company has treated of the concerns raised.

In order to reassert the importance of the many issues I have addressed over the pre-filing and scoping periods, I have listed here, arranged under a number of sub-headings, the majority of the specific questions and action requests contained in my assessment of the environmental impacts and issues raised by the proposed MVP and for which I require (as a directly affected citizen) a Commission response. Where it has seemed useful, I abandoned the sequence in which I originally raised these concerns, compressing the presentation of related issues. I have also added a needed research study examining the cultural impact of the proposed project, and a number of additional questions concerning the legal environment in which the regulatory decision is being made, framing issues that have become clear to me only since my last contribution to the discussion. With each statement of concern, I have, so far as is possible, indicated the inadequacies of any existing MVP responses to the issues raised, especially as keyed to their “Response to Scoping Comments.”

From my own point of view, there is nothing included on this list that is in any way irrelevant to the Commission’s ability to render a reasoned and logical decision, based on “law, fact, and science” as these would be reflected in the text of Docket PF15-3-000 if the Commission and staff will honor these requests. And all the information requested here should appear in the EIS for the Mountain Valley Pipeline proposal. In many cases, thank goodness, other commenters with greater technical knowledge than I command have raised these and other issues, or requested in even greater detail specific data and deliberations to resolve these and other questions affecting the FERC’s decision. Thus there are many issues to be addressed in the EIS—and they should be expressed in language accessible to the average non-technical reader.

I must add that the public needs this information PRIOR to any MVP approval being authorized or allowed by the FERC. If the overarching purpose of the Commission’s procedures and empowerments is to assure the best possible service to the public interest, then the public itself must have access to all the information requested here and more. As a result, the EIS is likely to be many hundreds of pages. The public must have sufficient time to digest the details of so immense a document, to judge its adequacies, and also to deliberate on the propriety of any decision the Commission proposes. The sort of short-changed deliberations imposed on Craig County landowners cannot be tolerated again. If we—the people affected by the Commission’s decision—are to judge the value of the project, we must have a realistic sense of what is at stake, what has been put in harm’s way, as well as all the promised regulatory diligence and economic benefits touted by the Mountain Valley Pipeline’s corporate PR blitz.

All this information must reach us in complete form before the MVP corporation initiates any further action to implement their plan. Thus far, the applicant has given every indication that their strategy is to proceed as though everything they request will ultimately be approved, and that every advantage they wish to claim will be extended to them. Indeed, they are so confident of the FERC's support that they have been engaged for some time in the purchase of easements and rights of way, creating the impression that any regulatory issues have all been resolved. A major danger for the entire regulatory process lies in the possibility that the company's actions will simply supersede any regulatory authorization, damages to citizens' property and to the general environment having already been committed and remaining unmitigatable despite any subsequent regulatory prohibition. After all, as is sometimes said in business circles: "It is easier to apologize for something you did than to ask for permission to do it."

Following, then, are the major concerns (many with multiple stages or aspects) voiced in the collection of comments and analyses I have posted to the docket, informally titled "A Citizen's Environmental Impact Study of the MVP."

FERC's CONCEPTS AND STANDARDS OF PROOF

1. In my opening statement from the April 17, 2015 version of my study, I referenced the following questions for which I am still awaiting clear and unambiguous answers (requests for answers were repeated orally and in writing at the Lindside, West Virginia Scoping Session, but no one at the FERC has deigned to reply as yet, and Mr. Paul Friedman, at the Scoping Session, indicated that such questions would be answered only in the draft EIS. He may have wanted to add—"If then.") The questions are these:

(a) How does the FERC define and measure the constructs of the "public good" and the "public interest?" What are the constituent elements to be considered, the measures to be used, the acceptable sources of data, and the appropriate concepts and/or formulae by which calculations, speculations, and projections can be derived and still fit the FERC's definition of "fact" and/or "science?" (Please bear in mind as you frame your response that I am not a statistician nor a specialist in statistical research—and that relatively few of those reading your response will be so trained.)

(b) By what procedures will the FERC calculate the value of human losses (e.g., not only of economic use and utility but also of ancestral association to the land, of personal connection, aesthetic pleasure, etc.) as these have been expressed in many of the comments the FERC has received thus far associated with the construction and operation of the pipeline? Also, how will the FERC weigh these losses vis-à-vis the supposed gains enjoyed by consumers and end-users of the gas to be transported by the

pipeline? How will these supposed gains be measured in any manner that makes possible a comparison with the losses of citizens reported in such testimony as cited above?

(c) What specific laws define and direct FERC's procedures and decision-making strategies, including specifying the criteria by which decisions are made? (Please be as specific as possible about the law, section, paragraph, and any key phrases.) Also, please identify those laws, regulations, and stipulations which will be invoked in the ongoing monitoring and regulation of the pipeline should it be approved. It will be helpful in this regard if you clearly delineate any aspects of the project for which regulation will be left to either state or county authorities.

(d) I am aware of a number of excellent local scientific organizations and scientifically-trained individuals who might provide invaluable expertise in establishing baseline data, testing, monitoring, and related services in regulating the construction and ongoing operation of such a pipeline. Yet I have also been made aware that MVP's corporate sponsors have in the past retained the services of companies and individuals with far less rigorous standards and less stellar professional reputations.

In light of these observations, please clarify the standards of scientific performance imposed by the FERC in approving sources of scientific data, assessment, and projection/recommendation in each of the following areas:

[Note: these questions were first raised on April 1, 2015—since which time other commenters and analysts have identified errors or issues of concern in areas 1 through 6 in MVP reports and public statements. Clearly all persons concerned need a thorough discussion of these standards of performance as requested here.]

- 1) hydrology and water-quality testing;
- 2) geological factors in pipeline engineering;
- 3) risk assessment in pipeline engineering;
- 4) biological and botanical population assessment;
- 5) habitat evaluation;
- 6) general ecology;
- 7) social and economic impacts of industrialization.

(e) Citizens (I, we) need to know whether the FERC's conception of "fact" will include landowners' self-reports of significant environmental features, and whether, in cases of disagreement, the MVP's "environmental survey" would be granted greater evidentiary significance—unless the landowner can afford to undertake the cost of a professional assessment. [Note: in the absence of any response to this question, my wife and I did indeed pay for a professional assessment of the lower half of our property, an expense that may in fact have been procedurally unnecessary, although the results were deeply gratifying.] Notice that I would argue that, if accurate, the landowner's self-report would be every bit as 'true' as any report by a paid professional observer—especially an observer or group dependent on the financial support of a corporation submitting a proposal to the FERC—but this fact does not assure the FERC's acceptance of the landowner's statement. In any case, please include the rationale for the FERC's judgment in this matter.

ISSUES OF HYDROLOGY AND PIPELINE TOXICITIES

2. What are the predictable impacts of the pipeline on site-specific hydrological features of groundwater and the movement of subsurface water in relation to the pipeline in all affected areas of the preferred and alternative routes? [MVP Comment 46 in effect denies the necessity for "site-specific soil surveys" by referring to FERC regulations. Soil surveys, however, are only part of what is called for in the request: What is needed is a thorough understanding of how groundwater and surface water movements are likely to be affected on a local level of description. It seems immensely arrogant—and foolish—to pretend that there will be no significant changes in water movement along the 300 miles of the proposed pipeline. These changes could potentially be destructive and costly.]

3. What is the nature of the condensate carried by the proposed pipeline? What are its known toxic qualities? How much such condensate will be carried by a 42" line? How quickly would these substances leak from a line at 1480 psi pressure? How would a leak be identified? How quickly? What would be the means and costs of containment and clean-up in the event of a leak or spill? [MVP Comment 23 states only that "most liquid" would be removed from the gas—but this evades the question: How much will be left? In 2 billion cubic feet a day, even 'a little' could be significant.]

4. What other toxins are involved in the construction and operation of the line (e.g., welding materials, construction fuels and lubricants, etc.)? How will these toxins be dealt with in disposing of the millions of gallons of water used in testing the structural integrity of pipeline? What are the specific Federal requirements governing how the safety of the line is maintained

and the environment is preserved from damage by each toxin during construction and operation?

5. MVP and/or the FERC must provide a full and detailed discussion of how the de-commissioned pipeline will be maintained without damage to the environment or danger to local people and animals. This study should include details of costs and company liabilities in case of accident or environmental damage resulting from the deterioration of the pipeline once it is no longer in use. [MVP Comment 22 is wholly inadequate to this end, since it entirely sidesteps the issue and makes it impossible to envision estimates of cost to the public.]

ISSUES OF STREAM CROSSINGS

6. How specifically does the MVP propose to protect steep hillsides such as the descent to State Route 3/12 and the Greenbrier River crossing site in Pence Springs, West Virginia, from erosion, rockslides, and sedimentation? (Comment 34 refers only to standard procedures, making vague promises to continuing consultations on site-specific mitigation techniques.)

7. How, specifically, does the MVP propose to negotiate the crossing of West Virginia Route 3/12 at Pence Springs to assure continuous traffic flow between Alderson/Lewisburg and the town of Hinton, its medical facilities being the closest to affected area of the crossing? [MVP Comment 86 concerns all road and railroad crossings, and provides no more than the conventional reassurances complete plans will be forthcoming at the time of application and everything will meet regulatory requirements: Given how commonplace this assertion is in MVP's commentary, the public will need at least a two-month study period to process all the details promised for the final application!]

8. How, specifically, does the MVP propose to protect the water supply to the Big Bend Public Service District in Talcott, West Virginia, from sedimentation, erosion, and other threats during construction of the crossing and during operation of the pipeline? How will other water district intakes and water supplies be protected? An entire section of the EIS should address this issue. [MVP discussion in the draft of Resource Report 2 is vague and incommunicative, mentioning but not applying various Federally mandated classifications and mentioning potential difficulties with the crossing strategy identified. No later comments are any more reassuring. MVP Comment 32 simply says they will explain in their application.]

9. How will MVP ensure that the design of the river crossing at Pence Springs is able to withstand the flow rates of a 100-year flood without significant damage to the riverbed and surrounding banks?

10. What studies will be done to assure the feasibility of an HDD tunnel-crossing of the Greenbrier River in the Pence Springs Area? When will the results of such a study be made available to the public? [It is in this context that MVP flippantly dismisses concerns for the 'turnhole' as mentioned in my introductory remarks above.]

11. On a site-by-site basis, what specific issues confront construction of stream-crossings of the other major streams identified by the MVP? [MVP Comment 28 claims that such studies are ongoing at the time of comment and that results will be presented in the application.]

12. MVP must provide a detailed justification for whatever method of crossing is proposed for each stream crossing identified in Draft resource Report 2. (If I am not mistaken, such a request was also made by the EPA in their comments on the report.) Since all but one of these methods is declared to be 'open trench' (the one exception being the crossing of the Greenbrier River), this justification should include consideration of the following concerns:

[Note that nothing in MVP Comment 28 indicates the intention to carry out studies as detailed as these described below; MVP Comment 119 addresses this issue only by acknowledging it is an issue and providing simplistic and unconvincing remedies, while seeming to acknowledge that further study will be forthcoming at some point. This is actually a crucial issue to be addressed in detail in the EIS.]

(a) What are the estimated 100-year flood event flow-rates for each crossing site?

(b) To what extent will existing substrates and geologic structures in each site be able to sustain a 100-year flood event maximum flow and still retain the line in an open-trench or any other embedding structure?

(c) Given the force of a 100-year flood event, can the line be adequately protected from debris and damage in an open-trench, or any other, embedding structure?

(Answering this question will require extensive assessment of conditions both upstream and uphill from each site.)

DANGERS OF RUNNING THE RIDGES

13. MVP must supply a complete county-by-county mapping of all those sections of the preferred and alternative routes that run along ridgelines.

14. MVP must supply site-specific analyses of the topological characteristics of each ridgeline run (e.g., depth of soil, character of substrate, distance to bedrock, soil composition downhill on both sides of the ridge, etc.). [MVP Comment 45 alludes to some aspects of this issue in

relation to developing plans for blasting; other aspects of ridgeline evaluation are absent, so far as I can tell.]

15. MVP must provide a site-by-site discussion of appropriate strategies for mitigating run-off, erosion, sedimentation, and other damages resulting from each ridgeline section of the pipeline, with special attention paid to areas where headwater sections of streams could be affected. [MVP Comment 34 suggests this issue will be addressed in its application—but details of these issues should be included in the EIS.]

16. MVP must provide thorough discussion and analytic evaluation of alternative routings considered in all cases where ridgeline runs of the pipeline prove dangerous for headwater streams, or construction is seriously complicated by other topological features (e.g., short distance to bedrock).

MEASURING POTENTIAL COSTS TO THE PUBLIC

17. What is the FERC's position in relation to environmental damage resulting from construction for which no "mitigation" is possible (e.g., the destruction by construction processes of plants and animals not included in 'endangered' or 'threatened' categories)? Does the FERC require any census of such life-forms prior to construction? Why or why not? How are such 'unmitigatable' losses factored into an estimate of the costs and benefits of the project?

18. What strategies and methods of hydrological testing and study are available for evaluating the potential impacts of the pipeline on domestic water supplies? What are the advantages and limitations of each? What are the associated costs of each?

19. MVP and/or FERC must detail, on a county-by-county basis for the 300 miles of the preferred route and all alternatives, the following information concerning properties and residents affected by the proposal:

[MVP Comment 82 disingenuously explains that inaccuracies in their information in this area of concern are primarily the result of landowners who have not allowed survey, so that exact numbers are not available; they neglect to say that they simply have not released the information they have, or that other means to identify residents are available.]

(a) How many properties (i.e., tax parcels) will be directly affected by the permanent easement?

(b) How many properties will be directly affected by the construction easement (including staging areas and access roads)?

- (c) How many properties will be directly affected by the PIR of the pipeline?
- (d) How many properties are contiguous with those in (c) above?
- (e) How many additional properties lie downhill from a planned ridgeline run of the pipeline? How many properties lie downstream for each planned stream crossing (i.e., in the remainder of the watershed)?
- (f) What is the total acreage and the pre-proposal value of each of these properties? [MVP Comment 80 refers to tables which will be submitted at the time of application—but does not mention any statement concerning the value of these properties.]
- (g) How many of these properties depend on a domestic well, spring or other local water supply for domestic household uses? For agricultural uses? [MVP Comment 39 treats of these issues inadequately and with little more than vague promises of help to affected individuals. While that is needed, of course, the public must also have access to the summary statistics on the dimensions of the threatened resources in order to evaluate the proposal's potential impacts.]
- (h) What is the estimated cost of replacing these household and agricultural water systems (on a county-by-county basis unless topological considerations suggest significant cost-variations on a more localized basis)? [Neither MVP Comment 39 nor any other addresses the issue of cost in any way, again making an estimate of the potential loss impossible.]

20. MVP and/or FERC must provide the EIS with a detailed study of how existing businesses may be affected by construction and operation of the pipeline:

- (a) How many businesses (e.g., agricultural units, hospitality industry units, recreational firms) will be directly affected by the permanent and construction easements, by the PIR area, and/or by pipeline impacts on access and viewscape. [MVP Comment 75 asserts that effects on viewshed “are not expected to significantly affect recreation or tourism experiences.” However, the phrase ‘not expected’ does not convey much sense of security for anyone who imagines the visual effect of a 75-foot clear-cut through local terrain. Similarly, MVP Comment 88 refers to an inadequately detailed discussion in Resource Report 8. What is needed is a far more systematic analysis.]
- (b) What is the current economic value of each such business?
- (c) What is the estimated impact of the pipeline on each (including estimates from persons directly affected and other reliable sources)?

21. The FERC must implement—and include a description in the EIS of—a procedure by which long-term damage to trees and forestland resulting from construction (such damage may not be apparent for several seasons) can be evaluated and damages assessed for payment by MVP. [MVP Comment 90 refers to compensation for lost timber, but no mention is made of the long-term destruction of trees valued for other purposes.]

22. The FERC must require that MVP finance—and the EIS must report the results of—an independent assessment of potential impacts on hydrology and soil compaction throughout the preferred route and all alternatives, providing sufficient detail of specific geological and topological features that any damage to areas surrounding the route can be predicted, assessed and billed to the company.

23. MVP must provide the EIS with detailed studies of the effects of the preferred route and each alternative on forest fragmentation, identifying probable impacts on biological populations dependent on affected woodlands for habitat (to include but not limited to migratory bird species.) [MVP comment 61 refers to this issue, first by minimizing it, then by saying a final analysis will be reported in application. Again a full discussion is needed in the EIS prior to approval.]

24. MVP must agree to finance, throughout the active operation of the pipeline, the periodic assessment and removal of invasive plant species for all areas of the easements and areas contiguous to the easement and thus vulnerable to infestation. [MVP Comment 64 refers the issue of invasives but minimizes the concern and does not acknowledge the need for assessment and control subsequent to construction. The EIS should require independent professional input on this issue.]

25. The EIS must contain the results of an independent study mandated by the FERC—and financed by MVP—comparable to that described in my earlier submissions on land values, delineating the effects of the pipeline on the value of all affected properties (including those conscripted for the permanent and construction easements, construction staging areas, access roads, those affected by the PIR and properties contiguous with the latter.) [MVP Comment 89 repeats claims of non-effect which the company has made earlier in the process: subsequent comments have shown that more recent research disagrees with MVP assertions. The EIS must provide original data for the actual project area that will help resolve this conflict over a crucial area of concern.]

26. The EIS must contain the results of a study mandated by the FERC and developed with cooperation and funding from MVP of the potential value of funding alternative forms of energy development including solar and wind powered electrical generation and gas-fueled

electricity in facilities located in close proximity to the gas fields. [MVP comment 24 is inadequate in detail and does not attend to the third alternative at all.]

27. The EIS must contain a thorough discussion of the contribution to Climate Change/ Global Warming that will be made by the consumption of the gas transported by the MVP, including an estimated cost assessment of mitigating the effects of such a contribution (an estimate comparable to MVP's estimates of collateral benefits of the project to local economies.) [MVP Comment 102 implies a related discussion for "construction and operation" of the pipeline "including fugitive methane leakage"—but such language does not necessarily ensure treatment of the broader effects described in the assessment requested here. In Comment 103 and other comments, the corporation has made it clear that they are enthusiastic supporters of the notion that neither the production nor the consumption of gas are relevant to estimating the costs and effects of the project: only its transport and sale count in the application. This argument is clearly spurious and makes it impossible to estimate the actual cost or benefit of the pipeline.]

28. MVP and /or the FERC must include in the EIS a thorough discussion of what will be done to cover the costs of dealing with the de-commissioned pipeline, and for meeting the costs of accidents or mishaps occurring during the line's operational life and during the period of its persistence following decommission. [MVP Comment 22 is entirely inadequate to the demands of this request.]

ISSUES OF PUBLIC SAFETY

29. The FERC's EIS must contain a study of regulations affecting the placement of the pipeline in proximity to inhabited structures. The study should reflect conditions in both urban/ suburban and rural areas, complete with discussions of rationale for any variance from recommendations for multiples of the PIR discussed in my earlier submission concerning this issue, and an explanation of why such restrictions on proximity are not imposed during the pre-filing stage of the process so that route planning would be obliged to consider these issues. The study should also address the issue of the FERC's liability for damages should the Commission fail to assure appropriate regulations needed to protect the health and safety of residents.

30. MVP must prepare for the EIS a full "fire safety" study discussing in detail each of the following elements on a county-by-county basis for the entire preferred route and all alternatives: [MVP Comment 85 addresses some aspects of the following, specifically traffic studies conducted for other purposes, but a full fire safety study is still required; Comment 113 refers to disaster preparedness but makes no commitments to financial support for needed improvements]

- (a) Mapping of the line in relation to all local roadways in a fashion that clearly delineates the width/carrying capacity of each road segment;
- (b) Relation of the line to all fire-response units and emergency-service providers;
- (c) Fire-fighting equipment available to each response unit;
- (d) Number of residents on each road segment and their direction(s) of egress in event of emergency [MVP Comment 115 partially addresses this issue in a slightly different context.];
- (e) Estimated travel time between response units and representative sites along the pipeline;
- (f) All supplementary units and equipment potentially available, with estimated travel times to representative sites.

31. The FERC must report or develop for the EIS research on potential impacts of gas-line explosions on rural areas—including resulting forest fires—that is comparable to available research for urban areas. (The Commission is ethically, and morally, obliged to withhold approval of proposals for rural installations until such research data is available and potential impacts are more fully understood.) [MVP Comment 110 partially and inadequately addresses this issue; however, the standards and regulations referred to generally address non-rural conditions. Comment 118 addresses the effects of forest fires on the line, not the creation of a forest fire by an explosion.]

32. In the EIS, the FERC must require and MVP must commit to the financial support needed to bring all affected fire-response units up to an established level of equipment and training that can assure that volunteer personnel and other local fire-fighters can respond to an MVP-related emergency without unreasonable danger to life and safety. These costs should be systematically revealed and dealt with in detail in the EIS, with professional standards fully documented and confirmed by an appropriate, professional pipeline safety organization. [See note in 30 above.]

33. MVP must conduct for the EIS a study of potential impacts on local infrastructure, to include all roads, bridges, airfields, and other public facilities utilized or affected by construction or operation of the pipeline. This study must be developed on a county-by-county basis for the entire preferred route and all alternatives, and should include the following data:

- (a) Baseline assessments of the current condition of all facilities;
- (b) Estimated probable effects of projected construction equipment, transportation of materials, etc. on each facility;
- (c) Estimated probable costs of repairs for each facility;
- (d) A plan for assuring MVP's financial capacity for meeting responsibilities for all damages incurred through construction and/or operation of the pipeline for each affected county.

SOCIAL COSTS AND ECONOMIC BENEFITS OF THE MVP

34. The EIS must contain the results of a FERC study of existing social science research into the following issues:

- a) The effects of short-terms employment and increasing economic instability on interpersonal relationships, social interaction, marital stability, and childhood development (especially in rural populations);
- b) Effects of long-term economic instability on the out-migration of workers in low-income areas;
- c) Effects on Rural Communities of the introduction of industrial economic elements and the resulting effects on land use, employment, and the general economic stability of rural areas.

35. MVP must submit for the EIS a full and detailed comparative analysis of potential benefits of the project, in which they base projections of benefits not only their own estimates of the productivity of the Marcellus/Utica gas reserves but also recent contrasting estimates from relevant studies such as those by researchers at the University of Texas reported in the Docket. This analysis must include consideration of the effects of multiple drains on the reserve posed by the four other pipeline projects currently under discussion, [MVP Comment 12 provides a wholly inadequate and unconvincing argument that such a study is unneeded or is irrelevant to its application. However, should none of the benefits claimed for the project by EQT/MVP endure for as long as estimated, the entire proposal will prove seriously misleading.]

This study of benefits should provide detailed answers to all of the following questions:

- (a) What is the character of each class of direct benefit projected for the MVP (e.g., employment in construction; specific amount of reduced price of gas, or electricity; stock dividends to investors, etc.)?
- (b) How many individuals are projected to receive each form of benefit, in what amount, over what period of time?
- (c) Where do these individuals reside (on a county-by-county/ state-by-state basis)?
- (d) On a county-by-county basis for the length of the preferred route and all alternatives, what are the secondary benefits of the MVP (e.g., tax payments based on transportation of gas; secondary employment attributable to construction; and general stimulus to local economies, etc.)? What are the projected values of these secondary benefits? Their projected duration?
- (e) Assuming additional pipelines are authorized for exploitation of the Marcellus/Utica Reserves, detail the possible effects on the duration and amounts of the projected benefits? [Again, MVP Comment 12 is unconvincing. Nor is the language of MVP Comment 104 especially reassuring—note “Projects in the vicinity,” a phrase that is not made specific enough to communicate the range of the proposed study.]
- (f) If gas transported by the MVP is sold abroad, or if this gas is used by a domestic company to free up existing supplies for sales abroad, what impact would such activity have on the projected benefits of the MVP—and on the domestic price of gas? [MVP Comment 16 attempts to evade and minimize the question of overseas sales, but clearly such sales could have significant impact on domestic prices if the influx of MVP gas supplies in the market were offset by exports by other Transco customers—or even some of EQT’s/NextEra’s domestic partners.]
- (g) The FERC must indicate the calculus (to be used in the event of overseas sales) by which the Commission will calculate the ‘public interest’ served, specifically in response to this issue: How many overseas families’ accessing of new energy sources will be held as equivalent to each Appalachian family which loses their property rights, and must endure for the foreseeable future the inconvenience of the pipeline’s presence and its constant threat to health and safety?

IDENTIFYING THE CULTURAL IMPACTS OF THE MVP

36. The FERC must conduct and report to the EIS the results of a study of the Docket for PF 15-3-000 which will provide quantifiable analysis of citizens' concerns about the proposal and thus help characterize the pipeline's impact on various aspects of the culture. (I proposed such a study in an earlier submission.) Commissioners and the public deserve a detailed summary of the concerns expressed, revealing at least such traits as their range of a variation, their frequency and their geographic distribution along the proposed and alternate routes.

37. Related to the request in (20) above, the EIS must contain the results of a FERC-conducted study of the growth of various alternative economic strategies in affected counties throughout the preferred and alternative routes. Data should be presented on a county-by-county basis and include such agricultural activities as new forms of marketing agricultural products and organic production; hospitality functions (such as bed-and-breakfast accommodations, vacation rentals, small hotels), outdoor recreation, and various forms of support for general tourism. The report should detail economic data including current investments and total current economic value, and the potential impact of the pipeline's construction on these as estimated by local business people and other qualified personnel.

38. In an attempt to test the hypothesis that this proposal represents an action by which the will and values of an economically privileged group are imposed on a poorer and less powerful group of citizens, the FERC must conduct—and report in the EIS the results of—a comparative study of the economic and demographic features of the two affected populations: (1) those who will be directly and negatively affected by the construction and operation of the line, and (2) those identified by the MVP as receiving the majority of the economic benefits deriving from the project. Working county-by-county throughout the area affected by the pipeline, and throughout the areas where benefits will be distributed, the study should compare affected groups in terms of average per-capita and family incomes, occupations, home ownership, and some standard demographic descriptors including race, age, and ethnic identity. Since Federal regulations affecting the FERC's decision-making criteria require similar considerations for decision-making purposes, this study should not present any substantial additional burden on the Commission, except insofar as it requires examining specific data from EQT/MVP which has not yet been made public in the docket but which should be integral to the study of benefits requested above.

8 QUESTIONS FOR THE FERC'S LEGAL STAFF

39. If the Commission approves a Certificate of Public Convenience and Necessity for the MVP on the basis that the proposing entity is essentially a public utility, and thereby extends to MVP

LLC the power of eminent domain, will the pipeline's subsequent operation be subject to the same regulatory agencies and requirements as other public utilities (i.e., Public Service Commission hearings on rates, etc.)?

40. In the event that the Commission grants a Certificate of Public Convenience and Necessity, will the power of eminent domain confer on MVP the power to demand such conditions as the company is currently extracting from individual landowners—such as the right to transport whatever materials the company may choose to have authorized, and the right to install more than one line in the easement?

41. If the Commission is to base its decision on "law, fact, and science," are Commissioners and staff under a legal obligation to obtain and review factual and scientific information that is not in effect "forced" on their attention by inclusion in the docket by direct statements from cooperating agencies or citizen commenters? That is, are the Commission and staff under legal obligation to pursue factual or scientific information shown to be necessary to render a reasoned, critical decision on matters raised by the proposal?

42. If the Commission will consider only such information as is contained in the docket for a particular proposal, what is the Commission's legal obligation to supply the docket with such information as citizens have requested or defined as necessary to the decision-making process?

43. Should the Commission fail to provide such information—or refuse to obtain and/or post such information as has been requested—what legal alternatives are available to citizens to either hold the Commission accountable for failure to consider relevant evidence, or to oppose the Commission's final decision on such grounds?

44. In the event that the FERC approves a proposal despite the relevant docket containing extensive factual and scientific evidence of significant short-comings and/or dangers inherent in the project, what legal liabilities does the Commission---as authorizing agency---face should predictable damages occur to the environment and/or to the property, health, safety or lives of affected citizens?

45. Should citizens feel the FERC's procedures and decision-making criteria are seriously flawed, what legal recourse is available by which they can pursue changes and improvements in these aspects of the regulatory process.

46. In the most recent response to MVP application materials, the FERC has required the applicant to acknowledge and deal with published analyses appearing in the last three years which identify negative impacts of pipeline construction on property values, mortgages and property insurance. In MVP's earlier discussions of this issue (both in formal communications

with the FERC and in public “advertorials” distributed among affected communities), the corporation has systematically implicated the FERC in substantiating the claim that pipelines have no significant measurable effect on property values. In the meantime, MVP’s representatives have been negotiating sales of easements with landowners, and there need be little doubt that company representatives have been reassuring owners that the line will have no negative effects on value. CAN (OR WILL) THE FERC REQUIRE THAT EXISTING SALES BE RE-NEGOTIATED WITH LANDOWNERS INFORMED OF THE CURRENT DATA AND RESEARCH ON THIS TOPIC? If not, why not? Would the failure to do so open the Commission to charges of aiding and abetting the acquisition of private property under false pretenses? Moreover, the referenced research shows negative effects occurring as much a two-and-one-half miles from the pipeline route. Will the FERC be requiring the applicant to compensate affected landowners whose property is contiguous with the PIR but not directly crossed by the easement?

Sincerely,

Thomas T. Bouldin

Pence Springs, West Virginia

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