

**BOARD OF APPEALS
for
MONTGOMERY COUNTY**

Stella B. Werner Council Office Building
100 Maryland Avenue, Suite 217
Rockville, Maryland 20850
www.montgomerycountymd.gov/boa/
(240) 777-6600

Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO MODIFY SPECIAL EXCEPTION

(Resolution Adopted February 10, 2021
(Effective Date of Resolution: February 26, 2021))

Case Nos. S-213 and S-214 are special exceptions that the Board of Appeals granted to Potomac Electric Power Company, effective November 26, 1972, under Section 59-164 of the Zoning Ordinance in effect at that time, to permit an electric substation and over-head electric power and energy transmission lines. Effective January 22, 1988, the Board granted Case No. S-213-A, to modify the substation, and Case No. S-1413, to allow construction of 3.5 miles of overhead transmission lines from the substation to the Howard County line. The Board has granted administrative modifications of Case Nos. S-213 and S-214 effective November 26, 1974, January 21, 1976, February 9, 1977, March 11, 1993, August 14, 2008, and March 26, 2015.

The subject property is Parcel A on Plat 10802 entitled "Potomac Electric Power Company Brighton Substation #66," consisting of 12.5 acres on a 231 acre tract that is located at 1300 Brighton Dam Road, Brookeville, Maryland, in the RC Zone.

The Board of Appeals has received a letter with attachments dated November 11, 2020, from David Busse, Assistant Project Manager, KDM Engineering, on behalf of PEPSCO, requesting an administrative modification of this special exception. See Exhibits 146 and 146(a)-(k). Mr. Busse indicates that the improvements he is seeking are facility and safety improvements urgently needed to meet Exelon standards. His letter describes the various improvements sought as follows:

- The most significant proposed improvement will be the replacement of the existing, 7-foot chain link fence topped with barbed wire. The new fence will be an enhanced fence to provide the required protection of the facility. The new fence is 11 feet tall and is high strength to resist cutting by common tools and small mesh openings to resist hand or foot holds.

The new fence will be installed in the same location as the existing fence except for the south fence line which is shifting south approximately 3 feet to meet clearance standards.

- BGE Electrical Distribution pole existing within 10 feet inside of the current fence will be relocated still within the perimeter to more than 10 feet from the fence line.
- Existing culvert outlet retaining wall on the east fence line near the main entrance is being relocated further from the existing fence line to meet clearance standards and will not be altering the stormwater management plan that was shown on the previously approved special exception plan for expansion of the substation.
- A prefabricated data enclosure and associated foundations will be installed within the fenced in substation. This enclosure is required to support the PEPCO Facility Plan.
- Cameras will be installed on the new fence and and/or poles within the fence. The frame of view of the cameras will be limited to the fence perimeter.

See Exhibit 146. Mr. Busse includes a revised site plan and elevations with his letter. See Exhibits 146(d) and 146(f)-(i). He also includes an aerial photograph showing the location of the substation facility relative to the larger property. See Exhibit 146(e).

Mr. Busse's letter states that the requested changes will not substantially change the nature, character, or intensity of the use, and will not have an effect on traffic or the immediate neighborhood. His letter notes that the requested improvements will not change the nature of the special exception use or intensify operations on site. In addition, it states that the Brighton substation has existed since 1973, and that the facility "is generally unattended and fully automatic with occasional visits by employees to perform various maintenance works of the equipment and grounds." See Exhibit 146.

Due to COVID-19, the Board of Appeals considered the modification request at a remote Worksession held on February 10, 2021, using Microsoft Teams. Mr. Busse participated in the Worksession. He explained that the project is part of PEPCO's push to make sure that its substations comply with Exelon standards. Mr. Busse stated that the largest part of the project is the replacement of the existing substation perimeter fence with a taller, more robust fence, noting that the fence location would not change except on the southern end, where it would be moved out about three feet. He explained that the exterior of the new fence is a steel mesh that is difficult to climb, and said that the fence is 11 feet tall with an additional 1 foot of barbed wire on top. Mr. Busse stated that the fenced area is more than 600 feet from the nearest residence, and that it is well-screened by trees and not visible from neighboring properties.

Because these special exceptions were approved prior to October 30, 2014, under Section 59-7.7.1.B of the current Zoning Ordinance, this modification request must be reviewed under the standards and procedures in effect on October 29, 2014, unless the

applicant requests otherwise. Section 59-G-1.3(c)(1) of the Zoning Ordinance (2004) provides:

If the proposed modification is such that the terms or conditions could be modified without substantially changing the nature, character or intensity of the use and without substantially changing the effect on traffic or on the immediate neighborhood, the board, without convening a public hearing to consider the proposed change, may modify the term or condition.

The Board finds that the proposed facility and safety improvements will not substantially change the nature, character, or intensity of this use, or its effect on traffic or the immediate neighborhood. In support of this, the Board finds, per Mr. Busse's letter, that the proposed improvements will not change the nature or intensity of this special exception use, that the 12.5 acre Brighton substation facility is located within a much larger (231 acre) tract, and that the facility will remain largely unmanned other than as necessary to address maintenance needs. In addition, based on the representations made by Mr. Busse at the Worksession, the Board finds that the facility is not visible from neighboring properties due to distance and tree cover, and thus finds that this modification will not substantially change the effect of this use on the immediate neighborhood. Accordingly, the Board finds that the proposed modification meets the standard set forth in Section 59-G-1.3(c)(1) of the Zoning Ordinance (2004), and can be granted. Therefore, on a motion by John H. Pentecost, Chair, seconded by Richard Melnick, with Bruce Goldensohn, Vice Chair, Katherine Freeman, and Mary Gonzales in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland, that the record in Case No. S-213 [S-214] is re-opened to receive Mr. Busse's letter of November 11, 2020, with attachments [Exhibits 146 and 146(a)-(k)]; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland, that the facility and safety improvements described above and in Mr. Busse's letter, and shown on the attachments to that letter, are granted; and

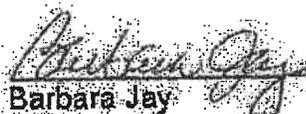
BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that all terms and conditions of the original special exceptions, together with any modifications granted by the Board of Appeals, remain in effect.



John H. Pentecost, Chair
Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland

this 26th day of February, 2021.


Barbara Jay
Executive Director

NOTE:

Any party may, within fifteen (15) days of the date of the Board's Resolution, request a public hearing on the particular action taken by the Board. Such request shall be in writing, and shall specify the reasons for the request and the nature of the objections and/or relief desired. In the event that such request is received, the Board shall suspend its decision and conduct a public hearing to consider the action taken.

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book. Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

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(240) 777-6600

Case No. S-213 and S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO MODIFY SPECIAL EXCEPTION

(Resolution Adopted March 4, 2015
(Effective Date of Resolution: March 26, 2015)

Case Nos. S-213 and S-214 are special exceptions that the Board of Appeals granted to Potomac Electric Power Company, effective November 26, 1972, under Section 59-164 of the Zoning Ordinance, to permit an electric substation and over-head electric power and energy transmission lines. Effective January 22, 1988, the Board granted Case No. S-213-A, to modify the substation, and Case No. S-1413 to allow construction of 3.5 miles of overhead transmission lines from the substation to the Howard County line. The Board has granted administrative modifications of Case Nos. S-213 and S-214 effective November 26, 1974, January 21, 1976, February 9, 1977, March 11, 1993 and August 14, 2008.

The subject property is Parcel A on Plat 10802 entitled 'Potomac Electric Power Company Brighton Substation #66,' contains 12.5 acres, located on a 231 acre tract, at 1300 Brighton Dam Road in the RC Zone.

The Board of Appeals has received a letter, dated February 12, 2015, from John Sekarak, of Stantec Consulting, on behalf of Potomac Electric Power Company (PEPCO). Mr. Sekerak requests administrative modification of the electrical substation special exception to allow certain security improvements. Specifically, PEPCO requests the following changes:

- Installation of a new, 20-foot tall, high strength, heavy gauge steel fence.
- Addition of a guiderail along the east side of on-site entrance drive.
- Addition of structural walls to a number of transformers to provide ballistic shield protection.
- Installation of security cameras along the new fence.
- Installation of bollards at strategic locations outside the fence to deter all-terrain vehicle trespass.

- Installation of a series of small bioretention facilities just outside the new fence.

Mr. Sekarak explains that the changes are requested to comply with a standard promulgated by the North American Reliability Corporation (NERC). The new standard, NERC CIP-014 was developed in response to an attack on the Metcalf Substation in California on April 16, 2013.

The Board of Appeals considered the modification request at its Worksession on March 4, 2015. Mr. Sekarak and Walter Merkle, of PEPCO Holdings, Inc. appeared at the Worksession. Mr. Merkle stated that NERC is empowered by the Federal Electric Reliability Commission as PEPCO's federal regulator. He stated that compliance with NERC CIP-014 is a federal requirement for PEPCO.

In response to a Board question about adjoining properties, Mr. Sekarak pointed to the site plan [Exhibit No. 138(a)], and stated that the nearby "residential properties are much further removed [compared to the PEPCO substation in Case No. S-581]. Exhibit 138(a) indicates that the closest off-site structure is at least 1600 feet away from the special exception fence.

Section 59-G-1.3(c)(1) of the Montgomery County Zoning Ordinance provides, pertaining to modification of special exceptions:

If the proposed modification is such that the terms or conditions could be modified without substantially changing the nature, character or intensity of the use and without substantially changing the effect on traffic or on the immediate neighborhood, the Board, without convening a public hearing to consider the proposed change, may modify the term or condition.

Based upon Mr. Merkle's description of PEPCO's obligation to comply with federal NERC CIP-014, the Board finds that the modification must be granted. The Board further finds that the requested changes will not substantially change the nature, character or intensity of the use or its effect on traffic or on the immediate neighborhood, and the modification can be granted administratively. The fence will be set back 1600 feet or more from structures on abutting properties.

Therefore, on a motion by Stanley B. Boyd, seconded by Carolyn J. Shawaker, Vice-Chair, with John H. Pentecost, Edwin S. Rosado, and David K. Perdue, Chair, in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 and S-214 is re-opened to receive John Sekarak's February 12, 2015 letter, with attachments; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that the request to modify the special exception is granted; and

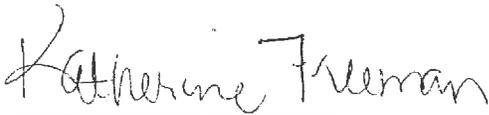
BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that all terms and conditions of the original special exception, together with any modifications granted by the Board of Appeals, remain in effect.



David K. Perdue

Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
This 26th day of March, 2015.



Katherine Freeman
Executive Director

NOTE:

Any party may, within fifteen (15) days of the date of the Board's Resolution, request a public hearing on the particular action taken by the Board. Such request shall be in writing, and shall specify the reasons for the request and the nature of the objections and/or relief desired. In the event that such request is received, the Board shall suspend its decision and conduct a public hearing to consider the action taken.

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests

Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

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Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO RE-OPEN THE RECORD

(Resolution Adopted January 8, 2020)

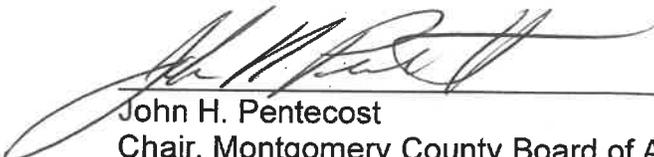
(Effective Date of Resolution: January 17, 2020)

The Board of Appeals has received a letter dated December 9, 2019, from Eric L. Yeh, Manager, Transmission Reinforcement, with the Potomac Electric Power Company (PEPCO). Mr. Yeh encloses the Ten- and Twenty-Year Plans for electric service, in accordance with the provisions of Condition "C" of the Board's Resolution dated November 26, 1973.

The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirty-one (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

The Board of Appeals considered Mr. Yeh's letter at its Worksession on January 8, 2020. On a motion by John H. Pentecost, Chair, seconded by Katherine Freeman, with Bruce Goldensohn, Vice-Chair, and Mary Gonzales in agreement and with Jon.W. Cook necessarily absent:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 [S-214], Petition of Potomac Electric Power Company, is re-opened to receive Eric Yeh's letter of December 9, 2019, with the Ten- and Twenty-Year Plans.



John H. Pentecost
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 17th day of January 2020.



Barbara Jay
Executive Director

NOTE:

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Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

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Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO RE-OPEN THE RECORD

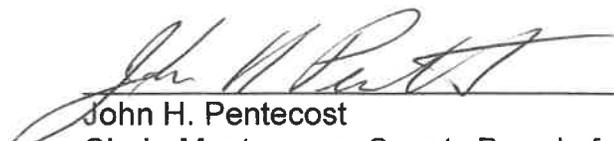
(Resolution Adopted January 9, 2019)
(Effective Date of Resolution: January 18, 2019)

The Board of Appeals has received a letter dated December 17, 2018, from Amber C. Young, Manager, Transmission Planning, with the Potomac Electric Power Company (PEPCO). Ms. Young encloses the Ten- and Twenty-Year Plans for electric service, in accordance with the Board's Resolution dated July 15, 1976.

The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirty-one (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

The Board of Appeals considered Ms. Young's letter at its Worksession on January 9, 2019. On a motion by John H. Pentecost, Chair, seconded by Katherine Freeman, with Stanley B. Boyd, Vice-Chair, and Bruce Goldensohn in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 [S-214], Petition of Potomac Electric Power Company, is re-opened to receive Amber C. Young's letter of December 17, 2018, with the Ten- and Twenty-Year Plans.



John H. Pentecost
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 18th day of January 2019.


Barbara Jay
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book. Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

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WORKSESSION MINUTES

Second Floor Davidson Memorial Hearing Room

Wednesday, January 23, 2013

ACTION ITEMS:

1. Minutes, January 9, 2013 Worksession.

Action: Approved, (SBB/CJS, 4-0).

2. **A-6378, Petition of Cheryl Brands (Variance).** Letters and email from Thomas Ahmann, AIA submitting revised plans for construction of a one-story, rather than two-story addition with the same footprint. [Large exhibits: project notes site plan and index; proposed basement floor plan; proposed first floor plan; proposed side and rear elevation; base drawings basement plan; base drawings first floor plan; base drawings front and side elevations].

Action: Re-opened the record to include Mr. Ahmann's letter with attachments, (CJS/DKP, 4-0).

3. **CBA-2431, Petition of Arlen B. and A.L. Helfand (Home Occupation).** Memorandum from Barbara Piczak, Inspector, DPS, notifying the Board that the special exception has been abandoned and requesting that it be revoked. Also included is a letter of confirmation from the current property owner.

Action: Revoked the special exception as abandoned, (SBB/CJS, 4-0).

4. **S-213 and S-214, Petitions of Potomac Electric Power Company (Electric substation and electric power and energy transmission lines).** Letter from D. F. Hall, Manager, submitting the ten and twenty year plans for electric service.

Action: Re-opened the record to include Mr. Hall's letter with attachments, (CJS/SBB, 4-0).

5. **CBA-2164, Petition of United Therapeutics Corporation** (off-street parking). Letter to the Board from William Moore requesting a public hearing. Also included is a letter from Susan Reutershan, Esquire, in opposition to the request for a public hearing.

Action: (1) Re-opened the record to include Mr. Moore's and Ms. Reutershan's letters; (2) denied request for a public hearing as premature, (CJS/SBB, 4-0/DKP/abstained).

6. **CBA-2684-C, Petition of The German School** (private educational institution). Letter from John Green, Facilities Manager, submitting the minutes of the community liaison council for 2011.

Action: Re-opened the record to include Mr. Green's letter with attachments, (SBB/WSB, 5-0).

7. **S-213 and S-214, Petitions of Potomac Electric Power Company** (electric substation and electric power and energy transmission lines). Letter from D. F. Hall, Manager, submitting the ten and twenty year plans for electric service.

Action: Re-opened the record to include Mr. Hall's letter with attachments, (CJS/DKP, 5-0).

8. **S-285-E, Petition of The Norwood School, Inc.** (private educational institution). Letter from Richard Ewing submitting information required by the Board's Resolution dated 12/16/2010.

Action: Re-opened the record to include Mr. Ewing's letter with attachments, (SBB/CJS, 5-0).

9. **S-717-B, Petition of Our House, Inc.** (domiciliary care home). Letter to the Board from Stuart Barr, Esquire, requesting an extension of time.

Action: Granted one-year extension of time, (DKP/WSB, 5-0).

10. **S-1421, Petition of Philip Thorson** (accessory apartment). Memorandum from Lynn McCreary, Inspector, Department of Housing and Community Affairs (DHCA) notifying the Board that the special exception has been abandoned and requesting that it be revoked.

Action: Schedule Show Cause Hearing, (CJS/WSB, 5-0).

11. **S-2800, Petition of T-Mobile Northeast, LLC and J. Maurice Carlisle, Jr.** (telecommunications facility). Letter to the Board from Sean Hughes, Esquire, requesting reconsideration.

Action: Denied request for reconsideration, (DKP/CJS, 5-0).

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WORKSESSION MINUTES

Second Floor Davidson Memorial Hearing Room

Wednesday, January 5, 2011, 9:30 a.m.

ACTION ITEMS:

1. Minutes, December 15, 2010 Worksession.

Action: Approved, (SBB/WSB, 4-0).

2. **CBA-2643, Petition of Audubon Naturalist Society** (charitable and philanthropic institution). Letter from Neil Fitzpatrick responding to questions raised by the Board.

Action: Granted administrative modification request, (DKP/SBB, 4-0).

3. **S-213 and S-214, Petitions of Potomac Electric Power Company** (substation and over-head transmission line). Letter from D. F. Hall, Manager, submitting the petitioner's ten and twenty year plans for electric service.

Action: Re-opened the record to include Mr. Hall's letter with attachments, (SBB/WSB, 4-0).

4. **S-274-C, Petition of Suburban Hospital** (hospital). Letter from Leslie Weber, Senior Vice President, submitting the minutes from the 11/16/2010 Community Liaison Committee meeting.

Action: Re-opened the record to include Ms. Weber's letter and the Community Liaison Committee minutes, (SBB/WSB, 4-0).

5. **S-274-D, Petition of Suburban Hospital** (hospital). Letter from Barbara Sears, Esquire, requesting that technical corrections be made to the Board's Opinion dated 12/9/2010.

Action: The case has been appealed to the Circuit Court, BOA no longer has jurisdiction, consensus.

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Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO RE-OPEN THE RECORD

(Resolution Adopted January 13, 2010)
(Effective Date of Resolution: April 28, 2010)

The Board of Appeals has received a letter, dated December 8, 2009, from D.F. Hall, Manager, System Planning Group with the Potomac Electric Power Company (PEPCO). Mr. Hall encloses the Ten and Twenty Year Plans for electric service, in accordance with the Board's November 26, 1973 opinion granting the special exception as revised by the Board's Resolution of August 14, 2008.

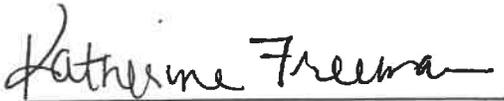
The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirty one (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

The Board of Appeals considered Mr. Hall's letter at its Worksession on January 13, 2010. On a motion by Carolyn J. Shawaker, seconded by Walter S. Booth, with Stanley B. Boyd, David K. Perdue, Vice-Chair and Catherine G. Titus, Chair, in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 [S-214], Petition of Potomac Electric Power Company, is re-opened to receive D.F. Hall's letter of December 8, 2009 with the Ten and Twenty Year Plans.


Catherine G. Titus
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 28th day of April, 2010.

A handwritten signature in cursive script that reads "Katherine Freeman". The signature is written in black ink and is positioned above a horizontal line.

Katherine Freeman
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

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Case No. S-213

Case No. S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO REVISE CONDITIONS OF APPROVAL

(Resolution Adopted June 18, 2008)

(Effective Date of Resolution: August 14, 2008)

Case No. S-213 is a special exception which the Board of Appeals granted to Potomac Electric Power Company on November 26, 1973, to permit the construction and operation of an electric substation. The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirty one (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

Case No. S-214 is a special exception to erect and operate an over-head electric power and energy transmission line located within a right-of-way 350 feet in width, and approximately 17 and one-half miles long, extending from the Mt. Airy area of Frederick County to the substation proposed in Case No. S-213.

The Board's opinion granting the special exceptions contains a condition of approval which requires PEPCO to annually update its 5, 10 and 20 year plans for electric service for the Washington Metropolitan area, and to submit copies of the plans to the Maryland National Park and Planning Commission.

Effective January 21, 1976, the Board granted an administrative modification of Case No. S-213 to modify the conditions of approval to improve safety at the entrance to the sub-station. The Board granted further administrative modifications effective November 26, 1974, February 9, 1977 and March 11, 1993.

Effective January 22, 1988, the Board granted Case Nos. S-213-A, to modify the existing Brighton substation, and S-1413, to permit the construction of three and one-half miles of overhead transmission lines through Montgomery County from the Brighton substation to the Howard County line. Condition No. 4 of

the Board's opinion requires the Board to hold periodic review hearings to determine the appropriateness of the continued grant of the special exceptions.

The Board of Appeals held a review hearing on the special exceptions on June 18, 2008. Anthony Wilson, Esquire appeared on behalf of PEPCO. He called William Mitchell, Manager, Transmission Services, and Pat Kurowski as witnesses.

Ms. Kurowski testified that PEPCO has submitted its annual reports to MNCPPC, with copies to the Board of Appeals.

The Board's records do not contain copies of all such annual reports.

The Board finds that changes occurring in the operations of the special exception are in the course of normal maintenance and that if the Board receives all future annual reports directly, further review hearings are not necessary. Therefore, on motion by Catherine G. Titus, Vice-Chair, seconded by Wendell M. Holloway, with David K. Perdue and Allison Ishihara Fultz, Chair, in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that PEPCO shall submit annual reports directly to the Board of Appeals; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that the requirement for review hearings is removed from the conditions of approval for the special exceptions; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that PEPCO shall inform the Board of any decisions by the Maryland Public Utility Commission pertaining to the special exceptions; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that all terms and conditions of the original special exception, together with any modifications granted by the Board of Appeals, remain in effect.



Allison Ishihara Fultz
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 14th day of August, 2008



Katherine Freeman
Katherine Freeman
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

**BOARD OF APPEALS
for
MONTGOMERY COUNTY**

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850
<http://www.montgomerycountymd.gov/boa/>

(240) 777-6600

Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO RE-OPEN THE RECORD

(Resolution Adopted January 11, 2017)

(Effective Date of Resolution: January 27, 2017)

The Board of Appeals has received a letter, dated December 15, 2016, from J.R. Cantler, Manager, Transmission Planning with the Potomac Electric Power Company (PEPCO). Ms. Cantler encloses the Ten and Twenty Year Plans for electric service, in accordance with the Board's Resolution dated July 15, 1976.

The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirty-one (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

The Board of Appeals considered Ms. Cantler's letter at its Worksession on January 11, 2017. On a motion by John H. Pentecost, Vice-Chair, seconded by Bruce Goldensohn, with Edwin S. Rosado and Stanley B. Boyd, and Carolyn J. Shawaker, Chair, in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 [S-214], Petition of Potomac Electric Power Company, is re-opened to receive J.R. Cantler's letter of December 15, 2016, with the Ten and Twenty Year Plans.



Carolyn J. Shawaker
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 27th day of January, 2017.



Barbara Jay
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book. Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

**BOARD OF APPEALS
for
MONTGOMERY COUNTY**

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850
www.montgomerycountymd.gov/content/council/boa/index.asp

(240) 777-6600

Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO RE-OPEN THE RECORD

(Resolution Adopted January 6, 2016)

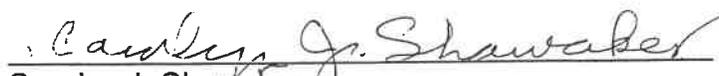
(Effective Date of Resolution: January 28, 2016)

The Board of Appeals has received a letter, dated December 16, 2015, from D.F. Hall, Manager, Asset Strategy and Planning with the Potomac Electric Power Company (PEPCO). Mr. Hall encloses the Ten and Twenty Year Plans for electric service, in accordance with the Board's Resolution dated July 15, 1976.

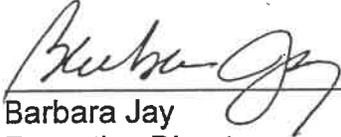
The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirtyone (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

The Board of Appeals considered Mr. Hall's letter at its Worksession on January 6, 2016. On a motion by Bruce Goldensohn, seconded by John H. Pentecost, Vice-Chair, with Edwin S. Rosado and Carolyn J. Shawaker, Chair, in agreement, and with Stanley B. Boyd, necessarily absent:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 [S-214], Petition of Potomac Electric Power Company, is re-opened to receive D.F. Hall's letter of December 16, 2015 with the Ten and Twenty Year Plans.


Carolyn J. Shawaker
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 28th day of January, 2016.



Barbara Jay
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

**BOARD OF APPEALS
for
MONTGOMERY COUNTY**

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850
www.montgomerycountymd.gov/content/council/boa/index.asp

(240) 777-6600

Case No. S-213 and S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO MODIFY SPECIAL EXCEPTION

(Resolution Adopted March 4, 2015)

(Effective Date of Resolution: March 26, 2015)

Case Nos. S-213 and S-214 are special exceptions that the Board of Appeals granted to Potomac Electric Power Company, effective November 26, 1972, under Section 59-164 of the Zoning Ordinance, to permit an electric substation and over-head electric power and energy transmission lines. Effective January 22, 1988, the Board granted Case No. S-213-A, to modify the substation, and Case No. S-1413 to allow construction of 3.5 miles of overhead transmission lines from the substation to the Howard County line. The Board has granted administrative modifications of Case Nos. S-213 and S-214 effective November 26, 1974, January 21, 1976, February 9, 1977, March 11, 1993 and August 14, 2008.

The subject property is Parcel A on Plat 10802 entitled 'Potomac Electric Power Company Brighton Substation #66,' contains 12.5 acres, located on a 231 acre tract, at 1300 Brighton Dam Road in the RC Zone.

The Board of Appeals has received a letter, dated February 12, 2015, from John Sekarak, of Stantec Consulting, on behalf of Potomac Electric Power Company (PEPCO). Mr. Sekerak requests administrative modification of the electrical substation special exception to allow certain security improvements. Specifically, PEPCO requests the following changes:

- Installation of a new, 20-foot tall, high strength, heavy gauge steel fence.
- Addition of a guiderail along the east side of on-site entrance drive.
- Addition of structural walls to a number of transformers to provide ballistic shield protection.
- Installation of security cameras along the new fence.
- Installation of bollards at strategic locations outside the fence to deter all-terrain vehicle trespass.

- Installation of a series of small bioretention facilities just outside the new fence.

Mr. Sekarak explains that the changes are requested to comply with a standard promulgated by the North American Reliability Corporation (NERC). The new standard, NERC CIP-014 was developed in response to an attack on the Metcalf Substation in California on April 16, 2013.

The Board of Appeals considered the modification request at its Worksession on March 4, 2015. Mr. Sekarak and Walter Merkle, of PEPCO Holdings, Inc. appeared at the Worksession. Mr. Merkle stated that NERC is empowered by the Federal Electric Reliability Commission as PEPCO's federal regulator. He stated that compliance with NERC CIP-014 is a federal requirement for PEPCO.

In response to a Board question about adjoining properties, Mr. Sekarak pointed to the site plan [Exhibit No. 138(a)], and stated that the nearby "residential properties are much further removed [compared to the PEPCO substation in Case No. S-581]. Exhibit 138(a) indicates that the closest off-site structure is at least 1600 feet away from the special exception fence.

Section 59-G-1.3(c)(1) of the Montgomery County Zoning Ordinance provides, pertaining to modification of special exceptions:

If the proposed modification is such that the terms or conditions could be modified without substantially changing the nature, character or intensity of the use and without substantially changing the effect on traffic or on the immediate neighborhood, the Board, without convening a public hearing to consider the proposed change, may modify the term or condition.

Based upon Mr. Merkle's description of PEPCO's obligation to comply with federal NERC CIP-014, the Board finds that the modification must be granted. The Board further finds that the requested changes will not substantially change the nature, character or intensity of the use or its effect on traffic or on the immediate neighborhood, and the modification can be granted administratively. The fence will be set back 1600 feet or more from structures on abutting properties.

Therefore, on a motion by Stanley B. Boyd, seconded by Carolyn J. Shawaker, Vice-Chair, with John H. Pentecost, Edwin S. Rosado, and David K. Perdue, Chair, in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 and S-214 is re-opened to receive John Sekarak's February 12, 2015 letter, with attachments; and

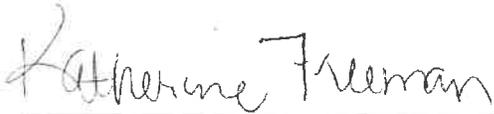
BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that the request to modify the special exception is granted; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland that all terms and conditions of the original special exception, together with any modifications granted by the Board of Appeals, remain in effect.



David K. Perdue
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
This 26th day of March, 2015.



Katherine Freeman
Executive Director

NOTE:

Any party may, within fifteen (15) days of the date of the Board's Resolution, request a public hearing on the particular action taken by the Board. Such request shall be in writing, and shall specify the reasons for the request and the nature of the objections and/or relief desired. In the event that such request is received, the Board shall suspend its decision and conduct a public hearing to consider the action taken.

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests

Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

**BOARD OF APPEALS
for
MONTGOMERY COUNTY**

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850
www.montgomerycountymd.gov/content/council/boa/index.asp

(240) 777-6600

Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO RE-OPEN THE RECORD

(Resolution Adopted January 21, 2015)
(Effective Date of Resolution: February 13, 2015)

The Board of Appeals has received a letter, dated December 17, 2014, from D.F. Hall, Manager, Asset Strategy and Planning with the Potomac Electric Power Company (PEPCO). Mr. Hall encloses the Ten and Twenty Year Plans for electric service, in accordance with the Board's Resolution dated July 15, 1976. He also encloses a map showing the general location of Pepco Substations located in Montgomery County.

The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirty one (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

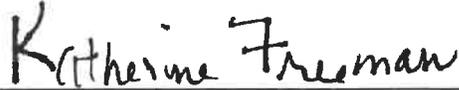
The Board of Appeals considered Mr. Hall's letter at its Worksession on January 21, 2015. Therefore, on a motion by Stanley B. Boyd, seconded by Carolyn J. Shawaker, Vice Chair, with John H. Pentecost, Edwin S Rosado, and David K. Perdue, Chair, in agreement:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 [S-214], Petition of Potomac Electric Power Company, is re-opened to receive D.F. Hall's letter of December 17, 2014 with attachments.



David K. Perdue
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 13th day of February, 2015.



Katherine Freeman
Katherine Freeman
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

**BOARD OF APPEALS
for
MONTGOMERY COUNTY**

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850
www.montgomerycountymd.gov/content/council/boa/index.asp

(240) 777-6600

Case No. S-213 [S-214]

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO RE-OPEN THE RECORD
(Resolution Adopted January 8, 2013)
(Effective Date of Resolution: January 24, 2014)

The Board of Appeals has received a letter, dated December 17, 2013, from D.F. Hall, Manager, Asset Strategy and Planning with the Potomac Electric Power Company (PEPCO). Mr. Hall encloses the Ten and Twenty Year Plans for electric service, in accordance with the Board's Resolution dated July 15, 1976.

The subject property consists of a twelve and five-tenths (12.5) acre area within a two hundred and thirty one (231) acre tract located approximately five hundred (500) feet west of the New Hampshire Avenue/Brighton Dam Road intersection.

The Board of Appeals considered Mr. Hall's letter at its Worksession on January 8, 2014. On a motion by David K. Perdue, Vice-Chair, seconded by John H. Pentecost, with Carolyn J. Shawaker, Stanley B. Boyd, and Catherine G. Titus, Chair, in agreement:

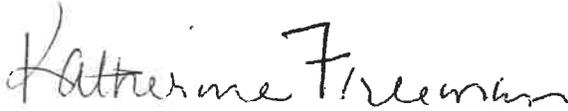
BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the record in Case No. S-213 [S-214], Petition of Potomac Electric Power Company, is re-opened to receive D.F. Hall's letter of December 17, 2013 with the Ten and Twenty Year Plans.



Catherine G. Titus

Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 24th day of January, 2014.

A handwritten signature in cursive script that reads "Katherine Freeman". The signature is written in black ink and is positioned above a horizontal line.

Katherine Freeman
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

BOARD OF APPEALS
for
MONTGOMERY COUNTY

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850

Telephone
Area Code 301
217-6600

Case No. S-213-A

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO MODIFY SPECIAL EXCEPTION

(Resolution adopted February 9, 1993)

The Board is in receipt of correspondence dated January 26, 1993, from Betty K. Cauley, Associate General Counsel, Potomac Electric Power Company, which states, in part:

"...Pursuant to Montgomery County Zoning Ordinance Section 59-G-1.3(c) and for the reasons set forth below, the Company hereby requests that the special exception granted on November 26, 1973, and subsequently modified,...be further modified to permit the construction of two temporary shield wire masts for lightning protection in lieu of two 'A' frame towers as originally contemplated on the Company's application. ...

The Brighton Substation has been in operation since 1976. It occupies a 20.88 acre fenced area located within a 231.76 acre tract, and is screened from view on all sides by vast numbers of trees and shrubs. ...numerous electrical facilities are located in the Brighton Substation. These include separate 230 kV and 500 kV yards, each containing a number of towers carrying electrical circuits to the Substation, transformers, circuit breakers, bus works, line switches, lightning protection equipment and other related electrical facilities.

"As of this date, all work being performed at the Brighton Substation is in the 500 kV yard and is necessary to accommodate the construction of a new 500 kV transmission line. ...

"The current project involves the construction and installation of towers, foundations, circuit breakers, line switches, various other electrical equipment, and a new road for a future transformer bay. The County in March of 1991 issued permits for all work with the exception of two shield wire masts which are necessary for lightning protection.

"In the 1973 special exception, the Company was given permission to construct several 'A' frame towers for lightning protection. To date, five 'A' frame towers have been constructed in the 500kV yard. ... The Company now needs to install additional lightning protection and seeks permission to construct, on a temporary basis, two shield wire masts instead of two additional 'A' frame towers as originally contemplated. (The two 'A' frame towers are not presently required because the transformers into which they would connect are not yet installed, and are not scheduled in the near future. However, the new facilities presently being constructed mandate lightning protection, which provides the basis for the Company's request to

install shield wire masts.) ...the shield wire masts would be 105 feet in height -- the same height as the 'A' frame tower -- and would consist of a single pole with attached static wires as opposed to the double-leg cross arm structure and lightning bayonet of the 'A' frame tower. No other changes to the special exception granted in 1973, as subsequently modified, are sought.

"...the modification requested herein will not substantially change the nature, character, or intensity of the Substation operation, and will not change the effect on traffic or the immediate neighborhood. The modification ... will not change the scope of work or visual impact, and will not increase the area of development beyond that originally approved by the Board.

"Accordingly, Potomac Electric Power Company (PEPCO) hereby requests that the special exception ...be further modified to permit the construction, on a temporary basis, of two shield wire masts for lightning protection in lieu of two 'A' frame towers. ..."

The Board, after careful consideration of the correspondence and a review of the record in the above-referenced case, finds that the request to modify the special exception to permit construction on a temporary basis of two shield wire masts for lightning protection in lieu of two 'A' frame towers can be granted without the necessity of a public hearing. The Board further finds that the proposed modification will have no effect on traffic or on the immediate neighborhood. Therefore, in accordance with the provisions of Section 59-G-3.1(c)(1) of the Zoning Ordinance,

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland, that Case No. S-213-A, Petition of Potomac Electric Power Company (PEPCO), shall be and hereby is re-opened to receive the following exhibits: Ms. Cauley's January 26, 1993, letter; site plan; construction notes for lightning mast; construction notes for 'A' frame structures; tax map; and list of adjoining/confronting property owners; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland, that petitioner may construct, on a temporary basis, two shield wire masts for lightning protection in lieu of two 'A' frame towers in the location shown on the site plan, as requested in the above-referenced correspondence; and

BE IT FURTHER RESOLVED that, except as modified herein, all terms and conditions of the original special exception and any modifications thereto, shall remain in full force and effect.

The Brighton Substation is located on 20.88 acre area within a 231 acre tract located approximately 500 feet west of the New Hampshire Avenue/Brighton Dam Road intersection, Burtonsville, Maryland.

The foregoing Resolution was proposed by Howard Jenkins, Jr., concurred in by Helen Strang, K. Lindsay Raufaste and Judith Heimann, Chairman. William Green was necessarily absent and did not participate in the foregoing Resolution.

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland,
this 11th day of March, 1993.


Irene H. Gurman
Clerk to the Board

NOTE:

Any party may, within fifteen (15) days of the date of the Board's Resolution, request a public hearing on the particular action taken by the Board. Such request shall be in writing, and shall specify the reasons for the request and the nature of the objections and/or relief desired. In the event that such request is received, the Board shall suspend its decision.

COUNTY BOARD OF APPEALS
FOR
MONTGOMERY COUNTY

STELLA B. WERNER COUNCIL OFFICE BUILDING
100 MARYLAND AVENUE
ROCKVILLE, MARYLAND 20850

Telephone
Area Code 301
279-1226

Case Nos. S-213-A and S-1413

PETITIONS OF POTOMAC ELECTRIC POWER COMPANY

ORDER EXTENDING TIME FOR DECISION OF THE BOARD
(Order adopted December 22, 1987)

The Board adopted the following Resolution:

"BE IT RESOLVED by the County Board of Appeals for Montgomery County, Maryland, that pursuant to the Rules of Procedure of the Board, and because additional time is required to consider the evidence and reach a decision in this case, the allowable time for decision on the above-entitled proceeding be, and the same hereby is extended to January 31, 1987."

The subject property for Case No. S-213-A, modification to an existing substation, is a parcel of land within the boundaries of a 231-acre tract of ground located approximately 500 feet west of the intersection of New Hampshire Avenue, extended, (Maryland Route 650), and the Brookeville-Brighton Road, west of the town of Brighton.

The subject property of the proposed new transmission line is a strip of land approximately 3.5 miles long from PEPSCO's Brighton Substation near Route 650 and Brighton Dam Road, to the Howard County Line.

The foregoing Resolution was proposed by Judith B. Heimann and concurred in by Howard Jenkins, Jr., Max H. Novinsky and Helen R. Strang. K. Lindsay Raufaste did not participate in the foregoing Resolution.

Entered in the Minute Book of
the County Board of Appeals for
Montgomery County, Maryland,
this 23rd day of December, 1987.


Irene H. Gurman
Clerk to the Board

COUNTY BOARD OF APPEALS
FOR
MONTGOMERY COUNTY

STELLA B. WERNER COUNCIL OFFICE BUILDING
100 MARYLAND AVENUE
ROCKVILLE, MARYLAND 20850

Telephone
Area Code 301
279-1226

Case Nos. S-213-A and S-1413

PETITIONS OF PTOOMAC ELECTRIC POWER COMPANY

NOTICE OF CONTINUANCE
(Resolution adopted June 25, 1987)

Upon consideration of an additional request for continuance of the hearing on the above-entitled case, said request dated June 24, 1987, received from John J. Delaney, attorney for the petitioner; therefore,

BE IT RESOLVED by the County Board of Appeals for Montgomery County, Maryland, that the hearing on Case Nos. S-213-A and S-1413, shall be, and hereby are continued for hearing to the 22nd day of October, 1987, at 9:00 a.m., or as soon therefore as these matters can be heard.

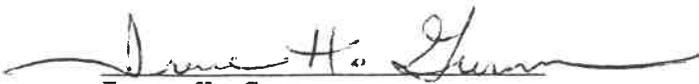
The hearing will be held in the Third Floor Council Hearing Room of the Stella B. Werner Council Office Building, 100 Maryland Avenue, Rockville, on petitioner's request to permit the construction of Public Utility Structures (overhead electric power transmission lines) and to permit a modification to the existing substation.

The existing substation is located on a parcel of land within the boundaries of a 231-acre tract of ground approximately 500 feet west of the intersection of New Hampshire Avenue extended (MD Route 650) and the Brookeville-Brighton Road, west of the Town of Brighton.

The new overhead transmission lines will be located on a strip of land approximately 3.5 miles long from PEPCO's Brighton Substation near Rte. 650 and Brighton Dam Road to the Howard County Line.

The foregoing Resolution was proposed by Thomas S. Israel, Chairman, and concurred in by Joseph E. O'Brien, Jr., Howard Jenkins, Jr., Max H. Novinsky and Helen R. Strang.

Entered in the Minute Book of
the County Board of Appeals for
Montgomery County, Maryland,
this 29th day of June, 1987.


Irene H. Gurman
Clerk to the Board

COUNTY BOARD OF APPEALS
FOR
MONTGOMERY COUNTY

STELLA B. WERNER COUNCIL OFFICE BUILDING
100 MARYLAND AVENUE
ROCKVILLE, MARYLAND 20850

Telephone
Area Code 301
279-1226

Case Nos. S-213-A and S-1413

PETITIONS OF POTOMAC ELECTRIC POWER COMPANY

NOTICE OF CONTINUANCE

Upon consideration of the request for a continuance of the hearing on the above-entitled case, said request dated April 24, 1987, received from John J. Delaney, attorney for the petitioner, therefore,

BE IT RESOLVED by the County Board of Appeals for Montgomery County, Maryland, that the hearing on case Nos. S-213-A and S-1413, shall be, and hereby are continued for hearing to the 30th day of July, 1987, at 9:00 a.m., or as soon thereafter as this matter can be heard.

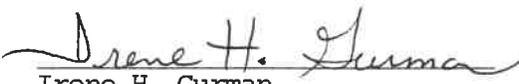
The hearing will be held in the Third Floor Council Hearing Room of the Stella B. Werner Council Office Building, 100 Maryland Avenue, Rockville, on petitioner's request to permit the construction of Public Utility Structures (overhead electric power transmission lines) and to permit a modification to the existing substation.

The existing substation is located on a parcel of land within the boundaries of a 231-acre tract of ground approximately 500 feet west of the intersection of New Hampshire Avenue extended (MD Route 650), and the Brookeville-Brighton Road, west of the town of Brighton.

The new overhead transmission lines will be located on a strip of land approximately 3.5 miles long from PEPCo's Brighton Substation near Rte. 650 and Brighton Dam Road to the Howard County Line.

The foregoing Resolution was proposed by Thomas S. Israel, Chairman, and concurred in by Joseph E. O'Brien, Jr., Howard Jenkins, Jr., Max H. Novinsky and Helen R. Strang.

Entered in the Minute Book of
the County Board of Appeals for
Montgomery County, Maryland,
this 30th day of April, 1987.


Irene H. Gurman
Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Cases Nos. S-213 & S-214

OPINION ON REQUEST FOR RECONSIDERATION
ON THE
PETITIONS OF THE POTOMAC ELECTRIC POWER COMPANY
(Order adopted February 21, 1974)

The Patuxent Valley Environmental Association filed a timely request for reconsideration of the decision of the Board on November 26, 1973, granting the application for an electrical transmission line and power substation. The request for reconsideration was considered by Mrs. Beverly S. Pearson, Chairman, Mrs. Shirley S. Lynne and Mr. Joseph E. O'Brien, Jr., who had heard the testimony and participated in the decision. After the date of the decision, Mr. Bernard Gladhill and Mr. James Early, former members of the Board who had also participated in the decision, left the Board and have been replaced by Mrs. Marjorie Sonnenfeldt and Mr. Sheldon Schuman.

Mrs. Pearson, Mrs. Lynne and Mr. O'Brien voted against the request for reconsideration. Inasmuch as four favorable votes would be required to reconsider, in view of the fact that three unfavorable votes have been recorded, participation in the decision on the request for reconsideration becomes unnecessary.

Decision: Request for reconsideration denied.

Reasons for the requested reconsideration urged by the Patuxent Valley Environmental Association are:

1. That the Board did not address itself to the segmented nature of the applications; that the authorization to construct the transmission line should be stayed pending possible future hearings on a proposed extension of a line into Howard County, and pending an appeal to the courts of the grant of the certificate of public convenience and necessity by the Public Service Commission.
2. That the Board should deny the application in order to force adequate study of alternate locations and technical alternates.
3. That the Board did not take into account reports of a decline of actual usage in the PEPCO Service area during the past year.

All of the foregoing matters were raised during the hearings, and were considered by the Board. Rules currently in force preclude the Board from granting a motion for re-hearing unless new evidence is submitted which could not reasonably have been presented at the time of the original hearing. Various factors affecting extrapolation of past trends as a basis for predicting future demand growth were discussed at the hearings. Such variable factors as voluntary savings on the part of the public and unseasonable weather do not necessarily reflect a long range decrease in need or demand.

Finally, in making its decision on the subject special exceptions, the Board is limited to determining whether the applicant has carried its burden of proof that the proposed special exception meets the general and special requirements of the Ordinance. The Board is without authority to deny or defer an application on the ground that it is limited to only one segment of a larger project in the system of electrical service, requiring approvals of the other jurisdictions or pending further applications. Although the Board did inquire into alternate routes for the proposed transmission line, the Board is without authority to deny this special exception in order to force adoption of alternate routes. Nor is the Board required to defer its opinion to final appeal in the courts of the action of the Public Service Commission, since a valid certificate of public convenience and necessity is in force until declared invalid by an Appeals Court.¹

The Board adopted the following Resolution:

"Be it Resolved by the County Board of Appeals for Montgomery County, Maryland, that the request for re-consideration be and the same is hereby denied."

The foregoing Resolution was proposed by Mrs. Beverly S. Pearson, Chairman, and concurred in by Mrs. Shirley S. Lynne and Mr. Joseph E. O'Brien, Jr. Mrs. Marjorie Sonnenfeldt and Mr. Sheldon P. Schuman did not participate in the foregoing decision.

Entered in the Minute Book of the County Board of Appeals this 25th day of February, 1974.

Dollie H. Kite
Clerk to the Board

1. On January 15, 1974, the Circuit Court for Montgomery County denied the appeal of the Patuxent Valley Environmental Association of the granting of the certificate of Public Service and Necessity for the Public Service Commission.

BOARD OF APPEALS
for
MONTGOMERY COUNTY

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850

Telephone
Area Code 301
217-6600

Case No. S-213-A

PETITION OF POTOMAC ELECTRIC POWER COMPANY

RESOLUTION TO MODIFY SPECIAL EXCEPTION

(Resolution adopted February 9, 1993)

The Board is in receipt of correspondence dated January 26, 1993, from Betty K. Cauley, Associate General Counsel, Potomac Electric Power Company, which states, in part:

"...Pursuant to Montgomery County Zoning Ordinance Section 59-G-1.3(c) and for the reasons set forth below, the Company hereby requests that the special exception granted on November 26, 1973, and subsequently modified,...be further modified to permit the construction of two temporary shield wire masts for lightning protection in lieu of two 'A' frame towers as originally contemplated on the Company's application. ...

The Brighton Substation has been in operation since 1976. It occupies a 20.88 acre fenced area located within a 231.76 acre tract, and is screened from view on all sides by vast numbers of trees and shrubs. ...numerous electrical facilities are located in the Brighton Substation. These include separate 230 kV and 500 kV yards, each containing a number of towers carrying electrical circuits to the Substation, transformers, circuit breakers, bus works, line switches, lightning protection equipment and other related electrical facilities.

"As of this date, all work being performed at the Brighton Substation is in the 500 kV yard and is necessary to accommodate the construction of a new 500 kV transmission line. ...

"The current project involves the construction and installation of towers, foundations, circuit breakers, line switches, various other electrical equipment, and a new road for a future transformer bay. The County in March of 1991 issued permits for all work with the exception of two shield wire masts which are necessary for lightning protection.

"In the 1973 special exception, the Company was given permission to construct several 'A' frame towers for lightning protection. To date, five 'A' frame towers have been constructed in the 500kV yard. ... The Company now needs to install additional lightning protection and seeks permission to construct, on a temporary basis, two shield wire masts instead of two additional 'A' frame towers as originally contemplated. (The two 'A' frame towers are not presently required because the transformers into which they would connect are not yet installed, and are not scheduled in the near future. However, the new facilities presently being constructed mandate lightning protection, which provides the basis for the Company's request to

install shield wire masts.) ...the shield wire masts would be 105 feet in height -- the same height as the 'A' frame tower -- and would consist of a single pole with attached static wires as opposed to the double-leg cross arm structure and lightning bayonet of the 'A' frame tower. No other changes to the special exception granted in 1973, as subsequently modified, are sought.

"...the modification requested herein will not substantially change the nature, character, or intensity of the Substation operation, and will not change the effect on traffic or the immediate neighborhood. The modification ... will not change the scope of work or visual impact, and will not increase the area of development beyond that originally approved by the Board.

"Accordingly, Potomac Electric Power Company (PEPCO) hereby requests that the special exception ...be further modified to permit the construction, on a temporary basis, of two shield wire masts for lightning protection in lieu of two 'A' frame towers. ..."

The Board, after careful consideration of the correspondence and a review of the record in the above-referenced case, finds that the request to modify the special exception to permit construction on a temporary basis of two shield wire masts for lightning protection in lieu of two 'A' frame towers can be granted without the necessity of a public hearing. The Board further finds that the proposed modification will have no effect on traffic or on the immediate neighborhood. Therefore, in accordance with the provisions of Section 59-G-3.1(c)(1) of the Zoning Ordinance,

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland, that Case No. S-213-A, Petition of Potomac Electric Power Company (PEPCO), shall be and hereby is re-opened to receive the following exhibits: Ms. Cauley's January 26, 1993, letter; site plan; construction notes for lightning mast; construction notes for 'A' frame structures; tax map; and list of adjoining/confronting property owners; and

BE IT FURTHER RESOLVED by the Board of Appeals for Montgomery County, Maryland, that petitioner may construct, on a temporary basis, two shield wire masts for lightning protection in lieu of two 'A' frame towers in the location shown on the site plan, as requested in the above-referenced correspondence; and

BE IT FURTHER RESOLVED that, except as modified herein, all terms and conditions of the original special exception and any modifications thereto, shall remain in full force and effect.

The Brighton Substation is located on 20.88 acre area within a 231 acre tract located approximately 500 feet west of the New Hampshire Avenue/Brighton Dam Road intersection, Burtonsville, Maryland.

The foregoing Resolution was proposed by Howard Jenkins, Jr., concurred in by Helen Strang, K. Lindsay Raufaste and Judith Heimann, Chairman. William Green was necessarily absent and did not participate in the foregoing Resolution.

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland,
this 11th day of March, 1993.


Irene H. Gurman
Clerk to the Board

NOTE:

Any party may, within fifteen (15) days of the date of the Board's Resolution, request a public hearing on the particular action taken by the Board. Such request shall be in writing, and shall specify the reasons for the request and the nature of the objections and/or relief desired. In the event that such request is received, the Board shall suspend its decision.

COUNTY BOARD OF APPEALS
FOR
MONTGOMERY COUNTY

STELLA B. WERNER COUNCIL OFFICE BUILDING
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Case Nos. S-213-A and S-1413

PETITIONS OF POTOMAC ELECTRIC POWER COMPANY

NOTICE OF APPEAL

Notice is hereby given to the above-entitled proceeding that the decision of the Board has been appealed to the Circuit Court for Montgomery, County, Maryland; the appeal has been designated in that Court as Civil Action No. 30134.

Notices mailed this 23rd day of February, 1988, to all parties entitled to notice.

County Board of Appeals

By: Irene H. Gurman
Irene H. Gurman
Clerk to the Board

COUNTY BOARD OF APPEALS
for
MONTGOMERY COUNTY

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100 Maryland Avenue
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Case Nos. S-213-A and S-1413

PETITION OF POTOMAC ELECTRIC POWER COMPANY
(Hearing held October 22 and 29, 1987)

OPINION OF THE BOARD

The applicant, Potomac Electric Power Company (PEPCO) has requested two special exceptions: S-213A to modify its existing Brighton substation and S-1413 to permit the construction of 3.5 miles of overhead transmission lines through Montgomery County from the Brighton substation to the Howard County line.

Decision of the Board: Special exceptions granted to petitioner only, subject to conditions enumerated herein.

The Brighton substation is located on a 12.5 acre area within a 231 acre tract located approximately 500 feet west of the New Hampshire Avenue/Brighton Dam Road intersection. Access to the substation is by a 2,700+ foot paved driveway on the south side of Brighton Dam Road. Visibility of the substation is limited from the two roads because of the present tree cover and topography. The modification requested is "to add a new bay to the 500 kV switchyard and six circuit breakers, which will allow the various lines to be controlled or interrupted at this substation." The expansion will be done entirely within the area enclosed by the existing fence. No personnel will be assigned to the substation when the work has been completed.

The overhead lines to be constructed will extend from the Brighton substation southeast through Montgomery County. The majority of the new line will be built parallel to the existing 230 kV alignment. At a point approximately 1,600 feet south of Maryland Rt. 108 and east of Tucker Lane the proposed 500 kV line will leave the 230 kV alignment turning southeast on a new alignment for about 1,800 feet to the Patuxent River crossing. The construction of these lines will complete the 243 mile 500 kilovolt (kV) transmission loop around the Washington Metropolitan area.

Following extensive proceedings before the Public Service Commission (PSC) from July 1976 to March 1980, the PSC issued a Certificate of Public Convenience and Necessity to PEPCO subject to 10 conditions. These conditions stipulated the alignment, width of the right-of-way for the transmission line, and the type of pole(s) to be used within certain areas.

The applicant presented binding testimony by the following individuals:

1. Edwin B. Lawless, III, Manager, Civil Engineering, PEPCO
2. Edwin L. Carstensen, Professor of Electrical Engineering and Biophysics, University of Rochester, Rochester, NY
3. Dr. Margaret Ann Tucker, physician National Cancer Institute and Bethesda Naval Hospital
4. Jack R. Templeton, Manager, Energy Planning, PEPCO
5. L.S. Guiland, Manager, Water Quality and Land Use, PEPCO
6. James H. Parsons, Overhead Lines Department, PEPCO
7. Robert W. Williams, Jr. Real Estate Appraiser
8. Alfred Blumberg, II, Director of Planning, the Land Planning and Design Group

Edwin B. Lawless, Manager of Civil Engineering, PEPCO: Mr. Lawless stated that PEPCO had provided the Public Service Commission (PSC) with 7 alternate routes and that the Commission chose the one which PEPCO is now requesting. He stated that the route selected was not PEPCO's first choice but it appealed to the PSC because it required fewer crossings of the Patuxent River. On this selected route the portion of the line which went through Brinkwood was compressed. The 500 kV line would be carried on a single pole with the other two poles carrying only the present 230 kV lines. In two other stretches of the right-of-way the 230 kV and the 500 kV lines would be parallel. Continuing the line through Brinkwood in this fashion would have meant taking 11 houses. He also stated that to increase the distance over which the lines were compressed might affect the reliability and stability of the line.

Mr. Lawless stated that the power lines would produce both electric and magnetic fields. The higher voltage of the 500 kV line will produce less current than the 230 kV line and, therefore, less of a magnetic field. He stated that problems arising from the existence of magnetic fields had never been addressed in the National Safety Code.

Mr. Lawless also addressed the question of lightening strikes. Taller structures are more likely to be hit; in fact the towers will act as lightening rods, shielding the adjacent structures. The top wires of the poles offer lightening protection; the bottom of the poles are well grounded. He stated that should a wire come down in a storm the circuit breaker at the substation would clear the line of current in 1/30th of a second. He said that in the right of way the fences would be grounded and the gates bonded to the fences.

In the course of cross-examination by various members of the opposition, Mr. Lawless stated that neither the height of the towers nor their exact location had been decided upon. No decision had been made as to what the lattice work on the towers were to look like. During cross examination, concern was expressed about the towers blocking the line of sight for television transmission. It was stated that that problem was correctable.

Dr. Carstensen gave oral testimony and submitted a written report (Exhibit No. 12(d)) concerning the potential biological effects of the fields of the proposed transmission lines. He stated that plants and animals, including human beings, may be exposed to 60 Hz electric and magnetic fields in the vicinity of the proposed PEPCO 500 kV transmission lines. His report states that "exposure to the electric fields (in the human body) which would be smaller by two or three orders of magnitude than is necessary to cause stimulation of nerves." These fields inside the human body are smaller than those external to the body because "when exposed to electric fields, free charges within the body ... collect on the surface (of the body) ... (making) a shield which protects (the body) from large fields in air (page 7). His report explains that "if there are any effects from the induced, internal (electric) fields within the body, the most probable site of action would be the outer membrane of the cell."

As for magnetic fields, "... magnetic properties of essentially all biological material are approximately the same as air ... The magnetic field inside the body of a human subject standing under a transmission line is the same as it was at that point in space before the subject entered the field" (page 8).

He concludes that adverse biological effects would require field strengths far greater than those of the proposed transmission lines (page 10). Some biological effects of extremely low frequency (ELF) electric and magnetic fields known to occur are: leaf tip corona, movement of hairs on the skin, shock--similar to that experienced by touching a metal door knob after walking across a rug. Honey bees sometimes experience shocks which can lead to reduced productivity and hive death; this situation can be completely eliminated by shielding the hives. There are also some particularly sensitive brand of cardiac pacemaker that can be inhibited in fields as low as 2000 v/m. In addition, some fish have specialized receptors that are very sensitive to low frequency electric fields (pages 12-19).

Dr. Carstensen's report surveys the existing literature on the bioeffects of ELF electric and magnetic fields. The report lists the relevant epidemiological investigations and concludes that "... (roughly one half) of these studies were completely negative, i.e. that health of the exposed subjects was found to be normal. In others, there are suggestions of subjective complaints which are difficult to quantify ... the magnitudes of possible effects in the epidemiological reports are very small and the results of the studies available at the present time are inconsistent and in conflict with each other." (Page 24).

The report summarizes the unconfirmed laboratory studies done and draws the following general conclusions:

- (a) At fields comparable to those of the proposed 500 kV transmission line, most of the claimed effects are innocuous in nature. Exceptions are discussed below.
- (b) In most of the studies, the magnitude of the effects which have been claimed are in the range of, and often less than, the normal variations which are found from subject to subject.

- (c) Not only do these reports lack confirmation, but on the contrary, in most of the cases where confirmation has been attempted they have been negated, i.e. the results of independent tests have been conflicting or negative." (Page 30).

The report discusses the cases where the effects found by the tests have not been innocuous. These are:

Malformation of offspring (teratogenesis). Of the tests done on mice, rats, and miniature swine the report states "with all the evidence available to us, there is no basis to conclude that even long term exposure to fields comparable to those of the proposed 500 kV transmission line will cause teratological effects." (Page 31).

Mortality of mice. " ... this study has failed the test of independent confirmation." (Page 32).

Stress. " ... there is no experimental basis to conclude that electric fields either cause stress or affect the manner in which animals respond to stress." (Page 32).

Cancer. Of the laboratory studies concerning the possibility that exposure to magnetic fields causes cancer the report states "In summary, nothing of relevance to transmission line fields can be inferred from these studies at the present time, but each report warrants replication in light of the possibility that some real effect will be established and become the basis for a solid program of basic research" (page 4 of Cancer section). As for epidemiological studies, " ... the evidence from the domestic environment for association of cancer with magnetic field exposure is very weak. The Wertheimer and Leeper studies stand alone. None of the six major attempts to replicate their work has provided convincing support for their postulate that magnetic fields either cause or promote the development of cancer (page 22 of the Cancer section).

Dr. Margaret Ann Tucker, a physician and cancer specialist working at the National Cancer Institute and Bethesda Naval Hospital spends 80% of her time in cancer epidemiology. PEPCO has asked her to review the cancer epidemiology studies of the New York State Power Lines Project. She said that none of the studies had shown an increasing risk of cancer. She said that the Sabetts study, despite its problems, had formed the basis for the hypothesis that exposure to electromagnetic fields caused childhood cancer. She said the Stevens study showed no risk to adults of leukemia. It is Dr. Tucker's view that there is enough evidence to conclude that there is no persuasive evidence from research in this field to conclude that exposure to electromagnetic fields produce cancer. She stated that the New York report supports the idea that there is no plausible biological reason for such exposure to cause cancer.

Jack R. Templeton, Manager of Energy Planning for PEPCO, testified that the PSC has established the need for the Brighton-High Ridge link to complete the 500 kV loop around Washington. The loop was needed to avoid the possibility of power outages that could lead to blackout, and to improve the transfer of power to other parts of the country and region. He stated that

throughout the U.S. companies were buying power whenever they could find it produced more cheaply than they themselves made it. They were transferring these power purchases over lines similar to the one PEPCO was requesting. For instance, northeast U.S. is buying power from Canada. This increase in the transfer of power was producing a greater load on the national electrical grid. Greater use of more sophisticated electrical equipment meant an increase in the possibility of outages.

Mr. Templeton stated that the PSC said that its sole jurisdiction was over where the line was compressed, where the line should be parallel, and over poling. In answer to a question, he stated the compression along the Johannsen property had been considered but not acted on because the question of the reliability of the line was the overriding factor.

Mr. Templeton stated in answer to cross-examination questions that as the local use for electricity goes up PEPCO is having to rely more on expensively generated electricity. He also stated that even if there was no transfer of power for economic considerations there would have to be transfers for reliability. This is the justification for building the loop, not the question of the possible transfers for economic reasons.

L. Steven Guiland, manager of water and land use for PEPCO stated that strict procedures to protect water quality and wetlands were spelled out in his report (Exhibit No. 12(c)). No poles will be installed in wetland areas. PEPCO needs permits from the Department of Natural Resources and the Soil Conservation District. Selective removal of trees will be protection to terrestrial wild life. He stated that PEPCO was concerned with esthetics and would retain natural screens wherever possible.

James Parsons, a forester working for PEPCO stated that the soil would benefit from elective clearing. Stumps will be left. Growth of brush will be controlled. PEPCO uses only EPA approved herbicides, applied by individuals with business licenses. Herbicides are applied to the lower portions of growth by people walking in a row. Parsons stated that PEPCO had been commended by the Nature Conservancy and Wildlife Biologists at the Patuxent Wildlife Center (Federal Wildlife Center) for its right of way management. Mr. Parsons stated that he did not know precisely where the towers would be located.

Robert Williams, a real estate appraiser compared real estate sales adjacent to transmission lines to those not adjacent. He looked at single family homes, recorded lots, and raw land. He could find no cases where these locations had a detrimental effect on ability to sell. One property owner in Brinkwood, Mrs. Hamlin, said that the State Property Tax Assessment Board (PTAB) had reduced her taxes by 25% because of the location of her house.

Alfred S. Blumberg, Director of Planning and Land Planning Design Group, testified that the substation and the power line were in existence at the time of the preparation of the Master Plan for Olney and the Sandy Spring/Ashton Special Study Area. He testified that the substation met all the specific general conditions of Section 59-G-2.43 of the Zoning Ordinance and the general conditions of Section G-1.21. He stated that the provisions

of Section 59-G-1.21 do not apply to the power lines as they are in excess of 69,000 volts. He stated that based on the testimony of Dr. Carstensen, Dr. Tucker, and Mr. Lawless the power lines will not adversely affect the safety of residents and workers in the area. He referred to the fact that the PSC has found that there is a need for the power lines. From studying the Master Plans and visiting the area he stated that he concluded the proposed use will have the least possible detrimental effect to the use or development of adjacent properties or the general neighborhood. He stated that there were no schools, churches, theatres, or other places of assembly, active recreational areas, or historic sites in the neighborhood; no possibility that the lines would interfere with low flying airplanes; and the lines would not be a fire hazard or interfere with fire fighting equipment. He referred to Mr. Guiland's testimony to state that the lines would have a minimal effect on the environmental quality and ecological balance of the protected watersheds of the area and the planned open spaces.

OPPOSITION

The following people presented testimony in opposition:

Linda Clifford, Roscoe Born, Robert Murch, Peter Austin, Ginny Hanlon, Ary Smith, Roger Gregory, Hans Johannsen

The chief concern of the Brinkwood Community Association speakers was the possibility that the magnetic field of the power lines would be a health hazard. One witness quoted from the New York State Power Lines Project (which is included in the record as Exhibit No. 17(b), that "proof of human fetal effects of electric and magnetic fields does not exist and such effects are unlikely based on what information is available from studies of non-human organisms. Meanwhile, caution in exposure to magnetic fields is clearly warranted until more work on magnetic fields is done." (Page 6). Other references to the New York State Report referred to its opinion on page 132 that the Sabetts study found an excess risk for childhood cancer associated with high current wiring configurations near homes.

In addition, an Association witness quoted parts of comments critical about the Carstensen book. Another witness pointed out that there are many scientists who agree that more study and research into this question is imperative. The citizens felt that there was a clear indication of serious health questions related to exposure to magnetic fields that needed more research.

The Brinkwood Association requested that the Board of Appeals appoint its own panel of objective, independent scientists to advise the Board on how the power line might affect the health of the citizens.

Another witness testified that on her property there was now a constant noise from electricity and that whenever there was lightening her lights go out. He was greatly concerned because trees that now shield her property from the nearby kennels and from the transmission towers will be cut down for the new right of way. Not knowing what the new towers will look like or exactly where they will be placed makes it impossible to comment about how the new line will affect the use of her property.

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Mr. Johannsen testified that the new power line would take 1.33 acres of a 2 acre lot on which he had anticipated building a house for his son and family. He also stated that the new tower, parallel to an existing one, would destroy a spring on his property. He felt that the PEPCO offer of \$4,500 per acre or \$5,600 for the land they would take from him is grossly inadequate. He would like to see an extension of the area over which the power line is compressed so as to include compression past his property and remove the necessity of his losing land.

During cross examination, Mr. Roger Gregory stated that the proposed power line will parallel the front of his home, but will not be on his property. His home was built to take advantage of the view, with 90 feet of glass frontage. He felt the proposed power line will have a detrimental effect on his property value. He further stated he has a 1,000 square foot copper roof which he feels may act as an electromagnetic conductor, especially during periods of rain and fog. His third problem was that no one appeared to know exactly where the towers were to be placed.

RECOMMENDATIONS OF THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

The Planning Board urged the Board of Appeals to give careful consideration to the health issue implications of these two petitions and to seek the benefit of adequate resources, such as expert and objective testimony, in order to address the health safety issues with the care they deserve.

The Planning Board expressed a number of environmental concerns relating to stream crossings and believes it is important to minimize any adverse impact on streams in terms of erosion and siltation and anything that could be a problem in the protection of the Patuxent itself. The Planning Board agrees with the Environmental Planning staff's report that access roads should span stream channels with bridges or, if a bridge is not feasible, by placing the inverts of culverts at least one foot below the inverts of streams, subject of course to approval of the Maryland Water Resources Administration.

Both the Planning Board and its staff agreed that where the transmission line crosses the public roads and the Patuxent River the area

should be landscaped appropriately to reduce visual obtrusiveness of the poles. In particular, existing and additional appropriate vegetation should obscure the structures so that they are not obvious from the river or Tucker Lane.

The Planning Board agreed with PEPCO's plans to use a compressed right-of-way between Haviland Mill Road and Mink Hollow Road, where the addition of right-of-way required for the lattice structures would adversely affect the community. It felt strongly, however, that if the single poles were safe and satisfactory at this location, they should be used throughout the entire length of the transmission line to avoid expanding the right of way and to minimize the visual impact of the more intrusive lattice structures.

The Planning Board recommended approval of these two petitions, subject to the following conditions:

1. Compliance with the Certificate of Public Convenience and Necessity as issued by the Public Service Commission in 1980.
2. Applicant is bound by statement of operation contained in Volumes I and II of Special Exceptions.
3. Conditions of Board of Appeals cases S-213 and S-214 remain in effect as they apply to the portion of the line and the substation subject to those particular cases.
4. The applicant shall submit erosion plans and sediment control plans to the technical staff and Soil Conservation Service for review and approval. If access roads are necessary, they must receive approval by the technical planning staff.
5. The transmission line right-of-way in the WSSC park west of the Patuxent River should be shifted slightly southward to avoid crossing Tributary 220 and to provide an undisturbed buffer between the stream and the cleared right-of-way area.
6. Approval of the construction plans by the State Department of Environment with particular reference to wetland areas and to the placement of structures.
7. The applicant shall submit a landscape plan for areas where the transmission line traverses public roads and the Patuxent River. The plan shall show existing landscaping, landscaping that would be retained, and supplemental landscaping.
8. The extension of the transmission line should be included within the existing right-of-way.

FINDINGS OF THE BOARD

This case comes to us in an unusual posture. We officially notice that the Maryland Public Service Commission some eight years ago

rendered a decision authorizing the petitioner to construct high-voltage lines across the State of Maryland, through several counties of which the instant case is a small segment. (Public Service Commission Case No. 7004, March 5, 1980).

We also notice that the Maryland Court of Appeals issued its decision in Case No. 1749 affirming the action of the PSC in a case arising under somewhat similar circumstances in Howard County (PSC of Maryland vs Patuxent Valley Conservation League 300 MD 200, 477 A2d 759, 1984).

It is clear from the record in this case that the only substantial issues are those pertaining to health and safety and the impact of the presence of the line and its supporting poles on the peaceful enjoyment of property owners near or under the proposed line and its poles.

Thus, the Board is in a peculiar position of determining whether to grant a special exception to a petitioner who has already received authorization of the State Public Service Commission with judicial approval of that authorization.

The opposition has raised questions concerning the health and safety of residents who would, of course, be required to live within an area of a magnetic field which they consider to be dangerous to their health and safety. They also assert that their peaceful enjoyment of their property will be diminished by the presence of the 500kV power line and the supporting poles which they assert will seriously impact on both enjoyment of their property and diminish their property values.

Upon review of the zoning and provisions applicable to public utilities, we are persuaded that petitioner has satisfied all of the Code requirements and as mentioned above, have secured authorization for the construction from the PSC. Therefore, the pertinent issues remaining for determination are whether we can affirmatively ascertain from the record that the construction of the 500kV line renders no danger to the health and safety of the persons affected. The ancillary issue is whether the presence of the supporting poles constitutes an invasion of the right of the land owners to the peaceful enjoyment of their property.

With regard to the first issue, we find that the decision of the PSC, which was rendered approximately eight years ago, did not adequately address the question of the effect of high voltage lines on the health and safety of persons residing in proximity to the line. Thus, two choices are present: the Board of Appeals could undertake to weigh the evidence presented in this record and make what would then be a segmented decision, not having before us the evidence which persuaded the PSC to authorize the construction in the first place. We believe the better practice would be to refer this issue to the PSC for its consideration and an updating of its authorization in light of the health and safety question. That is to say, we shall grant the special exception requested but condition the grant upon an affirmative finding by the PSC that the construction of the power line will not endanger the health and

safety of residents of the area. The responsibility, of course, will lie with the petitioner to seek that finding and we shall require petitioner to advise this Board and all parties interested in this proceeding of any action undertaken by petitioner to meet that condition.

With respect to the second issue, the record is inadequate for us to determine to what extent the proposed construction would impact visually and otherwise on the peaceful enjoyment of their property by affected landowners. We have not been furnished with sufficient information about the size, dimension, design, height or color of the proposed poles, nor are we able to determine how many poles would be constructed, the spacing or location of such poles. Here, again, the Board is faced with two obvious choices. One would be to deny the petition for lack of specificity. However, it is the normal practice where a petitioner meets the basic requirements for a special exception to grant it, subject to an appropriate condition. In this instance, we will condition the grant by requiring petitioner to submit a specific and detailed revised site plan to the Maryland-National Capital Park and Planning Commission for its recommendation, review and approval. Petitioner shall furnish to this Board and interested parties copies of such revised site plan submitted to M-NCPPC.

We find that the disposition herein authorized is the most appropriate way in which to avoid a bifurcated decision on issues involving a small segment of what is clearly a statewide and, indeed, interstate power grid. It is clear to us that the public interest requires that the ability of the petitioner to provide electricity to its customers not only in Montgomery County but throughout its area of operation is a matter of significant importance and cannot be lightly ignored. An economical and reliable source of electric power is essential to the well-being of all residents of the County and of users throughout the system. It is our conclusion that the issue of health and safety can be best resolved by that agency charged with the responsibility of oversight of the utility, the PSC. We also conclude that questions concerning the impact of the construction and especially the supporting poles can best be resolved with the technical advice and expertise of the agency which traditionally resolves such issues with the County, namely M-NCPPC. Thus, by conditioning our grant of the special exception in the manner described above, we retain jurisdiction over the special exception and will periodically conduct review hearings at three (3) year intervals to determine that continued use of the special exception is appropriate.

An additional reason for including the condition deferring to the PSC is the age of the decision rendered by the PSC. If there had been a more recent or current decision authorizing the construction, which would have demonstrated awareness of a possible health and safety problem and consideration by the PSC of such issue, referral may not have been required.

Concerning the substation modification, the Board finds that the existing substation is on a 231-acre tract of land and a special exception was granted in November 1973. At that time, PEPCO presented a plan for future expansion which this request follows.

Accordingly, the Special Exception, Case No. S-1413 to permit construction and operation of Public Utility Structures (overhead electric power transmission lines) and Case No. S-213-A to permit modification to an existing substation, are granted, to petitioner only, subject to the following conditions:

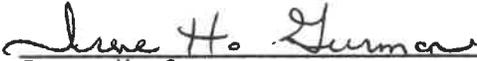
1. Petitioner shall be strictly bound by all oral and written testimony, evidence and exhibits in the record.
2. Petitioner shall submit a revised, detailed site plan with specifics as to the line of construction; number of poles to be constructed; size, height, color and specific locations; and the specific intervals along the line where such poles are to be placed, to the Maryland-National Capital Park and Planning Commission, with copies to this Board and to interested parties in this proceeding. Following consideration by M-NCPPC, petitioner shall file with the Board of Appeals two copies of the approved site plan.
3. Petitioner shall, prior to implementation of the special exceptions S-1413 and S-213-A, secure from the Public Services Commission a finding that construction of the line authorized, will not endanger the health and safety of persons residing in proximity to the power line. It shall be the responsibility of the petitioner to initiate whatever action is necessary to secure such finding by the PSC and to notify the Board of Appeals when such initiative has been undertaken, as well as a copy of the resulting written findings of the PSC.
4. The Board of Appeals shall, at periodic intervals of at least three (3) years, conduct review hearings to determine the appropriateness of the continued grant of the special exception. The first review hearing will be held three (3) years following written notification from the petitioner that the special exception has been implemented.

The Board adopted the following Resolution:

BE IT RESOLVED by the County Board of Appeals for Montgomery County, Maryland, that the opinion stated above be adopted as the Resolution required by law as its decision on the above-entitled petition.

The foregoing Resolution was proposed by Helen R. Strang and Howard Jenkins, Jr. and concurred in by Max H. Novinsky. Judith B. Heimann, Chairman, has read the transcripts, reviewed the records and exhibits, and concurs in the opinion. K. Lindsay Raufaste did not participate in the foregoing resolution.

I do hereby certify that the foregoing Minutes were officially entered in the Minute Book of the County Board of Appeals this 22nd day of January, 1988.



Irene H. Gurman
Clerk to the Board

NOTE: See Section 59-A-4.53 of the Zoning Ordinance regarding the twelve-months' period within which the right granted by the Board must be exercised.

See Section 59-A-3.2 of the Zoning Ordinance regarding Use and Occupancy Permit.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County in accordance with the Maryland Rules of Procedure.

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Case No. S-213
(Companion Case No. S-214)

PETITION OF POTOMAC ELECTRIC POWER COMPANY

ORDER REGARDING MODIFICATION TO THE
OPINION OF THE BOARD

(Order adopted January 15, 1976)

In response to correspondence received relating to the unsafe conditions at the entrance of the sub-station on Brighton Dam Road, pursuant to Rule 9 of the Board's Rules of Procedure, the Board, upon its own motion, adopted the following Resolution:

"Be it Resolved **by** the County Board of Appeals for Montgomery County, Maryland, that the record in the above-entitled case be, and it hereby is re-opened for the purpose of receiving into the record the above-mentioned correspondence, and to add conditions deemed appropriate for safety in the vicinity of the electric sub-station on Brighton Dam Road."

The Board, being of the opinion that additional safeguards may be necessary to secure the entrance to the electric sub-station property on Brighton Dam Road, hereby imposes the following supplemental conditions to its opinion:

- a. The petitioner shall erect a substantial gate across the access road, such gate to be located at least ninety (90) feet from the centerline of existing Brighton Dam Road (so that the proposed widening of Brighton Dam Road will not cause the gate to be removed during road widening). This gate shall be closed and secured at all times during non-working hours.
- b. The petitioner shall erect fencing, or other suitable barriers, extending from the gate and linking into existing fencing or topography so as to deny access to the Pepco property. At such time as

Brighton Dam Road is widened, a new permanent fence shall be installed, prior to removal of the existing fence, in a location which will not be disturbed by road widening operations.

- c. The petitioner shall erect a standard highway "STOP" sign at the point at which its access driveway intersects Brighton Dam Road. This sign shall be properly located to serve its purpose without blocking sight lines, and shall be relocated as necessary upon widening of Brighton Dam Road.
- d. The petitioner shall post in a conspicuous manner appropriate "no trespassing" signs on the gate and on adjacent fencing.

The foregoing Resolution was proposed by Mrs. Marjorie H. Sonnenfeldt, Chairman, and concurred in by Mrs. Shirley S. Lynne, Mrs. Doris Lipschitz, Mr. Sheldon P. Schuman and Mr. Joseph E. O'Brien, Jr.

Entered in the Minute Book
of the County Board of
Appeals this 21st day of
January, 1976.

Dollie N. Kyte
Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Case No. S-213
and
Case No. S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

ORDER EXTENDING TIME FOR DECISION
(Order adopted September 20, 1973)

The Board adopted the following Resolution:

"Be it Resolved by the County Board of Appeals for Montgomery County, Maryland, that pursuant to the Rules of Procedure of the Board, and because additional time is required to consider the evidence and reach a decision on the above-entitled cases, the allowable time for decision on the above-entitled proceeding be and the same hereby is extended."

The foregoing Resolution was proposed by Mrs. Beverly S. Pearson, Chairman, and concurred in by Mrs. Shirley S. Lynne, Messrs. Joseph E. O'Brien, Jr., Bernard D. Gladhill and James G. Early.

Entered in the Minute Book of the
County Board of Appeals this 24th
day of September, 1973.

Dollie H. Kyte
Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Cases Nos. S-213 & S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

NOTICE OF CHANGE IN TIME OF HEARING

The Board adopted the following Resolution:

"Be it Resolved by the County Board of Appeals for
Montgomery County, Maryland, that the hearing on the
above-entitled case, Cases Nos. S-213 and S-214,
Petition of Potomac Electric Power Company, will be
called to order at 9:00 a.m., April 26, 1973."

The hearing will be held in the County Council Hearing Room on
the third floor of the County Office Building, 100 South Perry Street,
Rockville, Maryland.

This notice mailed this 17th day of April, 1973, to all
interested parties.

County Board of Appeals

By (Mrs.) Sallie H. Kite
Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Case No. S-213
and
Case No. S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

NOTICE OF SPECIAL HEARING

Further hearings will be held in Cases Nos. S-213 and S-214, Petition of Potomac Electric Power Company, for an overhead power line and a substation in the area of Brighton, Maryland, on Tuesday, October 16 and on Friday, October 19, 1973, from 7:00 p.m. to 11:00 p.m. at the County Building (auditorium on first floor) at Rockville, Maryland.

The purpose of these hearings will be to consider further the impact of the proposed lines on the particular properties of the owners listed below.*

Persons wishing to be heard in connection with these cases should call the office of the Board of Appeals, Telephone Number 279-1226, to so indicate.

The Board of Appeals has not yet made a final decision in the above cases. Because two members of the Board will soon be replaced by new members, it is necessary to take further testimony at this time before making an interim decision.

Notice mailed to all interested parties this 2nd day of October, 1973.

*
Mr. & Mrs. William Canby
Mr. R. B. Butts
Palmer Nicholson Tract,
c/o George Brugger, Esq.
Mr. & Mrs. Allen F. Thomas
Mr. & Mrs. Neil Wilkin
Mr. & Mrs. James McAlister
Mr. & Mrs. Ulrich O. Hutton

County Board of Appeals

By (Mrs.)

Sollie H. Kyte
Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Cases No. S-213 and S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

ORDER REGARDING AMENDMENT TO THE
OPINION OF THE BOARD
(Order adopted February 3, 1977)

Upon consideration of information received from counsel for the Potomac Electric Power Company, Thomas E. O'Dea, letter dated January 17, 1977, wherein copies of letters were attached signed by Mr. D. J. Luce, Mr. and Mrs. Robert G. Johnsen and Mr. O. E. Minar, indicating approval of the landscape material and the placement of same on their properties adjoining the Brighton substation site, thereby fulfilling condition No. B.3 of the Board's opinion issued November 26, 1973; and

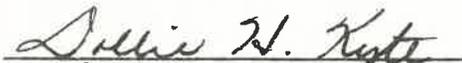
WHEREAS the Board's attention is directed to the fact that Mr. and Mrs. James McAlister's property is not adjacent to the substation site, but, in fact, is located over nine miles away; and

WHEREAS the Board finds that it erred in requiring screening for Mr. and Mrs. McAlister's property; therefore,

BE IT RESOLVED by the County Board of Appeals for Montgomery County, Maryland, that the first line of Condition No. B.3, page 24, shall be and hereby is amended to delete the name of Mr. and Mrs. James McAlister.

The foregoing Resolution was proposed by Mrs. Marjorie H. Sonnenfeldt, Chairman, and concurred in by Mrs. Doris Lipschitz, Mrs. Shirley S. Lynne, Mr. Joseph E. O'Brien, Jr., and Mr. Sheldon P. Schuman.

Entered in the Minute Book of the
County Board of Appeals this 9th
day of February, 1977.


Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Cases No. S-213 and S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

ORDER REGARDING AMENDMENT TO THE
OPINION OF THE BOARD
(Order adopted February 3, 1977)

Upon consideration of information received from counsel for the Potomac Electric Power Company, Thomas E. O'Dea, letter dated January 17, 1977, wherein copies of letters were attached signed by Mr. D. J. Luce, Mr. and Mrs. Robert G. Johnsen and Mr. O. E. Minar, indicating approval of the landscape material and the placement of same on their properties adjoining the Brighton substation site, thereby fulfilling condition No. B.3 of the Board's opinion issued November 26, 1973; and

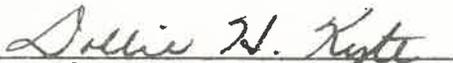
WHEREAS the Board's attention is directed to the fact that Mr. and Mrs. James McAlister's property is not adjacent to the substation site, but, in fact, is located over nine miles away; and

WHEREAS the Board finds that it erred in requiring screening for Mr. and Mrs. McAlister's property; therefore,

BE IT RESOLVED by the County Board of Appeals for Montgomery County, Maryland, that the first line of Condition No. B.3, page 24, shall be and hereby is amended to delete the name of Mr. and Mrs. James McAlister.

The foregoing Resolution was proposed by Mrs. Marjorie H. Sonnenfeldt, Chairman, and concurred in by Mrs. Doris Lipschitz, Mrs. Shirley S. Lynne, Mr. Joseph E. O'Brien, Jr., and Mr. Sheldon P. Schuman.

Entered in the Minute Book of the
County Board of Appeals this 9th
day of February, 1977.


Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Cases Nos. S-213 & S-214

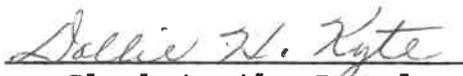
PETITION OF POTOMAC ELECTRIC POWER COMPANY
(Order adopted November 21, 1974)

Based on information contained in the letters received from Howard J. Thomas, Esq., attorney for Mr. and Mrs. R. B. Butts, and from G. Vann Canada, Jr., Esq., attorney for Mrs. Nash, that the re-location of the power lines has been approved by both parties, and on approval of said re-location by the Montgomery County Planning Board on October 2, 1974, the Board adopted the following Resolution:

"Be it Resolved by the County Board of Appeals for Montgomery County, Maryland, that, the Board having found that Condition No. 5, pages 22 and 23 of the Board's Opinion issued November 26, 1973, has been complied with, the petitioner may proceed with construction as indicated in map of re-located route shown on Exhibit 'No. 120.'"

The foregoing Resolution was proposed by Mrs. Beverly S. Pearson, Chairman, and concurred in by Mrs. Marjorie H. Sonnenfeldt, Mr. Joseph E. O'Brien, Jr., and Mr. Sheldon P. Schuman. Mrs. Shirley S. Lynne was necessarily absent and did not participate in the foregoing Resolution.

Entered in the Minute Book of the
County Board of Appeals this 26th
day of November, 1974.


Clerk to the Board

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Cases Nos. S-213 & S-214

CORRECTION TO THE OPINION OF
THE BOARD ON THE REQUEST FOR RECONSIDERATION
ON THE PETITIONS OF THE
THE POTOMAC ELECTRIC POWER COMPANY
(Order adopted February 28, 1973)

In order to clarify the second paragraph on page 1 of the Board's Opinion entered in the Minute Book of the County Board of Appeals the 25th day of February, 1974, the Board adopted the following Resolution:

"Be it Resolved by the County Board of Appeals for Montgomery County, Maryland, that lines 4 and 5 of the second paragraph, page 1, shall be amended to read: '...votes have been recorded, participation of Mrs. Sonnenfeldt and Mr. Schuman in the decision on the request for reconsideration becomes unnecessary.'"

The foregoing Resolution was proposed by Mrs. Beverly S. Pearson, Chairman, Mrs. Shirley S. Lynne and Mr. Joseph E. O'Brien, Jr. Mrs. Marjorie Sonnenfeldt and Mr. Sheldon P. Schuman did not participate.

Entered in the Minute Book of the
County Board of Appeals this
8th day of March, 1974.

Sollie H. Lyte
Clerk to the Board

Nov, 26, 1973

Page 24

COUNTY BOARD OF APPEALS
For
MONTGOMERY COUNTY

Cases Nos. S-213 & S-214

PETITION OF POTOMAC ELECTRIC POWER COMPANY

OPINION OF THE BOARD

Location and nature of requests

The applicant, Potomac Electric Power Company, (hereinafter called Pepco) requests two special exceptions. Petition S-213 requests permission to construct and operate an electric substation in an R-A zone on a 231 acre tract of ground located approximately 500 feet west of the intersection of New Hampshire Avenue extended, Maryland Route 650, and the Brookeville-Brighton Road, west of the town of Brighton.

Petition S-214 requests permission to erect and operate an over-head electric power and energy transmission line suspended from multi-legged steel towers and poles in R-R and R-A zones. The subject transmission line would be one 500 kilovolt (KV) double circuit steel pole and tower transmission line located within a right-of-way 350 feet in width, extending from a point on the existing Doubs-Conastone 500 KV transmission line in the Mt. Airy area of Frederick County to a substation (Petition S-213) proposed to be constructed in the Brighton area of Montgomery County adjacent to an existing 230 KV transmission line. The special exception application requests approval for one set of steel poles and towers along the right-of-way, on which would be constructed two electrical circuits looping Pepco's line from Mt. Airy to Brighton and back to Mt. Airy. The electrical transmission line is approximately 17 and one-half miles long, of which two and one-half miles is in Frederick County, and the remaining distance in Montgomery County. The two cases were consolidated for hearing and testimony was taken on March 22, April 20, May 4, May 9, May 15, June 15 and August 31, 1973. ✓

Decision of the Board: to grant, as conditioned herein.

Requirements of the Zoning Ordinance

On reaching a decision, the Board must undertake analysis of the Zoning Ordinance's provisions regulating public utility substations and transmission lines. The proposed substation must meet

the general requirements for a special exception, set forth in Section 59-123 of the Zoning Ordinance, as amended by Ordinance Number 7-43. In addition to the general requirements for a Special Exception, further requirements for a public utility substation must be satisfied as set forth in Section 59-164.

Electric transmission lines, on the other hand, are exempted from the general requirements of Section 59-123. The applicant must meet, instead, the provisions of Section 59-164, specifically Section 59-164(e).

A question has arisen, however, as to the correct content of 59-164(e). When the Zoning Ordinance was reprinted in the present revised edition, certain typographical errors occurred. The Board assumes that former Section 111-37 u. was intended to be set forth as section 59-164 without substantive change. The basis for this conclusion is the fact that no text amendment of this Section has been passed by the County Council.

THE TRANSMISSION LINE

The proposed 500 KV transmission line would extend for a distance of approximately 15 miles from the Frederick County line to Brighton, thence at a future time from Brighton into Howard County. The line would run generally parallel to the Patuxent River ranging from approximately one-half mile to one and one-half miles southwest of the river. The land is gently rolling farm land alternating with wooded areas, which could be characterized as a rural area of scenic and historical importance bordering a major stream valley park. Land along the Patuxent River is proposed for park land acquisition by the State of Maryland. Other land along the Hawlings River near the proposed substation is a proposed Maryland National Capital Park and Planning Commission park. A number of historical buildings are located in the area that would be traversed by the proposed transmission line.

The steel structures along the transmission line would be approximately 1,000 feet apart. The poles would be of the "aesthetic" or T-shaped type as approved by the Maryland Public Service Commission except that at certain angle points the steel lattice type tower would be constructed. Suspended from each structure will be two electrical circuits, with each circuit consisting of three phases. Each phase has three conductor bundles, i.e., three wires per bundle. Two overhead static wires will run between each steel structure which will

be solidly grounded to continuous underground counter ploys. The height of the steel poles along the lines will range from 122 to 150 feet. At some time in the future, presumably in the early 1980's, the applicant plans to apply for an additional special exception for permission to construct a second series of double towers in the right-of-way which is the subject of the present application.

Is there a Public Necessity for the Proposed Transmission Line at the Location Selected?

The question of public necessity can be divided into two parts; First, is there a public necessity for increased transmission line capacity of 500 KV strength; and second, is the proposed structure necessary at the location selected?

The applicant argues that the Public Service Commission has already made both findings in the affirmative by its grant of a certificate of public convenience and necessity to Pepco on September 27, 1972. However, the Zoning Ordinance charges the Board with the responsibility of finding that both of these requirements are met in regard to the instant application. The Board, therefore, interprets the Zoning Ordinance as requiring that it make an independent judgment of need at the proposed location. Although several witnesses questioned the need for additional electrical transmission power or development in the County, the attorney for the Patuxent Valley Environmental Association stipulated that there is a general need for increased transmission facilities.¹ This stipulation did not go to the particular configuration or a particular voltage. In fact, the opposition stressed throughout the hearings the possible use of alternative routes to fulfill the admitted need. The opposition did not come forward with any studies indicating major deficiencies in the applicant's need projections. For example, Ms. Donna Cromwell, appearing for the Maryland Conservation Council, questioned the need for the power line at this time, but had not made "any study as to whether there is a need for this, or not."

The fact that opponents of the proposed line did not prove a lack of need is not determinative of the question of public necessity. The burden of proof, by a preponderance of the evidence, always remains with the applicant. The Board, however, finds for reasons

¹ T-30 August 8-73

hereafter discussed that the proposed 500 KV line, as part of a 500 KV circuit which would encompass the entire Metropolitan area, is necessary and desirable.

The Vice-President of Pepco for electrical engineering, Mr. Edward F. Mitchell, testified that the metropolitan area of Washington is now served by a 230 KV system. This system serves a 643 square mile area, comprising 61 percent of Montgomery County, Maryland, 51 percent of Prince George's County, all of the District of Columbia, and approximately 13 percent of Arlington County, Virginia. The service area includes 95 percent of the population of Prince George's County, all of the population of the District of Columbia; and approximately 12 or 13 percent of the population of Arlington County, Virginia. Pepco has six generating plant sites with a total net capability of 4,160 megawatts.³

The company's peak load in 1971 was 3,045 megawatts, which accrued in the summer. The company's winter peak is approximately 60 percent of the summer peak. Pepco anticipates that between 1971 and 1980 the system load will increase from its present 3,045 megawatts to approximately 8,560 megawatts. The company plans to install a system which by 1980 would reach an installed capacity of approximately 10,200 megawatts.

The present 230 KV transition system, according to Mr. Mitchell, is inadequate for the future needs for supply of the system. Demand for electrical power is expected to more than double by 1980.

The existing 230 KV system, however, provides major points of intertie with outside generating systems. The Dickerson Plant, for example, has a tie with the Virginia Electric Power Company and with the Allegheny Power System. At Burtonsville and Bowie, Pepco ties into the Baltimore Gas & Electric System. The applicant maintains that without the ability to import large quantities of power and in the event of loss of generation or failure of other transmission, the reliability of the Pepco system will deteriorate. Mr. Mitchell maintained that Pepco must have an installed capacity to meet anticipated demand and must have a reserve margin adequate to correct forced outages or other operating difficulties. This capacity can come from two sources: generating units installed on the Pepco system, or generating units installed on other systems. To use the capacity of other systems, however, requires adequate transmission. If Pepco does not have adequate transmission tying into other systems, then

3. According to the Public Service Commission Hearing Report in Case No. 6545 (Dickerson #4) the actual net installed capacity in 1972 was 4,400 megawatts.

Pepco must have more generating plants on the Pepco system or "suffer the consequences of wide spread, cascading blackouts through our service area." ¹

Mr. Mitchell pointed out that it is not in the interest of the tax payer or the public "for the company to build generating plants costing hundreds of millions of dollars when the alternative is interconnection with other companies at a relatively low cost." He maintained that without such transmission the reserve capacity of Pepco system would have to be approximately 45 percent, and that the 500 KV project is a vital link to the existing 500 KV Grid system which spans the entire Pennsylvania, New Jersey, Maryland territory, and the Pepco system. The PJM interconnection services approximately 10 percent of the population of the United States and has approximately 10 percent of the generating capacity of the United States. The proposed project is Pepco's method of tapping into the existing 500 KV line between Doubs and Conastone which is an integral part of the PJM Grid.

The proposed 500 KV line would substantially reduce future right-of-way requirements since one of the 500 KV lines generally has the capacity of 4 to 5 times the existing 230 KV lines and 3 to 4 times the capacity of the future 230 KV lines. The 500 KV lines would also provide a component part of the 500 KV loop planned to encircle the Washington Metropolitan area to greatly increase the reliability of the service by making possible the continuation of supply at all points in the system in the event of outages on any other part of the transmission system. Furthermore, the existence of the 500 KV loop would improve stability.

The applicant proposes, from the vicinity of Mt. Airy, to loop one double circuit tower line down to the Brighton Area and back up to Mt. Airy area. At a future time Pepco plans a second loop leading into the Brighton station from Mt. Airy. An application for the second loop, however, is not at the present time before the Board. The 350 foot right-of-way proposal, which is part of the present application, would provide the necessary ground space for the second line. The loop covered by the present application has a planned completion date of December 1, 1976.

Mr. Mitchell indicated that the subject of a future application for a special exception would be the continuation of the route from

1. T-21

Brighton to Highridge in Howard County.

The question as to whether this facility is necessary at the proposed location involves consideration of alternate locations. The major question of alternate routes raised both before the Public Service Commission of Maryland and before the Board of Appeals concerned the question of paralleling existing 230 KV right-of-way lines, (a) from Doubs to Dickerson to Quince Orchard through Mt. Zion to Brighton; or (b) from Brighton to Highridge to Howard and to Northwest, running through Howard County. Paralleling existing right-of-ways is frequently advocated as good planning practice, to prevent scarring the landscape with multiplicity of transition line rights-of-way. The arguments against paralleling the existing rights-of-way advanced by Pepco fell into two major categories: (1) that increased stability of the line would be achieved by an independent 500 KV right-of-way because it would reduce the chance of outages to the line caused by a catastrophe such as impact by an airplane, or an outage caused by a storm which would damage both the 230 KV and 500 KV together if they were parallel on the same right-of-way; and (2) that greater economic and social dislocation would result because the existing 230 KV rights-of-way are now built up with adjacent residential construction and various public buildings such as schools, churches, golf courses, etc. Pepco admitted that they had not studied the right-of-way through Highridge Howard to Northwest and had not consulted with the Howard County Planning Commission.¹

A third difficulty, regarding paralleling the 230 KV line through Montgomery County to Dickerson-Doubs, was the Regional Army Defense installation at Mt. Zion Road near Olney (shown on E-12). Mr. Frederick Huff, of the Headquarters Department of the Army, office of the Judge Advocate General Regulating Division, testified² that the Army made a study of the impact of a 500 KV line on the Olney facility.³ This study in itself does not consider the possibility of paralleling existing lines. Mr. Huff also introduced a letter by the author of the report Mr. Merrill G. Stiles,⁴ and a copy of Mr. Stiles' testimony before the Public Service Commission.⁵ Mr. Eugene L. Kilcullen, Chief, of the U. S. Army STRATOCOMUS Facility at Olney, offered more detailed testimony on the problems associated with high voltage lines. Basically, Mr. Kilcullen believed that paralleling the existing 230 KV line by a 500 KV line would cause an increase in interference with the equipment of this highly important regional defense center. Although the 500 KV line as proposed would not vary a considerably greater distance from the defense center than would a location parallel to the existing 230 KV line, Mr. Kilcullen

1. (E-116(a))

2. T-4-5, June 15

3. E-101

4. E-102

5. E-103

noted that the synergistic quality of parallel routes explained the non-acceptability of parallel routes and the acceptability of the proposed route.

As to the possibility of outages due to accidents along parallel lines, testimony and exhibits show that such occurrences are extremely infrequent. The Board is not persuaded that danger, due to accidents, is a sufficiently important factor to justify separate lines.

The Board considers of special significance, however, testimony submitted by Pepco (at the Board's request) comparing the number of residences and public buildings which would be affected by a paralleling of transmission lines. Mr. Alvin A. Turner, of the Pepco real estate department testified that the applicant had made a study along the Doubs-Dickerson-Brighton existing right-of-way. On the south side of the existing right-of-way, a 31.92 mile route would be required and would involve the acquisition of 25 homes, 9 farms, 40 townhouses, one school, the crossing of one golf course and four public properties. Expanding the right-of-way to the north side would involve the approximately same distance of 31.92 miles. The northern route requires acquisition of 54 homes, 15 barns, 90 townhouses, 1 school, crossing 1 golf course and 7 public properties.

The other alternative route is from Northwest to Brighton. Expanding the existing 230 KV to the south side, the route length is 37.60 miles. This choice would involve the acquisition of 162 homes, 6 barns, 1 school and a crossing of 11 public properties. On the north side of the Northwest Brighton route, the distance is apparently the same, 37.60 miles. This alternate would include the acquisition of 221 homes, 15 townhouses, 1 school and crossing of 7 public properties. An analysis of the effects of a 150 foot as well as 170 foot addition to the right-of-way existing for the 230 KV lines was presented, showing similar severe effects on numerous residents and installations.¹

Apparently a major drawback in paralleling an existing line is the development which has occurred along the existing line. Speaking for the opposition, Professor Stephen Wolfe, an associate professor of Electrical Engineering at John Hopkins, suggested an alternate approach to the problem.

Testifying from a purely technical point of view, Professor Wolfe indicated that it would be equally feasible, as an alternative route,

1. T-455 E-50

to cut the 500 KV line which ties into the PJM Grid in the vicinity of Northwest, and "pull" parallel lines down to an expanded sub-station at Highridge. ¹

According to this proposition, the 500 KV lines would indeed parallel an existing right-of-way. However, it is apparent that the impact upon existing residential development would be far greater than the impact of the proposed line. The line as proposed by Pepco, in this application, involves only 4 houses and 1 barn in Montgomery County. Two houses are vacant and may be taken in the widening of Route 28. The other two houses are rental properties on Annapolis Rock Road. A further difficulty in considering the alternate route through Howard County is, of course, the fact that it lies outside the jurisdiction of this Board. Also, Pepco has not consulted with or obtained the opinion of the Planning staff of Howard County. Further, there has been no notice to the residents along the right-of-way in Howard County. The impact upon the homeowners along the corridor and a multitude of other factors which might be raised in a study of that corridor are not known at this time.

The Board notes that such information as was presented regarding alternate routes was elicited from Pepco only at the insistence of the Board and of the opposition. It is apparent that consideration of alternative routes was at best cursory before the Public Service Commission of Maryland. The Maryland National Capital Park and Planning Commission review apparently was less than exhaustive in studying alternative routes, perhaps because of lack of information and lack of jurisdiction in Howard County.

This Board believes that a thorough and comprehensive regional review of alternates to the present proposal has not been undertaken and is not available under present procedures. Although under State legislation the Public Service Commission has the power to request such a regional review, the testimony which the PSC elicited from the applicant does not appear to have been sufficiently comprehensive or detailed to include other possibilities in a definitive manner. The Maryland National Park and Planning Commission does not have presented to it long range forecasts of the needs for electric power generation expansion on a regular basis. Mr. James Crawford, senior planner of the Maryland National Capital Park and Planning Commission testified that the Commission did not make an independent staff analysis of need.

1. T-1247-48

The theory of the desirability of paralleling rights-of-way for various types of power lines and other right-of-way facilities breaks down when an existing right-of-way has to be widened through a densely settled area. The economic and social impact in such a case may out-weigh the advantages of the physical proximity of the lines, the aggregate saving in acreage and the reduced visual impact. The Board concludes that in the case of the proposed transmission line, so much development has taken place along the available 230 KV lines in Montgomery County that paralleling of this line would be impractical. Reluctantly the Board concludes that we must now pay the price of the inadequate planning and lack of regulation of power companies which prevailed a decade ago, and which still prevails on a regional basis.¹

The Board requested and received testimony on the feasibility of undergrounding electric transmission lines. Mr. Mitchell indicated that the Federal Power Commission and the Public Service Commission of Maryland considered undergrounding unfeasible for this particular project. The Board also requested that Pepco make a study of the possibility of undergrounding the 230 KV line and then using the vacated right-of-way for the new 500 KV line. The results of that study indicated that short stretches of 230 KV line are at present capable of being undergrounded. However, the technical inability to underground long stretches of transmission line coupled with the alleged cost of such undergrounding does not make undergrounding a feasible proposition at the present time.

The Board is aware, however, that Pepco will return around the latter part of 1979 or 1980 requesting a special exception for the second series of parallel 500 KV lines on the proposed right-of-way. By that time technical facilities for undergrounding power lines will be more advanced. The question of undergrounding the second portion of the line as well as the possibility of undergrounding the first portion should be raised at that time. This Board does not assume that the transmission lines existing today are necessarily going to remain above ground forever.

¹ Certificates of Public Convenience and necessity have been required for transmission lines only since 1968.

In view of the possibility that future technological improvements may make it possible to place high power transmission lines underground, and at more reasonable cost, and that future improved planning practice make it possible to relocate transmission lines along existing corridors, it would seem prudent at the present time to establish the necessary 500 KV line in a sparsely settled location where there will be as little dislocation of existing residents and installations as possible.

Reviews of this proposal by the Public Service Commission and by the Maryland National Capital Park & Planning Commission have already resulted in significant readjustment of the line. The original proposal, which cut into the Patuxent River State Park at various places, has been changed so that the line no longer touches upon any of the park boundaries. The line has similarly been adjusted in order to avoid coming unduly close to the approximately 18 historical landmarks and residences that lie in or near the Patuxent Valley. There was a redesign of the location in order to avoid the regional Army Center at Mt. Zion.

The Board therefore concludes that the 500 KV line is necessary in order to bring needed power into the Metropolitan area served by Pepco, and that the proposed location of the line, with further minor alterations regarding particular properties, is the location which will have the least disadvantageous impact upon the general area.

Will the Proposed Use Affect Adversely the Health and Safety of Residents or Workers in the Area?

During the hearings potential adverse affects of the transmission lines on the health and safety of animal and plant life were raised. In reaching a decision on these highly controversial and extremely technical arguments, the Board considers the primary health and safety issues to be: (1) Corona loss and the consequent ozone production; (2) electrostatic induction; (3) herbicide use. The Board finds, as hereafter discussed, that ozone production from the proposed transmission lines is not likely to affect adversely the health and safety of persons in the area. Second, subject to conditions hereafter imposed, electrostatic induction and herbicide use will not adversely affect the health and safety of persons in the area of the transmission lines.

Corona loss, simply stated, is the loss of electric charge from conductors at the surface of the conductors. Mr. Hepburn, of Pepco, qualified as an expert in electrical engineering, describes corona loss as "a small power loss on the (transmission) line." It is the

ionization of air which can be measured in kilowatts, resulting in the creation of ozone. Ozone is formed by the interaction of the escaping electrons with air and results in what is known as a free radical or hyper-active oxygen molecule. The accumulation of ozone above certain levels can be injurious to health. The predominant effect of excess concentrations of ozone is primarily irritation of the mucous membranes with sufficient irritation to the lungs to result in pulmonary edema.

The question facing the Board, therefore, is whether the quantity of ozone production from the proposed transmission lines could reasonably be predicted to affect adversely a persons' health and safety in the area.

Mr. Hepburn's opinion was that the potential corona loss and consequent ozone production would not adversely affect the health and safety of persons in the area. The witness's opinion is based on certain computer calculations of the proposed 500 KV line. The witness testified that on a dry day, the corona loss approached zero¹ whereas on a wet day, there would be a 15 KV corona loss. This conclusion is in turn based on the particular design of the Pepco line which, according to Mr. Hepburn, results in a minor corona loss when compared² to other 500 KV lines in the United States and Canada. Pepco predicts only one-tenth of the normal corona loss. The reason for the substantial difference is the reduced diameter of the conductor which carries the electrical energy through the transmission line (T-515) (See E-51). How to translate corona loss into ozone produced is not settled among scientific experts. The diameter of the conductor and the surface gradient are, however, recognized by the applicant as well as the opposition as the major, if not controlling, factors in corona loss and consequent ozone production. Once a generally accepted computation method is accepted, the question of how much ozone is produced can be estimated. Mr. Hepburn testified that the amount of ozone created by the proposed 500 KV transmission line is less than one part per billion. Another expert witness for Pepco testified that under the worst conditions, the ozone production would not exceed 13 or 14 parts per billion.³ The relevant national ambient air standard is 80 parts per billion. Mr. Hepburn further stated on cross examination that if and when imperfections developed on the surface of the conductor, the corona loss and the consequent ozone production would decrease the longer the line was weathered.. (T-494) Since the lines are sometimes

1. According to latter expert witness testimony, there is always some corona loss. The amount, however, does approach zero on a dry day (T-1091-2)

2. An opposition expert witness believes that corona loss can not be solely predicted from E-51 (T-1201)

3. (E-87)

scratched when installed, the witness expects the corona loss to decrease within six months of installation.

The Patuxent Valley Environmental League introduced a series of articles on corona loss and ozone production.¹ Although the authors of these articles were not subject to examination, cross examination upon the documents was permitted.² Dr. Pickart as an expert in chemistry and solid state physics, explained the nature of ozone, its diffusion characteristics, and the impact on animal life.³ Dr. Pickart did not, however, have any experience with transmission lines as such and only interpreted certain technical articles written by others.

The opposition did not, in short, produce evidence to challenge the statistics of the Pepco witnesses. Without such information the Board can only conclude that production of, at the worst, 13 or 14 parts per billion of ozone is considerably less than the percentages involved in the Exhibit 87 articles and well within the range necessary to protect the health and safety of persons in the area.

The existence of electrostatic induction, which is created by the energy surrounding electric transmission lines, is another possible source of danger to human and animal life in the area. Several witnesses for Pepco testified that no adverse affect on the health and safety of residents would result from the transmission lines electric field.²

The electrostatic field, when it comes into contact with metal buildings, tends to induce voltage because metal is a heavy conductor of electricity. Pepco's witnesses indicate that this so-called induced electrostatic voltage induction makes it advisable to ground metal buildings in the vicinity of the transmission line.¹ Obviously, the distance of the metal buildings from the transition line greatly influence these factors. A metal fence extending parallel to the transmission line might become subject to electrostatic induction.²

Pepco indicated that it will "in the course of construction ground all fences and closely adjacent metal buildings, and, in the

1. (E-87)

2. (T-1083-4)

3. (T-1084-1090)

2. Mitchell T-38; Hepburn T-4891; Shah T-61, June 13 hearing.

1. T-504

2. June 15 T-51-52

course of routine patrol and maintenance, check these grounds and establish new grounds where required."³

Mr. Hepburn testified that he is familiar with the American Standards Institute maximum safe level for electrostatic voltage induction (T-505). In his judgement it is not possible that voltage from the proposed line could be induced to adjoining metal buildings or fences so as to raise any questions as to the safety features on this subject.⁴ Furthermore, Mr. Hepburn testified that he could not conceive of any condition where vehicles or other improvements on neighboring properties should be grounded. Also, Mr. Shah testified, "there is no danger, whatsoever, of the effect on humans from the electrical gradient."⁵

Although the opposition produced general scientific articles on the problems of electrostatic induction, the opposition was unable to produce testimony that the particular transmission line involved would produce dangerous or discomfoting shock currents which could not be averted by the grounding procedure utilized by Pepco.⁶ The opposition produced no evidence that existing 500 KV lines (e.g. the existing 500 KV lines as part of the Vepco system in Fairfax County) had in fact, resulted in serious electrostatic difficulty. The articles regarding the effect of high voltage lines on human and other life forms do not lead to a different conclusion. In particular, the studies of G. G. Nickerbocher, et al, concluded that there was no clear evidence of a detrimental effect upon either mice or men, and recommended further study.¹ Considering Pepco's guarantee regarding grounding, the Board finds that people and animals near the line will not be adversely affected.

The opposition raised the issue of Herbicide use in several contexts. We will here discuss the use of herbicide as a potential adverse effect on the health and safety of persons in the area. This portion of the opinion should be read in light of the conditions the Board places on herbicide use.

Mr. Lawless, a structural engineer with Pepco, supervises the construction of all overhead-transmission lines above 69 KV. Mr. Lawless stated that in his opinion the proposed use of herbicides

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3. E-116 B
 4. T-505
 5. T-51 6/15
 6. T-1212 & E 116B
 1. T-1199

would not adversely affect the health and safety of persons near the transmission lines.² Pepco uses 2-4-D and 2-45-T in maintaining a right-of-way. The herbicide is selectively applied on individual plants, and is not a broadcast spray. On cross-examination Mr. Lawless admitted that Pepco had not mentioned the animal life that might come into the right-of-way and had not mentioned the life form found in the streams crossed by the transmission line.³ Mr. Parsons, a forester with Pepco, described the plans for right-of-way maintenance⁴ including the chemicals. Mr. Parsons was not aware, however, that certain of the herbicides were carcinogens¹ or have synergistic qualities.² In addition the Board discovered several inadequacies in the use and application of herbicides both of a technological³ and human nature,⁴ which apparently can not at this time be satisfactorily altered.⁴

The Board, therefore, concludes that since Pepco would accept a condition that the right-of-way be maintained without the use of herbicides (T-266) the question of the possible adverse affects of the herbicides on the health and safety of persons in the area can be avoided.

In any event, all of the foregoing dangers of overhead transmission lines would apparently be present to a greater extent if the 500 KV line should parallel the existing 230 KV lines. (T-1261) This impact on residential development around existing 230 KV lines is not desirable.⁵

The Board, in accordance with Section 59-164(e) (194) must consider certain additional specific factors as bearing on the overall requirements of 59-164(e). The specific factors, as related to health and safety, are hereafter set forth. Testimony and exhibits indicate that nine roadways are crossed by the proposed transmission line in Montgomery County. These are the Brighton Dam-Brookeville Road, Maryland Route 650, Maryland Route 97, Howard Chapel Road, Hipsley Mill Road, Annapolis Rock Road. Mullinix Mill Road, Long Corner Road and Maryland Route 27. Traffic counts available as of May 1973, show the following volumes of vehicular traffic per day:

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2. T-231
 3. T-256
 4. T-540-544
 1. T-550 562
 2. T-548
 3. T-555-556
 4. T-559-563 Testimony of Mr. Bilford T-1034
 5. T-1261

Maryland 97, 1800 VPD; Long Corner Road, 1,000 VPD, and Maryland 27, 3,950 VPD. There is no indication that the power line would cause any difficulty or traffic hazard on any road it crosses. Mr. Lawless in addition to his testimony, submitted evidence indicating the precautions Pepco takes during installation. During construction the wires will be pulled in under tension, which is the normal practice in wire stringing, so that at no time will the wire be close enough to the ground to hamper any fire fighting efforts or other traffic. In addition, as added precaution, temporary guard structures are placed at road crossings during stringing operations so that in the event that a wire dropped during stringing operations, the wire would not fall on a road. Mr. Lawless testified that the proposed transmission line would not interfere with fire fighting or emergency equipment. The clearance provided according to the National Electric Safety Code makes provision for the access of fire fighting apparatus to a structure at the edge of the right-of-way. The clearance above ground will allow fighting of fires on the right-of-way with no danger to fire fighters. Testimony and exhibits indicate that the proposed transmission line would in no way affect the traffic patterns or approaches to the two airport facilities in the area, Davis Airport and Montgomery County Airport. These airports are depicted on Exhibit 12 as being 7800 feet and 34,800 feet, respectively, from the 500 KV line. Pursuant to the rules of the F. A. A. case no one is permitted to fly in this area at an altitude of less than 500 feet, except when necessary for takeoff and landing.¹

Will the Proposed Transmission Line be Detrimental to the Use or Development of Adjacent Properties or the General Neighborhood

Several adjacent properties owners have proclaimed their distaste if not their fears, at having a high-powered transmission line crossing or within sight of their properties. The Patuxent Valley Environmental Association turned out in large numbers to protest the proposed transmission line. Mr. R. E. Butts, an officer of the association, gave testimony in opposition to the line. Petitions opposing the transmission line were submitted. Other public interest groups such as the Maryland Conservation Council, took an active part in the hearings.

These groups believe that the line will be detrimental to the rural and wilderness quality of the general neighborhood through which the transmission line passes. Specifically, these public interest groups and several adjacent property owners believe the transmission line will endanger existing plant and animal life, destroy groves of beautiful trees, be a visual catastrophe, not

1. E-116 A E 12

withstanding the "aesthetic" type of towers. These groups also believe that by clearing the right-of-way and constructing the towers streams will be polluted with silt caused by erosion. Coupled with possible herbicides, this silt is seen as a possible threat to the life-forms within the waterways.

Owners of the Nicholson-Palmer property, a beautiful farm-estate, complain that the proposed power lines would cut a grove of mature trees which form a boundary to their estate and replace the trees with a power line and a view of several adjacent houses. The owner of Camp Waredaca, R. B. Butts, testified that the power line would cut across a choice and unusual grove of trees which shelter the best camping area of his installation. Mr. William Canby maintains that a large pole and power line will have an adverse visual impact on the view from his residence. Approximately 150 citizens, who claim they live within sight of the proposed transmission line, apparently protest the visual impact of the line upon their esthetic environment. A number of other residents who live near the proposed substation fear that the spur line (which in the future will leave the substation and go northeast toward Highridge) will create a similar unfortunate visual effect upon their homes.

Whether television or radio interference would result from the presence of a 500 KV transmission line was the subject of extensive testimony. Mr. David E. Hepburn, an electrical engineer doing consulting work testified that, in his opinion, there would not be any television interference. Even if interference occurred, remedies exist such as filters or better antennas. For the opposition, Mr. Stanley Pickart, a research physicist and acting Chief, of Solid State Division of the Naval Ordnance Laboratory, gave testimony of a purely technical explanation nature on television radio interference technology. Mr. Pickart pointed out that the signal-strength figures used by Mr. Hepburn were based on a coverage map which really is a nominal signal strength document used by commercial broadcasters for attracting potential sponsors. Mr. Pickart took issue with Pepco's testimony on several other points and concluded that in his opinion, that "there is no insurance that these rural residences will be able to enjoy interference free radio and television reception, particularly in inclement weather when the people in rural areas are most dependent on their radio and television reception."

The applicant also offered the testimony of Mr. Kanu Shah, a consultant in the energy transport group with Commonwealth Associates in Jackson, Michigan. Mr. Shah qualified as an expert in electrical engineering, with a particular expertise in regard to electric transmission lines. The witness gave testimony on television radio inter-

ference and concluded that there would be no interference outside of the right-of-way caused by the proposed line.

Pepco witnesses maintained that proper safeguards and installations can be undertaken so that television and radio reception in residences close to the line presumably would not be affected. In fact, Pepco has virtually guaranteed to the Board to correct any radio or television interference that inadvertently occurs. Grant of this special exception shall be conditioned upon such guarantee.

Although there was some testimony that a noise factor exists in damp weather near high voltage transmission lines, the size and type of line Pepco proposes to use would reduce this factor to a negligible level.

The applicant has submitted satisfactory information indicating that the proposed line will not cause difficulty because of its proximity to schools, churches, theater clubs fair grounds, museums or other places of assembly. Much testimony was introduced to the effect that in many cases the presence of various 230 KV lines had preceded intensive and expensive subdivision development immediately adjacent to the lines in areas of the County located close to Washington D. C. Some of these subdivisions are prestigious, such as Copenhaver in Potomac and a portion of Montgomery Village in Gaithersburg. It is apparent that the 230 KV lines do not prevent appropriate use and development and that people will live where it is convenient to live, particularly where developers have placed desirable housing. As the opposition pointed out, since there has not been a 500 KV line in Montgomery County the Board does not know whether similar development would occur adjacent to a 500 KV line.

Since the Olney Master Plan does not envisage increased development of subdivisions in the upper part of the County, and since, in fact, such development would be considered undesirable according to the present outlook of the planning agencies, it is immaterial whether the 500 KV line has an effect of retarding development in the upper part of Montgomery County. In other words, development in that area is not desired.

The inescapable fact is that towers and lines of a 500 KV transmission system are not a pleasant sight. Calling a transmission tower "esthetic" is somewhat like calling an Army tank "beautiful." In other words, this Board believes transmission towers and lines are inescapable eyesores. The only solution is to underground such structures as soon as technology is available. The greatest adverse affect of the transmission line upon the surrounding properties is

esthetic. An unpleasant view, however, it not the same thing as "detrimental to use or development." The Zoning Ordinance does not require that the Board find that the transmission lines have no adverse affect whatsoever upon the general neighborhood (See Section 59-164(e)). To the contrary, the Ordinance provides that the Board must find, by a preponderance of the evidence, " that the proposed use will not be detrimental to the use or development of adjacent properties or the general neighborhood." (Section 59-164(e)) It should be noted that the Zoning Ordinance does not require the applicant to prove that the transmission line will not be detrimental to the economic value of surrounding properties.. This is a general requirement for special exceptions (Section 59-123 A-3) which is not applicable under the present Ordinance to overhead transmission lines (Section 59-165 (e))

If the effect upon the scenic environment of our countryside were a factor which would rule out an overhead transmission line, it would be impossible to erect such lines anywhere outside an industrially zoned area. A few citizens suggested that it would be preferable to go without so much electrical power. They are in the minority.

A final word on herbicides and other environmental considerations, Opponents of the project pointed out that Pepco had not made sufficient study of the effects of herbicides drainage into the numerous (27) streams that cross the power line route. In particular they complain of the lack of quantified effects of such drainage upon the biological life of the streams. Also, the opposition pointed out there has been insufficient study of the effects of denuding a 350 foot swath through the forest upon erosion and silting of waterways in the area. Dr. Guilford, professor of Biology and chairman of the biology department at Hood College summed up these points, "without this baseline information, you really are sort of guessing in the dark on what impact the changes will have, or could possibly have." ¹ The Board is aware of potential hazards involved in the use of herbicides and in the effect of denuding areas of foliage and will therefore impose appropriate conditions to alleviate these effects.

THE PROPOSED BRIGHTON SUBSTATION

The proposed Brighton substation, as distinguished from the proposed transmission line, must meet both the general requirements for special exceptions (Section 59-123 as amended by Ordinance 7-43) and the specific requirements for public utility buildings

1 (T-1034)

or structures (Section 59-164 a-d).

Considering our extensive discussion of necessity or need regarding the proposed transmission line, we will limit this portion of the opinion to the evidence regarding the location selected. The proposed 26 acre substation, of which approximately one-half is to be constructed at the present time, is limited to a site along the existing 230 KV line. The purpose of the proposed station is to connect the 500 KV transmission line to the existing 230 KV transmission line. However, even if the proposed transmission line were not installed, Pepco asserts that the substation is needed for adequate support to its whole system of generation and transmission.

As designed, the substation will be of overall lower location than the surrounding terrain, and, at the same time, achieve maximum isolation from the area residents. Considering the screening methods Pepco will install and further conditions to be imposed, the Board finds the requirement of 59-164 (a)(1) is met. The applicant presented expert opinion evidence that the substation will not endanger the health or safety of workers and residents in the community. In fact, the site will be surrounded by a 10 foot high fence topped with barbed wire. The Board therefore finds this portion of 59-164 (a)(2) satisfied. The second portion of Section 59-164(a)(2) requires that this Board must find that the substation will not substantially impair or prove detrimental to neighboring properties. As planned, the substation will occupy approximately 26 acres out of a 231 acre tract. The subject tract slopes gently into the southwest from the Brighton Road Dam and then rises to a knoll in the center of the tract. The substation will be located adjacent to the existing 230 KV transmission line at the southern end of the tract. At the lowest end of the tract there is existing tree cover on the east, west and north. The nearest existing residence is 1525 feet away. There is, however, a problem to the southeast, where the adjacent Canby-Kricker unimproved tract borders closely adjacent to the substation itself. A portion of the said tract is higher than the substation so that there is no effective screening possible. In order to meet the requirements of this special exception, it would appear that further acquisition of land to the southeast will be necessary to provide adequate screening.

The applicant offered extensive testimony to the effect that other neighboring properties would not be impaired or affected. The location of various neighboring properties is graphically illustrated, together with distances from substation site, on Exhibit 33. A substation of this size is, of course, like no other structure. The towers will rise to 130 and even 150 feet in height. One 220 foot microwave tower will be on the site. The substation cannot be

completely hidden. At the most, the visual impact can be reduced by distance and buffering with trees and other vegetation. The Public Service Commission imposed screening conditions. Even then, Mr. Crawford of the Maryland National Park and Planning Commission testified that the site would be at least partially visible from the parkland.

Mr. John Wornicke, a self-employed real estate appraiser and consultant gave his opinion that the substation would not cause a substantial impairment or detriment to the neighboring properties. On cross examination, Mr. Wornicke admitted that his opinion was based on 230 KV substations and not 500 KV type substation. The opposition presented Mr. Theodore H. Webersin, a landscape architect, who gave several suggestions for improving the substation site screening plan. Mr. Webersin gave his opinion that the substation without the suggested improvements, would be "detrimental" to the neighboring properties.¹ The witness admitted that his was a land planning, not legal, opinion.²

Mr. A. H. Young, a land developer, gave his opinion that the substation would detrimentally affect the property values in the neighborhood. Mr. Young's opinion was, however, partially based on the effect of the substation on the Canby property, a portion of which is to be purchased by Pepco as a condition imposed by this Board. Provided such additional property on the south is acquired, and provided that the submitted site plan is carried out, the Board finds no reason why the substation should be substantially detrimental to residential, farming, or other peaceful enjoyment of the surrounding land; nor is there likelihood that it would have any detrimental affect upon the economic value of surrounding land, the development of surrounding properties or the general neighborhood.

The proposed substation use must be consistent with the general plan for the physical development of the district. (59-123(a)(1)). Since substations are permitted by Special Exception in residential area, including rural residential areas and rural agricultural areas, the legislature has determined that such installations are consistent with the general plan for the physical development of the district. As a matter of fact, the presence of this substation is intended to promote the development of the district according to the general plan

1. T 960-961
2. T 983-984

by allowing sufficient electrical power to cover the needs of the next decade to be imported without requiring construction of an additional generating plant at this site.¹

The Zoning Ordinance requires that the structures must be in harmony with the general character of the neighborhood, considering population density, design, scale and bulk of any proposed new structures, intensity and character of activity, traffic and parking conditions and number of similar uses. There will not be any overt activity, traffic, or parking in connection with the installation. A substation, naked or adorned, cannot be in harmony with the general character of any neighborhood other than a heavily industrial one. No such neighborhood is near. However, substations do exist in residential and agricultural neighborhoods because they are necessary there and are legislatively allowed. A public utility use can be distinguished from a purely industrial use. It is not expected that there will be any vibrations, fumes, odors, glare or physical activity from the substation. The testimony did not indicate that objectionable noise would emanate from the substation. Pepco will provide retention pits and other controls so that no sedimentation or erosion running off the site will occur (T 192). The substation will have no detrimental affect on vehicle or pedestrian traffic since there will be none, except a minimum number of care-taking vehicles arriving via the private road through the former farm on which the substation is located. There is no evidence that the substation would have any effect upon health, safety, security, morals or general welfare of residents, visitors or workers in the area, nor that it would overburden existing public services and facilities, since it creates no need for plumbing, public roads, fire protection water or schools. In summary, the Board finds that the applicant has proven by a preponderance of the evidence that the proposed substation complies with the requirements of the Zoning Ordinance. This finding is subject to the conditions which the Board finds necessary, hereafter set forth.

A. The Grant of a Special Exception to construct a 500 KV transmission Line is conditioned as follows:

1. Pepco proposes to clear and control vegetative growth on 350 foot right-of-way by hiring an outside contractor to apply herbicides selectively. The Board was not reassured by the requirements

1 T-21

for obtaining a state license for applying herbicides and is concerned by the general lack of close field control over the herbicide application, and by lack of definitive studies of the affect of the proposed herbicides on animal, plant, and water life in the area. Therefore no herbicides of any kind shall be used in the clearing or maintenance of the 350 foot right-of-way.

2. Pepco through its witnesses, has voluntarily agreed to be bound by the predicted operating characteristics of the proposed 500 KV transmission line based on the proposed physical parameters of the conductors. The conductors shall be 1.502 inches in diameter of type 1590 KCMIL 45/7 ACSR with 45 aluminum strands and 7 steel strands; the bundles shall be spaced 18 inches apart in a triangular configuration; the phase separation shall be 30 feet horizontal and 38 feet vertical with a minimum conductor height of 40.5 feet. The maximum operating voltage shall be 512 kilovolts with a maximum surface gradient of 14.9 kilovolts per centimeter. The audible noise limit as measured directly under the line with standard accostical measuring devices shall be limited to the following: 44DBA in light rain, 28DBA in fair weather. Pepco shall at all times operate the 500 KV transmission line so as not to exceed any of the calculated operating characteristics indicated above. Should the actual operating characteristics exceed the above values, the operating voltage and/or surface gradient shall be reduced to achieve the above characteristics.

3. For the health and safety of adjoining property owners, Pepco shall during the course of construction, ground all fences and closely adjacent metal buildings, and in the course of routine patrol and maintenance check these grounds and establish new grounds where required.

4. Based on the proffered condition by the applicant, Pepco shall guarantee to all property owners adjoining the 500 KV right-of-way freedom from AM and FM radio interference and from television interference. Should problems develop in radio or television reception because of said transmission line, Pepco shall take any and all steps necessary to correct the difficulty at no cost to the property owner. Pepco shall give particular attention to ensure that the visual aid equipment of Mrs. Alan F. Thomas, a property owner adjacent to the right-of-way, is not subjected to any interference from the 500 KV line.

5. With regard to the property of Mr. R. E. Butts, owner of Camp Waredaca, the Board finds that the present route adversely

affects the use of the campgrounds, therefore, the applicant shall redesign the route of the transmission line in order to avoid cutting through the central portion of the wooded grove where the camp sites are located. The location of the redesigned portion of said line shall be submitted for review to the Montgomery County Planning Board and shall be approved by the Board of Appeals, before initiation of construction.

6. The Board finds that with regard to the Palmer-Nicholson properties, the proposed line location is, with all factors considered, the least disadvantageous location for the line. However, for screening of the properties Pepco shall, after consultation with the owners of the Palmer-Nicholson property, place not less than 6 groves of mixed evergreen and deciduous trees at such locations as the owners of the Nicholson tract shall indicate. These groves shall consist of not less than 6 trees at least 6 feet in height. The resulting site plan shall be submitted for review to the Montgomery County Planning Board and shall be approved by the Board of Appeals before construction across this tract is permitted.

7. Before construction commences, Pepco shall prepare detailed plans to be approved by the Montgomery County Department of Environmental Protection and Montgomery Soil and Water Conservation Service as to the steps to be taken to prevent run-off and soil erosion with the resulting siltation of the nearby streams.

8. Since a second double circuit 500 KV line is planned to be built in the future on the 350 foot right-of-way presently acquired by Pepco, which will require granting of an additional special exception, Pepco shall clear only so much of the 350 foot right-of-way as is necessary to construct the one double circuit 500 KV transmission line at this time.

B. The Grant of a Special Exception to construct a substation at Brighton is conditioned as follows:

1. Pepco may pursuant to the grant of this application construct substation structures on the 26 acres set aside for the Brighton Substation as depicted in red on Exhibit 33. Any additional construction to expand the substation on said site, as depicted in orange on Exhibit 32, shall be the subject of a future application for a special exception.

2. Additional landscaping shall be provided along those portions of the substation property adjacent to the Hawlings Valley parkland. A revised site plan shall be submitted to the Montgomery County Planning Board for their approval before construction commences.

3. Pepco shall consult with Mr. and Mrs. James McAlister, Mr. D. J. Luce and Mr. and Mrs. R. G. Johnson, Mr. and Mrs. O. E. Minar, owners of property adjacent to the substation site, and shall, prior to construction of any portion of the substation, plant, at the option of the said property owners and at locations designated by them, not less than three groves of not less than 6 mixed deciduous and evergreen trees at least 6 feet in height on each property for screening purposes.

4. Prior to construction of any portion of the said substation, Pepco shall purchase from the owners of the Canby-Kricker tract adjacent to the existing 230 KV power line, a portion of said tract to the southeast of the substation location extending to a boundary along a hedge-row southeast of the existing cleared bridle path which runs across the property in a ~~southwesterly~~ direction from a point approximately half way between the Pepco towers located on either side of the existing gas line and the next Pepco towers located toward the proposed substation. Surveys and all costs of conveyance shall be at the expense of Pepco.

In addition, before commencing construction of said substation, Pepco shall, at locations indicated by the owners of the Canby-Kricker tract, plant not less than 6 groves of not less than 6 mixed deciduous and evergreen trees at least 6 feet high. Such locations may be on the portion of said tract retained by the present owners or on the portion to be acquired by Pepco, at the option of the present owners of the tract. If the trees are planted in the portion acquired by Pepco, they shall be maintained by Pepco.

If Pepco and the owners of the Canby-Kricker tract cannot agree on a purchase price, the price shall be the average of the appraised value as indicated by three appraisers qualified by M. A. I. or A. I. R. E. A. or equivalent, one to be chosen by Pepco, one by the owners, and a third by the two appraisers first chosen.

C. As a further condition to the approval of Petitions S-213 and S-214, the Board requires that Pepco within 90 days of the date of this decision and prior to construction of any portion of said transmission line or substation make available to the Maryland National Capital Park and Planning Commission, for purposes of continuing evaluation by it and by the Board of Appeals of this project and its relationship to other Pepco projects and facilities, a copy of Pepco's 5 year, 10 year, and 20 year plans for electric service for the Washington Metropolitan area, including, but not limited to, location, size and type of electric generating stations, substations, and transmission lines, and interconnections with other electric

systems and other necessary facilities.

The 5, 10 and 20 year plans shall contain analyses of need for new electric facilities based on population growth and other factors and proposed plans for expansion of existing facilities or development of new facilities to meet those needs.

New technological developments regarding electric service, particularly with regard to undergrounding of transmission lines shall be included in the 5, 10 and 20 year plans as appropriate.

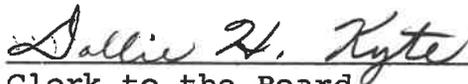
In addition, the 5, 10 and 20 year plans shall be updated annually and copies shall be filed with the Maryland National Capital Park and Planning Commission.

The Board adopted the following Resolution:

"Be it Resolved by the County Board of Appeals for Montgomery County, Maryland, that the opinion stated above be adopted as the Resolution required by law as its decision on the above-entitled petition."

The foregoing Resolution was proposed by Mrs. Beverly S. Pearson, Chairman, and concurred in by Mrs. Shirley S. Lynne, Messrs. Bernard D. Gladhill and Joseph E. O'Brien, Jr., Mr. James G. Early has dissented and has filed a separate opinion.

I do hereby certify that the foregoing Minutes were officially entered in the Minute Book of the County Board of Appeals this 26th day of November, 1973.


Clerk to the Board

NOTE: See Section 59-6(c) of the Zoning Ordinance regarding the 12-months' period within which the right granted by the Board must be exercised.

These two applications, combined for purposes of hearing, undoubtedly rank as one of the longest hearings concerning highly controversial and complex issues, and one affecting a large part of Montgomery County (350 foot right-of-way times 15 miles plus area of substation site). As a result, this is the type of case where in an attempt to analyze the evidence it is hard to see the forest for the trees, (or the forest for the power lines). Listening to the testimony and examining the exhibits during these hearings, which occurred over a period of many months, this Board member concludes that the evidence can be classified into two principle categories. One category concerns the issue of whether or not there is a need for the structure, be it substation or transmission line, at the location selected. The other category deals with the twin issues of adverse impact on the General Plan and Master Plan, and detrimental effects on the use or development of adjacent properties or the general neighborhood. I further concluded that it is not logical to separate for purposes of this discussion, the transmission line from the substation since without some type of connection to a 500 KV transmission line, the substation has no reason for existence. For reasons which I shall explain subsequently, it is my opinion that the applicant has failed to meet his burden of proof in regard to need for the facilities at the sites selected and in regard to adverse impact on use and development of adjacent properties, and therefore I vote to deny applications S-213 and S-214.

The applicants principal and repeated argument was that the transmission line and substation are necessary for public convenience and service at the sites selected because they will significantly enhance the reliability and stability of service within the Potomac Electric and Power Company's (P.E.P. Co.) service area. There is substantial evidence in the record which indicates that this argument of increased reliability and stability is, at best, debatable, and at the least incorrect. A study of the exhibit map of the metropolitan Washington electric grid reveals that the total 500 KV transmission line loop around Washington, D. C., of which one of the subject applications is one segment, connects primarily electric generating facilities and that upon completion will primarily improve P. E. P. Co's ability to import and export power. However, direct testimony of Pepco witnesses revealed that during the spring, fall and winter periods of the year, Pepco uses less than one-half of their present generating capacity and can thus sell up to one-half of their capacity to other electric companies. Only during the summer months are there occasions when power must actually be imported. Thus the primary effect of the 500 KV loop is to enhance Pepco ability to export power not only out of Montgomery County, but

out of the State, as well as out of Pepco's service area, rather than to increase reliability and stability within Pepco service area.

Another major weakness in the stability argument lies in the manner in which Pepco proposes to connect into the Doubs-Conastone 500 KV line near Mt. Airy. Instead of constructing a substation at Mt. Airy to tap into the Doubs-Conastone line without interrupting it, Pepco proposes to lengthen the Doubs-Conastone line some 34 miles (17 miles from Mt. Airy to the Brighton substation and 17 miles back to Mt. Airy) by building a loop. In essence, Pepco has grasped the Doubs-Conastone line at Mt. Airy and pulled it down to Brighton. Thus any catastrophe which interrupts either side of this extra 34 miles loop, will interrupt the entire Doubs-Conastone line thus causing substantial amounts of power to be diverted into the whole Pepco system through High Ridge-Brighton to Dickerson-Doubs. This occurrence would tend to make Pepco system less stable and thus less reliable. Finally, Pepco's primary commitment to the concept of reliability and stability has not been consistently followed in the past which raises the serious question as to its significance in this subject application. Pepco witnesses could not explain why, when the operator of the Montgomery County Airpark sought and received permission to lengthen the existing runway to accommodate modern and sophisticated aircraft, by some 850 feet towards Pepco's existing 230 KV Quince Orchard-Mt. Zion line, they offered nary a word of opposition even though the distance between the runway and the 230 KV transmission line is less than that recommended for proper airspace requirements when the airport is used by small business jets. It seems clear that the expansion of the Montgomery County Airpark will increase the probability of accidents which could wipe out the 230 KV line and thus decrease the reliability and stability of the Pepco system, yet Pepco remained silent while the expansion took place.

The question as to whether there is a need for the transmission line and substation at these locations can be looked at from another point of view. Namely, can the Board of Appeals make any determination as to need at these locations when the subject transmission line and substation applications deal with only a portion of the 500 KV system and do not even include all of the line in Montgomery County. Although this Board of Appeals has jurisdiction only in Montgomery County, it is quite clear from the record that each piece of the 500 KV system is totally dependent on the other pieces and that approval of one piece can depend on subsequent approval of some other piece, possibly in a different county. Therefore, there will always come a time when the approval of just one more segment of the system will lock in the remainder so that an independent, unbiased review of succeeding portions cannot occur. This is the situation in the subject applications. First, a small portion of this proposed line was approved in Frederick County. Now, approval for a 15 mile segment in Montgomery County has been requested with the approval of the Frederick

County portion introduced as a piece of supporting evidence. Additional testimony revealed that the Maryland Public Service Commission conditioned approval of Baltimore Gas and Electric's request for another portion of the 500 KV line between Waugh Chapel and High Ridge on the finding of a suitable route between High Ridge and the subject substation at Brighton. Obviously the location of the High Ridge to Brighton line depends on the location of the Mt. Airy to Brighton line and substation. Thus the location and ultimate approval of the Mt. Airy to Waugh Chapel 500 KV line depends on the final location of the Mt. Airy to Brighton segment. Review of the appropriate maps reveals that once the Mt. Airy to Brighton line and its substation are fixed, the Brighton-High Ridge route is for all practical purposes fixed which includes a small portion in Montgomery County and for all practical purposes fixes the point where the line will cross the Patuxent River, a river designated as a scenic river by the General Assembly of Maryland. This is because the Brighton-High Ridge segment must be located in the quadrant between the Mt. Airy-Brighton 500 KV line and the Mt. Zion-Burtonsville 230 KV line. The substation site plan and local tax maps show where the Brighton-High Ridge line must, in all probability, leave the substation site and through whose property, in all probability, it must pass, yet these property owners have no standing before the Board on the subject petitions since the Brighton-High Ridge segment is not before the Board. It is clear that unless at least the entire line and substation in Montgomery County is before this Board, we cannot properly find that a need exists for any segment or substation in any particular location.

Another factor separate and distinct from the above, which must be studied before the Board can find that the transmission line and substation is necessary at the proposed location is that of alternate routes. To be able to state that a particular route is the proper one, it is necessary to first compare alternate routes. I find the record of this case to be substantially lacking in testimony by the applicant on why alternate routes were unacceptable except for that testimony elicited by the Board on paralleling existing 230 KV transmission lines with the proposed 500 KV line. Even this testimony dealt only with alternate routes which totally paralleled, on adjacent rights-of-way, these 230 KV lines and thus represents only one extreme boundary condition. The applicant's arguments that the concept of parallel rights-of-way is somehow intrinsically technically unsound and rarely done in practice is simply not supported by the weight of the evidence on this issue.

On the question of detrimental impact of the transmission line, the majority opinion raises a distinction between being detrimental to the use or development of adjacent properties or the general

neighborhood and being detrimental to the economic value of surrounding properties. I cannot find that such a distinction exists in fact, although it may exist in theory. Certainly use and development of property implies economic value as well as other values.

Further, it seems obvious that in order to make the assertion that the transmission line will not be detrimental to adjacent property, it is necessary to study in some detail the specific adjacent parcels and justify the conclusion of no detrimental effect. The applicant offered expert witnesses who testified that the proposed transmission line would have no detrimental effect on use or development and yet with one exception they could not support their general statement with evidence concerning specific property. The one exception related to the so-called Palmer-Nicholson tract where a consultant land planner employed by Pepco had in fact recommended that the present alignment adjoining the Palmer-Nicholson tract be shifted over 200 feet to more effectively utilize vegetation as screening to shield the transmission line. Another Pepco witness testified that he was unfamiliar with the Palmer-Nicholson property and had made no study as to what effect the transmission line would have on that specific property yet he testified that power lines are no detriment to the price, use or development of adjacent properties. The test of the Zoning Ordinance is not what the effects are in general but rather what are the effects on the specific adjacent property of the subject application. The applicant has failed to show from the preponderance of the evidence that the proposed power line will not have a detrimental effect on specific adjacent parcels. A similar argument leads me to conclude that the alignment of the transmission line as shown by Pepco, through the property known as Camp Waredaca, owned by Mr. R. B. Butts, will clearly be detrimental to the use of that property since the mature trees which would be largely eliminated by the 350 foot right-of-way coupled with the removal of conflict trees outside of the right-of-way, shelter the principal camping areas on the property. The loss of these camping areas would obviously be detrimental to the owners use of the property.