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BEFORE

THE OHIO POWER SITING BOARD

In the Matter of the Application of Duke Energy Ohio, Inc., for a Certificate of Environmental Compatibility and Public Need for the Construction of the C 338 Ohio River to Bethel Natural Gas Pipeline Project Located in Clermont County, Ohio.	))))))	Case No. 06-444-GA-BTX

OPINION, ORDER, AND CERTIFICATE

The Ohio Power Siting Board (Board or OPSB) coming now to consider the above-entitled matter; having appointed an administrative law judge to conduct the hearings; having reviewed the exhibits introduced into evidence in this matter, including the Stipulation filed by the parties; and being otherwise fully advised, hereby issues its Opinion, Order, and Certificate in this case, as required by Section 4906.10, Revised Code.

APPEARANCES:

Paul A. Colbert, Senior Counsel, and Rocco O. D'Ascenzo, Counsel, Duke Energy Ohio, Inc., 139 East Fourth Street, P.O. Box 960, Cincinnati, Ohio 45201, on behalf of Duke Energy Ohio, Inc.

Marc Dann, Attorney General, by Duane W. Luckey, Senior Deputy Attorney General, and Werner L. Margard, Assistant Attorney General, Public Utilities Section, 180 East Broad Street, Columbus, Ohio 43215-3793, and by Lauren C. Angell, Assistant Attorney General, Environmental Enforcement Section, 30 East Broad Street, 25th Floor, Columbus, Ohio 43215-3428, on behalf of the Board Staff.

Ann Howard, 1880 U.S. 52, Moscow, Ohio 45153.

Anthony V. Macke Limited Partnership, 1879 U.S. 52, Moscow, Ohio 45153.

OPINION:

I. Summary of the Proceedings:

All proceedings before the Board are conducted according to the provisions of Chapter 4906, Revised Code, and Chapter 4906, Ohio Administrative Code (O.A.C.).

By letter docketed on March 20, 2006, Duke Energy Ohio, Inc. (Duke),[1] notified the Board that Duke planned to file an application for a certificate of environmental compatibility and public need (certificate) to construct a 12-inch natural gas pipeline from the Ohio River to Bethel, Ohio.

On April 28, 2006, Duke filed a motion for a waiver of the requirements set forth in Rule 4906-05-04(A), O.A.C., which requires that the two alternative routes in certification applications have no more than 20 percent of the routes in common. Immediately following that motion, on May 1, 2006, Duke filed its application for a certificate of environmental compatibility and public need (certificate) for the construction of the C338 Ohio River to Bethel Natural Gas Pipeline (project). A wetland assessment survey completed by URS Corporation (URS) for the project was filed on June 2, 2006.

On June 27, 2006, staff of the Board filed a memorandum stating that it did not object to the requested waiver of the 20 percent rule, based upon the particular circumstances in this situation, and reserving the rights to require additional information from Duke in areas covered by the waiver request and to investigate and contest all other issues presented by the application. On July 3, 2006, the motion for the waiver of the 20 percent rule was granted.

By letter dated July 6, 2006, the Board notified Duke that its application had been found to be complete, pursuant to Rule 4906-5-05, O.A.C. On July 12, 2006, Duke filed proof of service of the application upon public officials as required under Rule 4906-5-06, O.A.C.

By entry of July 17, 2006, a local public hearing was scheduled for September 26, 2006, at the Bethel Community Center in Bethel, Ohio, and an adjudicatory hearing was scheduled for September 28, 2006, at the offices of the Public Utilities Commission of Ohio, in Columbus, Ohio. The July 17, 2006, entry also directed Duke to publish notices of the hearings, as required by Rule 4906-5-08, O.A.C., and directed that petitions to intervene by interested persons may be filed until five days prior to the scheduled public hearing. On August 3, 2006, Duke filed clarifications to the application, including a modification that would move a section of the Preferred Route to follow an existing access road and electric distribution line. That alteration created an option described as Preferred Route B, with the version of the Preferred Route that was not so moved being known as Preferred Route A.[2] On August 25, 2006, as required by Rule 4906-5-08(B)(3), O.A.C., Duke provided a notice of the project to all affected property owners and any property owners that may be

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1 At the time the letter commencing this proceeding was docketed, Duke was known as The Cincinnati Gas & Electric Company. Since that time, as a part of a merger transaction, the name of the applicant changed to Duke Energy Ohio, Inc.

2 For the remainder of this opinion, the terms "Preferred Route A" and "Preferred Route B" will refer only to the small portions of the project that are mutually exclusive options within the Preferred Route. The term "Preferred Route," without further designation, will refer to the entire Preferred Route, as originally described and subsequently clarified or modified by Duke.

approached by Duke for easements for the proposed project. On September 6, 2006, the staff report was filed. On September 12, 2006, Duke filed its proof of notice to the property owners.

On September 20, 2006, Ann Howard, a landowner along the route of the project, requested intervention in the proceeding. On September 22, 2006, by a letter from Dana Macke, the Anthony V Macke Limited Partnership, also a landowner along the route of the project, requested intervention in the proceeding. No memoranda contra those motions for intervention were filed. Intervention was granted to both landowners, at the adjudicatory hearing.

On September 26, 2006, Duke filed a motion for a continuance of the date of the adjudicatory hearing and a change in the due dates for testimony. The stated purpose for this change was to allow Duke more time to develop a comprehensive design and engineering plan for Preferred Route B. A local public hearing was held in Bethel, Ohio, on September 26, 2006. At that hearing, testimony was presented by four individuals, including Jerry Howard, Dana Macke, and Anthony Macke, another member of the Anthony V Macke Limited Partnership. The motion to continue the adjudicatory hearing and to change the testimony due dates was granted at the local public hearing, although the administrative law judge noted that the scheduled hearing would occur as published, but only to take testimony from any member of the public who might appear at that time. On September 28, 2006, the adjudicatory hearing was commenced, as scheduled. No members of the public were present. The hearing was continued to a date to be set by subsequent entry.

On November 15, 2006, Duke filed a report, detailing additional engineering and design information relating to Preferred Route B. On November 29, the Macke partnership filed a letter relating to Duke's additional design information. On January 23, January 26, and February 27, 2007, Duke filed additional clarifications to the application. By entry dated February 28, 2007, a second local public hearing was scheduled for March 14, 2007, in Bethel, Ohio, and a continuation of the adjudicatory hearing was scheduled for April 5, 2007, in Columbus, Ohio. The February 28, 2007, entry also directed Duke to publish notices of the hearings, as required by Rule 4906-5-08, O.A.C., and directed that petitions to intervene by interested persons be filed by five days prior to the scheduled public hearing.

On March 14, 2007, a second local public hearing was held. At that hearing, Mr. Howard testified. On March 23, 2007, Duke filed a letter responding to concerns raised by the Macke partnership. Also on March 23, 2007, Duke filed proof of service of the public notices of the application and the hearings, which were published in the *Cincinnati Post*, the *Cincinnati Enquirer*, the *Community Journal Clermont*, the *Milford Miami Advocate*, the *Bethel Journal*, and the *Community Journal North Clermont*, pursuant to Rule 4906-5-09, O.A.C. On March 29, 2007, staff filed an addendum to its staff report.

The continuation of the adjudicatory hearing was held on April 5, 2007, at the offices of the Commission. At the adjudicatory hearing, Duke and staff presented a Joint Stipulation and Recommended Findings of Fact and Conclusions of Law (stipulation, Jt. Ex. 1) that would, if accepted by the Board, resolve all of the issues between the signatory parties.[3] Duke presented the testimony of Mr. Stephen R. Lane in support of the stipulation. Mr. Howard and Ms. Macke also testified concerning the project and its impact on the properties in question.

II. Proposed Facility and Siting

According to the application, the project, which will improve the existing natural gas transmission system in Clermont and Brown Counties, will consist of a 16.4- to 17.4-mile long natural gas pipeline and will be located in Clermont County, beginning at the Ohio River, approximately 900 feet west of the intersection of U.S. Route 52 and Neville spur road, northwest of the village of Neville, and connecting to an associated pressure reducing station to be located east of Bethel, Ohio. (Co. Ex. 1, at 01-1.) Construction is proposed to begin in May 2008 and to be completed and placed in service by November 2008 (Co. Ex. 1, at 01-6).

In the application, Duke explained that it had performed a route selection study to evaluate several potential routes prior to the selection of the preferred and alternate routes. Mr. Howard testified that the area traversed by a portion of the project is vulnerable to landslides and suggested that the Board consider very carefully why all other options were rejected (Tr. at 19). Duke stated that the project begins at the Ohio River, where a bore emerges from under the river, and that extensive wetlands were identified within the area, greatly restricting potential corridors from the Ohio River. URS, an environmental engineering and consulting firm, assisted Duke with the evaluations and weighting of ecological, land use, cultural, and engineering issues during the study. A total of 27 routes were scored and evaluated, according to Duke, with six potential routes identified for either preferred or alternate routes, pending evaluation of additional engineering and right-of-way factors. Duke stated that it conducted additional field investigations and found significant construction challenges for two of the six potential routes, where the routes follow roads that are adjacent to streams and are steeply sloped, creating exposure risk and pressures above safety and design levels. These factors effectively prevented those routes from being viable alternatives, as explained by Duke. Duke stated that it chose the preferred and alternate routes from the remaining four options. The two selected routes have, as calculated by Duke, commonality of about 46 percent. (Col Ex. 1, at 03-1 - 03-3.)

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3 On May 21, 2007, staff and Duke jointly filed a letter clarifying the parties' intent with regard to certain terms and provisions in the stipulation. All further references to the stipulation or Joint Exhibit 1, other than in findings of fact (15) and (17), should be read as referring to the document as so clarified.

A. Preferred Route and Clarifications Thereto

The Preferred Route, following Preferred Route A, is approximately 16.40 miles in length and the Preferred Route, following Preferred Route B, is approximately 16.55 miles in length. The Preferred Route originates from a single HDD pipeline crossing from Kentucky under the Ohio River into southeastern Clermont County. The Board's jurisdiction of the pipeline project starts at the state of Ohio's boundaries on the Ohio River. The crossing of a majority of the Ohio River is under the jurisdiction of the Federal Energy Regulatory Commission.

The Preferred Route then runs east approximately 2,900 feet until it reaches U. S. Route 52. Near the intersection of U. S. Route 52 and Neville Spur Road, the route turns northwest for approximately 700 feet before reaching Maple Creek. Maple Creek would be crossed with a 600-foot bore. The Preferred Route parallels U. S. Route 52 to the north for another 3,400 feet. At this point, Preferred Route A diverges to the east for 6,100 feet. Preferred Route B continues along U. S. Route 52 for another 750 feet before following an existing access road to the east for approximately 1,725 feet and then rejoining the remainder of the Preferred Route en route to Utter Road for another 4,375 feet.

The Preferred Route parallels the south side of Utter Road for an additional 1,000 feet to Maple Creek Road. The Preferred Route parallels the east side of Maple Creek Road for another 1,000 feet. The route then runs northeast along Houser Road for 3,000 feet. Continuing northeast, the alignment crosses Bolendar Road and Caan Road, joining Fruit Ridge Road for about 700 feet. The route then continues along Houser Road for another 4,000 feet, until it intersects Turkeyfoot Road. The Preferred Route then parallels Turkeyfoot Road to the northeast for an additional 900 feet before veering northeast across the Applicant's landfill property (used for fly ash and gypsum disposal from the Zimmer Generating Station). The route continues to the intersection of State Route 756 and Pumpley Road.

After crossing State Route 756, it continues 12,500 feet to State Route 743. Big Indian Creek is located within this segment and it will be crossed using a HDD bore. The route continues east along State Route 743 to State Route 222. At this point the route parallels State Route 222 for 1,000 feet, before turning east along Mt. Olive-Point Isabel Road. After running parallel to Mt. Olive-Point Isabel Road for 1,500 feet, the route turns to the northeast along Swings Corner-Point Isabel Road for about 4,000 feet. The Preferred Route then follows Lakin Chapel Road for 2,300 feet, until reaching State Route 133. The Preferred Route follows State Route 133 for 5,000 feet, before turning east for another 4,500 feet until it reaches Bethel-Maple Road. The route then traverses northeast 4,900 feet to reach Patterson Road. The Preferred Route then follows Patterson Road for 2,100 feet, before trending northeast for another 4,500 feet to reach the terminus. At the terminus, a pressure reducing

station would be situated on a square plot measuring 100 feet by 100 feet. No compressor stations are required for this project. (Staff Ex. 1, at 3-4.)

During the course of staff's investigation, Duke proposed certain revisions to the Preferred Route as it had been presented in the application. The following is a summary of the Applicant's Preferred Route modifications:

1) The Preferred Route, following Preferred Route A, constitutes Duke's original Preferred Route with the modifications described in paragraphs 2-4 below. Preferred Route B involves a modification located just east of U. S. Route 52, where Preferred Route B follows an existing access road and electric distribution line. Preferred Route B is approximately 820 feet longer than Preferred Route A.

2) The second route revision is an adjustment in the area of the Big Indian Road to minimize the number of stream crossings. Big Indian Creek will still be traversed using HDD technology.

3) The third route revision involves a shift to follow existing property boundaries in the vicinity of S. R. 222 and Bees Run Road. This minor route change would eliminate the need to bisect a property.

4) The fourth route revision includes a slight shift at the Poplar Creek crossing near Bethel- Maple Road. This adjustment would further minimize potential impacts to the riparian zone near Poplar Creek.

(Staff Ex. 1, at 4-5.)

Subsequent to the filing of the staff report, Duke filed additional clarifications on three separate dates. On January 23, 2007, Duke filed several clarifications. The first relates to the exit point of the HDD under Maple Creek and the consequent relocation of about 2,800 feet of pipeline to the northeast side of U.S. Route 52. As a result, Duke also states that it now must open trench a designated headwater. Duke also proposes to straighten about 200 feet of pipeline southeast of Little Maple Creek, in response to a detailed engineering analysis of Preferred Route B. The next change proposes a relocation in response to a landowner request. The third change proposed on January 23, 2007, relates to the movement of 430 feet of pipeline as a result of the exact location of a water line. Finally, Duke proposes a relocation of the HDD bore under Big Indian Creek, as a result of bending radius restrictions. This change would lengthen the bore from 1,200 to 2,100 feet. On January 26, 2007, Duke clarified the application to specify a new location for the northern pressure reducing station, approximately 850 feet southeast of the original location, in order to remove the station from residences to the northwest and to reduce the length of the pipeline. On February 27, 2007, Duke proposed final clarifications in two areas. First, it

station would be situated on a square plot measuring 100 feet by 100 feet. No compressor stations are required for this project. (Staff Ex. 1, at 3-4.)

During the course of staff's investigation, Duke proposed certain revisions to the Preferred Route as it had been presented in the application. The following is a summary of the Applicant's Preferred Route modifications:

1) The Preferred Route, following Preferred Route A, constitutes Duke's original Preferred Route with the modifications described in paragraphs 2-4 below. Preferred Route B involves a modification located just east of U. S. Route 52, where Preferred Route B follows an existing access road and electric distribution line. Preferred Route B is approximately 820 feet longer than Preferred Route A.

2) The second route revision is an adjustment in the area of the Big Indian Road to minimize the number of stream crossings. Big Indian Creek will still be traversed using HDD technology.

3) The third route revision involves a shift to follow existing property boundaries in the vicinity of S. R. 222 and Bees Run Road. This minor route change would eliminate the need to bisect a property.

4) The fourth route revision includes a slight shift at the Poplar Creek crossing near Bethel- Maple Road. This adjustment would further minimize potential impacts to the riparian zone near Poplar Creek.

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proposed minor shifts in the area of State Route 222 and Mount Olive-Point Isabel Road, on the basis of water and telephone line locations. Second, it proposed to relocate about 1.3 miles of pipeline from road right-of-way to private easement, in an area of open agricultural fields along Swings Corner-Point Isabel Road, to aid in minimizing traffic disruptions and erosion control issues. (Company Ex. 1.)

Unless otherwise noted, references to the Preferred Route throughout the remainder of this opinion, order, and certificate are intended to refer to the Preferred Route as modified by these route revisions, with the exception that Preferred Routes A and B will be so designated.

B. Alternate Route

The Alternate Route is approximately 17.4 miles in length. It shares approximately 46% of the Preferred Route in-common. The first 3.7 miles are in-common with the Preferred Route. The Alternate Route veers away from the Preferred Route at Caan Road, trending in a generally northeast direction cross country for approximately 9.5 miles, before rejoining the Preferred Route in the vicinity of Swings Corner-Point Isabel Road. The Alternate Route then follows in-common with the Preferred Route to the terminus (approximately 4.2 miles). (Staff Ex. 1, at 5.)

III. Certification Criteria

Pursuant to Section 4906.10(A), Revised Code, the Board shall not grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the Board, unless it finds and determines all of the following:

(1) The basis of the need for the facility if the facility is an electric transmission line or gas or natural gas transmission line;

(2) The nature of the probable environmental impact;

(3) That the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations;

(4) In the case of an electric transmission line, such facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems; and that such facilities will serve the interests of electric system economy and reliability;

(5) That the facility will comply with Chapters 3704, 3734, and 6111, Revised Code, and all rules and standards adopted under those chapters and under Sections 1501.33, 1501.34, and 4561.32, Revised Code;

(6) That the facility will serve the public interest, convenience, and necessity;

(7) The impact of the facility on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929, Revised Code, that is located within the site and alternate site of the proposed major facility; and

(8) That the facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of various alternatives.

IV. Summary of the Evidence

A. Basis of Need (Section 4906.10(A)(1), Revised Code)

Duke asserts, in the application, that this pipeline is needed to preserve Duke's ability to provide adequate service within Duke's natural gas system and adequate fuel for current and future gas customers in the southeastern greater Cincinnati metropolitan area (specifically, Brown and Clermont Counties), as required by Section 4905.22, Revised Code. (Company Ex. 1, at 02-1.)

As one of the justifications for the proposal, Duke states that the existing natural gas pipelines cannot meet projected future demands within the design parameters. Duke explains that its engineering department uses the Synergee Gas 3.34 computer model, which indicates where improvements must be made in order to maintain service. It submits that this model shows that, within two years, large sections of the southeastern portion of Duke's service area will have inadequate gas pressure if an additional supply point of gas is not introduced. Duke indicates that its peak daily gas send-out has increased over time, with the most rapid load growth occurring in the areas farthest from the interstate pipelines that are the sources of the gas. This growth pattern, it reasons, has exacerbated the problem, due to pressure losses in the system over distance. Duke maintains that it has attempted to avoid adding capacity by upgrading regulating stations and making other short-term adjustments to the system, but that such efforts are no longer sufficient. (Company Ex. 1, at 02-1 – 02-2.)

Duke opines that the proposed pipeline is the best option for meeting current and projected demand, noting that it also could be extended to the north to boost capacity in

other areas of the system where load is also increasing. It points out that Duke has seen diminishing pressures over recent years in its Feeder Line CG11, resulting in low system pressures in a broad area from Batavia, Ohio, to Bethel, Ohio, covering some of the fastest load growth areas in its gas distribution system. Duke explains that, if there is insufficient pressure at certain control points, the smaller diameter mains and house connections will have insufficient pressure for proper operation of customers' appliances. Duke estimates that, in 2008, assuming two percent annual growth and including projects under construction, the area between Batavia, Mt. Orab, and Bethel will be below design pressure if the pipeline is not built, thereby impacting approximately 10,000 customers. Duke's modeling indicates, it explains, that building the proposed pipeline will maintain adequate pressures in the area through the year 2020, based on current load growth projections. Duke also warns that, if the pipeline is not completed by the winter heating season of 2008-2009, it may have to take steps to avoid widespread pressure problems and potential outages, such as curtailing interruptible transportation customers, requesting voluntary usage cutbacks, or leasing temporary liquefied natural gas storage facilities for use at key low pressure points. (Company Ex. 1, at 02-2 – 02-3.)

As an additional justification, Duke notes that the project would also serve as a replacement of an existing pipeline crossing the Little Miami River. For reliability and safety reasons, it states that this pipeline must be taken out of service due to the changing course of the river. While Duke has made improvements to gas distribution lines and other components over the years, it asserts, the loss of that crossing would prevent it from meeting expected demand by customers. (Company Ex. 1, at 02-1.)

With regard to Duke's primary basis of need for the pipeline, staff points out that Duke's 2006 long-term forecast report for gas demand, gas supply, and facility projections, docketed at Case No. 06-118-GA-FOR, shows steady increases in peak daily gas send-out and total yearly demand through 2016, based on projected growth in the number of customers within Duke's gas service area, economic projections, and other factors. Staff also notes that population projections from the Ohio Department of Development show that Clermont County is expected to grow by 27 percent between 2000 and 2020 and that Brown County is expected to grow by 26 percent over the same period. With regard to Duke's stated need to replace a river crossing, staff adds that the pipeline to be replaced is a 2,800-foot section of Duke's Pipeline D, a 16-inch steel pipe constructed in 1948-1949, that is to be abandoned because river course changes have compromised the integrity of the line. Staff believes that Duke has shown that the proposed pipeline is the optimal remedy to improve low pressure conditions and to provide adequate fuel for current and future gas customers within its Duke's service area. Staff concludes that Duke has shown the need for additional natural gas supply capacity in the southeastern portion of its service area. The new natural gas pipeline proposed by Duke would, in staff's opinion, serve to address this needed capacity. Staff notes that its conclusions, however, are not intended to address the treatment of costs associated with this gas transmission line in rate proceedings before the Commission and that nothing in its report should be construed as staff advocating any rate-

making treatment. Therefore, staff recommends that the Board find that the need for the proposed project has been demonstrated and that any certificate issued for the proposed project include the conditions specified in the report. (Staff Ex. 1, at 14-17.)

In the stipulation, Duke and staff agree that the record establishes the need for the project as required by Section 4906.10(A)(1), Revised Code, and recommend that the Board find that need has been established (Jt. Ex. 1, at 17).

B. Nature of Probable Environmental Impact and Minimum Adverse Environmental Impact (Sections 4906.10(A)(2) and (3), Revised Code)

Duke's objective was to minimize the overall effects on ecology, sensitive land uses, and cultural features to the greatest extent possible while, at the same time, providing economically and technically feasible routes. Duke began with its plan to tap into existing pipelines on the Kentucky side of the Ohio River, with a single, 12-inch directional bore under the river and to end the project at a pressure-reducing station southeast of Bethel so that it can be connect, via two 6-inch lines, to an existing pipeline. (Company Ex. 1, at 03-1.)

Duke states that suitable locations for the endpoints of the project created limits on project routing. It points out that extensive wetland areas exist within the mostly wooded area between the Ohio River and U.S. 52, greatly restricting potential route corridors, but that the proposed centerline of the project was modified to follow a former agricultural access route running between certain of those wetland areas, thereby minimizing the ecological impacts to the surrounding wetlands. (Company Ex. 1, at 03-1).

According to Duke, it initially identified, with the assistance of URS, approximately 90 potential routes, 27 of which were scored and evaluated in the route selection study. That study, Duke states, identified the six best routes, representing the best 25 percent of the candidates. Duke indicates that its personnel conducted field investigations to determine the constructability of the six best routes, identifying significant construction challenges along certain roads that were included in two of the routes. Those roads, it explains, are located adjacent to streams and, in many places, the opposite side of the road is steeply sloped, creating unacceptable exposure risk as a result of stream bank erosion and localized over- and side-burden pressures as a result of slope instability. Continuing, Duke discloses that, while the pipeline could be constructed beneath such a road, the local county engineer will not allow the necessary trenching, due to likely separation and deformation of pavement and roadbed destabilization. As a result, Duke states, the two impacted routes were eliminated from consideration. (Company Ex. 1, at 03-2 – 03-3.)

Of the four remaining potential routes, Duke asserts that it selected one as the Preferred Route and one as the Alternate Route. The Preferred Route is approximately 16.4 miles long, while the alternate Route is approximately 17.4 miles long, having about 46 percent of their distance in common, according to Duke. Duke also notes that it altered a

portion of both routes in an attempt to avoid a large, wooded, wetland area. (Company Ex. 1, at 03-3.)

Subsequent to the filing of the application, Duke submitted several clarifications, the first of which offered two options for the Preferred Route. Preferred Route B, the new option, is 820 feet longer than Preferred Route A, but, according Duke's letter to the Commission, follows an existing road and distribution line easement. (Company Ex. 1, July 31, 2006, letter.)

Staff reviewed the environmental information contained in the record as of the filing of the initial staff report and made site visits along the proposed project routes. Staff concluded, in that initial staff report, that the Preferred Route, following Preferred Route B, represents the minimum adverse environmental impact. Following subsequent investigation and evaluation by Duke and by staff, staff altered its conclusion, determining that the Preferred Route, following Preferred Route A, is superior. (Staff Ex. 1, at 30; Staff Ex. 2, at 3.) We will discuss each of these conclusions.

In its initial staff report, staff found the following probable environmental impacts:

1) The Preferred Route, following Preferred Route A, is approximately 16.40 miles in length; the Preferred Route, following Preferred Route B, is approximately 16.55 miles in length; and the Alternate Route is approximately 17.40 miles long.

2) The Preferred Route would cross 53 streams and the Alternate Route would cross 62 streams. Duke proposes to bore or professionally restore the higher quality streams, while open-trenching the remaining streams.

3) Seven ponds are located within 100 feet of the Preferred Route and 11 ponds within 100 feet of the Alternate Route. No impacts to these ponds are anticipated.

4) There are 37 wetlands within the 200-foot wide study corridor of the Preferred Route. On a classification scale of one to three, with one being lowest and three being the highest quality, 17 are classified at Category I, 19 are classified as Category II and one is classified as Category III. Of the 37 wetlands within the study corridor, 12 of them (five Category I and seven Category II), covering approximately 128 linear feet, would be crossed by the Preferred Route's centerline.

5) There are 40 wetlands within the 200-foot study corridor of the Alternate Route. Sixteen are classified as Category I, 23 are classified as Category II and one is classified as Category III. Three Category I and seven Category II wetlands, covering 176 linear feet, would be crossed by the Alternate Route's centerline.

6) Approximately 19 acres of trees would be cleared during construction of the Preferred Route, whereas approximately 16 acres would be cleared during construction of the Alternate Route.

7) East of U. S. Route 52, Preferred Route A traverses a steep slope through a heavily forested area. Also immediately east of U. S. Route 52, Preferred Route B follows a private access drive. Removing the trees and other vegetation along Preferred Route A will fragment this large forest stand. Habitat fragmentation causes negative impacts to many wildlife species. Therefore, avoiding habitat fragmentation will minimize wildlife impacts. Preferred Route B presents fewer negative ecological impacts because this area was previously impacted for the installation of the driveway.

8) Construction of the project would result in air emissions, primarily due to construction vehicles and soil disturbances, but these are not expected to be significant due to their relatively low levels and the temporary nature of the construction activities. However, Staff believes that fugitive dust suppression may be necessary during certain construction activities. There are no air emissions associated with the operation of the facility.

9) The state and federally-endangered running buffalo clover (Trifolium stolonifernum) occurs within Clermont County. Duke retained URS Corporation to conduct a running buffalo clover habitat assessment along the pipeline right of way. The results of the survey show that the federally-endangered plant does not occur along the Preferred Route right of way. The Alternate Route and the Preferred Route follow the same right-of-way for 46 percent of the route. Where the Alternate Route diverges from the Preferred, the route follows road right of way, agricultural field, or is within non-grazed woodlot. These habitat types are not suitable for running buffalo clover.

10) The Ohio-endangered blue false indigo (Baptisia australis), the state-listed Missouri gooseberry (Ribes missouriense), the state-threatened sparse-lobe grape-fern (Botrychium biternatum), the state-threatened southern woodrush (Luzula bulbosa), and the state-endangered Carolina willow (Salix caroliniana) may occur within the project area. None of these plant species were identified by the consultant during the pedestrian survey, but this does not guarantee an absence of these species, since intensive field studies, similar to that performed for running buffalo clover, were not conducted for them. If any of the species are present along the right of way, impacts could occur because of clearing activities, as well as due to construction equipment driving over the plants. Duke will have an environmental inspector on site during clearing and construction in these sensitive areas. This inspector will also be qualified to look for signs of these plant species if they occur in the construction area.

11) Both project routes contain suitable habitat for several common bird species. With the possible exception of hatchlings, direct fatalities from tree removal and construction are not expected because these species are mobile and will likely leave the project area during construction activities. Individuals of these species will likely return to the remaining tree stands when tree clearing has been completed. Although nearby similar habitat may be available to these species, at least on a short-term basis, some mortality could occur as a result of the habitat loss. Thus, tree clearing should be reduced where possible in order to minimize impacts to bird species.

12) Both project routes contain suitable habitat for several common reptiles and some amphibian species. Trenching is expected to take place in the summer and fall, when reptiles and amphibians are active in the construction area, and therefore these species are likely to suffer some mortality, unless they are able to move away from the immediate area during construction. Those that leave and are able to survive in surrounding areas may return after construction is completed. Best management practices (BMPs) in or near streams and wetlands will help minimize impacts to amphibians, as those areas are where the species spend the majority of their time.

13) The project routes contain suitable foraging and roosting habitat for the federally-endangered Indiana bat (Myotis sodalis). Duke asserts that it will exercise efforts to minimize any tree clearing in areas deemed to represent suitable Indiana bat habitat; however, some tree clearing in these areas will likely still be required. Duke indicates that it will strive to complete any tree clearing between September 16 and April 14, in an effort to minimize direct impacts to the Indiana bat. If tree clearing must occur outside of this time period, Duke has indicated that they will perform all necessary surveys (i.e., mist netting) before proceeding. The loss of suitable habitat could represent a potential impact to this endangered bat species, if any individuals are present along the route. However, efforts to limit the removal of suitable habitat, as well as timing any tree clearing such that it does not conflict with the bat's summer roosting season, should minimize potential adverse impacts to the Indiana bat.

14) The project area also contains habitat for several common mammal species such as fox, raccoon, skunk, opossum, squirrel and deer. Most of these species will leave the area during tree clearing, and some may return when tree clearing is completed. However, some species may be hibernating during tree clearing activities. Raccoon tend to hibernate in hollow tree trunks and squirrels in tree cavities. Thus, individuals of these species could suffer mortality during tree clearing because they will not be as mobile during the time when clearing is expected to occur.

15) Most mammal species will leave the area again during the construction phase, and again may return when construction is complete, depending upon the extent of habitat loss, reduction in food supply, etc. For example, some species, such as squirrels, would likely be impacted by habitat and food source loss, while other species, such as cottontail rabbits and white-tailed deer, may benefit from the edge habitats created by tree clearing.

16) The project area is within the range of the state-endangered and federal-candidate species rayed bean mussel (Villosa fabalis) and the state-endangered and federal-candidate species sheepnose mussel (Plethobasus cyphyus). Intensive field studies were not conducted for any of these aquatic species; however, the higher quality streams in which they would likely appear, if present in the

area, will be bored or professionally restored, which will help minimize impacts to these species if they inhabit the area.

17) Construction of the project would also result in large amounts of exposed soil, largely due to trenching and associated work. This could lead to significant erosion problems unless both short-term (during construction) mitigation and long-term (post-construction) soil stabilization and restoration measures are implemented.

18) The southern portion of the project area has considerable relief, with steep hills and incised stream valleys. The hillsides vary from moderately-stable to unstable slopes. Construction work, particularly trenching and equipment movement, could further destabilize these areas, creating both short and long-term erosion and sedimentation problems unless satisfactory restoration measures are employed.

19) The Preferred Route, following Preferred Route A, passes within 100 feet of 31 residences, while 301 houses lie within 1,000 feet of the alignment. The Preferred Route, following Preferred Route B, has one more residence within 100 feet. The Alternate Route traverses within 100 feet of 27 residences and 338 houses are located within 1,000 feet.

20) There are no recreational land uses within 1,000 feet of the Preferred Route or the Alternate Route.

21) None of the routes would be expected to have a significant impact on commercial properties, as there are none within 100 feet. Some residential land uses within 1,000 feet of the routes double as small commercial uses. Only minor, temporary disruption of business operations is likely, as commercial land use is lightly scattered along all of the proposed routes.

22) The Preferred Route crosses Duke's industrial landfill site and the Alternate Route borders the landfill site. No other industrial land uses are within 1,000 feet of the Preferred Route or the Alternate Route. The landfill, used for flyash and gypsum disposal, is expansive enough that, even though the Preferred Route crosses the property, it will not encroach on landfill activity.

23) There are four sensitive land uses within 100 feet of the project's Preferred Route, and six sensitive land uses within 1,000 feet. There are two sensitive land uses within 100 feet of the project's Alternate Route and three sensitive land uses within 1,000 feet.

24) The Preferred Route, following Preferred Route A, follows 48 percent within existing road right of way. The Preferred Route, following Preferred Route B, and the Alternate Route follow 49 percent and 62 percent within existing right of way, respectively.

25) The installation of the pipeline will alter the aesthetic character along any of the proposed routes, as the alignments utilize extensive lengths of existing road right of way and tree and brush removal is expected. Grassy vegetation would be maintained along cleared permanent right of way.

26) Staging area(s) have not yet been defined by Duke, though Duke has indicated that storage of pipe could occur without disruption to the expansive landfill property owned by Duke.

27) The three routes are consistent with sound land use planning, as a high percentage of road right of way is used to constrain impacts within an existing transportation or utility corridor.

28) It will not be necessary to acquire any inhabited dwellings or structures in order to construct the pipeline along either the Preferred Route or the Alternate Route. Staff has identified three residences that are within 50 feet of the Preferred Route, but no closer than 20 feet. None of these properties will lose significant frontage trees or vegetation. Duke will place the pipeline in existing road right of way at these locations.

29) There are three previously identified cultural resource sites within 100 feet of the Preferred Route and 37 within 1,000 feet. There is one cultural resource within 100 feet of the Alternate Route and 20 within 1,000 feet. The majority of identified cultural resources are within the landfill site, which was previously excavated and recorded for other unrelated projects. Known cultural resources are not crossed by any of the proposed pipeline routes.

30) After completing a literature review, Duke, in coordination with the State Historic Preservation Office, is preparing a Phase I cultural resources survey of Preferred Route alignments. If the survey discovers resources that would likely be eligible for inclusion on the National Register of Historic Places, or finds items of cultural significance, then Duke would be required to file a route modification or plan of mitigation. If the Board selects a different route, then a new cultural resources survey would be required.

31) The standard construction method would be open trenching. The typical open trench method consists of excavating a 4-foot wide by 5-foot deep trench for placement of the gas pipeline. After placement of the pipeline, the trench would be backfilled. A 50-foot wide right of way will generally be necessary for the pipeline installation and operation, with narrower right-of-way widths in specific locations, particularly in more sensitive areas.

32) The construction of the proposed pipeline is not expected to present significant noise impacts. Construction would occur during daylight hours and be of a limited, temporary nature. Operation of the proposed pipeline along either route will not produce any audible noise. The pipeline is in the vicinity of several churches, and Duke has indicated that construction will not interfere with worship services. There will be a pressure reducing station on the north end of the project, not immediately adjacent to residential structures. Additionally, Staff is recommending an enhanced property owner construction notification condition to further minimize potential disruption to property owners.

33) The Preferred Route and the Alternate Route consist of 20 road crossings and no railroad right-of-way crossings. The project is not expected to have any significant permanent effect on transportation corridors or their use. The crossing of all highways and roads will be conducted by jack and bore method. Permits will need to be secured for any closures.

34) None of the routes considered are expected to have a significant long-term impact on agricultural activities or production. Damage to drainage tile and compaction of soil are the most likely impacts to agricultural fields. Duke would use soil segregation techniques

during trenching operations, repair any damaged drain tiles and restore compacted soil by the next planting. The only expected permanent impact would be to remove less than an acre out of production for construction of a permanent access road and pressure reducing station.

35) Duke projected a 10-year annual average for property taxes associated with the project to be approximately $167,000. Also, the project is expected to enhance regional development opportunities in Clermont County by increasing the availability and reliability of natural gas in the area.

36) The installation cost of the Preferred Route, following Preferred Route A, is expected to be approximately $10,500,000. The Preferred Route, following Preferred Route B, is expected to cost approximately $10,748,000. The Alternate Route is estimated at approximately $11,755,000.

(Staff Ex. 1, at 18-23.)

In its addendum to the staff report, staff found that Duke's more detailed engineering study of the differing impacts of Preferred Route A and Preferred Route B, prompted by public testimony, demonstrated that Preferred Route B would require extensive terracing and widening of the existing driveway access road. This would result in significantly more hillside disturbance and tree removal and increases the potential for adverse ecological impacts to Little Maple Creek, which runs parallel to Preferred Route B. In addition, staff noted that Preferred Route B now poses much higher societal impacts, an increased risk of trespass, and a greater aesthetic impact. Staff states that Duke indicated its willingness to take steps to camouflage slope clearing in Preferred Route A. Staff also pointed out that the results of the engineering study showed a dramatic increase in project costs in the construction of Preferred Route B, now likely to exceed $700,000. Thus, staff found, in the addendum, that Preferred Route A is superior to Preferred Route B and recommended that the Board certificate the Preferred Route, following Preferred Route A, and that conditions included in the addendum become part of any certificate issued for the project. It similarly recommended that the Board certificate final alignment clarifications filed on January 23, January 26, and February 27, 2007. (Staff Ex. 2, at 3.)

In the stipulation, Duke and staff recommend that the Board find that the record establishes the nature of the probable environmental impact from construction, operation, and maintenance of the project, as required by Section 4906.10(A)(2), Revised Code, and that the Preferred Route, following Preferred Route A, represents the minimum adverse environmental impact, considering the state of available technology and the nature and

economics of the various alternatives, and other pertinent considerations under section 4906.10(A)(3), Revised Code. (Jt. Ex. 1, at 19.)

Mr. Stephen R. Lane confirmed, at the hearing, that, in Duke's opinion, Preferred Route A causes the least impact on the environment. (Duke Ex. 5, at 4-5.) The intervenors testified concerning environmental and societal impacts of Preferred Routes A and B. Among other things, Mr. Howard discussed the vulnerability of the area to landslides, pointing out that landslides have occurred in the immediate area. He also discussed the impact of, primarily, Preferred Route B on the access road that would be followed, the ability to repair that road over time, and the risk of the adjacent stream changing course. Mr. Howard was also concerned about the negative impact on property values that would result from clearing of the land for the project. He noted that the impact would be much greater with Preferred Route B. Ms. Macke testified about the impact of the project on the forested sections of the route, pointing out that her family's property would experience about 4,000 lineal feet of cleared woods. She was concerned about the environmental impact both during and after construction, noting loss of soil, erosion, drainage, clearing of ground cover, and clearing of the canopy. Ms. Macke, like Mr. Howard, also discussed the risk of landslides, pointing out that unnatural saturation zones could result in rotational landslides, both in and out of the right of way. Finally, she discussed the opening of the corridor for access by trespassers. (Tr. at 17-37.)

C. Electric Power Grid (Section 4906.10(A)(4), Revised Code)

Staff notes, in its report, that Section 4906.10(A)(4), Revised Code, is inapplicable to this project, as the project is not an electric transmission line. (Staff Ex. 1, at 31.) Staff and Duke stipulate that the project is consistent with the regional plans for expansion of the natural gas delivery systems serving this state and interconnected utility systems and that the facility will serve the interests of natural gas system economy and reliability. (Jt. Ex. 1, at 20.)

D. Air, Water and Solid Waste (Section 4906.10(A)(5), Revised Code)

The Staff report notes that air quality permits are not required for the proposed pipeline project. However, fugitive dust rules adopted pursuant to the requirements of Chapter 3704, Revised Code, may be applicable to the proposed facility. Duke has indicated that fugitive dust is not expected to become a problem, because of the limited time that soil will be exposed at any one location. However, staff believes that compliance with fugitive dust rules should be assured by requiring Duke to control fugitive dust during construction through the use of best management practices, including water spray suppression, whenever necessary. (Staff Ex. 1, at 32.)

The staff report also indicates that the project will not require the use of significant amounts of water, making requirements under Sections 1501.33 and 1502.34, Revised Code, inapplicable. In addition, staff notes that construction of the project will have temporary

impacts on wetlands and surface waters which will necessitate compliance with the requirements of Chapter 6111, Revised Code, by Duke. Duke intends to mitigate impacts associated with crossing wetlands through segregation of bed materials during trenching (when not saturated), limitation of vehicle wetland crossings to the centerline area, appropriate use of timber matting in wetland areas, and selective utilization of horizontal directional drilling. Duke intends to mitigate impacts from crossing streams by conducting trenching activities during low-flow conditions, segregation of bed materials during trenching of selected streams, limitation of vehicle crossings, selective tree removal within 25 feet of high quality stream channels, and selective utilization of horizontal directional drilling. Staff also noted that no lakes or ponds will be crossed by the project and that Duke intends to use straw bales and silt fences, as necessary, to control erosion and sedimentation into water bodies when installing pipeline near such features. (Staff Ex. 1, at 32.)

Staff reports that Duke would comply with solid and hazardous waste requirements under Chapter 3734, Revised Code, through the use of an approved landfill for disposal of construction debris that can not be beneficially reused, such as broken road pavement, large field stones, removed fencing, damaged material, pallets, and pipe scraps. Debris that can be reused, such as waste bentonite, may be provided to local farmers. Contaminated soils and/or excess spoil material would be disposed of in an approved landfill. Duke's preferred treatment of woody debris, according to staff, is to move it to the edge of the right of way, although Duke will cut it into appropriate lengths and chip the remainder, if requested by the landowner. If necessary, staff states that excess vegetative material would be removed from the site and disposed of in an approved landfill. (Staff Ex. 1, at 32.)

As noted by staff, it contacted the Ohio Office of Aviation during its review, in order to coordinate review of potential impacts on local airports. As of the date of preparation of the staff report, no such concerns had been identified. (Staff Ex. 1, at 33.)

Staff concluded that the project would comply with the requirements specified in Section 4906.10(A)(5), Revised Code. (Staff Ex. 1, at 33.) In the stipulation, Duke and staff recommend that construction of the project along the Preferred Route, following Preferred Route A, will comply with Chapters 3704, 3734, and 6111, Revised Code; Sections 1501.33, 1501.34 and 4561.32, Revised Code; and all rules and regulations adopted thereunder, as required by Section 4906.10(A)(5), Revised Code. (Jt. Ex. 1, at 20.)

E. Public Interest, Convenience, and Necessity (Section 4906.10(A)(6), Revised Code)

Duke states, in its application, that the project will serve the public interest by helping to ensure that natural gas availability in the near future is met at a reasonable cost to consumers, even during periods of peak demand. It also confirms that the construction and operation of the proposed natural gas pipeline will comply with pipeline safety

regulations and all applicable safety standards established by the Occupational Safety and Health Administration (OSHA). (Duke Ex. 1, at 06-11 – 6-12.)

Staff believes that Duke has adequately demonstrated the need for the proposed pipeline project. Staff notes that the proposed facility would provide Duke with the ability to continue to serve existing and new customers in the southeastern portion of its service area and that Duke has shown a need for additional natural gas supply in order to prevent low pressure conditions in Clermont and Brown counties. With regard to pipeline safety, staff notes that adherence to federal pipeline safety standards and safety standards set by OSHA and the Commission will assure that the natural gas pipeline and associated equipment will be operated in a safe and reliable fashion. Staff recommends that the Board find that the proposed pipeline project will serve the public interest, convenience, and necessity, as required pursuant to Section 4906.10(A)(6), Revised Code, and that any certificate issued by the Board for the proposed project include the conditions specified in the staff report. (Staff Ex. 2, at 34.)

As part of the stipulation, Duke and staff agree that the record establishes the need for the facility under Section 4906.10(A)(1), Revised Code, and that the proposed pipeline will serve the public interest, convenience, and necessity, as required under Section 4906.10(A)(6), Revised Code. (Jt. Ex. 1, at 19, 20.)

F. Agricultural Districts and Agricultural Lands (Section 4906.10(A)(7), Revised Code)

Staff submits that classification as agricultural district land is achieved through an application and approval process that is administered through local county auditor offices. According to the application in this proceeding, 17 agricultural district land parcels are within 1,000 feet of the Preferred Route, eight of which are within 100 feet. Five of these parcels are crossed by the Preferred Route project centerline. Nineteen such parcels are located within 1,000 feet of the Alternate Route, eight of which are within 100 feet. Two of those parcels are crossed by the Alternate Route project centerline. (Duke Ex. 1, at 06-15 – 06-16.)

Duke states that construction of the project is not expected to have significant impacts on agricultural district properties. In order to limit such impacts, Duke explains that construction in such districts will be predominantly limited to areas adjacent to existing rights of way, but that construction may cause temporary disruptions to agricultural land uses. Where the routes cross such districts, there may be temporary damage to drainage tiles and compaction of soil resulting from access by construction vehicles, but Duke notes that no access roads will be required for construction and that it will restore impacted drainage tiles to their original condition in the vicinity of the trench excavation, will segregate and restore excavated topsoil, and will ensure that the pipeline is well below the

plow zone. It notes that it will reimburse landowners or tenant farmers for damage to any crops, caused by construction activities, where appropriate. (Duke Ex. 1, at 06-16.)

Duke asserts that operation and maintenance of the pipeline is expected to have little impact on the surrounding land use, including agricultural district properties. (Duke Ex. 1, at 06-16.)

In performing an assessment of the project on agricultural land, Staff evaluated the potential impacts on agricultural production. Staff notes that construction activity, such as vehicle traffic and materials storage, could lead to temporary reductions in farm productivity stemming from soil compaction, broken drainage tiles, and a reduction in space available for planting. However, staff also noted the precautionary steps that Duke promised to take. Finally, staff points out that long-term impacts are expected to be limited to construction and operation of an associated pressure reducing station and access road at the north end of the project, screened from the nearest residence by existing mature vegetation. Thus, staff concludes that there will be no significant direct or indirect impacts from the construction or maintenance of the proposed pipeline on agricultural districts or farmlands. Staff recommends that the Board find that the impact of the pipeline project on the viability of existing farmlands and agricultural districts has been determined and will be minimal and that any certificate issued include the conditions specified in the staff report. (Staff Ex. 1, at 35.)

In the Stipulation, the facility's impact on the viability, as agricultural land, of land in existing agricultural districts established under Chapter 929 of the Revised Code has been determined, as required by Section 4906.10(A)(7), Revised Code. (Jt. Ex. 1, at 20.)

G. Water Conservation Practice (Section 4906.10(A)(8), Revised Code)

Staff states that water conservation practices, as specified under Section 4901.10(A)(8), Revised Code, are not applicable to this project. (Staff Ex. 1, at 36.) The parties to the stipulation recommend that the Board find that the project incorporates maximum feasible water conservation practices, as determined by the Board, considering available technology and the nature and economics of the various alternatives under Section 4906.10(A)(8), Revised Code. (Jt. Ex. 1, at 20.)

IV. Public Hearings

As noted previously, two public hearings were held in this proceeding. At the first, four members of the public testified. They discussed a variety of topics, including the differing impacts of Preferred Routes A and B, landslide risks in the area, impacts of construction on wooded areas, core sampling activities, stream crossings, erosion, driveway access and repairs, property valuation, and restoration following construction.

As a result of issues raised through public and intervenor input, the original procedural schedule was extended and Duke agreed to perform additional research into the

environmental impacts and construction requirements of Preferred Route B, in order to determine which route would be more advantageous. Following the filing of that study on November 15, 2006, a second public hearing was held. At that hearing, one witness testified. The witness's concerns related primarily to the impact that Preferred Route B would have, including environmental aspects, engineering and construction difficulties, safety risks, and driveway widening.

V. The Staff Report's and the Stipulation's Recommended Conditions

As part of the initial staff report, staff recommended that any certificate issued by the Board for the construction of the proposed gas pipeline include 30 specific conditions (Staff Ex. 1, at 37-42). Staff added nine additional recommended conditions in its addendum. (Staff Ex. 2, at 5-7.) In the stipulation, Duke and Staff state that they believe that ample evidence has been provided to demonstrate that construction of the project on the Preferred Route, following Preferred Route A, as modified, meets the applicable statutory criteria of Sections 4906.10(A)(1) through (8), Revised Code (Joint Exhibit 1, at 19-20). The parties to the stipulation further agree and recommend that the Board issue a certificate for the Preferred Route, following Preferred Route A, as modified, subject to 38 conditions specifying actions to be taken by Duke, as follows:

(1) Construct the project on the Preferred Route, following Preferred Route A, as presented in the application filed on May 1, 2006, and as clarified by documents filed by Duke on August 3, 2006; November 15, 2006; January 23, 2007; January 26, 2007; and February 27, 2007.

(2) Utilize the equipment and construction practices described in the application, as modified in supplemental filings, Duke's responses to staff's data requests, and the staff's recommendations contained in the staff report, including the addendum thereto.

(3) Implement the mitigative measures described in the application and supplemental filings, unless modified by the conditions of the certificate or applicable federal and state permits.

(4) Institute a public information program to inform affected property owners of the nature of the project, the proposed time frame for project construction, and a schedule for restoration activities. A second notice shall be provided to affected property owners informing them of construction that is expected to occur on their property within a 30-day timeframe. Property owners shall be provided with direct contact information for Duke's personnel that are familiar with the project's construction and restoration issues. A list of property owners contacted shall be submitted to staff.

(5) Prepare, prior to construction, a Phase I Cultural Resource Survey of any route selected by the Board. This survey shall be coordinated with the State Historic Preservation Office and submitted to staff for review and acceptance. If the survey discloses a find of cultural significance or a site that could be eligible for inclusion on the National Register of Historic Places, Duke shall submit a route amendment, route modification, or mitigation plan for staff's acceptance. Duke shall consult with staff to determine the appropriate course of action.

(6) Employ the services of a professional arborist, to be approved by staff, to identify methods and techniques, including the use of compensatory pruning, for avoiding or minimizing impacts to larger mature screening trees (i.e., eight to twelve inch starting diameter at breast height, as determined by a professional arborist) along the road right of way. Duke and its contractors shall follow the recommendations made by the arborist, so as to protect trees impacted by the installation of the pipeline.

(7) Field verify, with appropriate contractors, staff, and the arborist, the location and extent of trees to be cleared or trimmed along road rights of way, at the pre-construction conference.

(8) Not dispose of gravel or any other construction material, unless the material is of beneficial use and requested by the landowner, during or following construction of the facility by spreading such material on agricultural land. All construction debris shall be promptly removed and properly disposed of, after completion of construction activities.

(9) Control fugitive dust during construction through the use of best management practices, including water spray suppression.

(10) Avoid, where possible, or minimize, to the maximum extent practicable, any damages to the field drainage systems and soils resulting from construction and operation of the facility in agricultural areas. Damaged field tile systems shall be repaired to original conditions, at Duke's expense. Excavated topsoil will be segregated and restored upon backfilling. Severely compacted soils will be plowed, if necessary, to restore them to original condition.

(11) Properly install and maintain erosion and sedimentation control measures at the project site, in accordance with the following requirements:

(a) During construction, Duke shall seed all disturbed soil within seven days of final grading, with a seed mixture acceptable to the appropriate County Cooperative Extension Service. Denuded areas, including spoils piles, shall be seeded and stabilized within seven days if they will be undisturbed for more than 21 days. Reseeding shall be done within seven days of emergence of seedlings, as necessary, until sufficient vegetation is established.

(b) All such erosion control measures shall be inspected on a regular basis and after each rainfall event of 1/2 inch or greater and shall be promptly repaired and maintained until permanent vegetative cover has been established on disturbed areas.

(c) Duke shall obtain National Pollutant Discharge Elimination System permits for storm water discharges during construction. A copy of each permit or authorization, including terms and conditions, shall be provided to staff within seven days of receipt. Prior to construction, Duke shall submit to staff, for review, the construction Storm Water Pollution Prevention Plan.

(12) Employ the following construction methods in proximity to any watercourses:

(a) All watercourses, including wetlands, shall be delineated by fencing, flagging, or other prominent means.

(b) All construction equipment shall avoid watercourses, including wetlands, except at specific locations where staff has approved open-cut construction.

(c) Any open-cut crossing of intermittent and ephemeral streams shall occur during periods in which the stream channels are dry, unless explicit approval to do otherwise is obtained from staff.

(d) No tracked vehicles or other heavy equipment will be used to cross streams or wetland areas, unless explicit approval to do otherwise is obtained from staff.

(e) Storage, stockpiling and/or disposal of equipment and materials in these sensitive areas shall be prohibited. Such materials, shall be stored on upland sites, away from streams and wetlands.

(f) Above ground structures shall be located outside of identified watercourse, including wetlands.

(g) All storm water runoff is to be diverted away from fill slopes and other exposed surfaces, to the greatest extent possible, and directed instead to appropriate catchment structures or sediment ponds, using diversion berms, temporary ditches, check dams, or similar measures.

(h) Care shall be taken to maximize protection of the existing vegetation over the route of any directional bore that passes under a stream or wetland. If subsequent clearing must be performed along such an alignment (such as to comply with promulgated safety rules or for other critical reasons), then such clearing will be limited to a maximum width of 20 feet, unless explicit prior staff authorization for a greater width is obtained, and in no case, except for emergency repairs, shall any vegetation be removed within 100 feet of any stream bank or wetland area.

(13) Avoid, to the extent practicable, the clearing of trees in potential Indiana bat habitat. If such tree removal is unavoidable, clearing should not occur from April 15 to September 15. If clearing of trees in potential Indiana bat habitat during this period cannot be avoided, Duke shall develop a site-specific clearing plan, in coordination with the appropriate agencies, which it shall submit for review and approval of staff, prior to any such removal.

Additionally, if tree clearing of potential Indiana bat habitat must occur between April 15 and September 15, Duke shall perform all necessary surveys (i.e., mist netting) before proceeding.

(14) In order to address the long-term protection of environmentally sensitive areas along the project route, install and maintain permanent signs of sufficient size to be readily visible, denoting stream-crossing sites, riparian buffers, wetlands, specimen trees, etc., as "No Clear" or "No Cut" zones, as well as taking other appropriate measures internally to ensure the future preservation of these avoidance areas.

(15) Trench and professionally restore to reestablish both the structural integrity and ecological function of the following drainages: H 1, H2, H3, H7, Q1, and Q7 [as those drainages are identified in Figures 2A through 2J, attached to the URS Wetland Delineation and Stream Assessment Survey, which is dated February 2006 and is identified as Appendix 07-1 to the Application]. Poplar Creek (Q7) shall be bored, rather than trenched, if the flow is too high for an open-trench crossing at the time of construction. The organization doing the professional stream restoration work will also provide guidance to Duke and the construction contractor regarding methods to minimize environmental impacts related to site access, stream crossing techniques, storm water controls, slope stabilization measures, and any other related environmental impact mitigation that may be of value in these stream crossing locations.

(16) Have an environmental specialist, selected with staff's concurrence, on site at all times that construction is being performed in or near sensitive areas such as designated wetlands, streams, rivers, or woodlots. If any state or federal threatened or endangered species are identified during construction of the project, Duke will contact and coordinate with the appropriate state or federal agencies in order to ensure the impact to such species is minimized.

(17) Do no vegetative clearing in any wooded area or stream crossing site until prior notice has been given to staff, so that all trees can be clearly marked for preservation (or removal), and so arrangements can be made for staff to be present, if staff chooses, during clearing operations. The environmental specialist will be present to help monitor all vegetative clearing work.

(18) Limit the use of herbicides in proximity to surface waters, including wetlands, along the certified right of way. Before

applying herbicides during construction or restoration activities, Duke shall submit a plan describing the use of herbicides near such areas for review and approval by staff.

(19) Bore the Ohio River and the following streams along the Preferred Route: Q2 (Maple Creek) and Q5 (Big Indian Creek). In addition, the following drainages will be included in the bare under Q5 (Big Indian Creek): H24, H25, H26, H27, H28, H30, and Q9. There will be no clearing of any surface vegetation over any of the bore routes, particularly in riparian areas, without prior approval from staff. The environmental specialist will be on site during boring operations to monitor for any potential environmental impact problems. Duke shall provide staff with a frac-out containment plan for review and approval prior to the pre-construction conference.

(20) Develop a vegetative clearing and restoration plan, to be submitted to staff for review and approval prior to the pre-construction conference. At a minimum, this plan will include the following elements:

(a) Identification of specific methods to avoid tree removal in woodlots and riparian areas, including site specific shifts in alignments, narrowing of construction easements at environmentally sensitive locations (e.g., stream crossings), and other appropriate methods.

(b) Identification of techniques and locations for minimizing tree and shrub impacts during construction, such as the use of selective limb pruning, branch tie-backs, exclusion fencing along drip lines, exposed root pruning and care, as well as having the environmental specialist on site when working in sensitive, forested areas. Additionally, at stream crossing locations where clearing is required, roots and stumps are to be left in place.

(c) A description of how areas where clearing cannot be avoided will be revegetated, particularly at stream crossings. This restoration plan component should specify the type, location, and estimated

quantity of forbs, shrubs, and/or trees to be replanted, along with any other pertinent information. Consistent with Ohio Environmental Protection Agency guidelines, riparian buffers extending at least 25 feet from the top of the stream bank should be reestablished for smaller intermittent and ephemeral streams that will be crossed using open-trenching construction techniques, and at least 50 feet from the top of the bank for larger intermittent and all perennial streams. The level of restoration at each particular ecological resource location should be consistent with the preexisting conditions, the results of ecological assessments conducted to date (including stream quality), and the ecological and erosion control functions served by the vegetation to be removed.

(21) Develop a final version of Duke's initial site access plan, to be submitted to staff for review and approval prior to the preconstruction conference. The access plan shall illustrate the location of erosion control measures and the flagging of avoidance areas utilizing aerial photography maps that display USGS topographic features.

(22) Dispose of all contaminated soil and all construction debris in approved landfills, in accordance with Ohio EPA regulations.

(23) Prior to construction, obtain all applicable permits and authorizations, as required by federal and state entities, for any activities where such permit or authorization is required. A copy of each permit or authorization, including terms and conditions, shall be provided to staff within seven days of receipt.

(24) Contact the Gas Pipeline Safety Section of the Public Utilities Commission of Ohio to arrange for safety inspections, to ensure compliance with Title 49, Code of Federal Regulations, Parts 191 and 192, the Federal Minimum Pipeline Safety Standards, and Part 199, the Drug and Alcohol Regulations.

(25) With regard to construction and ongoing maintenance of the natural gas pipeline and associated facilities, comply in all respects with state and federal laws and regulations; pertaining to gas

pipeline safety. Duke shall permit site access to the staff of the Public Utilities Commission of Ohio to observe such activity.

(26) Conduct a pre-construction conference prior to the start of any project work, which staff shall attend, to discuss how environmental concerns, and other construction-related concerns, will be satisfactorily addressed.

(27) At least 30 days before the pre-construction conference, submit to staff, for review and approval, one set of construction drawings for the pipeline, including all laydown and staging areas and access, so that the Staff can determine that the final project design is in compliance with the terms of the certificate.

(28) Provide to staff the following information, as it becomes known:

(a) The date on which construction will begin.

(b) The date on which construction was completed.

(c) The date on which the facility began commercial operation.

(29) The certificate shall become invalid if Duke has not commenced a continuous course of construction within five years of the date of journalization of the certificate.

(30) If the Board does not accept the Preferred Route, following either Preferred Route A or B, then staff will require further investigation to determine the viability of the Alternate Route.

(31) Trench and professionally restore H7. The organization doing the professional stream restoration work will also provide guidance to Duke and the construction contractor regarding methods to minimize environmental impacts related to site access, stream crossing techniques, storm water controls, slope stabilization measures, and any other related environmental impact mitigation that may be of value at this stream crossing location, as well as on both the ascending and descending slopes of Preferred Route A. A plan to accomplish this shall be submitted to staff for review and approval prior to initiation of construction.

(32) Not exceed 30 feet for the maximum construction easement width for Preferred Route A, except in those staff-approved areas where

steep slopes, drainage ways, trees, or other environmentally sensitive conditions are not present.

(33) Cause the timing of construction work for Preferred Route A to coincide with dry on-site conditions, especially when working in areas with steep slopes, seeps, drainage ways, or any other feature that could be adversely impacted by construction activity during wet site conditions.

(34) Take special care to protect as many of the existing trees and tree root systems as possible during pipeline construction for Preferred Route A, to help maintain slope stability in this steep area.

(35) Devise special measures for crossing the unnamed tributary to Little Maple Creek (Q1) and the private drive that parallels it, to help minimize erosion and sedimentation during construction and to help stabilize these already unstable areas following construction. The professional stream restoration organization will be expected to play a significant role in this activity.

(36) Submit to staff, for review and approval prior to initiation of construction, a plan, showing all access points, haul roads, storage and stockpile sties, etc., within the reduced construction easement limits of Preferred Route A.

(37) Devise a special "offset" alignment where the proposed pipeline leave U.S. Route 52 and begins ascending the steep hill, in order to help camouflage the cleared right of way from passers by. This alignment may involve several shifts in direction, before proceeding uphill, and should include a "screen" of existing trees being left in place between the highway and the exposed hillside right of way.

(38) Design and construct all other route alignment clarifications in such a manner as to minimize tree clearing and avoid adverse impacts to streams. In particular, the revised alignment along the east side of Route 52 is expected to be located in the vicinity of the ditch line along the highway shoulder, with construction equipment and materials accessing the work site from the highway, thereby avoiding excavation into, and destabilization of, the steep slopes outside of the ditch line, as well as avoiding disturbance of existing trees and drainage ways located on the slopes.

(Joint Exhibit 1, at 2-15.)

VI. Conclusion:

According to the stipulation, Duke and staff recommend that, based upon the record, and the information and data contained therein, the Board should issue a certificate for construction, operation, and maintenance of the project along the Preferred Route, following Preferred Route A, as described in the application filed with the Board on May 1, 2006, as clarified and supplemented on August 3, 2006, November 15, 2006, January 23, 2007, January 26, 2007, and February 27, 2007 (Joint. Exhibit 1, at 2). Although not binding upon the Board, stipulations are given careful scrutiny and consideration, particularly where no party is objecting to the stipulation. Although the intervenors in this proceeding were concerned about the choice between Preferred Route A and Preferred Route B, they did not oppose the stipulation.

Based upon the record in this proceeding, the Board finds that all the criteria established in Section 4906.10(A), Revised Code, are satisfied for the construction, operation, and maintenance of the project using the Preferred Route, following Preferred Route A, as modified and subject to the conditions set forth above in this order and in the stipulation.

Accordingly, based upon all of the above, the Board approves and adopts the stipulation filed in this matter on April 4, 2007, and hereby issues a certificate to Duke for the construction, operation, and maintenance of the project as described in the application filed with the Board on May 1, 2006, as clarified and supplemented on August 3, 2006, November 15, 2006, January 23, 2007, January 26, 2007, and February 27, 2007, along the Preferred Route, following Preferred Route A, subject to the conditions set forth in Section V of this order.

FINDINGS OF FACT:

(1) On March 15, 2006, Duke held a public informational meeting in Clermont County, Ohio.

(2) On April 28, 2006, Duke filed a motion for a waiver of the filing requirement that two alternative routes have no more than 20 percent in common, pursuant to Rule 4906-5-04(A), Ohio Administrative Code (O.A.C.).

(3) By entry issued July 3, 2006, Duke's waiver request was granted.

(4) Duke filed its application on May 1, 2006. It filed clarifications on August 3, 2006. On November 15, 2006, Duke filed a report providing additional engineering and design information. Duke

filed additional clarifications on January 23 and 26, 2007, and final clarifications on February 2, 2007.

(5) On July 6, 2006, the Board notified Duke that its application was complete.

(6) On July 11, 2006, Duke delivered copies of the application public officials and libraries. On July 12, 2006, Duke filed certificates of service in this case, pursuant to Rule 4906-5-07, O.A.C.

(7) By entry dated July 17, 2006, the administrative law judge found that the effective date of the filing of the application was July 26, 2006 and set a local public hearing for September 26, 2006.

(8) On September 6, 2006, staff issued its report of investigation.

(9) On September 20 and 22, 2006, two interested persons filed motions to intervene in this case. The motions to intervene were granted at the adjudicatory hearing.

(10) On September 26, 2006, Duke filed a motion to continue the adjudicatory hearing so that it could perform a complete construction analysis of Preferred Route B. Also on that date, a public hearing was called to order in the city of Bethel, Clermont County, Ohio.

(11) On September 28, 2006, the adjudicatory hearing was called to order and continued until April 5, 2007.

(12) A second local public hearing was held on March 15, 2007, in Clermont County, Ohio.

(13) On March 23, 2007, Duke filed proof of publication of the first, second, and third public notices, as required by Rule 4906-5-08(B)(2), O.A.C.

(14) On March 29, 2007, staff filed an addendum to its report of investigation.

(15) On April 4, 2007, Duke and staff filed a stipulation.

(16) The adjudicatory hearing was reconvened on April 5, 2007.

(17) On May 8, 2007, Duke and staff filed a letter clarifying certain terms and provisions of the stipulation.

CONCLUSIONS OF LAW:

(1) Duke is an Ohio corporation; is an electric company, as defined by Section 4905.03, Revise Code; and is a public utility, as defined by Section 4905.02, Revised Code.

(2) Duke is a "person" under Section 4906.01, Revised Code.

(3) The project is a "major utility facility" as defined in Section 4906.01(B)(3), Revised Code.

(4) Duke's application complies with requirements in 4906-15, O.A.C.

(5) The record establishes the need for the project, as required by Section 4906.10(A)(1), Revised Code.

(6) The record establishes the nature of the probable environmental impact from construction, operation, and maintenance of the project as required by Section 4906.10(A)(2), Revised Code.

(7) The record establishes that the Preferred Route, following Preferred Route A, as modified and subject to the conditions set forth in this order, represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations as required by Section 4906.10(A)(3), Revised Code.

(8) The record establishes that the project is consistent with the regional plans for expansion of the natural gas delivery systems serving Ohio and interconnected utility systems and that the project will serve the interests of natural gas system economy and reliability.

(9) The record establishes that the Preferred Route, following Preferred Route A, as modified and subject to the conditions set forth in this order, will comply with Chapters 3704, 3734 and 6111, Revised Code, and Sections 1501.33, 1501.34, and 4561.32, Revised Code, and all rules and regulations thereunder, to the extent they apply, as required by Section 4906.10(A)(5), Revised Code.

(10) The record establishes that the project, as modified and subject to the conditions set forth in this order, will serve the public interest, convenience, and necessity as required by Section 4906.10(A)(6), Revised Code.

(11) The record contains adequate data on the project for the Board to determine the project's impact on the viability of any land in an existing agricultural district established under Chapter 929, Revised Code, as required by Section 4906.10(A)(7), Revised Code.

(12) Inasmuch as water conservation practices are not involved with the project, Section 4906.10(A)(8), Revised Code, does not apply in this circumstance.

(13) The record evidence provides sufficient factual data to enable the Board to make an informed decision.

(14) A certificate containing the conditions set forth in the stipulation should be issued for construction, operation and maintenance of the proposed project.

ORDER:

It is, therefore,

ORDERED, That the stipulation filed on April 4, 2007, in this matter be approved and adopted. It is, further,

ORDERED, That a certificate be issued to Duke for the construction, operation, and maintenance of the project as proposed along the Preferred Route, following Preferred Route A, as modified. It is, further,

ORDERED, That the certificate contain the conditions set forth in Section V of this Opinion, Order, and Certificate. It is, further,

ORDERED, That a copy of this Opinion, Order, and Certificate be served upon each party of record and any other interested persons.

THE OHIO POWER SITING BOARD

Alan R. Schriber, Chairman of the
Public Utilities Commission of Ohio

Lee Fisher, Board Member
and Director of the Ohio Department
of Development

Sean Logan, Board Member
and Director of the Ohio Department
of Natural Resources

Anne Hurst Acting ~~Alvin Jackson M.D.~~, Board Member and Director of the Ohio Department of Health

Christopher Korleski, Board Member and Director of the Ohio Environmental Protection Agency

Robert Boggs, Board Member and Director of the Ohio Department of Agriculture

Andrew M. Boatright, P.E., Board Member and Public Member

JWK;geb

Entered in the Journal

MAY 21 2007

Reneé J. Jenkins
Secretary