

128 FERC ¶ 61,045
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Rockies Express Pipeline, LLC

Docket No. CP07-208-005

ORDER GRANTING AND DENYING REHEARING

(Issued July 15, 2009)

1. On March 19, 2009, the Director of the Office of Energy Projects (Director), through his designee Alisa M. Lykens, Chief of Gas Branch 2, authorized Rockies Express Pipeline, LLC (Rockies Express) to begin construction over Spread K of the REX-East project (March 19 construction letter order).¹ On March 27, 2009, pursuant to section 19 of the Natural Gas Act (NGA)² and Rule 713 of the Commission's Rules of Practice and Procedure,³ Murray Energy Corporation, Consolidated Land Company, and American Energy Corporation (collectively, the Murray Companies or Murray) filed a request for rehearing of the March 19 construction letter order.⁴
2. Previously, on March 13, 2009, Commission staff issued a letter order authorizing Rockies Express to begin clearing certain trees on portions of Spread K, including along the length of the construction right-of-way that crosses land underlain by coal reserves

¹ *Rockies Express Pipeline, LLC*, Docket No. CP07-208-000 (Mar. 19, 2009) (unpublished letter order).

² 15 U.S.C. § 717r (2006).

³ 18 C.F.R. § 385.713 (2008).

⁴ Section 375.301(a) of the Commission Rules and Regulations, 18 C.F.R. § 375.301(a) (2008), provides that any action by a staff official under delegated authority may be appealed to the Commission in accordance with section 385.1902 of the regulations. Section 385.1902(a) provides that a staff action under delegated authority is a final agency action that is subject to a request for rehearing under Rule 713 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.1902 (2008).

and formerly mined areas controlled by the Murray Companies (March 13 tree-clearing letter order).⁵ On March 16, 2009, the Murray Companies filed a request, pursuant to Rule 212 of the Commission's Rules of Practice and Procedure,⁶ for the Commission to stay and reconsider the March 13 tree-clearing letter order.

3. For the reasons discussed below, we will grant, in part, and deny, in part, the Murray Companies' request for rehearing and deny its request for a stay and reconsideration.⁷

I. Background

4. On May 30, 2008, the Commission issued an order (the May 30 Certificate Order) authorizing Rockies Express to construct and operate interstate pipeline facilities, known as the REX-East pipeline project, comprising approximately 639 miles of 42-inch-diameter pipeline, with appurtenant facilities, commencing at the eastern terminus of Rockies Express's REX-West facilities in Audrain County, Missouri eastward to an interconnect at the Clarington Hub in Monroe County, Ohio.⁸ The REX-East pipeline will have a capacity of 1,800,000 dekatherms per day and a maximum allowable operating pressure of 1,480 pounds per square inch (psi) absolute.

5. Rockies Express began the pre-filing process with respect to the REX-East pipeline project on June 13, 2006. Rockies Express filed its formal application for the

⁵ *Rockies Express Pipeline LLC*, Docket No. CP07-208-000 (March 13, 2009) (unpublished letter order).

⁶ 18 C.F.R. § 385.212 (2008).

⁷ On June 1, 2009, the Murray Companies filed a motion for stay of the March 19 construction letter order pending resolution of this rehearing. Because we are in this order acting on Murray's rehearing request, its June 1, 2009 stay request is rendered moot.

⁸ *Rockies Express Pipeline LLC*, 123 FERC ¶ 61,234, *order on reh'g*, 125 FERC ¶ 61,160 (2008). The REX-East pipeline is the third leg of Rockies Express's system. In the first leg, we authorized Rockies Express to construct and operate approximately 327 miles of pipeline from supply basins in Colorado and Wyoming to the Cheyenne Hub in Weld County, Colorado. *Entrega Gas Pipeline Inc.*, 112 FERC ¶ 61,177, *order on reh'g*, 113 FERC ¶ 61,327 (2005). In the second leg, we authorized Rockies Express to construct and operate approximately 713 miles of pipeline from the Cheyenne Hub to Audrain County, Missouri (the REX-West facilities). *Rockies Express Pipeline LLC*, 119 FERC ¶ 61,069 (2007).

project on April 30, 2007. On March 18, 2008, Murray Companies filed an untimely motion to intervene and late comments in the REX-East pipeline project proceeding, just before staff issued the final Environmental Impact Statement (EIS) for the REX-East project. The Commission granted Murray's late motion to intervene and addressed its comments in the May 30 Certificate Order. As we stated in the May 30 Certificate Order, the Murray Companies' primary area of concern is an eight-mile segment of pipeline located in the coal mining regions of Belmont and Monroe Counties, Ohio between mileposts (MPs) 621 and 629, which traverses land over coal reserves held by the Murray Companies. At approximately MP 629, the REX-East pipeline route begins to traverse land underlain by American Energy Corporation's Century Mine. The other Murray Companies also hold or are attempting to obtain mining interests in portions of the project area. Murray has expressed concern about potential impacts of construction and operation of the REX-East pipeline on the workers and the operation of its adjacent Powhatan No. 6 Mine. Murray states that since October 2008, it has been mining coal on a daily basis in the immediate vicinity of MP 629 and that, according to Murray's June 1, 2009 stay request, it is currently projected to begin full longwall mining and subsidence under the REX-East route as early as October 2009, and potentially sooner.⁹

6. In recognition of the concerns raised by Murray, we included an environmental condition in the May 30 Certificate Order that explicitly required Rockies Express to address the effects of the construction and operation of the REX-East pipeline above Murray's coal reserves located approximately between MP 621 and 629 and over the American Energy Corporation's Century Mine located approximately between MP 629 and 634. Environmental Condition 147 required Rockies Express to develop a construction and operations plan, in collaboration with the Murray Companies, for the segment of pipeline that crosses coal mining reserves held by Murray addressing the primary concern of maintaining pipeline integrity and operation while not impeding mining operations. The condition also required that if the collaboration with Murray did not result in a the creation of a construction and operations plan, then Rockies Express must file an alternative pipeline route that avoids the Murray Companies' coal reserves. In addition, Environmental Condition 50 of the May 30 Certificate Order required Rockies Express to create a Mining Subsidence Plan.

⁹ Longwall mining, the principal method used by Murray in the vicinity of the project, is a form of underground coal mining where a long wall of coal is mined in a single slice. The longwall mining technique involves the use of movable hydraulic roof supports, which make it possible to excavate blocks of coal up to 1,000 feet wide and 5,000 to 10,000 feet long. As the coal is excavated, the land above the longwall section subsides in a controlled operation. Subsidence, in this case, refers to the sinking or settling of the surface land after coal is extracted from the subsurface and the mine supports are removed.

7. On June 27, 2008, the Murray Companies filed a request for clarification of the May 30 Certificate Order. We addressed Murray's filing, styled as a request for rehearing, and a request for reconsideration by Elrod Water Company, Inc., d/b/a Hoosier Hills Regional Water District, in a November 10, 2008 Order Granting and Denying Requests for Clarification and Denying Requests for Reconsideration.¹⁰ In that order we responded to several questions raised by Murray regarding the intent of the May 30 Certificate Order with respect to potential impacts to mine entrances caused by pipeline construction, comments about surface features as possible impediments to both mining and the pipeline construction and operation, and the inclusion of safety measures in Rockies Express's plans to be developed in compliance with Environmental Conditions 50 and 147.

8. In purported compliance with Environmental Conditions 50 and 147 in the May 30 Certificate Order, Rockies Express filed a Mining Subsidence Plan on June 19, 2008 and a Construction and Operations Plan on December 23, 2008, as supplemented on January 16, 2009. Along with the plans, Rockies Express submitted several technical reports prepared by experts, including an assessment of subsidence influence due to longwall mining by Dr. Syd S. Peng, an engineering assessment of coal mining subsidence by Dr. D. J. Nyman, and a report on pipeline longwall mine mitigation by Mr. Robert Francini.

9. At the behest of the parties, Commission staff held technical conferences on August 5, 2008 and February 17, 2009, to discuss Rockies Express's Construction and Operations Plan. On February 23, 2009, Rockies Express filed responses to several questions posed by Commission staff at the second technical conference, including an additional report prepared by Dr. Nyman on the effects of pipeline trench blasting on an underground coal mine.

10. As noted above, on March 13, 2009, staff granted Rockies Express's request to begin clearing trees across land over Murray's coal reserves and the Century Mine, so that Rockies Express could fell Indiana bat roosting trees before the March 31 deadline imposed in Environmental Condition 87. On March 16, 2009, Murray filed a request for a stay and reconsideration of the tree-clearing authorization. On March 19, 2009, staff issued the March 19 construction letter order authorizing construction across Spread K (MPs 603 through 639.1), including construction over Murray's coal reserves and the Century Mine. On March 27, 2009, Murray filed a request for rehearing of the March 19 construction letter order.

11. On June 3, 2009, the Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety, which is

¹⁰ *Rockies Express Pipeline LLC*, 125 FERC ¶ 61,160 (2008).

responsible for the safety in design, construction, testing, operation, maintenance, and emergency response of pipeline facilities, provided staff with a list of its minimum requirements for the operation of pipelines in areas where longwall mining operations could impact the operational integrity of the pipeline.

12. The PHMSA requirements include standards for: monitoring the pipeline before, during, and after subsidence, including the excavation of the pipeline prior to longwall mining; inspection, including the use of Inline Inspection Tools, and repair of the pipeline and welds within 60 days after subsidence; and notification and submittal of operational mining procedures based upon known mining and operational parameters to the appropriate PHMSA regional office and the state pipeline safety authority, a minimum of 60 days prior to mining operations being conducted. We emphasize that the Construction and Operations Plan we required pursuant to Environmental Condition 147 in the May 30 Certificate Order is in addition to any mitigation that PHMSA may require and that Rockies Express must comply with any provisions deemed necessary by PHMSA.

13. On June 11, 2009, staff requested an update from Rockies Express on its construction schedule in the vicinity of Murray's coal reserves and mining areas between MPs 620 and 635. On June 15, 2009, Rockies Express filed its response and a construction schedule detailing when Rockies Express expects to begin blasting activities across Murray's coal reserves and mining areas. On June 17, 2009, Murray filed a response to Rockies Express's schedule and Rockies Express filed a response to Murray on June 22, 2009. On June 23, 2009, Murray filed a reply to Rockies Express's response, reiterating its previous arguments. On June 25 and 26, 2009, Rockies Express and Murray, respectively, filed additional responses to each other again reiterating previous positions. On June 29, 2009, Rockies Express filed copies of its final communications protocol governing blasting activities and on July 9, 2009, Rockies Express filed copies of its final communications protocols governing communications during ground subsidence and construction and mining activities in the vicinity of the pipeline, which Rockies Express states it previously sent to Murray, as part of its implementation of its Construction and Operations Plan. Also on July 9, 2009, Murray filed its proposed modifications to and comments on Rockies Express' final blasting protocols. On July 10, 2009, Rockies Express responded to Murray's comments.

14. We address each of the Murray Companies' concerns in turn below.

II. Murray's Request for Stay of the March 13 Tree-clearing Letter Order

15. On March 16, 2009, the Murray Companies filed a request for stay and reconsideration of the March 13 tree-clearing letter order. Murray argues that the March 13 tree-clearing letter order, which authorized Rockies Express to clear Indiana bat roosting trees between MPs 617.6 and 636, including Murray's coal reserves and mining areas, was premature because at the time staff had not yet approved Rockies Express's Construction and Operations Plan. Furthermore, Murray argues that because route

alternatives around Murray's coal reserves and mine were still being considered at that time, tree-clearing authorization was premature and that unnecessary damage to Indiana bat roosting trees located along the pipeline route would occur if the Commission subsequently approved an alternative route.

Commission Response

16. In order to protect the Indiana bat, we required in Environmental Condition 87 of the May 30 Certificate Order that Rockies Express remove Indiana bat roosting trees from along the construction right-of-way only during the bat's inactive season (between October 1 and March 31).¹¹ Therefore, absent the March 13 tree-clearing authorization Rockies Express may have been precluded from undertaking tree-clearing activities until the start of the bats' next inactive season in October. As staff clearly points out in the letter, the March 13 tree-clearing letter order does not authorize construction over the indicated areas; therefore, it was not necessary for staff to have approved the Construction and Operations Plan prior to authorizing tree clearing. As Environmental Condition 147 states, the plan need only be approved prior to construction. Although staff had not yet officially approved the Construction and Operations Plan and authorized construction, at the time it issued the March 13 tree-clearing letter order staff had reviewed the plan, as well as the supplemental information presented at, and subsequent to, the technical conferences. Further, because staff approved the Construction and Operations Plan and authorized construction in the March 19 construction letter order, after Murray filed this stay request, the question of the stay and reconsideration of the March 13 tree clearing letter order is essentially moot and subsumed into Murray's larger rehearing request addressed below.

III. Murray's Rehearing Request of the March 19 Construction Letter Order

17. In its rehearing request, the Murray Companies allege that in the March 19 construction letter order the Commission violated its rules for delegated authority by permitting an undesignated staff official to approve Rockies Express's Construction and Operations Plan and Mining Subsidence Plan. Murray also argues that the Commission erred in authorizing construction on land over Murray's coal reserves without making findings that Rockies Express had complied with Environmental Conditions 50 and 147. Murray continues that the Commission erred in ostensibly finding that Rockies Express had collaborated with the Murray Companies in the development of the Construction and Operations Plan. Furthermore, Murray argues, the Commission erred in permitting

¹¹ Although Environmental Condition 87 also allows, under certain circumstances, tree clearing after March 31 at night, when the bats are not present in the trees, the topography between MPs 617.6 and 636 would make tree clearing at night a dangerous undertaking.

construction along Rockies Express's proposed pipeline route and in approving the Construction and Operations Plan, which, Murray claims, fails to address the risks posed by landslides and subsidence, utilizes an unproven and experimental pipeline trench design, is not supported by experts with experience in longwall mine subsidence mitigation for gas pipelines, and is not represented in a single document. In addition, Murray argues that construction of the pipeline on land over its reserves and mine poses serious and unresolved safety risks to miners and the public and that the Commission erred in finding that construction of the pipeline along the proposed route is consistent with the public interest and will serve the public convenience and necessity. Finally, Murray contends the Commission erred by failing to order Rockies Express to pursue an alternative pipeline route.

A. Approval and Delegation Issues

18. Murray argues that the Commission erred in permitting a staff official, who Murray claims does not have the proper delegation designation, to approve construction on Spread K without the Director's prior written approval of Rockies Express's Construction and Operations Plan, as required by Environmental Condition 147 of the May 30 Certificate Order. Murray argues that the Director did not issue a compliance determination or any written approval of Rockies Express's Construction and Operations Plan prior to staff's authorizing construction on Spread K.

19. Murray continues that the May 30 Certificate Order expressly grants the Director, and no one else, delegated authority to approve Rockies Express's compliance with the conditions of the order. Although, Murray argues, the Commission's regulations allow certain actions to be undertaken by the "Director's designee," this is not one of those situations.¹² According to Murray, the Commission's regulations do not grant the Director's designee delegated authority to act in situations involving the implementation of a certificate of public convenience and necessity. Murray maintains, that even where the regulations allow for the Director's designee to act, the designee must be the Director's "deputy..., the head of a division, or a comparable official..." – categories, Murray argues, into which the Chief of Gas Branch 2 does not fall.¹³ Along the same lines, Murray argues that the May 19 construction letter order equally failed to fulfill Condition 50, which also requires written approval by the Director of Rockies Express's Mining Subsidence Plan.

20. Murray also alleges that the March 19 construction letter order failed to find that Rockies Express complied with Conditions 50 and 147. Although the March 19

¹² 18 C.F.R. § 375.308 (2008).

¹³ *Citing* 18 C.F.R. § 375.301(b) (2008).

construction letter order explicitly states, “Rockies Express has complied with Environmental Condition 44,” Murray argues that no similar finding was made regarding Environmental Conditions 50 and 147. Murray contends that the March 19 construction letter order simply states that the approval to begin construction is granted in “accordance with” Environmental Conditions 50 and 147, which is not the necessary explicit approval.

Commission Response

21. The argument that the March 19 construction letter order is not valid because it is not actually signed by the Director, but rather by his designee, lacks merit. The Commission has, by regulation, delegated authority to staff officials to take certain actions in order to use Commission resources more efficiently.¹⁴ In addition, the Commission routinely in its orders makes specific delegations of authority to its Directors to address matter contained in those orders. Further, while not explicitly stated in those orders, Commission practice clearly demonstrates the Commission delegates authority to its Directors with the understanding that the Director may further delegate such authority to a designee in instances where the Director deems it appropriate.¹⁵ However, to the extent it is necessary, we hereby affirm the Director’s delegation of authority in this proceeding and clarify that, unless explicitly prohibited, a Director may further delegate authority delegated by order of the Commission. We further clarify that sub-delegations to Branch Chiefs and similar level officials are appropriate.

22. The May 30 Certificate Order delegated authority to the Director to determine whether Rockies Express’s Mining Subsidence Plan properly addressed the factors laid out in Environmental Condition 50 and whether Rockies Express’s Construction and Operations plan, as required by Environmental Condition 147, was developed in collaboration with Murray and properly addressed the “primary concern of maintaining pipeline integrity while not impeding the mining operation.”¹⁶ In accordance with usual and longstanding practice, and supported by internal documentation, the Director designated the Chief of Gas Branch 2, who has direct daily responsibility over environmental compliance matters for the REX-East project, to act on this matter.

23. The branch chief, based on a thorough review of the plans by additional staff in her branch, granted Rockies Express permission to begin construction across Spread K and above Murray’s coal reserves and formerly mined areas. With respect to clearances for environmental conditions and authorization to begin construction, the branch chief

¹⁴ 18 C.F.R. §§ 375.301-314 (2008).

¹⁵ See, e.g., *East Tennessee Natural Gas Co*, 106 FERC ¶ 61,159 at P 12 (2004).

¹⁶ May 30 Certificate Order, 123 FERC at 62,470.

who has direct responsibility for ensuring compliance with the conditions is appropriately situated to evaluate whether those conditions have been met, and therefore is a “comparable official” to a deputy or division head in this situation, as required by section 375.301(b) of the Commission regulations.¹⁷ Accordingly, we again affirm the practice of delegating authority to Commission staff, and we adopt the Director’s action, through his designee, as our own.

24. Murray argues that the March 19 construction letter order authorized construction over its coal reserves without the necessary finding that Rockies Express had complied with Conditions 50 and 147. Although the letter order does not explicitly find that Rockies Express complied with the two conditions, it clearly states that the construction approval was granted in accordance with Environmental Conditions 50 and 147. Despite Murray’s suggestion otherwise, this implicit acceptance of Rockies Express’s Mining Subsidence and Construction and Operations Plans, as required by the two conditions, is no less effective because the letter order explicitly found that Rockies Express “complied with Environmental Condition 44.”¹⁸ Since the March 19 construction letter order properly acts as approval of Environmental Conditions 50 and 147, we will deny rehearing on this issue.

B. Failure to Collaborate with Murray

25. Murray alleges that Rockies Express failed to meaningfully collaborate with Murray in the development of the Construction and Operations Plan. Murray states that Rockies Express did not share a draft of the plan with Murray until November 25, 2008, and that only one meeting was held to discuss the draft plan on December 5, 2008. At that meeting, Murray states that it discussed significant material errors in the plan with Rockies Express, but that there was no other meeting with Murray before the December 23, 2008 plan, and the January 16, 2009 supplement, were filed with the Commission. Although there were discussions between Rockies Express and Murray during the summer of 2008, Murray states, the discussions focused on the possibility of alternative routes and the one-way transfer of information from Murray to Rockies Express, including the provision of maps and data on local terrain and soils, briefings on the mine operations, and analysis of numerous routing alternatives. Murray states that Rockies Express shared very little information with Murray until November 25, 2008, before the December 5, 2008 meeting.

¹⁷ 18 C.F.R. § 375.301(b) (2008).

¹⁸ Condition 44 required Rockies Express to file a revised route for a portion of the pipeline which Rockies Express filed.

26. In the explanatory statement accompanying its Construction and Operations Plan, Rockies Express states that it collaborated with the Murray Companies in developing a construction and operations plan that would allow the pipeline to operate safely and maintain its integrity without impeding the Murray Companies' mining operations. Rockies Express states that the originally certificated route had been developed after consultation with Murray. Rockies Express states that it met with representatives from the Murray Companies on July 1, July 31 and October 2, 2008. Additionally, Rockies Express states that it met with Murray on December 5, 2008 after Rockies Express sent a draft copy of its plan to Murray for review.

27. Rockies Express states that throughout this period there had been many telephone discussions, email conversations, and other exchanges of data. Rockies Express states that the Murray Companies provided Rockies Express with details regarding Murray's past, current, and planned future mining operations. Rockies Express states that it and Murray exchanged maps containing information of Murray's past and planned mining operations and displaying the certificated and alternative route possibilities of the REX-East pipeline.

28. Rockies Express contends that at the December 5, 2008 meeting, both companies discussed the layout of Murray's coal reserves, Murray's future mining plans, and the specific overburden depth Murray anticipated maintaining in its mining operations. Rockies Express also states that the Murray Companies shared several specific concerns with Rockies Express and that based on these concerns, Rockies Express directed its experts to refine their studies and reports. Furthermore, following the meeting, on December 11, 2008, Rockies Express states that both companies participated in a teleconference to discuss the pipeline's potential impact on mine entries.

Commission Response

29. In the May 30 Certificate Order we required Rockies Express to collaborate with Murray to develop for the section of pipeline traversing land over the coal mining reserves held by the Murray Companies a construction and operations plan that addressed the primary concern of maintaining pipeline integrity and operation, while not impeding the mining operation.¹⁹ We also provided that if the collaboration did not result in a plan, Rockies Express was to file an alternative route that avoids Murray's reserves. The purpose behind requiring collaboration was to require Rockies Express to work with the Murray Companies in developing a plan; however, we did not require that Rockies Express necessarily obtain Murray's concurrence on the provisions of a suitable plan, if one could be developed.

¹⁹ May 30 Certificate Order, 123 FERC at 62,470.

30. We find that Rockies Express worked with the Murray Companies to develop a plan that would comply with Environmental Condition 147. Both parties acknowledge there was a transfer of information over a period of time. While Murray contends that the information-sharing was one-way, Murray acknowledges that Rockies Express provided it with a draft copy of Rockies Express's plan approximately one month before filing, allowing Murray an opportunity to review, and comment upon, the plan. After sharing the draft, the parties met allowing the Murray Companies the opportunity to communicate their concerns to Rockies Express. Rockies Express noted Murray's concerns and, according to Rockies Express, and not disputed by Murray, changes were made to the draft plan to take into account Murray's comments. Following this meeting, both companies participated in a teleconference and Commission staff held two technical conferences in order to discuss the Construction and Operations Plan. Based on this record, we find that Rockies Express's cooperation with the Murray Companies in formulating the Construction and Operations Plan fulfilled both the literal requirement of, and the intent behind, the collaboration requirement in Environmental Condition 147, and, therefore, deny rehearing on these grounds.

C. Rockies Express's Construction and Operations Plan

31. The Murray Companies argue that the Commission erred in approving Rockies Express's Construction and Operations Plan submitted pursuant to Environmental Condition 147 of the May 30 Certificate Order because the plan is deficient, unsafe, and fails to protect Murray's coal mining operations. Each of Murray's specific issues are addressed, in turn, below.

1. Landslide Risk

32. Murray argues that Rockies Express's Construction and Operations Plan leaves the pipeline open to the risk of landslides. Murray states that the U.S. Geological Survey has classified the entire Spread K route as containing a high incidence of landslide risk. Murray also states that a report prepared by WEIR International, Inc. for Murray shows that large landslides are prevalent in the eastern Ohio region along the REX-East route over Murray's coal reserves. Murray, therefore, disagrees with Rockies Express's statement from its Construction and Operations Plan filed December 23, 2008, that it will avoid all steep slopes to reduce landslide risks. According to Murray, the February 6 and March 5, 2009 WEIR International, Inc. reports prepared for Murray demonstrate that Rockies Express's route does not follow ridgelines and contains multiple slopes in excess of thirty degrees. Murray states Rockies Express's own expert, Dr. Peng, who prepared an assessment of subsidence on the pipeline due to longwall mining, found that slopes in excess of twenty degrees pose landslide risks. Murray argues that Rockies Express downplays the risk of steep slopes and landslides to the pipeline. Furthermore, Murray argues, a report prepared by Golder & Associates for Rockies Express was perfunctory

and superficial and relied on inadequate reviews of the land surface at issue to reach the conclusion that the landslide risk was less than Rockies Express had initially found.

33. In the explanatory statement to the Construction and Operations Plan, Rockies Express states that the REX-East route is located to minimize exposure to potential landslides because it generally follows ridge tops, and where it is impossible to do so, the route parallels the fall-line of the valley slopes. In addition, Rockies Express states that while there are a few areas where less favorable sidehill terrain is traversed, up to 80 percent of the area between MPs 621 and 629, the area of Murray's reserves, will be trenched into consolidated rock. Furthermore, the Construction and Operations Plan states that steep slopes that are potentially susceptible to landslides will be avoided where possible by making minor adjustments to the route alignment. Where this is impossible, Rockies Express states that it will implement post-construction monitoring and mitigation.

34. Rockies Express also states that it will employ several measures that will make the pipeline less susceptible to damage during landslide and subsidence events. Rockies Express states that it will employ heavier-walled (0.740-inch) pipe and use "over-matching welds," a welding method where the weld material is of greater strength than the pipe. Rockies Express states that these methods, which are included in the Construction and Operations Plan, will increase the ability of the pipeline to sustain its integrity if subjected to additional stress due to ground movement.

Commission Response

35. We agree with Murray that the potential for landslides created by subsidence or natural forces exists in the project area. However, this does not mean that a pipeline cannot be constructed and operated safely in this area. The construction of pipelines in areas prone to landslides is not unknown. Over the years the industry has been able to design, construct, and operate pipeline projects safely in areas subject to landslide.²⁰

36. Further, we note that landslides in the area of Murray's mine are shallow, occurring in unconsolidated surface strata.²¹ Due to the shallow bedrock in the area,

²⁰ For example, in the eastern United States, Texas Eastern Transmission, LP, Transcontinental Gas Pipe Line Company, LLC, Columbia Gas Transmission Corporation, Dominion Transmission, Inc., and Tennessee Gas Pipeline Company have constructed and operated natural gas pipelines in similar terrain for fifty years or more.

²¹ See Golder Associates's REX-East MP 620-634 Terrain Analysis and Landslide Evaluation 2009 presented at the February 17, 2009 technical conference and filed with the Commission on February 19, 2009.

some of the pipeline will be trenched in bedrock. Placing the pipeline in bedrock will help protect it from the shallow landslides. In addition, we believe that the use of heavier walled pipe, avoiding construction on steep slopes where possible, and monitoring the pipeline, along with compliance with PHMSA regulations, is appropriate and adequate mitigation. Therefore, Murray's rehearing request on this ground is denied.

2. Subsidence Risk

37. The Murray Companies state that a study conducted by Rockies Express's own expert, Dr. Peng, concludes that, even with heavier-walled pipe, the projected longwall coal mining subsidence would exceed the stress capacities of the pipeline over virtually its entire length. Murray continues that another Rockies Express expert, Dr. Nyman, who authored a report on the effects of coal mining subsidence on the pipeline, first expressed concern about the pipeline being forced upwards during subsidence events and then altered his opinion about the depth of ground cover that should be employed.

38. Rockies Express states that it will employ several measures that will make the pipeline less susceptible to damage during subsidence events. In addition to the heavier-walled pipe and overmatching welds, Rockies Express states that it will employ field pipe bends rather than shop bends because field bends provide a greater radius than shop bends, thus providing greater strength to withstand the effects of any subsidence event. Rockies Express explains that these methods will increase the ability of the pipeline to sustain the additional of potential ground movement during a subsidence event. Rockies Express explains that Dr. Peng's report with its conservative estimates provided the basis for areas of further study and was used to focus Rockies Express's subsidence mitigation effort.

39. Rockies Express also states that it will determine the specific depth of cover in its final construction design based on site-specific factors. Although Rockies Express first stated that the heavier-walled pipe would allow Rockies Express to reduce the amount of cover over the pipeline to about eighteen inches, in its February 23, 2009 filing Rockies Express states that it would increase the cover to thirty inches to ensure the pipeline remained sufficiently below the surface during subsidence and during uplift. As an alternative to the additional cover, Rockies Express states that it will use weights placed over the pipeline in areas where excessive uplift could be expected.

40. In its June 17, 2009 comments, Murray argues that Rockies Express appears to dismiss PHMSA requirements in a June 12, 2009 letter to the Commission as if the PHMSA requirements are written for other pipelines as mere suggestions, rather than requirements and that Rockies Express relies on communications between Rockies Express and PHMSA that are not in the public record. In its June 22, 2009 response, Rockies Express acknowledges that it must follow PHMSA's regulations in order to remain compliant with federal law and, therefore, Rockies Express states that once it is

notified by Murray of a subsidence event it will consult with PHMSA regarding specific requirements for the subsidence event.

Commission Response

41. We will deny the Murray Companies' rehearing request on this ground. The Construction and Operations Plan submitted by Rockies Express and approved by the March 19 construction letter order properly addresses the risk of damage to the pipeline from a subsidence event through serious efforts to prevent and mitigate any potential damage to the pipeline. Although we concur with Murray's statement regarding Dr. Peng's study that relying solely on wall thickness would not be sufficient protection for the pipeline, we believe that Rockies Express has incorporated other mitigation, including a special trench design and field bends that, along with the heavier-walled pipe, will protect the integrity of the pipeline when implemented in conjunction with PHMSA requirements. As for Murray's comments regarding an alleged discrepancy in the opinions presented by Dr. Nyman, as explained during the February 17, 2009 technical conference, Dr. Nyman's original 2007 study was based on generic information, while his subsequent 2009 study that altered the level of cover was based on project-specific information.

42. Once Murray finalizes mining maps for its reserves, Rockies Express will be better able to fully evaluate the site-specific effects of subsidence on the pipeline. Prior to a subsidence event, according to its Construction and Operations Plan, Rockies Express will model the expected stress on the pipeline due to subsidence, allowing it to determine at such time the most prudent subsidence mitigation measures. Additional post-construction subsidence mitigation measures, depending on the site-specific details, may include exposing the pipeline to monitor stress during subsidence, reducing the pressure in the pipeline to no greater than 1200 psi, or taking the pipeline completely out of service. Furthermore, as we have stated, Rockies Express is required to comply with PHMSA regulations to ensure the safety of the pipeline should subsidence of the ground beneath the pipeline occur. For example, if PHMSA requires Rockies Express to excavate and expose the pipeline during subsidence events, Rockies Express will be required to do so. The procedures outlined in the Construction and Operations Plan are in addition to any provisions deemed necessary by PHMSA.

3. Pipeline Trench Design

43. According to Murray, Rockies Express's plan to lay the pipeline in a special gravel trench is an unproven and experimental longwall mining subsidence mitigation technique. Murray continues that the experimental nature of the plan is evidenced by the fact that Rockies Express made material changes to its plan between the time it was originally filed and when a supplement was filed. Murray argues that Rockies Express changed the slope of the trench sidewalls from 45 degrees to vertical and also altered the depth of gravel cover for the pipeline from eighteen to thirty inches. Murray argues that

Dr. Nyman's support for the change in gravel depth was hedged and tentative. Murray further contends that Rockies Express failed to demonstrate that it can properly address stability issues with its proposed trench design in landslide-prone areas with steep slopes that will be subjected to mine subsidence. Murray continues that Rockies Express's proposed use of a polyurethane foam breaker to keep the gravel in place on steep slopes is unsupported by any technical study in the record. Finally, Murray argues it is unclear whether Rockies Express is going to employ weights on the pipeline to prevent uplift and that the use of such weights is not supported by an engineering report.

44. In its explanatory statement to the Construction and Operations Plan, Rockies Express states that for the up to 80 percent of Murray's coal reserve area that is solid bedrock, it has developed a special trench design to aid the pipeline's ability to withstand the effects of subsidence. Rockies Express argues that the specially-designed trench will reduce soil constraint, protect the pipeline during subsidence, and provide for easier excavation of the pipeline, if necessary. According to Rockies Express's original plans, the specially-designed trench includes the use of granular, cohesionless backfill surrounding the pipeline, with at least a foot of the backfill beneath the pipeline to provide cushioning. Rockies Express states that coarse sand, rounded gravel, and rounded crushed rock are preferred backfill materials designed to reduce soil restraint. Rockies Express states that it altered the trench design to include the use of a 90-degree trench wall, instead of a sloping 45-degree trench wall, except in areas where there are significant horizontal bends, based on additional analyses performed by Dr. Nyman.

45. In its response to staff questions following the technical conference, Rockies Express indicates that it would employ thirty inches of cover above the pipeline in situations where there is potential for upward displacement of the pipeline. Rockies Express states that Dr. Nyman suggests increasing the amount of cover to thirty inches, from eighteen inches, so that should pipeline uplift occur, the pipeline would remain covered. Furthermore, Rockies Express states that weights may be used to prevent uplift in areas where excessive uplift might be expected. Although this would increase pipeline stress, Rockies Express states that it would not be in excess of accepted criteria. Rockies Express also indicates that it will use polyurethane foam or sandbag-constructed breakers to keep the backfill in place on steep slopes.

Commission Response

46. We find that Rockies Express's proposed special trench design is appropriate under the circumstances. A sizable portion of the pipeline's path through Murray's coal reserve area will be trenched into solid bedrock. The special trench design will help reduce stress on the pipeline in the event of a ground disturbance or during periods of subsidence. Although some areas of the pipeline's path may be more susceptible to landslides or subsidence stress, the special trench design, including the use of foam or sandbag breakers will help to mitigate any potential damage to the pipeline. Furthermore, Rockies Express's use of trench breakers made of foam or sand bags is

consistent with its Upland Construction Plan as submitted to the Commission on June 2, 2008, and will reduce water drainage and soil erosion around the pipeline in the trench. We do not find the fact that Rockies Express has filed changes to its trench design indicates that the design is experimental, as Murray claims. Indeed, in an instance like this we would expect a pipeline to update its mitigation plan as appropriate, as information is developed. As discussed above, Dr. Nyman altered his original report to take into account the more specific information about the project area that he lacked when his first report was prepared. Rockies Express filed its modified trench design based on Dr. Nyman's updated report. Finally, we find Dr. Nyman's recommendation in his report sufficient support for Rockies Express's use of weights as a mitigation measure to minimize pipeline uplift during subsidence to the extent Rockies Express determines such use as appropriate on a site-specific basis. Therefore, we will deny Murray's rehearing request on these grounds.

4. Rockies Express's Experts

47. Murray argues further that Rockies Express's expert, Dr. Nyman, lacks the requisite experience with longwall coal mining subsidence in the context of gas pipelines. Murray also argues that Rockies Express and its employees lack any experience with mitigation mining subsidence issues. Murray contends that Rockies Express's experts, Dr. Nyman and Mr. Robert Francini, do not have experience in mining subsidence issues and that although Dr. Peng has experience with longwall mining subsidence, his findings do not necessarily support Rockies Express's plan.

48. Rockies Express states that Dr. Peng is the Charles E. Lawall Chair of Mining Engineering, Department of Mining Engineering, at West Virginia University. Rockies Express states that the Murray Companies specifically recommended Dr. Peng to Rockies Express as a noted expert on predicting subsidence due to longwall mining, upon whom Murray had relied in the past. According to Rockies Express, Dr. Nyman and his associates are internationally recognized experts in analyzing the ability of buried pipelines to withstand the effects of ground movement, including both planned and unplanned subsidence caused by mining. Mr. Francini, Rockies Express states, is a senior pipeline specialist with twenty years of experience specializing in, among other things, analysis of the response of pipelines to both planned and unplanned subsidence.

Commission Response

49. The record in this preceding, including a review of the academic and professional qualifications of Dr. Nyman and Mr. Francini, and a review of the technical reports presented by them, supports the conclusion that they are fully qualified to provide expert opinions in this proceeding.

50. With respect to Dr. Peng's assessment, as explained above, Rockies Express used his study as a baseline. Rockies Express then designed additional subsidence mitigation measures to take Dr. Peng's findings into account.

5. Composition of Plan

51. Murray contends that there is no single document that represents "the Construction and Operations Plan" because the original December 23, 2008 filing has been supplemented. Murray complains that as a result of what it argues is the Commission's lack of review and proper approval of Rockies Express's Construction and Operations Plan, it is unclear just what obligations Rockies Express must perform during construction over Murray's coal reserves and active mining operations.

52. Murray also argues that Rockies Express's December 23, 2008 Construction and Operations Plan was submitted prematurely, while critical studies were still underway. Murray continues that Rockies Express's own expert, Dr. Nyman, advised in the December 23, 2008 filing against routing the REX-East pipeline over past or future mining areas. Further, when Rockies Express submitted an additional report from Dr. Nyman on January 16, 2009, Murray states that Dr. Nyman still advised against routing the pipeline across future longwall mining activities.

Commission Response

53. Although there is no one filing that represents Rockies Express's Construction and Operations Plan, the details of the plan are contained in a few discrete documents. The plan essentially comprises portions of the original December 23, 2008 filing and the January 16, 2009 supplement. These two filings make up the bulk of the plan. Minor refinements and clarifications were made in subsequent filings following the technical conference on February 23, 2009, at the request of Commission staff. We do not think it necessary that the Construction and Operations Plan be represented by a single document, only that the substance of the plan be readily discernible, which is the case here. In order to aid Murray and other interested parties, we have included a list of the principle components of the Construction and Operations Plan and where they can be found in Appendix A to this order.

54. Regarding Murray's characterization of Dr. Nyman's comments, it is true that Dr. Nyman's report presented in Rockies Express's January 16, 2009 filing stated that "[i]deally, pipelines should be routed where feasible to avoid future longwall mining activity...." However, the report goes on to state it is practicable to protect pipelines from the effects of subsidence through design and construction or field mitigation measures once mining is scheduled to happen, or both. Dr. Nyman also notes that "the activity associated with protecting a modern, welded steel pipeline against subsidence effects is relatively minor compared to the potential impact of subsidence on buildings, structures roads, bridges, etc. and the general environment."

55. As we stated above, Rockies Express has responsibility to ensure that its pipeline is constructed and operated in a safe manner and in compliance with the Department of Transportation PHMSA regulations. We again emphasize that the requirements in the Construction and Operations Plan are in addition to what PHMSA may require.

D. Mine Safety

56. Murray contends that approving a route across the mine poses serious and unresolved risks to the miners and the public. As mentioned above, Murray states that it is currently projected to begin full longwall mining and subsidence under the REX-East route as early as October 2009.

57. Murray argues that Dr. Nyman's statements about trench blasting fail to properly address the risk to the mine and miners during trench blasting. Murray contends that Dr. Nyman's recommendations that the underground pipeline-crossing area should be examined to remove any loose roof material and that underground travel should be restricted during trench blasting demonstrates that Dr. Nyman believes that trench blasting over the mine is inherently risky. Furthermore, Murray states that no Rockies Express expert has physically inspected the underground roof conditions of the Century Mine. Murray argues that Rockies Express cites no engineering assessment of the site-specific facts for its opinion that the blasting will not have a deleterious effect on the structural integrity of Murray's mine entries.

58. Murray also points out that it is not clear whether Dr. Nyman's recommendation, that the mine should be evacuated whenever there is pipeline construction blasting, is part of the Construction and Operations Plan. If that recommendation is part of the construction and operations plan, Murray argues that the recommendation would impede mining operations.

59. Murray also states that a gas pipeline rupture could create a large fireball and spread smoke, carbon dioxide, and other toxic gases over a large area. Murray contends that if such an event were to be caused by subsidence over Murray's Century Mine, the mine ventilation system could draw toxic gas and flames into the mine, endangering the lives of its 400-500 miners working in the two underground mines in the vicinity of the pipeline. Murray contends that even if the gas did not ignite, methane could be drawn into the mine. Murray argues that at the February 17, 2009 technical conference, Rockies Express failed to address the potential for gas released during a possible pipeline rupture to be pulled into the Century Mine. Murray further contends that Rockies Express cannot protect the Murray Companies from the harm that might result if mining subsidence caused a pipeline explosion.

60. Rockies Express states in its February 23, 2009 response to staff questions that although it has not yet been determined the extent to which shallow trench blasting would be necessary during construction across Murray's coal mining area, any blasting would

be of limited duration, probably lasting three weeks and the depth of blasting is not expected to exceed nine feet. Rockies Express states that due to the depth of the longwall mining panels and mine entries, it is unlikely that the blasting will have a deleterious effect on the structural integrity of the mine. However, Rockies Express continues, because the blasts may be felt by miners working underground, Rockies Express also states that it will communicate its blasting schedule to Murray. Furthermore, according to Rockies Express, pursuant to the blasting plan submitted with the Construction and Operations Plan, Rockies Express will draw up a site-specific blasting plan for each blast area, including notification to the Murray Companies. Rockies Express's general blasting plan indicates that 72 hours notice would be given to mine operators with active operations directly below the blasting location before blasting occurs. In addition to the initial notification, same day notification may be agreed upon by both parties. Rockies Express states that a technical memorandum prepared by Dr. Nyman demonstrates that where underground stability has been studied in mines located at much shallower depths than those of the Murray Companies and subjected to much larger charge blasts than those typically used in pipeline construction, there was no blast-induced mine roof instability.

61. Golder Associates, a Rockies Express expert, gave a presentation at the February 17, 2009 technical conference on the potential impacts to air quality in Murray Mines from a hypothetical gas release from the pipeline. Its conclusion was that in order for there to be any potential for toxic gases to be drawn into the ventilation system there must be three simultaneous events: (1) the pipeline releases a significant amount of gas, (2) the gas release is in the vicinity of an air shaft, and (3) the wind is blowing from the point of release towards the air shaft. Golder Associates further indicates that if the rupture is more than one mile from the air shaft, there would be no impact on air quality in the mine. Rockies Express plans to mitigate the potential for impacts to the mine by installing mainline valves at MPs 619.4 and 639 that would automatically shut off the flow of gas in the event of a rupture, thus minimizing as much as possible the amount of gas released.

62. In response to a staff data request, on June 15, 2009, Rockies Express filed a construction schedule for the area between MPs 620 and 635. According to the construction schedule, Rockies Express expects to begin grading this summer at MP 620 on June 24, at MP 627 on July 13, at MP 630 on July 27, and to complete grading at MP 635 on July 31. Rockies Express is scheduled to begin ditching at MP 620 on June 29, at MP 627 on July 17, at MP 630 on July 24, and will complete ditching at MP 635 on July 31. Rockies Express states that grading and ditching activities along the right-of-way may require blasting, but that Rockies Express will engage in grading and ditching by means other than blasting, wherever possible. Rockies Express also states that early indications are that much of the area can be excavated with normal ditching and that machine rock excavation and rock hammering will be utilized where possible to minimize the need for blasting.

63. In its June 17, 2009 letter, Murray argues that Rockies Express's statements that much of the area can be excavated by normal ditching contradict earlier statements by Rockies Express to the Commission that 80 percent of the coal reserve area consists of consolidated rock and that the pipeline in this area would be trenched into strong bedrock.

64. Furthermore, Murray states that Rockies Express finally acknowledges that a series of underground entries, including one near MP 629.7, are used on a daily basis and that Rockies Express believes a protocol is now necessary for communications for construction and blasting activities. Along with its June 17, 2009 letter, Murray filed two draft communication protocols that Rockies Express had sent to Murray for Murray's comments. The draft communication protocols attached to Murray's letter covers communications between Murray and Rockies Express during subsidence due to underground mining and during blasting by Rockies Express. Murray argues that the draft communication protocols proposing a blasting notification schedule that Rockies Express sent to Murray for comment should have been part of the Construction and Operations Plan filed by Rockies Express for review by the Director. Murray argues that Rockies Express is trying to force Murray into agreeing to its communications protocols and that it will be difficult for Murray to adjust its mining operations in response to the short proposed notification periods.

65. Finally, Murray argues that Texas Eastern Transmission LP's (Texas Eastern) experience with longwall coal mining in Monroe County, Ohio is indicative of the difficulty of operating a natural gas pipeline over a longwall mine. Murray explains how Texas Eastern's engineering expert, before the Ohio Reclamation Commission, describes pipeline tolerance and strain created by ground movement associated with subsidence and explains that surface mitigation measures must be undertaken to prevent excessive stress on pipelines and to avoid disruption of service. Murray argues that the mitigation measures suggested by Texas Eastern, such as excavating the pipeline and implementing other surface mitigation measures, are akin to those advocated by Murray and PHMSA and that Rockies Express's subsidence mitigation methods are experimental, changing, and unproven.

66. In response, Rockies Express argues that its recent comments about blasting are consistent with its position throughout this proceeding. In conformance with prudent construction measures, Rockies Express states that it intends to use blasting for trench excavation only where necessary. Further, Rockies Express contends that it has consistently acknowledged the presence of mine entrances in the vicinity of the pipeline and that it proposed the 72-hour notification prior to blasting in its initial compliance filing in December 2008.

67. Regarding the development of communication protocols to govern communications between the Murray Companies and Rockies Express pertaining to subsidence planning during pipeline operations, blasting during pipeline construction,

and mining activity in the vicinity of the pipeline, Rockies Express states that it presented to Murray a draft First Communication Protocol regarding subsidence planning during pipeline operations and a draft Second Communication Protocol addressing and coordinating communications during blasting activities conducted by Rockies Express in the vicinity of the Murray Companies' underground mining activities.²² On June 29, 2009, Rockies Express filed what it considers to be a final version of the Second Communication Protocol governing blasting activities that provides for an initial notification 72 hours prior to blasting and then two subsequent notifications 24 hours and one hour prior to blasting.. Finally on July 9, 2009, Rockies Express filed what it considers to be final versions of the First Communication Protocol governing ground subsidence and the Third Communication Protocol addressing mining activities in the vicinity of the pipeline right-of-way.

68. Also on July 9, 2009, Murray filed comments on Rockies Express's final Second Communication Protocol governing blasting. Murray offers an alternative blasting communications plan that requires Rockies Express to obtain permission from Murray for blasting activities between MPs 628 and 634 by first providing Murray with a "request to blast" no less than 96 hours prior to each proposed blast, specifying the desired time (within a five minute window) and location. According to Murray's alternative proposal, once Rockies Express notifies Murray, Murray has 72 hours to either approve or deny Rockies Express's blasting request. If denied, Murray proposes to give Rockies Express another five minute window at a different date and time or explain why the requested blasting time and location cannot be approved. Finally, Murray's proposed alternative plan requires Rockies Express to reimburse Murray at least three hours prior to blasting for the costs incurred by Murray in preparing for the blast, during the blast window, and for post-blast inspections and related follow-up activities.

69. In its response filed on July 10, 2009, Rockies Express states that it will utilize a rock trenching machine over areas where miners are expected to be present and that use of the machine will minimize substantially, or may even obviate entirely, the need to blast in the vicinity of the mine. In addition, Rockies Express states that it believes that it can make some accommodating modifications to the blasting communication protocol it filed incorporating some of Murray's requests, if Murray is willing to meet with Rockies Express and provide more specific information. Rockies Express, therefore, suggests a meeting between Murray and Rockies Express to discuss blasting in the vicinity of the mine.

70. Finally, Rockies Express argues that the Texas Eastern proceeding before the Ohio Reclamation Commission referenced by Murray is not on point. Rockies Express

²² Murray provided copies of the draft First Communication Protocol and draft Second Communication Protocol to the Commission in its June 17, 2009 filing.

explains that the Texas Eastern system at issue is an existing pipeline system already in the ground that was built without the subsidence protection measures that Rockies Express will use in the construction of its pipeline. Rockies Express argues that in contrast to older pipelines, the REX-East pipeline is being built utilizing state-of-the-art construction techniques and is being subjected to stronger and more extensive testing protocols. Rockies Express argues that the purpose of the Texas Eastern proceeding before the Ohio Reclamation Commission is to compel one of the Murray Companies (American Energy Corporation) to provide for the protection of the Texas Eastern pipelines within or overlaying the Murray permit area, in accordance with Ohio law.

Commission Response

71. Murray has expressed concern about the impacts to miners working under the construction right-of-way while Rockies Express is blasting. We share Murray's concerns for the safety of its workers and the public at large. We believe, however, that construction and operation of the REX-East pipeline, as conditioned by our orders, will not constitute a significant safety risk. Murray contends that no Rockies Express expert has physically inspected the underground roof conditions of its mines. However, we likewise note that Murray has presented no evidence that its mine roofs are more unstable than would be expected. Nevertheless, Rockies Express will only use blasting when mechanical means such as backhoes, rippers, rock hammers, and rock trenching machines are unable to create a trench for the pipeline. Further, the blasting method used in pipeline construction is substantially different from the blasting used in quarries and road construction. The intent of blasting in quarries and road cuts is generally to maximize rock fracturing and removal across broad areas. In contrast, blasting for pipeline installation is designed to fracture rock in a much smaller area.

72. We note that Rockies Express's schedule for construction between MP 620 and MP 635 indicates that grading and ditching between those mileposts may require blasting, and that Rockies Express plans to use a rock trenching machine in areas where miners are expected to be present further reducing the need to blast. However, based on Rockies Express's schedule, absent any delay, Rockies Express will complete any necessary blasting associated with constructing its pipeline before Murray indicates that it plans to begin its mining activities under the pipeline right-of-way.

73. We note that the Golder Associates study provided by Rockies Express supports our assessment that blasting in conjunction with construction of the pipeline is unlikely to have any impact on miners working below areas being blasted. However, in recognition of the albeit remote possibility that vibrations from blasting could result in the fall of an already loosened rock within a mine, potentially injuring a miner, we are adding the following new requirement: prior to the commencement of blasting over any active mine entry or panel, Rockies Express must provide the Commission with proof that the Murray Companies and the Ohio Department of Natural Resources have received actual advance notice of the planned blasting. If upon receipt of such notice, the Murray Companies

determine that these areas should be cleared of mining personnel during blasting, Rockies Express shall reimburse Murray for the direct costs associated with the suspension of mining operations in the affected areas.

74. As we acknowledge in this new condition, we are concerned that Murray will incur costs due to pipeline construction; however, we refrain from adopting Murray's specific reimbursement mechanism. Rockies Express and Murray are free to work out an agreement on an appropriate reimbursement mechanism.

75. We find the communications protocols that Rockies Express sent to Murray and filed with the Commission to be reasonable and order that they be implemented as part of the Construction and Operations Plan, unless Rockies Express and Murray agree to mutually acceptable alternatives. The Murray Companies allege that the notification schedule that Rockies Express outlined in the blasting communications protocol will disrupt its mining operations and instead suggested a 96-hour initial notification with a five minute window for when blasting would occur, to be followed up with approval by Murray within 72 hours of the initial notification. Rockies Express responded that it would be willing modify its plan to accommodate Murray, if Murray would be willing to meet with Rockies Express. We acknowledge that evacuating mining personnel during blasting to ensure their safety may indeed temporarily disrupt Murray's mining operations. Rockies Express originally drafted the blasting communications protocols in reaction to Murray officially notifying Rockies Express that it had altered its mining plans and intended to begin mining under the REX-East route as early as October 2009. Rockies Express now states that it will utilize a rock trenching machine that will reduce, or possibly eliminate entirely, the need to blast over areas where miners are expected to be present, reducing any potential impacts on the mine due to trench blasting. Accordingly, we are accepting all three of Rockies Express's communications protocols, including its blasting protocol, as reasonable under the circumstances, as part of the Construction and Operations Plan. However, we urge Rockies Express and Murray to come to a mutually acceptable agreement on the blasting communications protocol and if they are able to do so, Rockies Express shall file it with the Commission. As noted in Appendix A, the communications protocols created by Rockies Express are now included as part of the Construction and Operations Plan.

76. Finally, we disagree with Murray's arguments that Texas Eastern's experience with longwall mining in Monroe County, Ohio is indicative of the current difficulties associated with operating a natural gas pipeline over a longwall coal mine. The purpose of Texas Eastern's proceeding before the Ohio Reclamation Commission is to compel the American Energy Corporation to pay for subsidence mitigation measures, including excavating and monitoring the pipeline during subsidence, on a pre-existing pipeline that the American Energy Corporation intends to undermine. Even though Texas Eastern's pipeline is much older and was built without the same type of subsidence mitigation measures that Rockies Express is using on the REX-East pipeline, Texas Eastern intends

to continue operating the pipeline during subsidence. Although Rockies Express is not currently proposing to excavate the pipeline during subsidence, to the extent PHMSA determines that such action is necessary Rockies Express will be required to comply. The Texas Eastern proceeding indicates that Texas Eastern believes that it can safely operate its pipeline over a longwall mine with the proper post-construction mitigation. As we stated in the May 30 Certificate Order, and unlike Texas Eastern, Rockies Express will be fully responsible for monitoring and inspecting the pipeline, properly implementing mitigation measures, any repairs or relocation of the pipe that is determined necessary, and the costs associated with these activities.²³

77. We emphasize that Rockies Express must comply with all applicable state and federal mine safety and health regulations that address blasting activities above mines in addition to the conditions in our orders. One such condition is that Rockies Express adhere to the requirements of the Construction and Operations Plan.

78. We find that the chance of a rupture, up wind and in the vicinity of one of the air intakes is remote. In the unlikely event of a major incident occurring within proximity to the coal mining operation, Rockies Express is required to notify the proper authorities in accordance with PHMSA regulations. Furthermore, as we explained in the May 30 Certificate Order, Rockies Express will install mainline valves at MP 619.4 and 639 that will automatically close in response to a sudden drop in pressure over Murray's reserves.²⁴

E. Public Interest Concerns

79. Murray argues that in order for the Commission to find that the REX-East pipeline route is in the public interest, the Commission must be assured that Rockies Express will be able to provide certificated service on a reliable basis. Murray contends that this cannot be the case because the REX-East pipeline will need to be taken out of service during times of mining subsidence. Murray states that in its own experience with gas

²³ See May 30 Certificate Order, 123 FERC ¶ 61,234 at PP 93, 96. We also note that Rockies Express has stated that it is willing to pay the costs of all its own mitigation expenses during the operation of the REX-East pipeline and to indemnify Murray against claims for damages to the pipeline and pipeline shippers caused by normal mining operations beneath approximately MPs 621 and 629. Furthermore, Rockies Express has also stated that it is willing to be responsible for mitigating any damages to the REX-East pipeline during subsidence resulting from Murray's normal mining operations beneath MPs 621 and 629 and indemnify Murray for damages to life or property occurring at the surface caused by disruption to, or by, Rockies Express's operation of REX-East.

²⁴ *Id.* P 93.

pipelines crossing its mines, gas was routinely and invariably shut off repeatedly during mining subsidence. Therefore, Murray argues, the REX-East route over Murray's operations opens the possibility of prolonged interruptions of service during times of future mining subsidence.

80. Murray continues that the proposed mitigation measures will be very costly, but that Rockies Express has failed to even estimate the likely and potential worst-case subsidence mitigation costs. Murray contends that in order for the Commission to have made an informed decision about whether REX-East was in the public interest, reliable cost estimates of the expected mitigation costs were indispensable.

Commission Response

81. As more fully discussed in the May 30 Certificate Order, we found that the public convenience and necessity required the approval of the 639-mile REX-East pipeline.²⁵ We found that there was a need to transport natural gas from the Rocky Mountains eastward where there was a ready market for that gas, that there was a lack of any adverse impacts on existing customers and other pipelines, and limited impacts on landowners and communities. Although costs may increase due to the mitigation measures contained in Rockies Express's Construction and Operations Plan, any additional construction and mitigation costs due to constructing across the approximately 14 miles of Murray's coal reserves and mining area will likely be nominal in relation to the total construction costs of the pipeline. Furthermore, although there is no evidence that Rockies Express would have to take the pipeline out of service during subsidence events, Murray's coal reserve areas are near the eastern terminus of the REX-East pipeline where service disruptions would be minimized by temporarily routing natural gas destined for the Clarington Hub to other interconnects. Pipelines are taken out of service routinely for maintenance, or other reasons, and such events are properly addressed in the pipeline's tariff. Therefore, Murray's rehearing request on these grounds is denied.

F. Alternative Routes

82. Murray argues that the public interest requires the Commission to disapprove Rockies Express's planned route across Murray's reserves and to require Rockies Express to instead select a feasible alternative route avoiding the risks associated with constructing and operating a pipeline in an active mine area. Murray contends that one feasible alternative route beginning at MP 603 would avoid the entire Murray coal reserve. Murray argues that the alternative route beginning at MP 603 would only increase the pipeline length by 0.2 miles and only affect an additional 2.5 acres of forested land. Furthermore, Murray points out that Rockies Express is responsible for the

²⁵ *Id.* PP 25-34.

fact that the Commission is being requested to look at alternatives at this late stage in the proceedings because Rockies Express incorrectly stated in an April 2007 resource report that no active coal mines were identified within 0.5 miles of the proposed pipeline route. In addition, Murray argues that Rockies Express has had since at least August 2008 to seek expedited review and approval of an alternative route.

Commission Response

83. The Murray Companies filed comments to the draft EIS dated January 21, 2008, and filed for intervention on March 18, 2008, prior to the issuance of the final EIS. However, in neither filing did Murray propose an alternative route that could have been studied before staff issued the final EIS.

84. Based on information regarding potential alternative routes presented at the August 5, 2008 technical conference, and placed in the record by staff on August 12, 2008, although the alternative route to which Murray refers is only slightly longer than the certificated route, it would impact 266 additional feet of wetlands, cross thirteen additional waterbodies, permanently impact 13.5 additional acres, cross 15 additional roads, and come within 100 feet of 28 more structures than the certificated route, in addition to affecting 2.5 acres of new forested land. In any case, because we are upholding staff's construction authorization and approval of the Construction and Operations Plan, and find that Rockies Express has met the collaboration requirement in Environmental Condition 147 by including Murray in the plan development process, we find that an alternative route filing is unnecessary.

IV. Conclusion

85. Based on the foregoing, we uphold the decision in staff's March 19 construction letter order and deny, in part, the Murray Companies' request for rehearing. However, in order to further ensure the safety of miners working in the Murray Companies' Century Mine, we are also granting, in part, the rehearing request and are adding a condition to this order. Rockies Express must provide the Commission with proof that the Murray Companies and the Ohio Department of Natural Resources Office of Mine Safety have received actual advance notice of the planned blasting. It will then be within the discretion of the Murray Companies whether those areas should be cleared of mining personnel, or not, during blasting. However, if the Murray Companies determine that these areas should be cleared of mining personnel during blasting, Rockies Express shall reimburse the Murray Companies for the direct costs associated with the suspension of mining operations in the affected areas.

86. Based on our review of Rockies Express's Construction and Operations Plan, we believe that the pipeline can be safely constructed and operated across Murray's coal reserves, however, we expect Rockies Express to work with Murray to ensure that

Murray's employees are not endangered during the construction and operation of the pipeline.

The Commission orders:

(A) The Murray Companies request for rehearing of the March 19 construction letter order is denied, in part, and granted, in part.

(B) The Murray Companies request for a stay and reconsideration of the March 13 tree-clearing letter order is dismissed.

(C) Prior to the commencement of blasting over any active mine entry or active mining panel, Rockies Express must provide the Commission with proof that the Murray Companies and the Ohio Department of Natural Resources Office of Mine Safety have received actual advance notice of the planned blasting. If upon receipt of such notice, the Murray Companies determine that these areas should be cleared of mining personnel during blasting, Rockies Express shall reimburse the Murray Companies for the direct costs associated with the suspension of mining operations in the affected areas.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

APPENDIX A

Materials Which Make Up the Construction and Operations Plan for Murray Companies		
Document	Filing Date	
Construction and Operations Plan	December 23, 2008 letter from Rockies Express	Appendix A
General Blasting Plan		Appendix B
Contractor Blasting Plan		Appendix C
Follow-up measures from February 17, 2009 technical conference (Trench Drainage, Erosion Concerns, trench design, depth of cover, wall thickness, timing of post-construction mitigation, clarification of benches)	February 23, 2009 letter from Rockies Express	
1 st Communication Protocol – Subsidence	July 9, 2009 letter from Rockies Express	
2 nd Communication Protocol – Blasting	June 29, 2009 letter from Rockies Express	
3 rd Communication Protocol – Construction	July 9, 2009 letter from Rockies Express	