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**AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY**

LETTER OF NOTIFICATION

**BEAVER-BLACK RIVER
138 kV TRANSMISSION LINE RECONDUCTORING AND
STRUCTURE REPLACEMENT PROJECT**

OPSB CASE NO.: 14-0470-EL-BLN

April 14, 2014

PUCO

2014 APR 15 PM 12:24

RECEIVED-DOCKETING DIV

**American Transmission Systems, Incorporated
76 South Main Street
Akron, Ohio 44308**

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**LETTER OF NOTIFICATION
BEAVER-BLACK RIVER 138 kV TRANSMISSION LINE
RECONDUCTORING AND STRUCTURE REPLACEMENT PROJECT**

The following information is being provided in accordance with the procedures in Ohio Administrative Code (“OAC”) Rule 4906-11-01: Letter of Notification Requirements of the Ohio Power Siting Board.

4906-11-01 (B): LETTER OF NOTIFICATION REQUIREMENTS

4906-11-01 (B) (1) a: Name and Reference Number

Name of Project: Beaver-Black River 138 kV Transmission Line
Reconductoring and Structure Replacement Project
 (“Project”)

2013 LTFR Reference: This Project is not included in FirstEnergy Corp. 2013 Long-Term Forecast Report submitted to the Public Utility Commission of Ohio in Case Number 13-925-EL-FOR.

4906-11-01 (B) (1) b: Brief Description of Project

In this Project, American Transmission Systems, Incorporated (“ATSI”), a FirstEnergy company, is proposing to reconductor an approximately 0.7 mile long segment of the Beaver-Black River 138 kV Transmission Line. The Project will include replacing the 13 existing double circuit transmission line structures that support both the Beaver-Black River 138 kV Transmission Line and the Black River-Johnson 138 kV Transmission Line along this segment with 11 double circuit transmission line structures. Exhibit 1 shows the General Location of the Project. The general layout of the Project is shown in Exhibit 2. The proposed structures are shown in Exhibits 3 through 7. The structures associated with the Project will be owned by ATSI. The Project is located in the City of Lorain, Lorain County, OH.

4906-11-01 (B) (1) c: Why the Project Meets the Requirements for a Letter of Notification

The Project meets the requirements for a Letter of Notification because the Project is within the types of project defined by Item (4)(a) of the Interim Application Requirement Matrix for Electric Power Transmission Lines in the Finding and Order issued on September 4, 2012, as subsequently modified on December 17, 2012, in Case No. 12-1981-GE-BRO which modified Appendix A of Rule 4906-1-01 of the Ohio Administrative Code. This item states:

(4) Replacing electric power transmission line structure(s) with a different type of structure(s) or adding structure(s) within an existing electric power transmission line and:

(a) Two miles or less of new right-of-way is required.

The proposed Project includes replacing structures and conductors along approximately 0.7 miles of the existing Beaver-Black River 138 kV Transmission Line. All of the proposed structures will be within the existing transmission right of way.

4906-11-01 (B) (2): Need for the Project

The PJM Generator Deliverability Analysis and also the Generation Retirement Analysis determined that under the contingency condition of the loss of the Avon-Beaver #1 & #2 345 kV Transmission Line, the Beaver-Black River 138 kV Transmission Line loads to 115% of its summer emergency rating (282 MVA). Once the project is complete, under this contingency condition, the Beaver-Black River line will be at approximately 76.6% of its summer emergency rating.

4906-11-01 (B) (3): Location Relative to Existing or Proposed Lines

The location of the Project relative to existing or proposed transmission lines is shown in the FirstEnergy System Facilities map, included as the last page of Chapter 3 of the confidential portion of the FirstEnergy Corp. 2013 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 13-925-EL-FOR under Rule 4901:5-5:04 (C) of the Ohio Administrative Code. The map is incorporated by

reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations, including the location of the Beaver-Black River 138 kV transmission line. The project area is located approximately 8 ¼ inches (11 by 17 inch printed version) from the left edge of the map and 2 ¼ inches (11 by 17 inch printed version) from the top of the map. The general location and layout of the Project is shown on Exhibit 1.

4906-11-01 (B) (4): Alternatives Considered

No alternatives were considered for this project.

4906-11-01 (B) (5): Construction Schedule

Construction on the project is expected to begin as early as September 1, 2014 and be completed by December 21, 2014.

4906-11-01 (B) (6): Area Map

Exhibit 1 depicts the general location of the Project. This exhibit provides a partial copy of the United States Geologic Survey, Lorain topographic quadrangle map (Quad Order ID 41082-D2). To locate and view the project site from Columbus, Ohio, travel north on I-71 approximately 123 miles and take exit 233 to merge onto I-80 W toward Toledo for approximately 16 miles. Take exit 145 onto OH-57 N/Lorain Boulevard toward Lorain for approximately 2.5 miles. Turn left onto N Ridge Road E, and continue for approximately 1.3 miles. Turn right onto Elyria Avenue, and continue for approximately 2 miles. Turn right onto E 32nd Street, and continue for approximately 0.2 mile. Turn left onto Clifton Avenue. The Black River Substation is located on the east side of Clifton Avenue. The Beaver-Black River Transmission Line extends south and then southwest to the intersection of Broadway and 36th Street.

4906-11-01 (B) (7): Property Owner List

The Project is located on existing right-of-way. No new easements or right-of-way for the transmission structures will need to be acquired. The property information for this Project, listed below, was obtained through the Lorain County Auditor's website.

Parcel Number(s)	Property Owner	Property Address	Easement Status
03-00-098-127-036, 03-00-098-130-027, 03-00-103-108-005, 03-00-098-130-026, 03-00-098-130-012, 03-00-098-127-018, 03-00-098-127-020, 03-00-103-101-008, 03-00-098-130-006, 03-00-103-108-003, 03-00-098-127-019, 03-00-098-130-015, 03-00-098-127-031, 03-00-098-125-003, 03-00-103-108-002, 03-00-098-125-021, 03-00-098-125-002, 03-00-098-130-007, 03-00-098-130-014, 03-00-098-130-013, 03-00-098-125-022, 03-00-098-127-021, 03-00-103-108-001, 03-00-098-130-005, 03-00-098-127-034, 03-00-098-127-035, 03-00-098-127-023, 03-00-098-127-032, 03-00-098-125-001, 03-00-098-127-022, 03-00-098-127-033, & 03-00-098-125-023	Ohio Edison, Co (FirstEnergy Subsidiary)		Owned in Fee
03-00-098-119-007, 03-00-098-110-001, 03-00-098-119-002, 03-00-098-119-018, 03-00-098-110-004, 03-00-098-119-012, 03-00-098-119-015, 03-00-098-110-010, 03-00-098-119-013, 03-00-098-119-006, 03-00-098-110-005, 03-00-098-119-001, 03-00-098-110-002, 03-00-098-119-004, 03-00-098-119-005, 03-00-098-110-011, 03-00-098-119-009, 03-00-098-119-017, 03-00-098-110-013, 03-00-098-119-008, 03-00-098-110-012, 03-00-098-110-003, 03-00-098-119-011, 03-00-098-119-003, 03-00-098-119-010, 03-00-098-119-014, & 03-00-098-119-016	American Transmission Systems, Inc. (FirstEnergy Subsidiary)		Owned in Fee
03-00-098-130-011 & 03-00-098-130-010	Higginbotham, David	412 E 34th Street Lorain, OH 44055	Previously Obtained
03-00-098-127-030	Suttons Rentals LLC	607 E 34th Street Lorain, OH 44055	Previously Obtained

4906-11-01 (C): TECHNICAL FEATURES OF THE PROJECT

4906-11-01 (C) (1): Operating Characteristics

The transmission line construction will have the following characteristics:

- Voltage: 138 kV
- Conductors: 954 kcmil ACSS 26/7
- Static wire: 7 # 8 Alumoweld
- Insulators: Polymer horizontal post, suspension, and strain
- Structure Types: Exhibit 3: Typical Tangent Pole
Exhibit 4: Typical Angle Pole
Exhibit 5: Typical Strain Pole
Exhibit 6: Steel Pole with Under-Built
Exhibit 7: Single Circuit Deadend Pole

4906-11-01 (C) (2) a: Calculated Electric and Magnetic Fields

The following table itemizes the line loading of Beaver-Black River 138 kV Transmission Lines. The normal line loading represents FirstEnergy's peak system load for the transmission lines. The emergency line loading represents the maximum line loading under contingency operation. The winter rating is based on the continuous maximum conductor ratings (MCR) of the circuits for the single conductors per phase 954 kcmil 48/7 ACSS conductors and an ambient temperature of zero degrees centigrade (32 deg. F), wind speed of 1.3 miles per hour, and a circuit design operating temperature of 100 degrees centigrade (212 deg. F).

Line Name	Normal Loading Amps	Emergency Loading Amps	Winter Rating Amps
Beaver – Black River 138 kV Transmission Line	920	1085	1320
Black River – Johnson # 1 138 kV Transmission Line	135	340	1477

The following calculations provide an approximation of the magnetic and electric fields strengths of the Beaver-Black River 138 kV Transmission Lines in the right-of-way. The calculations provide an approximation of the electric and magnetic field levels based on specific assumptions utilizing the EPRI EMF Workstation 2009 program software. This program software assumes the input transmission line configuration is located on flat terrain. Also, a balanced, three-phase circuit loading is assumed for the transmission circuit. The model utilizes the normal, emergency, and winter rating of the transmission lines.

EMF CALCULATIONS		Electric Field kV/meter	Magnet Field mGauss
Normal Loading	Under Lowest Conductors	0.955	40.64
	At Right-of-Way Edges	0.62/0.64	30.2 / 36.5
Emergency Loading	Under Lowest Conductors	0.955	53.77
	At Right-of-Way Edges	0.62/0.64	41.6/47.8
Winter Rating	Under Lowest Conductors	0.955	103.23
	At Right-of-Way Edges	0.62/0.64	87.6/86.3

4906-11-01 (C) (2) b: EMF Discussion

Background Information

Electric and magnetic fields (EMFs) are naturally occurring in the environment and can be found in the Earth's interior and in the human body. EMFs are generated essentially anywhere where there is a flow of electricity, including electrical appliances and power equipment. Electric fields are associated with the voltage of the source; magnetic fields are associated with the flow of current in a wire. The strength of these fields decreases rapidly with distance from the source. EMFs associated with electricity use are not disruptive to cells like x-rays or ultraviolet rays from the sun. EMF fields are thought to be too weak to break molecules or chemical bonds in cells. Scientists have conducted extensive research over the past two decades to determine whether EMFs are associated with adverse health effects, and although the research and debate of this issue continues, at this time there is no firm basis to conclude that EMFs cause adverse health effects. A number of independent scientific panels have reviewed the research and have stated that there

is no basis to conclude that EMFs cause adverse health effects nor has it been shown that levels in everyday life are harmful.

Recent Developments

As a part of the National Energy Policy Act of 1992, the Electric and Magnetic Fields Research and Public Information Dissemination (EMF RAPID) program was initiated within the five-year effort under the National EMF Research Program. The culmination of this five-year effort resulted in a final RAPID Working Group report, which was released for public review in August 1998. The Director of the National Institute of Environmental Health Sciences (NIEHS) then prepared a final report to Congress after receiving public comments. The NIEHS' Director's final report, released to Congress on May 4, 1999, concluded that extremely low frequency electric and magnetic fields (ELF-EMF) exposure cannot be recognized at this time as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard. The Director further stated that the conclusion of this report is insufficient to warrant aggressive regulatory concern.

Sources for Additional Information

The following websites sponsored by federal agencies or other organizations provide additional information on EMF:

- Centers for Disease Control/National Institute for Occupational Safety and Health: <http://www.cdc.gov/niosh/topics/emf/>
- National Institute of Environmental Health Sciences (NIEHS) EMF Rapid Program: <http://www.niehs.nih.gov/health/topics/agents/emf/>

4906-11-01 (C) (3): Estimated Costs

The following are the estimated capital costs by FERC Accounts for the proposed project:

<u>Account</u>	<u>Cost</u>
350 Land Rights, Engineering, etc.	\$ 200,000
355 Poles and Fixtures	\$1,190,000
356 Overhead Conductors & Devices	\$ 829,000
Total	\$ 2,219,000

4906-11-01 D: SOCIOECONOMIC DATA

4906-11-01 (D) (1): Land Use

The Project is located in the City of Lorain, Lorain County, Ohio. There are various land uses along the route of the line, and mainly include roadway right-of-way, residential, and light industrial. Based on the U.S. Bureau of Census estimates, the 2010 population of the City of Lorain was 64,097. The 2010 population of Lorain County was 301,356. As the proposed Project involves replacing the existing conductors of the transmission line, no significant changes or impacts to the current land use is anticipated.

4906-11-01 (D) (2): Agricultural Land

Agricultural land use does not exist within the Project's footprint.

4906-11-01 (D) (3): Archaeological or Cultural Resources

As part of ATSI's investigation of the project site, a search of Ohio Historic Preservation Office (OHPO) National Register of Historic Places on-line database was conducted and did not identify the existence of any historic sites within the project area; however, one (1) Nationally Registered Historic Place was identified 0.4 mile east of the project area. The OHPO database includes all Ohio listings on the National Register of Historic Places, including districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. Given the nature of the project, it is unlikely that any archaeological or cultural resources would be disturbed by the limited nature of reconductoring the transmission line and installing intermediate structures.

4906-11-01 (D) (4) a: Documentation of Letter of Notification Transmittal

This Letter of Notification is being provided concurrently to the following officials of the City of Lorain and Lorain County, Ohio.

Lorain County

Mr. Ted Kalo
President
Lorain County Commissioner
226 Middle Avenue, Fourth Floor
Elyria, Ohio 44035

Ms. Lori Kokoski
Vice President
Lorain County Commissioner
226 Middle Avenue, Fourth Floor
Elyria, Ohio 44035

Mr. Donald Romancak
Community Development Director
Lorain County
226 Middle Avenue, Fifth Floor
Elyria, OH 44035

Mr. Tom Williams
Lorain County Commissioner
226 Middle Avenue, Fourth Floor
Elyria, Ohio 44035

Mr. Ken Carney, P.E., P.S.
Lorain County Engineer
247 Hadaway Street
Elyria, Ohio 44035

City of Lorain

The Honorable Chase Ritenauer
Mayor of Lorain
200 West Erie Avenue
Lorain, OH 44052

Mr. Joel Arrendondo
City Council, President
607 Allison Avenue
Lorain, OH 44052

Mr. Rey Carrion
City Building, Housing and Planning
Director
200 West Erie Avenue
Lorain, OH 44052

Mr. Dale Vandersommen, P.E.
City of Lorain Engineer
200 West Erie Avenue
Lorain, OH 44052

Ms. Nancy Greer
Clerk of Council
200 West Erie Avenue
Lorain, OH 44052

Copies of the transmittal letters to these officials have been included with the transmittal letter submitting this Letter of Notification to the Ohio Power Siting Board.

4906-11-01 (D) (4) b: Public Information Program

ATSI's manager of External Affairs will advise local officials of features and the status of the proposed Transmission Line Project as necessary.

4906-11-01 (D) 5: Current or Pending Litigation

There is no known current or pending litigation involving this project.

4906-11-01 (D) 6: Local, State, and Federal Requirements

On August 15, 2012, ATSI obtained the Ohio Environmental Protection Agency's (EPA) approval for coverage under their General Permit/Storm Water Associated with Construction Activity. There are no other known local, state, or federal requirements that must be met prior to commencement of construction on the proposed transmission line project.

4906-11-01 (E): ENVIRONMENTAL DATA

4906-11-01 (E) (1): Endangered, Threatened, and Rare Species Investigation

As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on January 9, 2014, to research the presence of any endangered, threatened, or rare species within the project area. The ODNR's January 14, 2014 response, attached as Exhibit No. 8 indicated that they have no records of rare or endangered species within one mile of the identified project area.

4906-11-01 (E) (2): Areas of Ecological Concern

As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on January 9, 2014, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, or other protected natural areas within the project area. The ODNR's January 14, 2014 response, attached as Exhibit No. 8, indicated that they have no records of the aforementioned "areas" within one mile of the identified project area.

4906-11-01 (E) (3): Additional Information

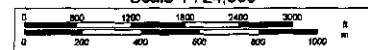
Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the National Electric Safety Code as adopted by the Public Utilities Commission of Ohio (PUCO) and will meet all applicable safety standards established by the Occupational Safety and Health Administration.

EXHIBIT 1



Orig Date: 1979
 Quad Series: 7.5'
 Paper Source: Topographic 1:24,000
 Quad Order ID: 41082-D2
 Coverage: Lorain County, OH
 Vendor: USGS

Scale 1 : 24,000



1" = 2,000.0 ft Data Zoom 13-0

Data use subject to license.

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CITY OF LORAIN
LORAIN COUNTY
STATE OF OHIO

BLACK RIVER
SUBSTATION

E 30TH STREET

ELYRIA AVENUE

CLIFTON AVENUE

BROADWAY

E 36TH STREET

TO BEAVER
SUBSTATION

TO JOHNSON
SUBSTATION

LEGEND

- ✕ PROPOSED STRUCTURE
- ⊗ EXISTING STRUCTURE TO BE REMOVED
- ▲ SUBSTATION
- - - EXISTING TRANSMISSION LINE
- PROPOSED TRANSMISSION LINE
- === EXISTING ROADS

ATSI

American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

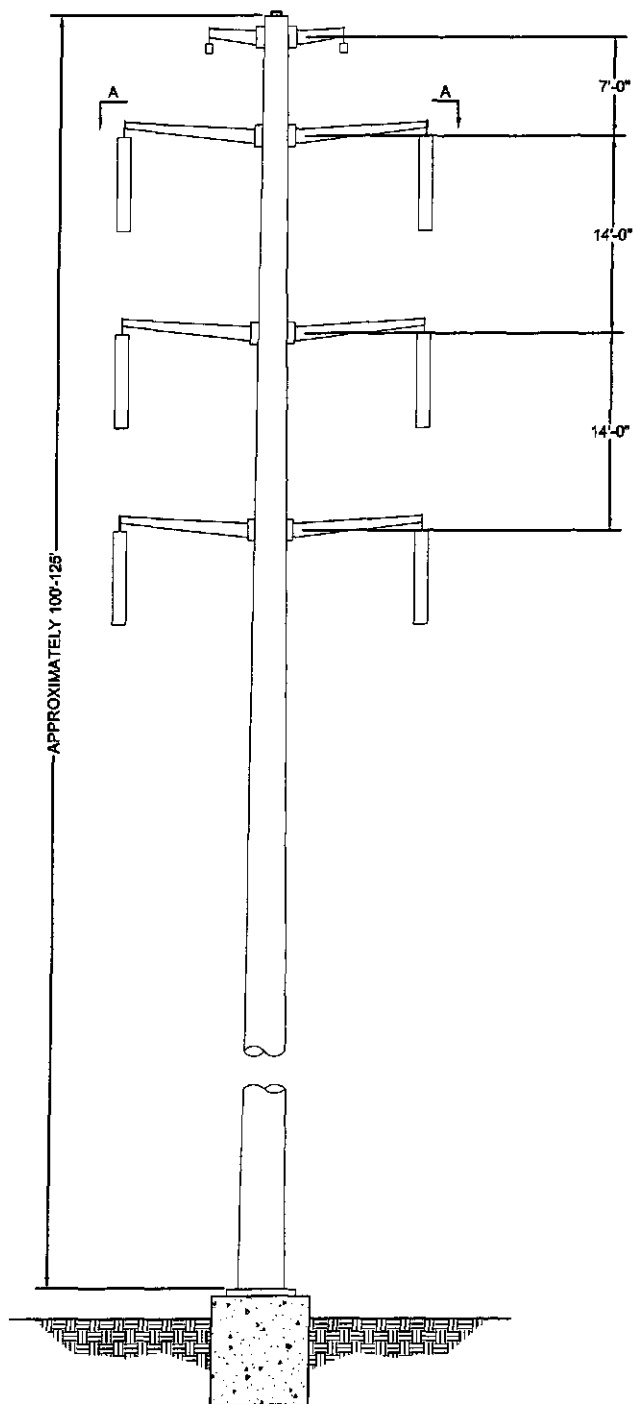
BEAVER—BLACK RIVER 138 kV
TRANSMISSION LINE
RECONDUCTORING PROJECT

GENERAL LAYOUT

EXHIBIT 2



SECTION A-A



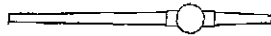
ATSI

American Transmission Systems, Inc.
A subsidiary of FluorEnergy Corp.

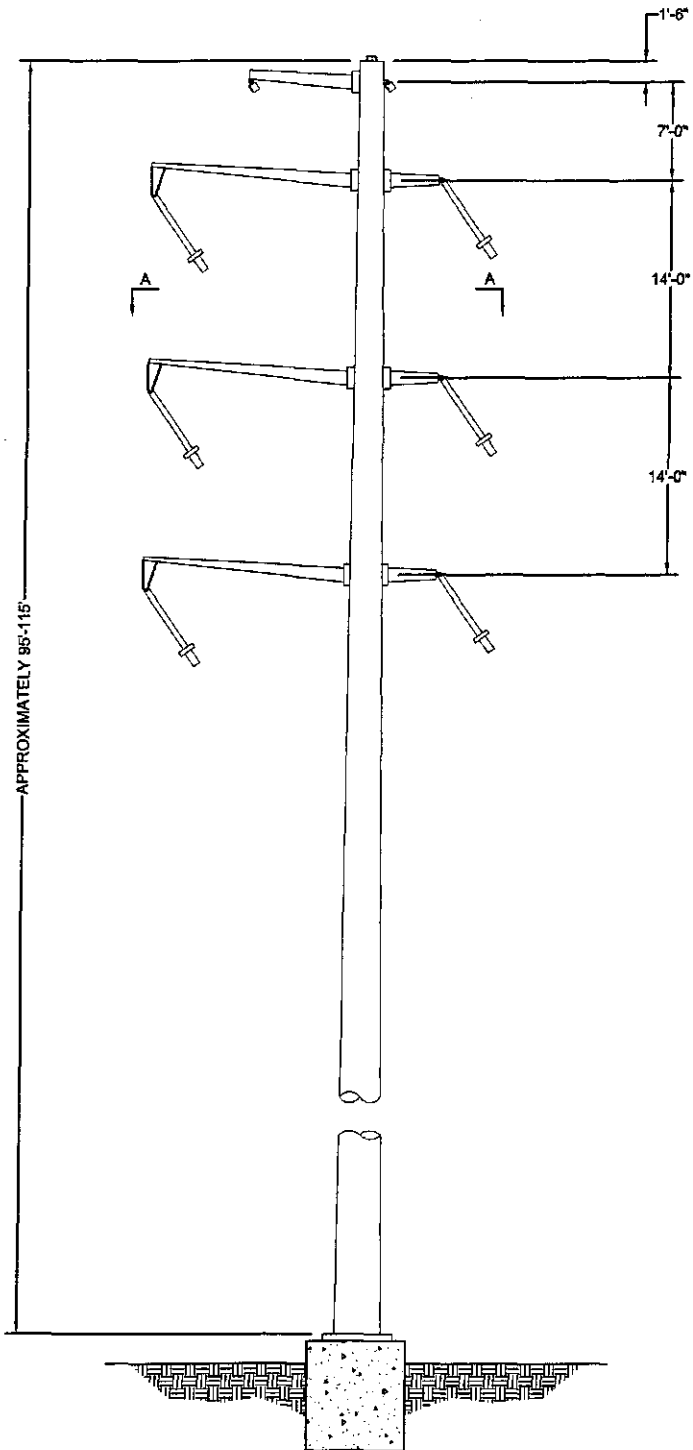
BEAVER-BLACK RIVER 138 kV
TRANSMISSION LINE
RECONDUCTORING PROJECT

TYPICAL TANGENT POLE

EXHIBIT 3



SECTION A-A



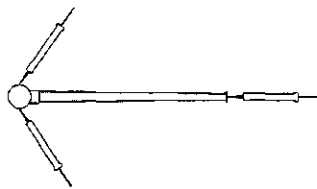
ATSI

American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

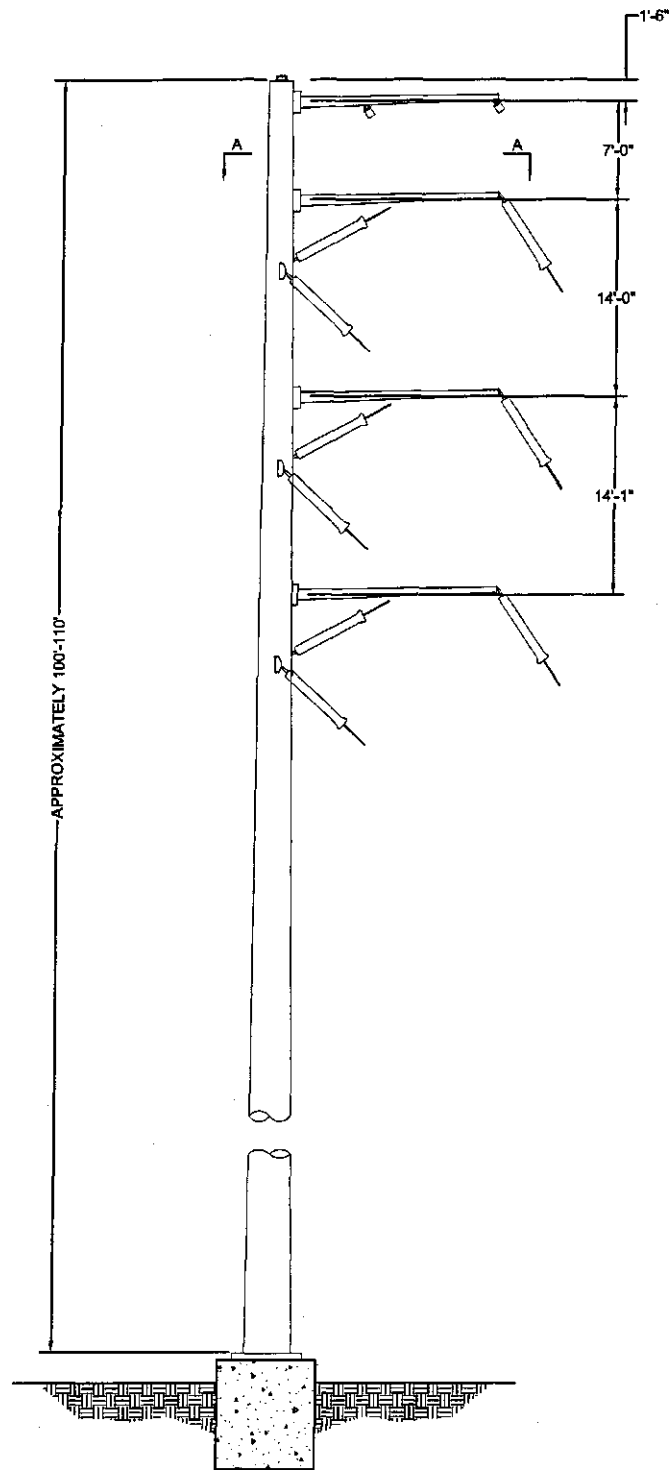
BEAVER-BLACK RIVER 138 kV
TRANSMISSION LINE
RECONDUCTORING PROJECT

TYPICAL ANGLE POLE

EXHIBIT 4



SECTION A-A



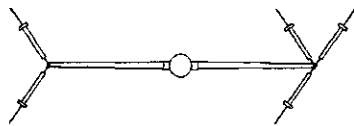
ATSI.

American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

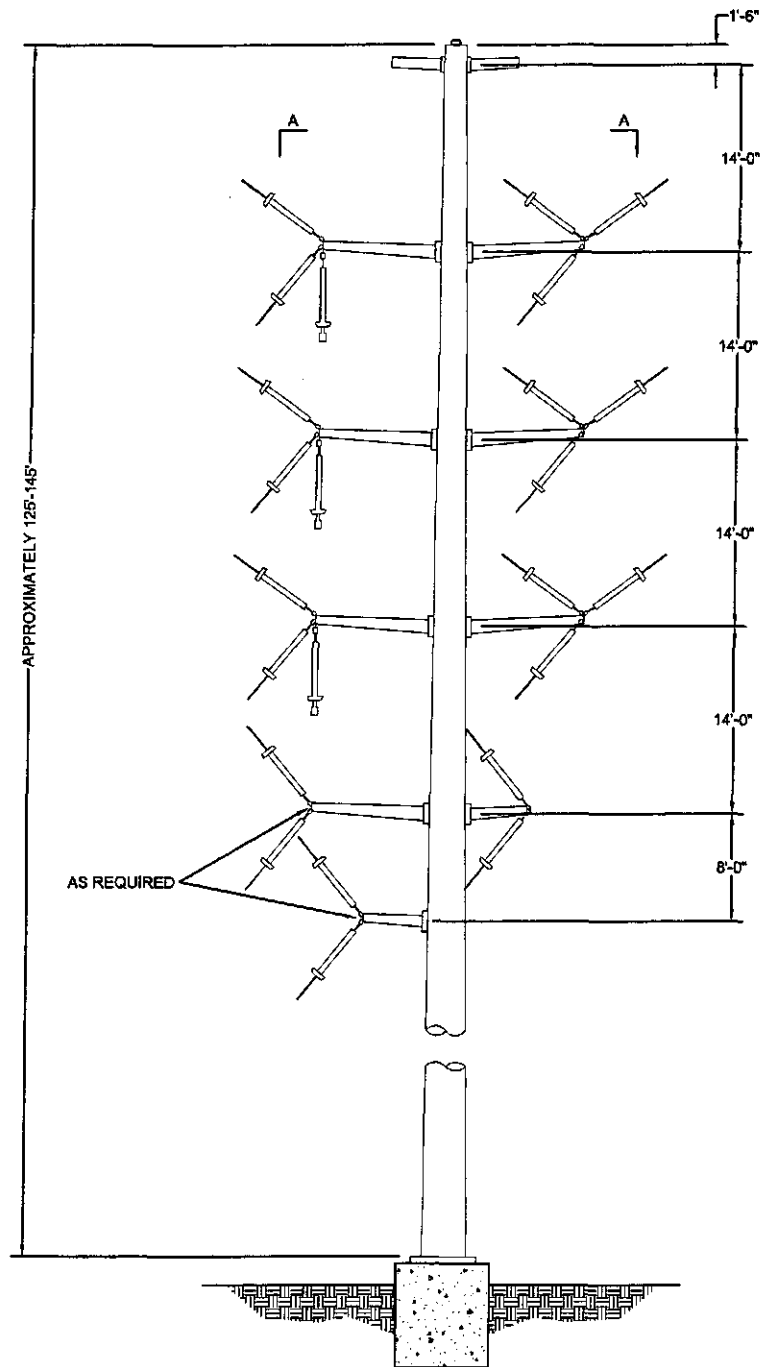
BEAVER-BLACK RIVER 138 kV
TRANSMISSION LINE
RECONDUCTORING PROJECT

TYPICAL STRAIN POLE

EXHIBIT 5



SECTION A-A



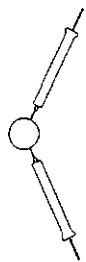
ATSI

American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

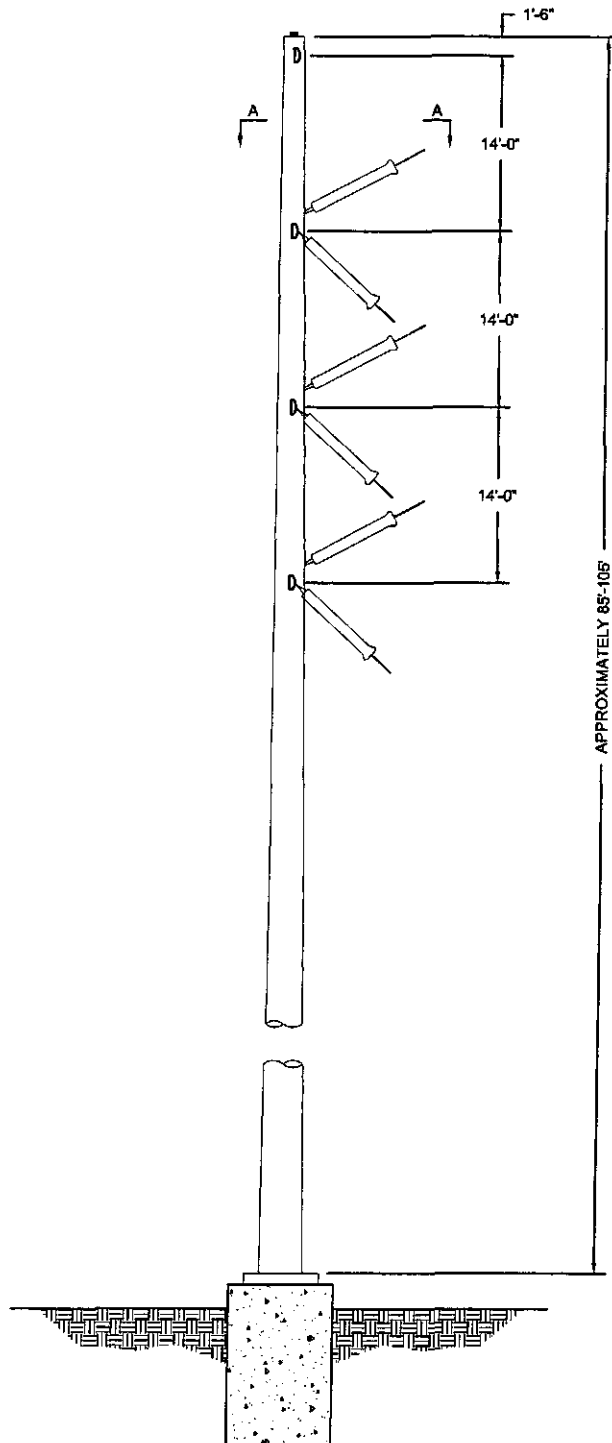
BEAVER-BLACK RIVER 138 KV
TRANSMISSION LINE
RECONDUCTORING PROJECT

STEEL POLE WITH
UNDER-BUILT

EXHIBIT 6



SECTION A-A



ATSI.

American Transmission Systems, Inc.
A Subsidiary of Electric Power Corp.

BEAVER-BLACK RIVER 138 kV
TRANSMISSION LINE
RECONDUCTORING PROJECT

SINGLE CIRCUIT DEADEND POLE

EXHIBIT 7



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Ohio Division of Wildlife

Scott Zody, Chief
2045 Morse Rd., Bldg. G
Columbus, OH 43229-6693
Phone: (614) 265-6300

January 14, 2014

Jessica Thacker
FirstEnergy Service Company
76 South Main Street
Akron, OH 44308

Dear Ms. Thacker

After reviewing the Natural Heritage Database, I find the Division of Wildlife has no records of rare or endangered species in the Beaver-Black River 138 kV Transmission Line Reconductoring Project area, including a one mile radius, in the City of Lorain, Lorain County, Ohio. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, parks or forests or other protected natural areas within a one mile radius of the project area.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although we inventory all types of plant communities, we only maintain records on the highest quality areas.

This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and does not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Please contact me at 614-265-6452 if I can be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Greg Schneider".

Greg Schneider, Administrator
Ohio Natural Heritage Database Program