

HISTORIC PRESERVATION



Michael P. Gallagher
Exelon Nuclear
Vice President
License Renewal and Decommissioning

200 Exelon Way
Kennett Square, PA 19348

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michaelp.gallagher@exeloncorp.com

September 27, 2017

Andrea L. MacDonald
Deputy State Historic Preservation Officer
Pennsylvania Historical and Museum Commission
State Historic Preservation Office
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, PA 17120-0093

Re: Peach Bottom Atomic Power Station, Units 2 and 3
Second Renewal of U.S. Nuclear Regulatory Commission Operating Licenses
Request for Information on Historic and Archaeological Resources

Dear Ms. MacDonald:

In 2018, Exelon Generation Company, LLC (Exelon Generation; a subsidiary of Exelon Corporation) plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for the second renewal of the operating licenses for Peach Bottom Atomic Power Station (PBAPS) Units 2 and 3. The existing license for Unit 2 will expire in August 2033 and the existing license for Unit 3 will expire in July 2034. The renewal term for each unit would be an additional twenty years beyond the existing license expiration date.

The NRC requires that license renewal applications include environmental reports assessing potential environmental impacts from license renewal activities. One such impact would be effects of license renewal activities on historic or archaeological resources (10 CFR 51.53). Accordingly, we are contacting you to obtain input for use in addressing these effects in the PBAPS second license renewal environmental report. Later, NRC may also request an informal consultation with your office under Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470), and Federal Advisory Council on Historic Preservation regulations (36 CFR 800).

Activities during the License Renewal Terms

PBAPS second license renewal will involve no new construction, refurbishment, ground disturbing activities, changes to operations, or changes to existing land-use conditions. Operation and maintenance activities during the terms of the renewed PBAPS licenses are only expected to occur in previously disturbed areas or existing right-of-ways (ROWs). In addition, no known archaeological or historic sites have been identified within any portion of the renewal Area of Potential Effect (APE). Therefore, continued operation of the PBAPS is projected to cause no impact to archaeological or historic resources. Furthermore, proposed ground disturbing activities at PBAPS are subject to a screening process to determine whether the

actual or potential environmental impacts of the proposed activity are either bounded by the station's environmental basis or can be avoided using practical, available alternatives. If neither of these circumstances exist, then consultation would be initiated with the State Historic Preservation Officer (SHPO) to determine what measures would be needed to minimize and mitigate the impacts. Any measures resulting from consultation with the SHPO would be incorporated into the work plan for the ground disturbing activity.

Project Features

PBAPS existing features that are relevant to the effects on special status species during the renewed license terms include the following:

1. The PBAPS plant site, which hosts the two generating units, is located on 620 acres of Exelon Generation-owned property located near Delta, Pennsylvania, primarily in Peach Bottom Township, York County, Pennsylvania on the west side of Conowingo Pond, which was created by the construction of the Conowingo dam on the Susquehanna River in 1928. The area within 6 miles of the site includes parts of York and Lancaster Counties in Pennsylvania and sections of Harford and Cecil Counties in Maryland.
2. PBAPS is approved by the Susquehanna River Basin Commission (SRBC) to withdraw water from the Conowingo Pond to cool the condensers in a once-through heat dissipation system. Second license renewal requires no change to this authorization. The principal components of the circulating water system are the outer intake structure, intake basins, inner intake structure, condensers, discharge basin, helper cooling towers, discharge canal, and discharge structure.
 - a. Cooling water is withdrawn at a 148-meter-long (487-foot-long) outer intake structure on the west bank of Conowingo Pond.
 - b. After passing through the outer intake structure and travelling screens, circulating water enters a system of intake basins, followed by screens, and pumps, which comprise the inner intake structure. From the inner intake structure, the circulating water is pumped through the two main condensers where steam exiting the plant's turbine generators is cooled.
 - c. Heated cooling water from both units is discharged from the condensers into a cooling water discharge pond that directs the cooling water to the helper cooling towers and/or into the 1,430 m-long (4,700 ft-long) discharge canal, which carries it back to Conowingo Pond.
3. Discharges to Conowingo Pond of heated cooling water and other wastewaters are authorized by NPDES Permit No. PA0009733. Among the discharge limitations specified in the NPDES permit are (1) a requirement to implement the PBAPS procedure for reducing the temperature of water in the discharge canal when such water reaches 110 degrees F and (2) a requirement to operate the cooling towers during specific times and conditions. Second license renewal requires no change to the NPDES Permit.
4. Existing PBAPS transmission system components that would be removed from service if the NRC did not approve second license renewal are relevant to the effects on special status species of second license renewal. Such components include the following:
 - a. Two 500-kV generator tie lines, which traverse only onsite property used for industrial purposes and serve to connect the main power transformer of each unit

- to its onsite substation (south substation for Unit 2 and north substation for Unit 3).
- b. One 34.5-kV submarine cable, which supplies power to the PBAPS units for safe shutdown if all other offsite power supplies as well as power from onsite diesel generators is unavailable. This 34.5-kV submarine cable is powered from the 33 kV bus at Susquehanna Substation (adjacent to the Conowingo Dam) and is routed either underwater or underground for most of its length before connecting to the PBAPS Station Blackout substation located near Unit 1.
 - c. Three sources of startup auxiliary power that connect to 13-kV startup switchgear at the station:
 - i. A 220-kV line that traverses only onsite property used for industrial purposes and connects to the plant from equipment located near the north substation.
 - ii. An onsite, underground, dedicated 13-kV line that connects to the plant from equipment located near the north substation.
 - iii. An onsite, mostly underground, dedicated 13-kV line that connects to the plant from equipment collocated with the north substation.

The enclosed Figure 1 shows the locations of the existing PBAPS project features relevant to the effects of second license renewal and the full extent of the project area for the second license renewal.

Identification of Cultural Resources

Using the Pennsylvania Cultural Resources Geographic Information System ("CRGIS") on-line database, historic properties and archaeological sites listed in, and determined eligible for, the National Register of Historic Places (NRHP) within a six-mile radius of PBAPS have been identified and are listed in the enclosed Tables 1 and 2. Exelon Generation will provide this information to the NRC in the PBAPS second license renewal environmental report. Additionally, the NRC will be informed about any cultural resources investigations that have been previously performed on land within the PBAPS APE.

Because the second license renewal involves no new construction, refurbishment, ground disturbing activities, changes to operation, or changes to existing land use conditions, Exelon Generation does not expect PBAPS second license renewal to adversely affect archaeological or historic resources located in or near the PBAPS site. Nevertheless, we are requesting your help to identify issues we may have overlooked that need to be addressed in the PBAPS environmental report. We are also interested in learning of any information your staff believes could help expedite the NRC's review of the PBAPS second license renewal application. Hence, in closing, we would appreciate receiving a response from you detailing such issues and information for the PBAPS APE. We would also welcome your confirmation of our conclusion that PBAPS second license renewal would not adversely affect cultural resources within the APE.

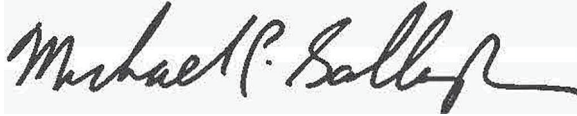
Because we plan to incorporate a copy of your response, as well as this letter, into the PBAPS second license renewal environmental report that will be submitted to the NRC as part of the

September 27, 2017
MacDonald -- 4

PBAPS second license renewal application, your response will be most helpful if we receive it by November 10, 2017.

Please call Nancy Ranek (610-765-5369) of my staff if there are questions or you require additional information.

Sincerely,

A handwritten signature in black ink, reading "Michael P. Gallagher", is displayed on a light gray rectangular background.

Michael P. Gallagher

Enclosures:

1. Figure 1 Site Boundary
2. Tables 1 and 2

ENCLOSURE 1

Figure 1 Site Boundary



- Legend**
- ★ PBAPS Center Point
 - Overhead Transmission Line
 - - - Underground Transmission Line
 - Site Boundary

Note

- 1) Transmission lines are approximate and are only shown within the project area
- 2) Transmission line codes correspond to project features 4, in the attached letter

Reference
Transmission Line source: Stone & Webster and Exelon 2015 UFSAR.

NAD 1983 StatePlane Pennsylvania South Projection, Transverse Mercator
Linear Unit: Foot US



Job	
Prepared by	TFB
Checked by	
Date	9/18/2017

Figure 1
Site Boundary

Peach Bottom
Peach Bottom, PA

ENCLOSURE 2

Tables 1 and 2

Table 1: Cultural Resources Listed in the NRHP (within 6-mile radius)	
Coulsontown Cottages Historic District	Ridge Road and Main Street, Delta, PA
Delta Historic District	Main Street, Delta, PA
Muddy Creek Bridge for the Maryland and Pennsylvania Railroad	Maryland and Pennsylvania RR tracks over Muddy Creek, east of Creek Ridge Road, Peach Bottom and Lower Chanceford Townships, Sunnyburn, PA
Scott Creek Bridge	Maryland and Pennsylvania Railroad tracks over Scott Creek, west of Watson's Corner and south of PA, 851, Peach Bottom Township, Bryansville, PA
Delta Trestle Bridge for the Maryland and Pennsylvania Railroad	East of Bunker Hill Rd., Peach Bottom Township, PA
Broad Creek Soapstone Quarries	Address Restricted, Whiteford, MD
Whiteford-Cardiff Historic District	Parts of both Whiteford and Cardiff, MD
Slate Ridge School	Old Pylesville Road, Whiteford, MD

Table 2: Cultural Resources Eligible for Listing in the NRHP (within 6-mile radius)	
Pennock Mill	Drumore Township, PA
Lancis House	Drumore Township, PA
William Spencer House	Peach Bottom Township, PA
Sample House	Lower Chanceford Township, PA



Pennsylvania State Historic Preservation Office

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

October 25, 2017

Michael P. Gallagher
Exelon Generation
200 Exelon Way
Kennett Square, PA 19348

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: File No. ER 2018-0005-133-A
NRC: Peach Bottom Atomic Power Station, Units 2 & 3, Second Renewal of U.S.
Nuclear Regulatory Commission Operating Licenses, Peach Bottom Twp., York Co.

Dear Mr. Gallagher:

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

There may be historic buildings, structures, and/or archaeological resources located in or near the project area. In our opinion, the activities described in your proposal should have no effect on these resources. Should the scope and/or nature of the project activities change, the PA SHPO should be contacted immediately.

If you need further information regarding archaeological resources, please contact Mark Shaffer at mshaffer@pa.gov or (717) 783-9900. If you need further information concerning above ground resources, please contact Emma Diehl at emdiehl@pa.gov or (717) 787-9121.

Sincerely,

Douglas C. McLearen, Chief
Division of Archaeology &
Protection

DCM/tmw

MICROBIOLOGICAL ORGANISMS



Michael P. Gallagher
Exelon Nuclear
Vice President
License Renewal and Decommissioning

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Kennett Square, PA 19348

610 765 5958 Office
610 765 5658 Fax
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michaelp.gallagher@exeloncorp.com

September 27, 2017

Pennsylvania Department of Environmental Protection
ATTN: Joseph Adams, Regional Director
Southcentral (Harrisburg) Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Re: Peach Bottom Atomic Power Station, Units 2 and 3
Second Renewal of U.S. Nuclear Regulatory Commission Operating Licenses
Request for Information on Thermophilic Microorganisms

Dear Mr. Adams:

In the third quarter of 2018, Exelon Generation Company, LLC (Exelon Generation; a subsidiary of Exelon Corporation) plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for the second renewal of the operating licenses for Peach Bottom Atomic Power Station (PBAPS) Units 2 and 3. Renewal by the NRC of the operating licenses would give Exelon Generation and the State of Pennsylvania the option of relying on PBAPS to meet future baseload power generating needs. Unit 2 began operating in 1973, and the existing license for Unit 2 will expire in August 2033. Unit 3 began operating in 1974, and the existing license for Unit 3 will expire in July 2034. The renewal term for each unit would be an additional twenty years beyond the existing license expiration date.

The NRC requires that license renewal applications include environmental reports assessing potential environmental impacts from license renewal activities. One such impact is described as "... the impact of the proposed action (license renewal) on public health from thermophilic organisms in the affected water" (10 CFR 51.53). Organisms of concern include the enteric pathogens *Salmonella* sp. and *Shigella* sp., as well as *Pseudomonas aeruginosa*, thermophilic fungi, *Legionella* sp. in unusually high concentrations, and the free-living amoebae of the genera *Naegleria* and *Acanthamoeba*. Of greatest concern is the *Naegleria (N.)* sp., four species of which have been isolated.

We are contacting you to obtain input for use in assessing in the PBAPS second license renewal environmental report potential public health effects at the PBAPS discharge location (Outfall 001) from thermophilic organisms. *N. fowleri* in the Susquehanna River. Later, NRC may also request an informal consultation with your office on this topic.

Project Features

PBAPS existing features that are relevant to the effects on public health from thermophilic organisms in affected waters during the renewed license terms include the following:

1. The PBAPS plant site, which hosts the two generating units, is located on 620 acres of Exelon Generation-owned property located near Delta, Pennsylvania, primarily in Peach Bottom Township, York County, Pennsylvania on the west side of Conowingo Pond, which was created by the construction of the Conowingo dam on the Susquehanna River in 1928. The area within 6 miles of the site includes parts of York and Lancaster Counties in Pennsylvania and sections of Harford and Cecil Counties in Maryland.
2. PBAPS is approved by the Susquehanna River Basin Commission (SRBC) to withdraw water from the Conowingo Pond to cool the condensers in a once-through heat dissipation system. Second license renewal requires no change to this authorization. The principal components of the circulating water system are the outer intake structure, intake basins, inner intake structure, condensers, discharge basin, helper cooling towers, discharge canal, and discharge structure.
 - a. Cooling water is withdrawn at a 148-meter-long (487-foot-long) outer intake structure on the west bank of Conowingo Pond.
 - b. After passing through the outer intake structure and travelling screens, circulating water enters a system of intake basins, followed by screens, and pumps, which comprise the inner intake structure. From the inner intake structure, the circulating water is pumped through the two main condensers where steam exiting the plant's turbine generators is cooled.
 - c. Heated cooling water from both units is discharged from the condensers into a cooling water discharge pond that directs the cooling water to the helper cooling towers and/or into the 1,430 m-long (4,700 ft-long) discharge canal, which carries it back to Conowingo Pond. The discharge structure is designed for rapid mixing of the heated effluent into ambient Conowingo Pond water and an immediate reduction in temperature. The three helper cooling towers are each capable of reducing the cooling water temperature by approximately 1.6 to 2.2 degrees F, depending on meteorological conditions.
3. Discharges to Conowingo Pond of heated cooling water and other wastewaters are authorized by NPDES Permit No. PA0009733. Among the discharge limitations specified in the NPDES permit are (1) a requirement to implement the PBAPS procedure for reducing the temperature of water in the discharge canal when such water reaches 110 degrees F and (2) a requirement to operate the cooling towers during specific times and conditions.

The enclosed Figure 1 shows the locations of the existing PBAPS project features.

PBAPS second license renewal will involve no new construction, refurbishment, ground disturbing activities, changes to operations, or changes to existing land-use conditions, and it requires no change to the NPDES Permit.

According to the Centers for Disease Control and Prevention, no reports of cases of primary amebic meningoencephalitis (PAM), an illness caused by *Naegleria*, were reported in

September 27, 2017
Adams – 3

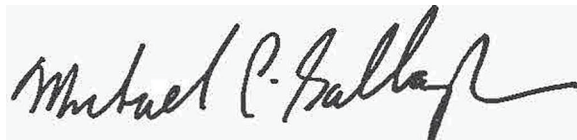
Pennsylvania from 1962 through 2016 (<https://www.cdc.gov/parasites/naegleria/pdf/naegleria-state-map-2016.pdf.pdf>, accessed 9/27/2017).

Because the temperature of the PBAPS discharge to the Conowingo Pond is controlled by its NPDES Permit and no reports were found of primary amebic meningoencephalitis (PAM) cases in Pennsylvania, Exelon Generation believes that impacts of the PBAPS discharge on the natural dynamics of thermophilic organisms in the Conowingo Pond are small. Furthermore, because PBAPS second license renewal will authorize no new construction, refurbishment, or operational changes to the circulating water system, Exelon Generation expects that PBAPS second license renewal will not adversely affect public health from *N. fowleri* or any other thermophilic organisms in the Conowingo Pond. Nevertheless, we are requesting your help to identify issues we may have overlooked that need to be addressed in the PBAPS second license renewal environmental report. We are also interested in learning of any information your staff believes could help expedite the NRC's review of the PBAPS second license renewal application. Hence, in closing, we would appreciate receiving a response from you detailing such issues and information. We would also welcome your confirmation of our conclusion that PBAPS second license renewal would not adversely affect public health from thermophilic organisms.

Because we plan to incorporate a copy of your response, as well as this letter, into the PBAPS second license renewal environmental report that will be submitted to the NRC as part of the PBAPS second license renewal application, your response will be most helpful if we receive it by November 10, 2017.

Please call Nancy Ranek (610-765-5369) of my staff if there are questions or you require additional information.

Sincerely,

A handwritten signature in black ink on a light gray background. The signature is cursive and reads "Michael P. Gallagher".

Michael P. Gallagher

Enclosures:

Figure 1 Site Boundary

September 27, 2017
Adams – Enclosure 1

ENCLOSURE 1

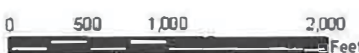
Figure 1 Site Boundary



- Legend**
- ★ PBAPS Center Point
 - Overhead Transmission Line
 - - - Underground Transmission Line
 - - - Site Boundary

Note
 1) Transmission lines are approximate and are only shown within the project area
 2) Transmission line codes correspond to project features 4, in the attached letter

Reference:
 Transmission Line source: Stone & Webster and Eikon 2015 UFSAR
 MAD 1000 State Plane Pennsylvania South Projection: Transverse Mercator
 Linear Unit: Feet US



Job
Prepared by TFB
Checked by
Date 9/16/2017

Figure 1
Site Boundary
 Peach Bottom
 Peach Bottom, PA

November 13, 2017

MPS
11/17/17

Michael P. Gallagher
Exelon Generation
License Renewal and Decommissioning
200 Exelon Way
Kennett Square, PA 19348

Re: Industrial Wastewater
NPDES Permit No. PA0009733
Peach Bottom Atomic Power Station
Peach Bottom Township, York County

Dear Mr. Gallagher:

The Department has received your letter requesting information to aid Peach Bottom Atomic Power Station with reporting obligations with the second license renewal environmental impact report. Specifically, Peach Bottom is requesting information regarding "... the impact of the proposed action (license renewal) on public health from thermophilic organisms in the affected water"

The Southcentral Region Clean Water staff have reached out to various entities within DEP and have found no available data relevant to these organisms in the raw water in the Conowingo Pool. DEP Safe Drinking Water staff are primarily concerned about these organisms in finish water as opposed to the raw water. The Department of Health may be able to assist you further.

Please feel free to contact Maria Bebenek, Clean Water Program Manager if you require additional information.

Sincerely,



Joseph Adams P.E.
Regional Director

cc: Maria Bebenek P.E.

Date: November 28, 2017

To: FILE

Cc: Carrie Cunnane, AECOM
Bobbie Hurley, AECOM

From: Nancy L. Ranek

Subject: Peach Bottom Atomic Power Station, Units 2 & 3, SLR Environmental Report
Pennsylvania Department of Health – Thermophilic Organisms (*Naegleria*)

No. of Pages: 1

Today, I contacted the Pennsylvania Department of Health (PADH) regarding thermophilic organisms (*Naegleria*) in Pennsylvania and specifically in Conowingo Pond. In response, I received the following information from Dr. Kirsten Waller, MD at PADH.

- Cases of *Naegleria* infection are not reportable in Pennsylvania, but PADH would probably have heard about any case of human infection identified within the commonwealth.
- To date, PADH is not aware that any human *Naegleria* infection has ever occurred in Pennsylvania.
- However, this does not mean the parasite is absent.
- PADH has no data on whether *Naegleria* is present in Pennsylvania waters but has not caused human illness.
- The federal Center for Disease Control and Prevention (CDC) website has a Frequently Asked Questions (FAQ) document that provides the number of *Naegleria* cases recorded in the U.S.

Contact information for Dr. Waller is: 301-271-0765

nlr

Appendix D

Clean Water Act Section 401 Correspondence

Peach Bottom Atomic Power Station Environmental Report – Operating License Renewal Stage



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATERWAYS & WETLANDS PROGRAM

CCN 14-54

July 23, 2014

Mr. Patrick D. Navin
Exelon Generation Company, LLC
Peach Bottom Atomic Power Station
1848 Lay Road
Delta, PA 17314-9032

RE: 401 Water Quality Certification
Peach Bottom Atomic Power Station-Extended Power Uprate
DEP File No. EA 67-024
NRC Docket No. NRC-2013-0232
York and Lancaster County

Dear Mr. Navin:

This is in reference to your request for Water Quality Certification under Section 401 of the Federal Clean Water Act, submitted to our office on November 21, 2013. The request relates to the Exelon Generation Co., LLC-Peach Bottom Atomic Power Station-Extended Power Uprate (PBAPS) project that will take place at the Peach Bottom Atomic Power Station in York County, in the Commonwealth of Pennsylvania.

The Department of Environmental Protection (DEP) has reviewed your request for 401 Water Quality Certification and hereby grants the 401 Water Quality Certification for the Peach Bottom Atomic Power Station-Extended Power Uprate project. The approved certification is attached.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please contact me at 717.705.4799, or by email at scwilliams@pa.gov.

Sincerely,



Scott R. Williamson
Program Manager
Waterways & Wetlands Program

Enclosure

cc: Ms. Cindy Bladey, Chief, Rules, Announcements, and Directives Branch, U.S. Nuclear Regulatory Commission
Ms. Maria Bebenek, DEP South-central Region Clean Water Program Manager
Mr. Rich Janati, DEP Radiation Protection
Mr. Andrew Shiels, Deputy Director for Field Operations, PA Fish and Boat Commission
Mr. Andrew Dehoff, Executive Director, Susquehanna River Basin Commission
Ms. Patricia Strong, US Army Corps of Engineers, Baltimore District
Mr. Rick Ennis, Project Manager, U.S. Nuclear Regulatory Commission (by email)
Lancaster County Conservation District
York County Conservation District



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATERWAYS & WETLANDS PROGRAM

July 23, 2014

Ms. Cindy Bladey, Chief, Rules, Announcements, and Directives Branch (RADB)
Office of Administration
Mail Stop: 3WFN, 06-44M
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: 401 Water Quality Certification
Exelon Generation Co.-Peach Bottom Atomic Power Station
DEP File No. EA 67-024
NRC Docket No. NRC-2013-0232

Dear Ms. Bladey:

Enclosed is the NRC Docket No. NRC-2013-0232, Section 401 Water Quality Certification for the Exelon Generation Co.- Peach Bottom Atomic Power Station-Extended Power Uprate project.

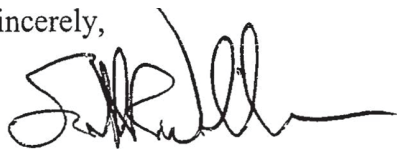
Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please contact me at 717.705.4799, or by email at scwilliams@pa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Williamson', with a long horizontal flourish extending to the right.

Scott R. Williamson
Program Manager
Waterways & Wetlands Program

Enclosure

cc: Mr. Patrick D. Navin, Exelon Generation Co.
Ms. Maria Bebenek, DEP South-central Region Clean Water Program Manager
Mr. Rich Janati, DEP Radiation Protection
Mr. Andrew Shiels, Deputy Director for Field Operations, PA Fish and Boat Commission
Mr. Andrew Dehoff, Executive Director, Susquehanna River Basin Commission
Ms. Patricia Strong, US Army Corps of Engineers, Baltimore District
Mr. Rick Ennis, Project Manager, U.S. Nuclear Regulatory Commission (by email)

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**WATER QUALITY CERTIFICATION
PEACH BOTTOM ATOMIC POWER STATION
EXTENDED POWER UPRATE PROJECT
AND RELATED MITIGATION**

**DEP File No. EA 67-024
NRC Docket ID- NRC-2013-0232**

**EXELON GENERATION COMPANY, LLC
Mr. Patrick D. Navin
Peach Bottom Atomic Power Station
1848 Lay Road
Delta, PA 17314-9032**

**York and Lancaster Counties
U.S. Army Corps Of Engineers, Baltimore District**

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**Water Quality Certification under Section 401 of the Federal Clean Water Act
for the Extended Power Uprate
for Exelon Generation Company, LLC - Peach Bottom Atomic Power Station
PA DEP File No. EA 67-024**

Peach Bottom Atomic Power Station (PBAPS) is an existing nuclear-fueled boiling water reactor electric power generating facility located along the Susquehanna River in Peach Bottom Township, York County and Fulton and Drumore Townships, Lancaster County. PBAPS is owned by Exelon Generation Company, LLC (Exelon) (a wholly-owned subsidiary of Exelon Corporation) and PSEG Nuclear, LLC. The facility is operated by Exelon. Exelon has submitted a License Amendment Request (LAR) to the US Nuclear Regulatory Commission (NRC) for a proposed Extended Power Uprate (EPU) for units 2 and 3. The proposed EPU would allow the units to change from the currently licensed 3514 megawatts-thermal (MWt) to nominally 3951 MWt per unit.

Impacts to aquatic resources associated with continued operation of the facility and the EPU include water withdrawal from the Conowingo Pond of the Susquehanna River, consumptive use, and the thermal impacts of the heated water discharges back to the Conowingo Pond. Water will continue to be withdrawn at a maximum rate of 2,363.620 million gallons per day (MGD). Water intake will continue to have impingement and entrainment effects on the migratory and resident fish as well as other aquatic species. Consumptive water use at the facility is a maximum of 49.000 MGD. Discharge temperatures include a projected change in the temperature increase at a maximum from existing 22°F increase to a 25°F increase due to the EPU.

Exelon will mitigate the impacts of impingement and entrainment by providing one hundred thousand dollars (\$100,000.00) per year for habitat/sediment improvement projects in Lancaster and York Counties. This will include stream improvement projects, agricultural pasture and barnyard best management practices, and small dam removal projects. Consumptive use impacts will be mitigated by adherence to the Susquehanna River Basin Commission (SRBC) consumptive use authorization. Thermal impacts will be mitigated by adherence to the National Pollution Discharge Elimination System (NPDES) permit. Such payments hereunder shall be made for the duration of the operation of PBAPS as an electric generation facility.

On July 23, 2014 the Commonwealth of Pennsylvania (Commonwealth) Department of Environmental Protection (Department, DEP or PADEP), issued Section 401 Water Quality Certification to Exelon for the PBAPS EPU project. The PADEP certifies that the construction, operation and maintenance of the EPU complies with the applicable provisions of sections 301—303, 306, 307 and 316 of the Federal Clean Water Act (33 U.S.C.A. §§ 1311—1313, 1316, 1317 and 1326) and appropriate requirements of state law. The Department further certifies that the construction, operation and maintenance of the EPU complies with Commonwealth applicable

water quality standards and that the construction, operation and maintenance of the EPU does not violate applicable Commonwealth water quality standards provided that the construction, operation and maintenance of the EPU complies with the conditions of this certification, including the criteria and conditions of the following conditions and permits:

1. Discharge Permit – PBAPS shall obtain and comply with a PADEP National Pollutant Discharge Elimination System (NPDES) permit for the discharge of pollutants pursuant to Pennsylvania’s Clean Streams Law (35 P.S. §§ 691.1 – 691.1001) and all applicable implementing regulations (25 Pa. Code Chapter 92a).
2. Erosion and Sediment Control Permit - PBAPS shall obtain and comply with a PADEP’s NPDES Permit for Stormwater Discharges Associated with Construction Activity pursuant to Pennsylvania’s Clean Streams Law and Storm Water Management Act (32 P.S. §§ 680.1-680.17) and all applicable implementing regulations (25 Pa. Code Chapter 102) for any earth disturbance activities that require said permit.
3. Water Obstruction and Encroachment Permits - PBAPS shall obtain and comply with a PADEP Chapter 105 Water Obstruction and Encroachment Permit or Dam Permit for the construction, operation and maintenance of all dams, water obstructions or encroachments associated with the project pursuant to Pennsylvania’s Clean Streams Law (35 P.S. §§ 691.1 – 691.1001), Dam Safety and Encroachments Act (32 P.S. §§ 673.1-693.27), and Flood Plain Management Act (32 P.S. §§ 679.101-679.601.) and all applicable implementing regulations (25 Pa. Code Chapter 105).
4. Susquehanna River Basis Commission – PBAPS shall implement the Consumptive Water Use Mitigation Plan as approved and conditioned by the Susquehanna River Basin Commission including any future amendments to that plan.
5. Habitat Improvement Projects –
 - a. Commencing on the first March 1 after completion of the EPU of Unit 2, and by March 1 of each year thereafter, PBAPS shall provide a total ONE HUNDRED THOUSAND DOLLARS (\$100,000.00) annually in compensatory mitigation to the Pennsylvania Fish and Boat Commission (PFBC), or to such other conservation district, resource agency or 501(c)(3) organization as directed by the PADEP, for the implementation of habitat/sediment improvement projects. This will include stream improvement projects, agricultural pasture and barnyard best management practices, and small dam removal projects.
 - b. This annual compensatory mitigation shall be by corporate check, or the like, made payable to the PFBC in the amount of ONE HUNDRED THOUSAND DOLLARS (\$100,000.00) for habitat/sediment

improvement projects in Lancaster or York Counties or to such other entities as the PADEP shall direct. PBAPS and PADEP shall receive from PFBC an annual accounting of projects implemented and fund expenditures. The funds shall be deposited by the PFBC into a special non-lapsing interest bearing account established and to be used only for the HIP Projects required by this Water Quality Certification ("PBAPS HIP Funds"). Such payments shall be made for the duration of the operation of PBAPS as an electric generation facility, unless otherwise modified and approved in writing by PADEP in accordance with paragraph 5.d., below.

- c. PADEP shall ensure that each project proposed by the PFBC shall be submitted to the DEP South-central Regional Office Waterways and Wetlands Program Manager, or the successor position, for approval. No single project shall receive more than \$75,000.00 in compensatory mitigation funding from the PBAPS HIP Fund. Funding priority shall be given for projects that include stream forested buffers of at least 50 feet in width and wetland creation projects. Project funding shall not include any indirect administrative costs and, except where specifically authorized by the DEP, shall not include direct administrative costs. In no case shall direct administrative costs be greater than 10% of the project funding. At PBAPS's option, and subject to land owner approval, for each project signage shall be displayed acknowledging PBAPS's funding of the habitat improvement.
 - d. Exelon may request that the PADEP revise the compensatory mitigation in response to actions or activities by Exelon that reduce the degree of impingement and/or entrainment at the PBAPS.
6. Water Quality Monitoring - PADEP retains the right to specify additional studies or monitoring to ensure that the receiving water quality is not adversely impacted by any operational and construction process that may be employed by PBAPS
 7. Operation – For the EPU under this certification, PBAPS shall at all times properly operate and maintain the PBAPS facilities and systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this Certification and all required permits. Proper operation and maintenance includes adequate laboratory controls, appropriate quality assurance procedures, and the operation of backup or auxiliary facilities or similar systems installed by PBAPS.
 8. Inspection - The PBAPS, including all relevant records, are subject to inspection at reasonable hours and intervals by an authorized representative of PADEP to determine compliance with this Certification, including all required permits, appropriate requirements of state law and Pennsylvania's Water Quality Standards. A copy of this Certification shall be available for inspection by the PADEP during such inspections of the Projects.

9. Transfer of Projects – If the owners of PBAPS intend to transfer any legal or equitable interest in the PBAPS, they shall serve a copy of this Certification upon the prospective transferee of the legal and equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the PADEP Regional Office of such intent. Notice to PADEP shall include a transfer agreement signed by the existing and new owner containing a specific date for transfer of Certification responsibility, coverage, and liability between them.
10. Correspondence - All correspondence with and submittals to PADEP concerning this Certification shall be addressed to:

Department of Environmental Protection
South-central Regional Office
Waterways and Wetlands Program Manager
909 Elmerton Avenue
Harrisburg, PA 17110-8200

7. Reservation of Rights – PADEP may suspend or revoke this Certification if it determines that PBAPS has not complied with the terms and conditions of this Certification. PADEP may require additional measures to achieve compliance with applicable law, subject to PBAPS’s applicable procedural and substantive rights.
8. Other Laws - Nothing in this Certification shall be construed to preclude the institution of any legal action or relieve PBAPS from any responsibilities, liabilities, or penalties established pursuant to any applicable federal or state law or regulation.
9. Severability - The provisions of this Certification are severable and should any provision of this Certification be declared invalid or unenforceable, the remainder of the Certification shall not be affected thereby.



Scott Williamson
Program Manager
Waterways and Wetlands Program

7/23/14
Date

Exelon Generation[®]

Michael P. Gallagher
Exelon Nuclear
Vice President
License Renewal and Decommissioning

200 Exelon Way
Kennett Square, PA 19348

610 765 5958 Office
610 765 5658 Fax
www.exeloncorp.com

michaelp.gallagher@exeloncorp.com

August 16, 2017

Scott R. Williamson, Program Manager
Pennsylvania Department of Environmental Protection
Waterways & Wetlands Program, Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

Subject: Peach Bottom Atomic Power Station, Units 2 and 3
NPDES Permit PA 0009733
Second Renewal of NRC Operating License Nos. DPR-44 and DPR-56

Dear Mr. Williamson:

In an email message to you dated 11/21/2016, Exelon Generation Company, LLC (Exelon Generation) disclosed that, as allowed under 10 CFR 54.17(c), Exelon Generation plans to apply to the U.S. Nuclear Regulatory Commission (NRC) during the third quarter of 2018 for second license renewal (SLR) for both reactor units at the Peach Bottom Atomic Power Station (PBAPS). SLR would extend the NRC operating license for Unit 2 until 8/08/2053 and for Unit 3 until 7/02/2054.

As you know, Federal Clean Water Act (CWA) Section 401 (33 USC 1341) requires an applicant seeking a federal license for an activity that may result in a discharge to navigable waters to provide the federal licensing agency with a certification or a waiver of certification that the activity will not violate applicable state water quality standards of the state where the discharge would originate. The purpose of this letter is to request PADEP's written concurrence with Exelon Generation's conclusion that a previous CWA Section 401 certification issued to PBAPS in 2014 together with the existing NPDES permit are adequate to regulate PBAPS such that an individual water quality certification approval under CWA Section 401 for the proposed SLR is not needed.

According to PADEP Doc. No. 362-2000-001, *Permitting Policy and Procedure Manual*, Section 400.2, PADEP has integrated CWA Section 401 certifications with other required permits. Therefore, PADEP issues individual water quality certification approvals only for activities that are not regulated by other water quality approvals or permits, such as NPDES Permits.

During a meeting with you and other PADEP representatives on 3/30/2017, Exelon Generation explained that the proposed PBAPS SLR will involve no new construction activities and will change neither the water withdrawal rate of PBAPS from the Conowingo Pond nor the quantity or quality of water discharges. Therefore, no changes to the existing PBAPS NPDES permit (PA 0009733), which must be renewed in accordance with its terms prior to its expiration on 9/30/2019, are needed for SLR. Additionally, we discussed that in 2014 PADEP approved an individual CWA Section 401 water quality certification (PADEP File No. EA 67-024) for the PBAPS Extended Power Uprate project. The conditions of that certification will continue to apply

for the duration of the operation of PBAPS and may be revoked or modified by PADEP. At the meeting's conclusion, Exelon Generation requested that PADEP consider confirming Exelon Generation's conclusion that the CWA Section 401 certification approved in 2014 together with the existing PBAPS NPDES permit are adequate to regulate PBAPS such that an individual water quality certification approval by PADEP is not needed for the proposed SLR. If PADEP provides the requested confirmation, it would assure the NRC that Pennsylvania has explicitly integrated the CWA Section 401 certification process with NPDES permit issuance in the case of the proposed PBAPS SLR. You agreed to undertake such consideration upon receipt of certain additional information. In an email dated 4/21/2017, Exelon Generation provided the requested information, which is included herewith as Enclosure 1.

In a letter dated 2/17/2017, Exelon Generation notified PADEP of its intention to pursue NRC's approval for a Measurement Uncertainty Recapture (MUR) uprate of PBAPS Units 2 and 3. In its response dated 5/03/2017, PADEP indicated that no NPDES permit modification was needed, but requested that, following implementation of the MUR uprate, Exelon conduct and submit one year of temperature monitoring data with the NPDES permit renewal application in April 2019. The MUR uprate project is independent of and unrelated to SLR. However, the outcome of its review by PADEP further demonstrates that compliance with applicable state water quality standards by PBAPS is being adequately controlled through existing permits and water quality approvals.

Based on the information above, Exelon Generation hereby requests that PADEP provide written concurrence that the previous CWA Section 401 certification together with the existing NPDES permit are adequate to regulate PBAPS Units 2 and 3 such that an individual water quality certification approval under CWA Section 401 for the proposed SLR is not needed.

PADEP's concurrence would be most helpful if we receive it by September 29, 2017. If we do not hear from you by that date, Exelon Generation will assume, based on our past conversations, that you have concurred.

Thank you in advance for your attention in this matter. If there are questions, please contact Nancy Ranek at 610-765-5369 or Nancy.Ranek@exeloncorp.com.

Sincerely,

A handwritten signature in black ink that reads "Michael P. Gallagher". The signature is written in a cursive, flowing style.

Michael P. Gallagher

Enclosure

cc: Ms. Maria Bebenek, DEP South-central Region Clean Water Program Manager
Mr. Rich Janati, DEP Radiation Protection
Mr. Patrick Navin, PBAPS Site Vice President
Ms. Siobhan O'Dwyer, PBAPS Manager of Site Chemistry, Environmental, and Radwaste

ENCLOSURE TO LETTER FROM EXELON GENERATION TO PADEP DATED 8/16/2017

1. Email to S. Williamson (PADEP) dated 4/21/2017
2. U.S. Army Corps of Engineers, CWA Section 404 Permit CENAB-OP-RPA(EXELON NUCLEAR/PEACH BOTTOM ATOMIC POWER STATION)00-01851-2 (expired)
3. Federal Energy Regulatory Commission, ORDER MODIFYING AND APPROVING NON-PROJECT USE OF PROJECT LANDS AND WATERS, Project No. 405-113 (issued 9/02/2015)

ENCLOSURE TO LETTER FROM EXELON GENERATION TO PADEP DATED 8/16/2017
ITEM #1 (2 pages)

From: Ranek, Nancy L.:(GenCo-Nuc)
To: [Scott Williamson \(PADEP SCRO\)](#)
Cc: [Brozonis, Joseph C:\(GenCo-Nuc\)](#); [Neufeld, Benjamin J:\(GenCo-Nuc\)](#); [Sklenar, Scott E:\(GenCo-Nuc\)](#); "[Karpa, Zigmund A:\(GenCo-Nuc\) \(Zigmund.Karpa@exeloncorp.com\)](#)"; [Donohue, William Joseph:\(BSC\) \(Legal\)](#)
Subject: Additional Information – PBAPS Second License Renewal Project
Date: Friday, April 21, 2017 4:47:00 PM
Attachments: [2001.10.01 ACOE Dredging Permit.pdf](#)
[2015.09.02 FERC Order RE Non-Proj Use of Proj Lands and waters.pdf](#)

Thank you for meeting with me and other Exelon Generation representatives on March 30, 2017. We appreciated the time that you and the other PADEP staff members spent with us discussing the PBAPS Second License Renewal project with respect to the requirements of Section 401 of the Clean Water Act. During the meeting, you requested additional information on two topics. This message provides Exelon Generation's responses to your requests.

1. Provide the permit number(s) and describe the status of PBAPS Maintenance Dredging Permit(s).

By letter dated October 1, 2001, the U.S. Army Corps of Engineers (Baltimore District), pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344), issued Permit Number CENAB-OP-RPA (Exelon Nuclear/Peach Bottom Atomic Power Station) 00-01851-2 to the Peach Bottom Atomic Power Station with an expiration date of October 1, 2011. This permit authorized periodic routine maintenance dredging activities at the Peach Bottom Atomic Power Station to remove accumulated river sediments at the north and south cooling water intake bays and the screenwell structure approach apron located in the Susquehanna River, Drumore Township, Lancaster County, Pennsylvania. Among other things, the permit required compliance with PADEP water quality certification, Permit Number E36-693, which was affixed and had an expiration date of December 31, 2010.

Since the expiration of Permit Number CENAB-OP-RPA (Exelon Nuclear/Peach Bottom Atomic Power Station) 00-01851-2, no maintenance dredging activities have been performed in the Susquehanna River at PBAPS. In accordance with Exelon Generation procedures, if the Station determines in the future that such dredging operations are necessary, the ACOE and PADEP will be contacted, and any necessary permits will be obtained before dredging operations take place.

A copy of the expired permit is attached for reference.

2. Describe the status of FERC approval for “non-project use of project lands and water” by PBAPS with respect to the Conowingo Hydroelectric Project.

By Order dated September 2, 2015 (152 FERC ¶ 62,142), FERC approved an application by Exelon Generation Company (Conowingo Hydroelectric Project) for non-project use of project lands and waters. The application requested an increase in the permitted water withdrawal from 2,236.264 million gallons per day (mgd) to 2,363.620 mgd and an increase in the permitted consumptive use from 35.5 mgd to 49.0 mgd for the operation of the Peach Bottom Atomic Power Station.

A copy of the Order is attached for reference.

Please call or send email if there are questions or if you need additional information.

Nancy

*Nancy L. Ranek
License Renewal Environmental Lead
Exelon Generation, LLC
200 Exelon Way, KSA/2-E
Kennett Square, PA 19348
Phone: 610-765-5369
Fax: 610-765-5658
Email: nancy.ranek@exeloncorp.com*

ENCLOSURE TO LETTER FROM EXELON GENERATION TO PADEP DATED 8/16/2017
ITEM #2 (23 pages)



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

OCT 1 2001

Operations Division

Subject: CENAB-OP-RPA (EXELON NUCLEAR/PEACH BOTTOM ATOMIC POWER
STATION) 00-01851-2

Mr. Tracy Siglin
Exelon Nuclear
Peach Bottom Atomic Power Station
1848 Lay Road
Delta, Pennsylvania 17314-9032

Dear Mr. Siglin:

I am replying to your application for a Department of the Army permit. Enclosed is the original permit form NAB-FC-1000.

You are requested to indicate your acceptance of the terms and conditions set forth in the enclosed permit by placing your signature and the date on the permit where indicated. Please note that on August 6, 1999, an administrative appeals process was established for DA individual permit decisions. Enclosed is a dated attachment, titled "Notification of Applicant Options" (NAO), that explains the options that are available to you for your consideration when signing this permit. If you decide to decline signing the permit because you object to certain terms and/or conditions, of the permit, a letter outlining your objections, must be received by our District Engineer within 60 days of the date of this NAO at the following address:

Commander
U.S. Army Corps of Engineers
Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21203-1715

You are also requested to submit a check or money order in the amount of \$100.00 made payable to the Finance and Accounting Officer, U.S. Army Engineer District, Baltimore (FAO, USAED, Baltimore). Please write your application number and name as shown on the above subject line on your remittance and mailing envelope.


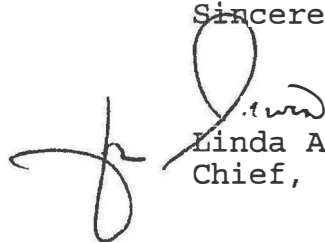
You must then return the permit with your signature, along with the fee to this office. A self-addressed, franked envelope is enclosed for this purpose. Upon receipt of the signed permit and fee, the permit will be validated with the appropriate District signature and returned to you. Failure to submit a copy

of the signed permit and fee, and receiving the validated permit from the District, before initiating the work could result in Federal enforcement proceedings. You are also advised that you are responsible for obtaining all other required state and/or local authorizations before starting construction on any of the work approved by this DA permit.

If we do not receive the signed permit with the fee, or a letter indicating your objections to the terms and/or conditions of the DA permit within 60 days of the date of this letter, we will assume you are no longer interested in the project and we will withdraw your application. The original application and plans will be returned to you and, if at a later date, you want to pursue the project again, you may resubmit your application.

If you have any questions concerning this matter, please call Mr. Michael Danko of the Carlisle Regulatory Field Office at (717) 249-8730.

Sincerely,



Linda A. Morrison
Chief, Regulatory Branch

Enclosures

Copy Furnished:

PA DEP (SC) DEP No. E36-693
York County Conservation District

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

Applicant: Exelon Nuclear		File Number: 200001851	Date: October 1, 2001
Attached is:			See Section Below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A	
<input checked="" type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B	
<input type="checkbox"/>	PERMIT DENIAL	C	
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D	
<input type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Sandy Zelen
Regulatory Branch Baltimore District
P.O. Box 1715
Baltimore, MD 21203-1715
(410) 962-6028 or 3670

If you only have questions regarding the appeal process you may also contact:

North Atlantic Division
CON-OPS Division, Regulatory Branch
Building 301
Fort Hamilton Military Community
Brooklyn, NY 11252-7600
(718) 491-8728

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

<hr/> <hr/> <hr/> <hr/> <hr/> <p>Signature of applicant or agent.</p>	Date:	Telephone number:
-----------------------------------------------------------------------	-------	-------------------

DEPARTMENT OF THE ARMY PERMIT

Application Name and Permit Number: CENAB-OP-RPA (EXELON
NUCLEAR/PEACH BOTTOM ATOMIC POWER STATION) 00-01851-2

Issuing Office:

U.S. Army Engineer District, Baltimore
Corps of Engineers
P.O. Box 1715
Baltimore, MD 21203

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

To conduct periodic routine maintenance dredging activities over a 10-year period at the Peach Bottom Atomic Power Station. Accumulated river sediments will be removed through the use of an hydraulic dredge at the north and south cooling water intake bays and the screenwell structure approach apron representing a 5.85 acre area. Sediment levels will be dredged to a depth of 88-feet above mean sea level. Approximately 7,500-cubic yards of dredged material will be removed from the north bay, and approximately 14,300-cubic yards of dredged material will be removed from the south bay. The dredged material will be dewatered through use of a cyclone grit chamber and/or belt press filter, with the supernatant from the dewatering process to be returned to the discharge canal. The dredged materials will be relocated to contained dredged material disposal areas located within the facility property, which include the existing cooling tower basins "D" and "E", the existing dredging/rehandling basin, and the proposed north substation basin. All work is to be completed in accordance with the attached plan(s).

Project Location: In the Susquehanna River, Drumore Township, Lancaster County, Pennsylvania.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on October 1, 2011. If you desire to continue maintenance dredging beyond the expiration adte, you must request a new permit at least six months before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the Pennsylvania Department of Environmental Protection water quality certification, Permit No. E36-693, is attached (Sheets 6-9).

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. That this permit is subject to the conditions set forth by the U.S. Environmental Protection Agency (EPA) attached hereto and made a part hereof (Sheet 10).

2. That periodic maintenance dredging may be performed at the north and south cooling water intake bays and the screenwell structure approach apron for a period not to exceed 10-years expiring on October 1, 2011. Maintenance dredging will be permitted provided that 30 day notice be given to the District Engineer prior to the commencement of the maintenance dredging.

3. Advanced notice shall be provided to the Maryland Department of Natural Resources each time maintenance dredging is to be performed during the 10-year period.

4. The return water from the contained dredged material disposal basin shall be managed so as to limit the total suspended solids content in the discharge to the Susquehanna River not to exceed four hundred (400) parts per million.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law or to comply with the appropriate local critical area regulations.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE)

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Issued for and in behalf of
Colonel Randall R. Inouye, P.E.

Linda A. Morrison
Chief, Regulatory Branch

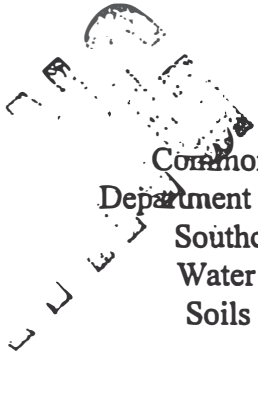
Date

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEE)

(DATE)

Permit No. E36-693



Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Water Management Program
Soils & Waterways Section

SEP 26

**WATER OBSTRUCTION AND ENCROACHMENT PERMIT
SMALL PROJECT PURSUANT TO SECTION 105.13(e)**

The Department of Environmental Protection "DEP", established by the Act of December 3, 1970, P.L. 834 (71 P.S. §§510-1 et seq.) and empowered to exercise certain powers and perform certain duties under and by virtue of the Act of November 26, 1978, P.L. 1375, as amended by the Act of October 23, 1979, P.L. 204 (32 P.S. §§693.1 et seq.) known as the "Dam Safety and Encroachments Act"; Act of October 4, 1978, P.L. 851, (32 P.S. §§679.101 et seq.) known as the "Flood Plain Management Act"; Act of June 22, 1937, P.L. 1987, (35 P.S. §§691.1 et seq.), known as "The Clean Streams Law"; and the Administrative Code, Act of April 9, 1929, P.L. 177, as amended, which empowers DEP to exercise certain powers and perform certain duties by law vested in and imposed upon the Water Supply Commission of Pennsylvania and the Water and Power Resources Board, hereby issues this permit to:

PECO Energy Company
1848 Lay Road, Delta, PA 17314

giving its consent to perform maintenance dredging to remove accumulated sediment deposits from the north and south cooling water intake bays and the screenwell structure approach apron at the PECO Energy Company Peach Bottom Atomic Power Station located along the right bank in the Conowingo Reservoir on the Susquehanna River (WWF) (Holtwood, PA Quadrangle N: 3.6 inches: W:4.5 inches) in Drumore Township, Lancaster County.

The issuance of this permit also constitutes approval of a Water Quality Certification under Section 401 of the Federal Water Pollution Control Act [33 U.S.C.A. 1341(a)].

This permit is issued in response to an application filed with DEP on the 31st day of May A.D. 2000, and with the understanding that the work shall be performed in accordance with the maps, plans, profiles and specifications filed with and made a part of the application on the 31st day of May A.D. 2000, subject, however, to the provisions of the Dam Safety and Encroachments Act, the Flood Plain Management Act, The Clean Streams Law, the Administrative Code, the rules and regulations promulgated thereunder and the following conditions and restrictions. If the work authorized by this permit is not completed on or before the 31st day of December A.D. 2010, this permit, if not previously revoked or specifically extended by DEP in writing, shall become void without further notification.

1. The permittee shall sign the permit thereby expressly certifying the permittee's acceptance of, and agreement to comply with, the terms and conditions of the permit. The permittee shall return a

signed copy of the permit to DEP. The permit will not be effective until the signed copy of the permit is received by DEP;

2. DEP, in issuing this permit, has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and DEP may, in addition, institute appropriate legal proceedings;
3. This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest in, to, or over any land belonging to the Commonwealth of Pennsylvania "Commonwealth"; neither does it authorize any injury to private property or invasion of private rights, nor any infringement of Federal, State, or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary;
4. The work shall at all times be subject to supervision and inspection by representatives of DEP, and no changes in the maps, plans, profiles, and specifications as approved shall be made except with the written consent of DEP. DEP, however, reserves the right to require such changes or modifications in the maps, plans, profiles, and specifications as may be considered necessary. DEP further reserves the right to suspend or revoke this permit if in its opinion the best interest of the Commonwealth will be subserved thereby;
5. This permit authorizes the construction, operation, maintenance and normal repair of the permitted structures conducted within the original specifications for the water obstruction or encroachment, and in accordance with the regulations of DEP and terms and conditions of this permit. Any repairs or maintenance involving modifications of the water obstruction or encroachment from its original specifications, and any repairs or reconstruction involving a substantial portion of the structure as defined by regulations of DEP shall require the prior written approval and permit of DEP;
6. All construction debris, excavated material, brush, rocks, and refuse incidental to this work shall be removed entirely from the stream channel and placed either on shore above the influence of flood waters, or at such dumping ground as may be approved by DEP;
7. There shall be no unreasonable interference with the free discharge of the river or stream or navigation during construction;
8. If future operations by the Commonwealth require modification of the structure or work, or if, in the opinion of DEP, the structure or work shall cause unreasonable obstruction to the free passage of floodwaters or navigation, the permittee shall, upon due notice remove or alter the structural work or obstructions caused thereby, without expense to the Commonwealth, so as to increase the flood carrying capacity of the channel or render navigation reasonably free, easy, and unobstructed, in such manner as DEP may require. No claim shall be made against the Commonwealth on account of any such removal or alteration;

9. The permittee shall notify DEP, in writing, of the proposed time for commencement of work at least 15 days prior to the commencement of construction;
10. If construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by DEP or if a permit has been revoked for any reason, the permittee shall, at his own expense and in a manner that DEP may prescribe, remove all or any portion of the work as DEP requires and restore the water course and floodplain to their former condition;
11. The permittee shall fully inform the engineer or contractor, responsible for the supervision and conduct of work, of the terms, conditions, restrictions and covenants of this permit. Prior to the commencement of construction, the permittee shall file with DEP in writing, on a form provided by DEP, a statement signed by the permittee and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in the permit. Unless the acknowledgment and acceptance have been filed, the permit is void. A copy of the permit and the acknowledgment shall be available at the work site for inspection upon request by an officer or agent of DEP or another Federal, State, County or Municipal Agency;
12. The permittee shall operate and maintain the structure or work authorized herein in a safe condition in accordance with the permit terms and conditions and the approved maps, plans, profiles and specifications;
13. This permit may not be transferred without prior written approval from DEP, such approval being considered upon receipt of the properly executed "Application for Transfer of Permit" form;
14. If and when the permittee desires to discontinue use or abandon the activity authorized herein, he must remove all or part of the structure or work authorized and take other actions as are necessary to protect safety and the environment in accordance with a permit issued by DEP;
15. If the use of explosives in any waterways is required, the permittee shall secure the prior written permit from the Pennsylvania Fish and Boat Commission, pursuant to the Pennsylvania Fish and Boat Code, Act 1980-175 Title 30 Pennsylvania Consolidated Statutes, Section 2906. Requests should be directed to the Pennsylvania Fish and Boat Commission, Bureau of Administrative Services, P.O. Box 67000, Harrisburg, PA 17106, telephone 717-657-4522;
16. Permittee shall implement and monitor the Erosion and Sedimentation Control Plan prepared in accordance with Chapter 102 so as to minimize erosion and prevent excessive sedimentation into the receiving watercourse or body of water;
17. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish and Boat Commission. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Pennsylvania Fish and Boat Commission's Southeast Regional Office, Box 8, Elm, PA 17521; telephone 717-626-0228;

18. The project site shall at all times be available for inspection by authorized officers and employees of the County Conservation District. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Lancaster County Conservation District, 1383 Arcadia Road, Room 6, Lancaster, PA 17601; telephone 717-299-5361.
19. **SEE ADDITIONAL SPECIAL CONDITIONS.**

SPECIAL CONDITIONS

NO SPECIAL CONDITIONS.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

Permittee (signature)

Date

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Leon M. Oberdick
Program Manager

Issue Date



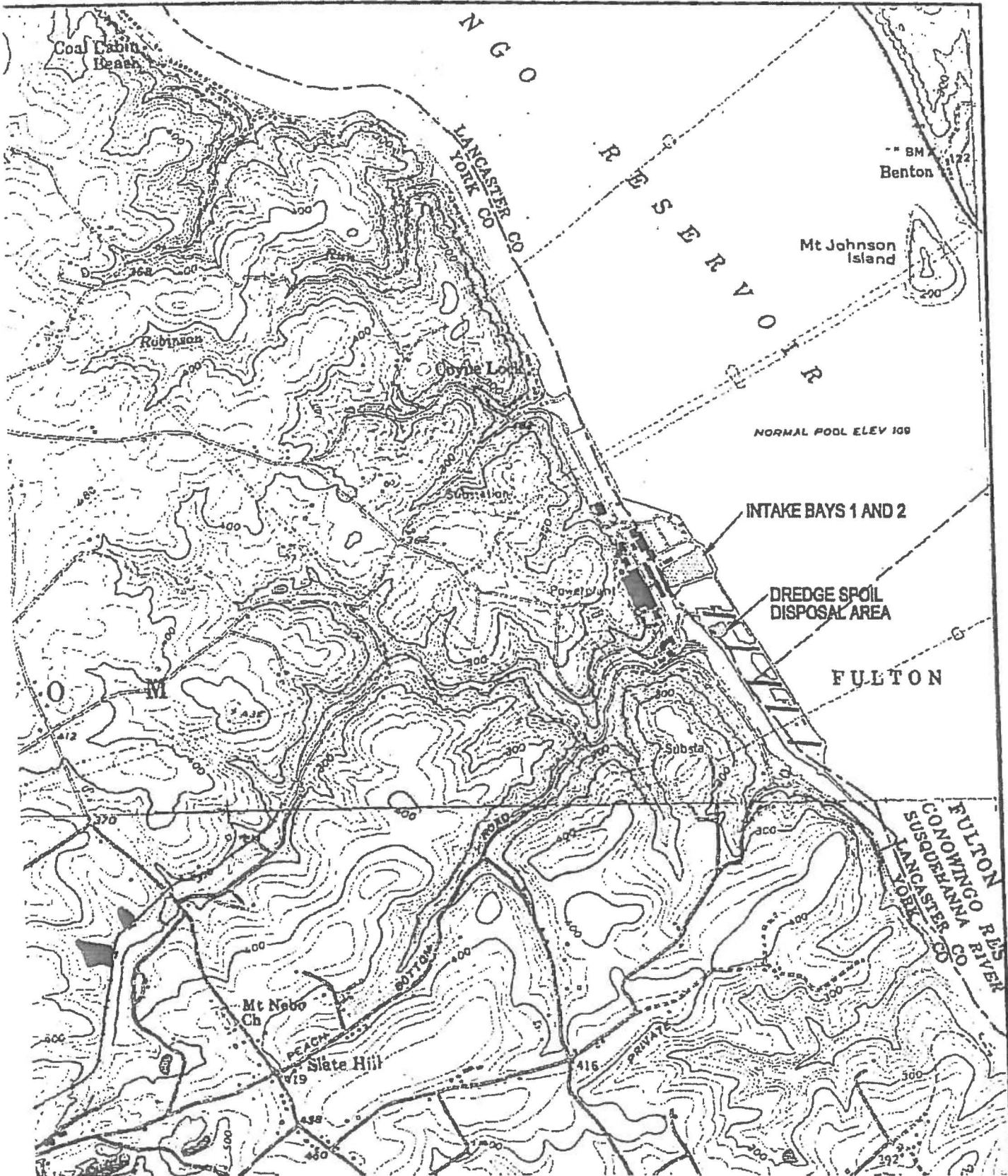
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

6TH AND WALNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

STANDARD DREDGING CONDITIONS
(NEAR WETLANDS)

1. Dredging and/or filling will be done so as to minimize disturbance of the bottom or turbidity increases in the water which tend to degrade water quality and damage aquatic life.
2. Deposition of dredged or excavated materials on shore, and all earthwork operations on shore will be carried out in such a way as to minimize erosion of the material and preclude its entry into the waterway.
3. On completion of earthwork operations, all fills on shore and other areas on shore disturbed during construction will be seeded, rip-rapped or given some other type of protection from subsequent soil erosion.
4. Applicant will employ measures during construction to prevent spills of fuels or lubricants. If a spill occurs, it will be controlled to prevent its entry into the waterway.
5. Construction activities within the marsh will be minimized. Equipment operating on the marsh will utilize mats to protect the marsh. Upon completion of construction, the marsh will be returned to its original elevation and revegetated with wetland plants native to the vicinity.
6. There will be no stockpiling or double handling of construction materials within the marsh.
7. There will be no stockpiling or double handling of excavated material within the marsh.

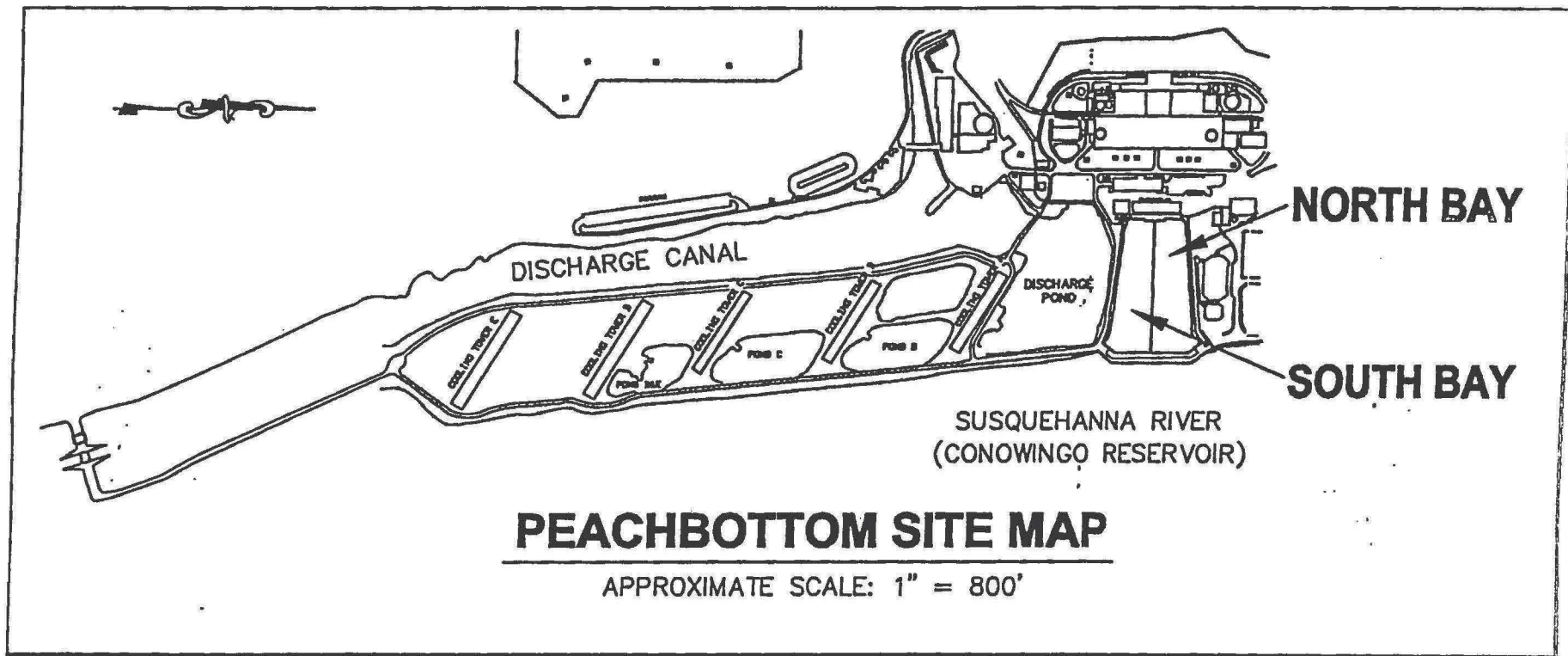


Source: USGS Holtwood, PA Quad and USGS Delta, PA Quad

NORMANDEAU ASSOCIATES
 ENVIRONMENTAL CONSULTANTS
 3430 Schuylkill Road, Spring City, Pa 17177-1274

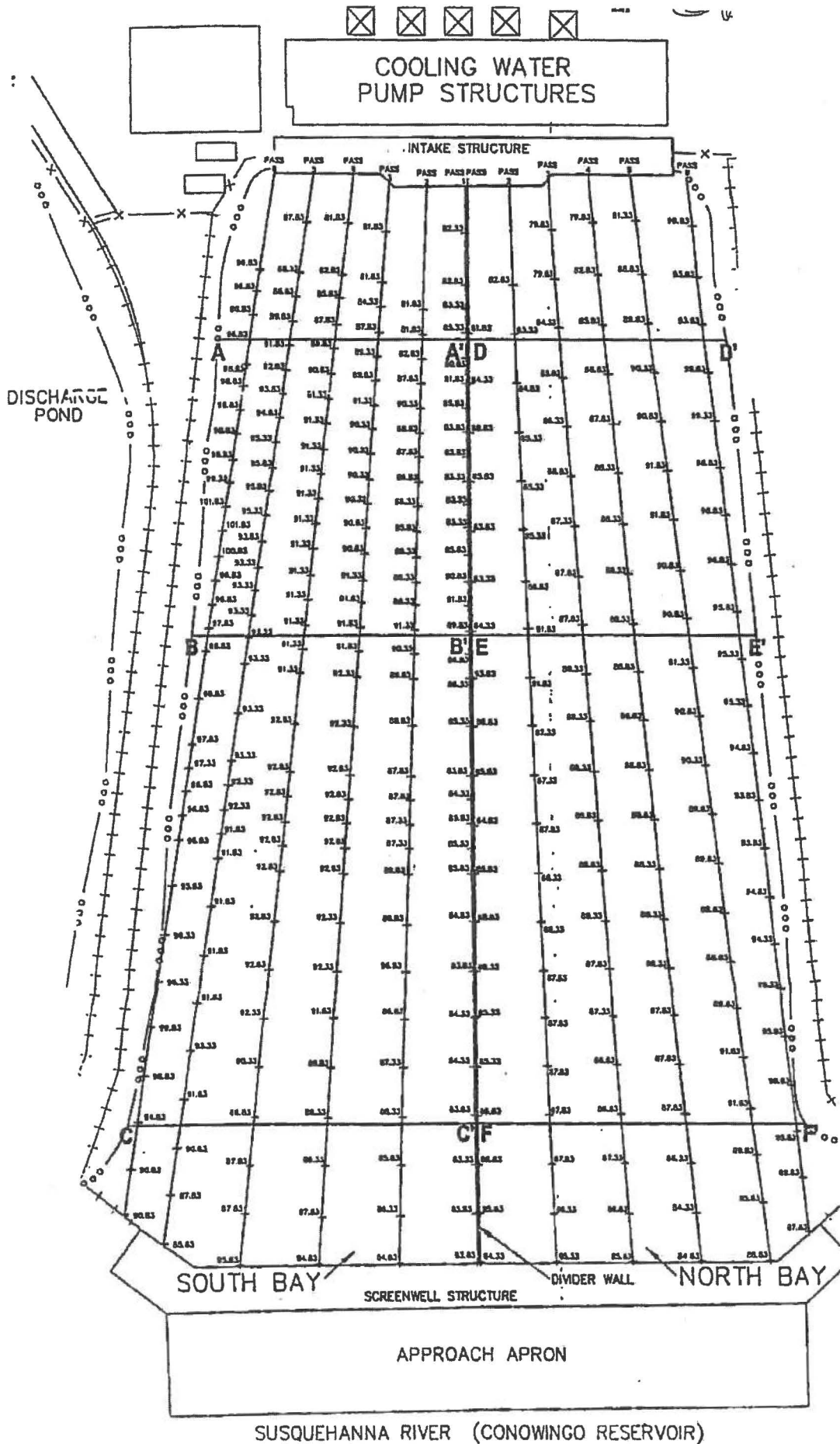
**FIGURE 1. SITE LOCATION MAP
 PEACH BOTTOM POWER STATION
 MAINTENANCE DREDGING**

DRAWN BY:	SGS	DATE:	8-9-99	FIGURE
CHECKED BY:	KRM	DRAWING NO.:	17972001	
JOB NO.:	17972.002	SCALE:	1" = 2000'	



PEACHBOTTOM SITE MAP

APPROXIMATE SCALE: 1" = 800'



COOLING WATER
PUMP STRUCTURES

INTAKE STRUCTURE

DISCHARGE
POND

SOUTH BAY

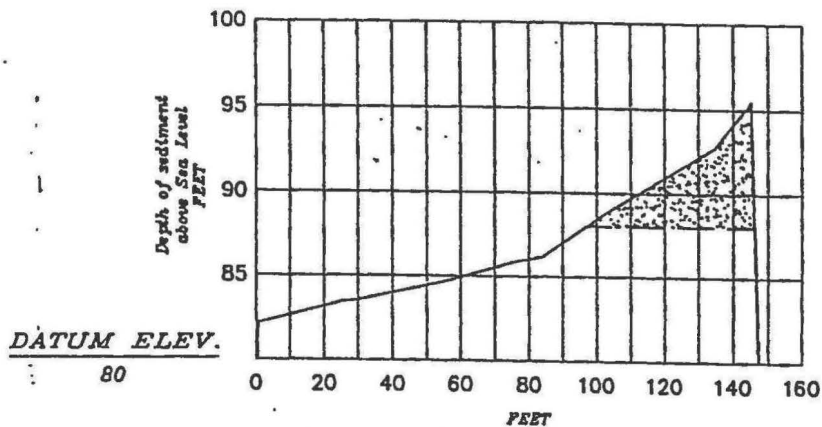
SCREENWELL STRUCTURE

DIVIDER WALL

NORTH BAY

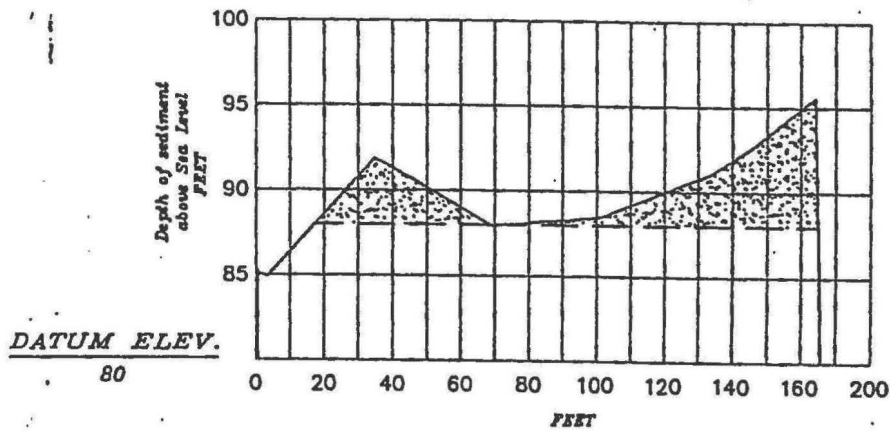
APPROACH APRON

SUSQUEHANNA RIVER (CONOWINGO RESERVOIR)



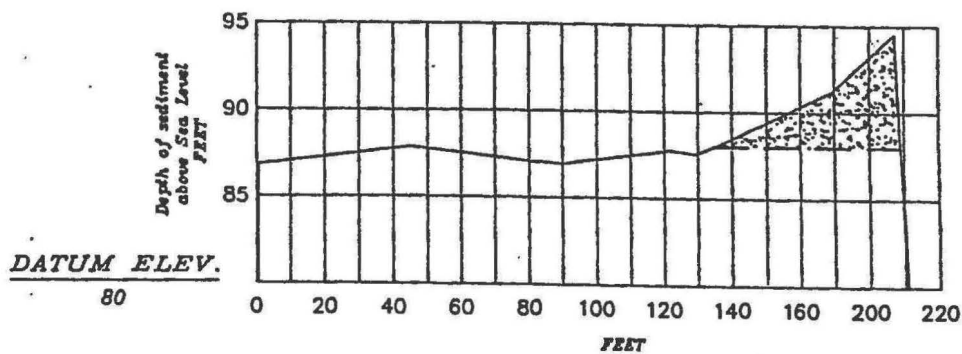
SECTION D - D' (NORTH BAY)

SCALE: 1" = 40' HORIZONTAL SCALE
1" = 8' VERTICAL SCALE



SECTION E - E' (NORTH BAY)

SCALE: 1" = 40' HORIZONTAL SCALE
1" = 8' VERTICAL SCALE



SECTION F - F' (NORTH BAY)

SCALE: 1" = 40' HORIZONTAL SCALE
1" = 8' VERTICAL SCALE

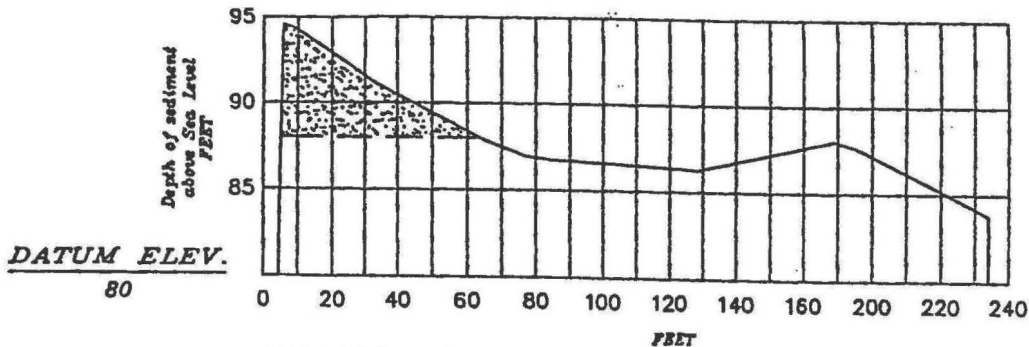
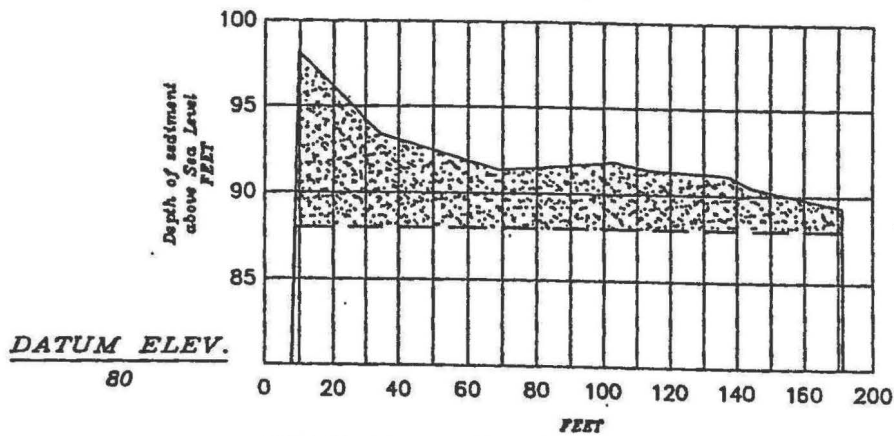
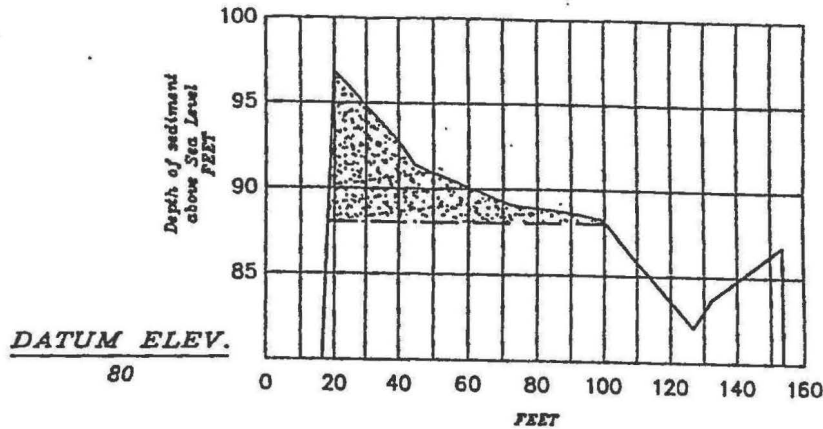
KEY:



SEDIMENT TO BE REMOVED



LIMIT OF DREDGING NOTED AT 88 FEET



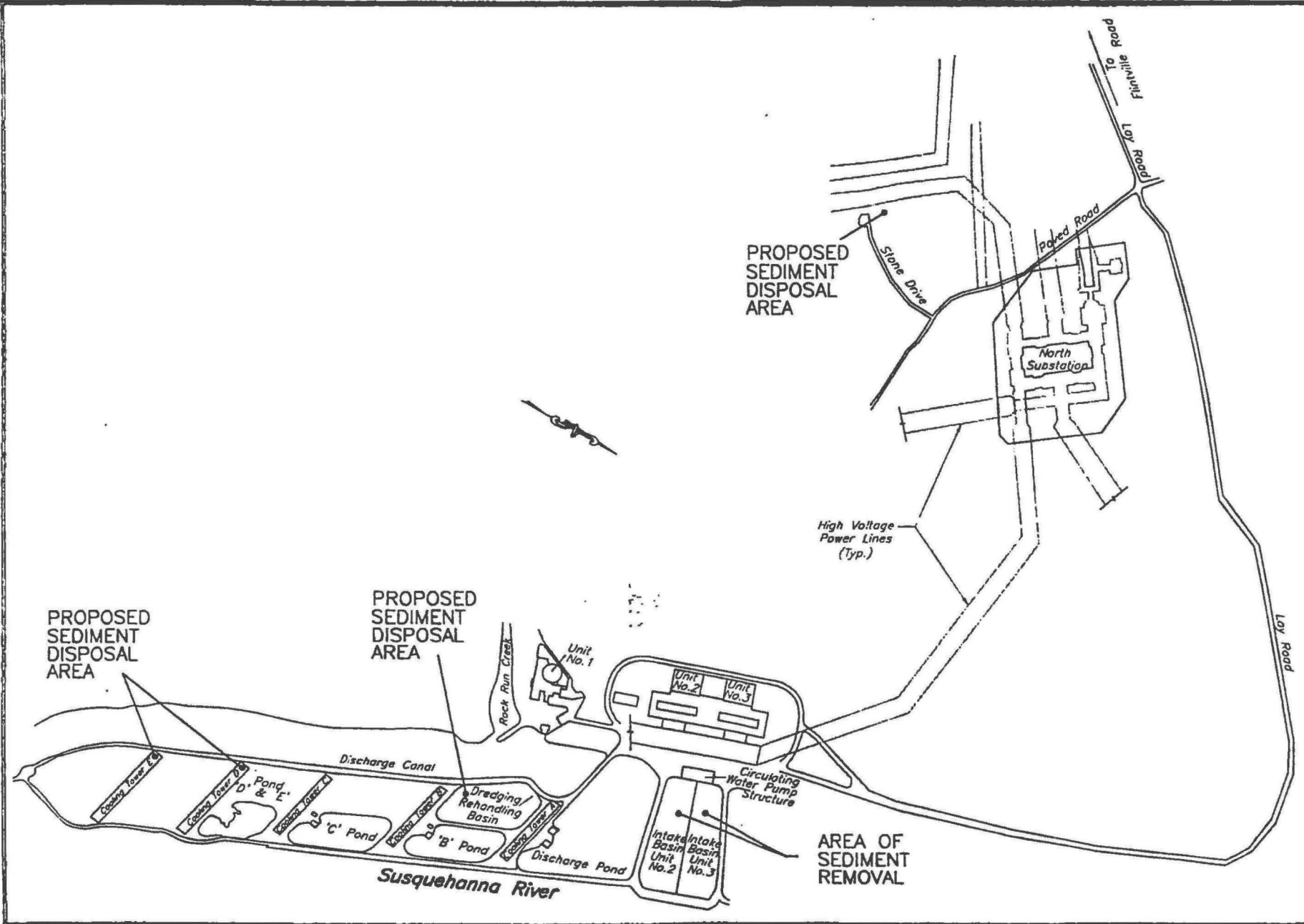
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SEDIMENT TO BE REMOVED

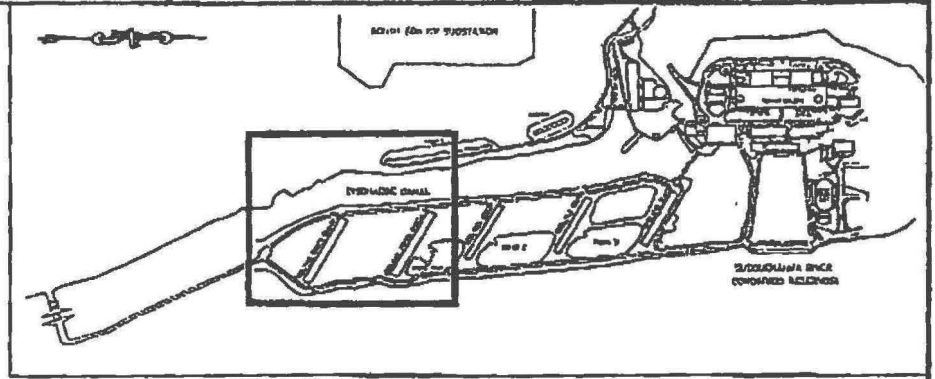


LIMIT OF DREDGING NOTED AT 88 FEET

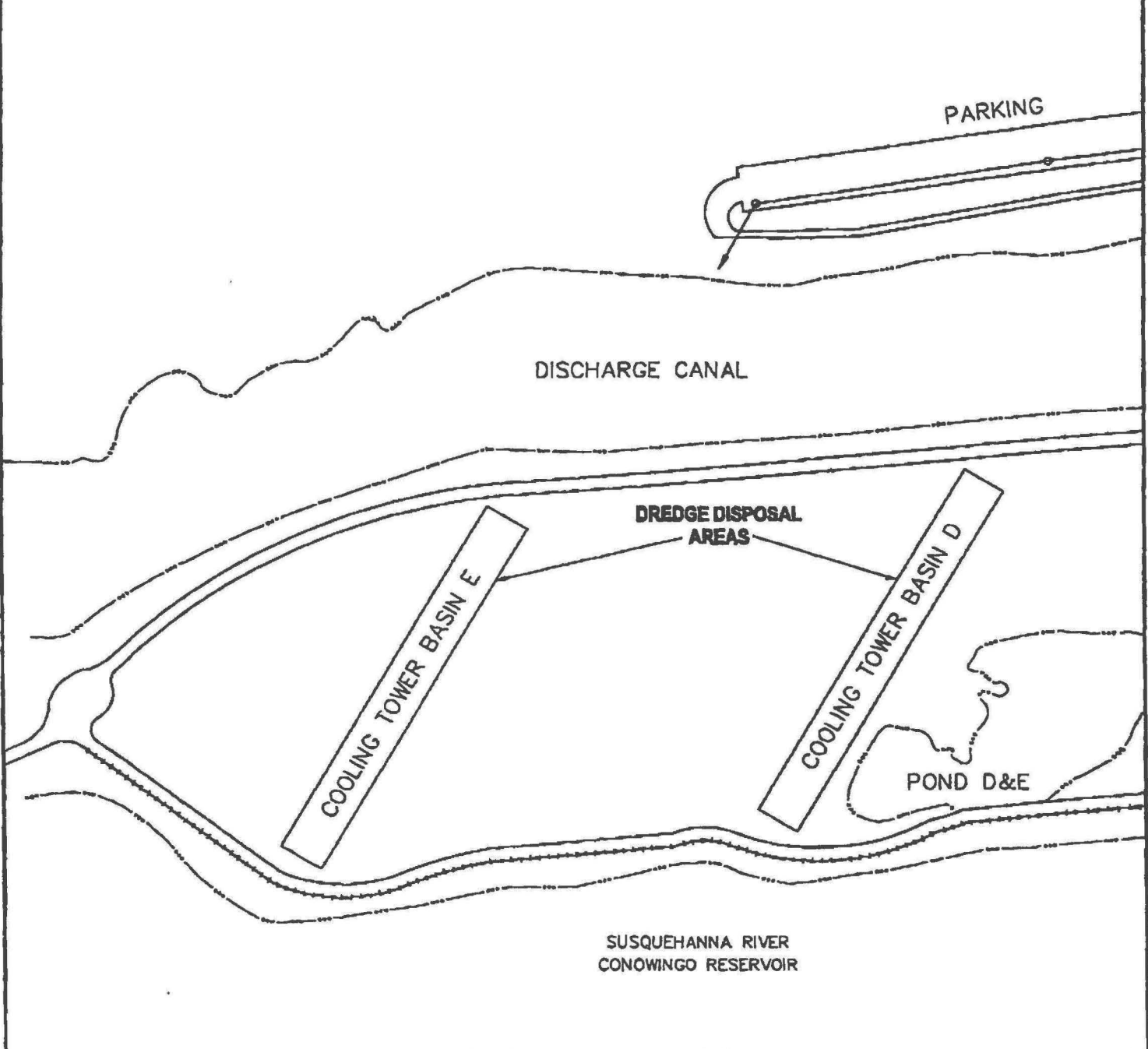


LOCATION MAP/SCALE: 1" = 600'





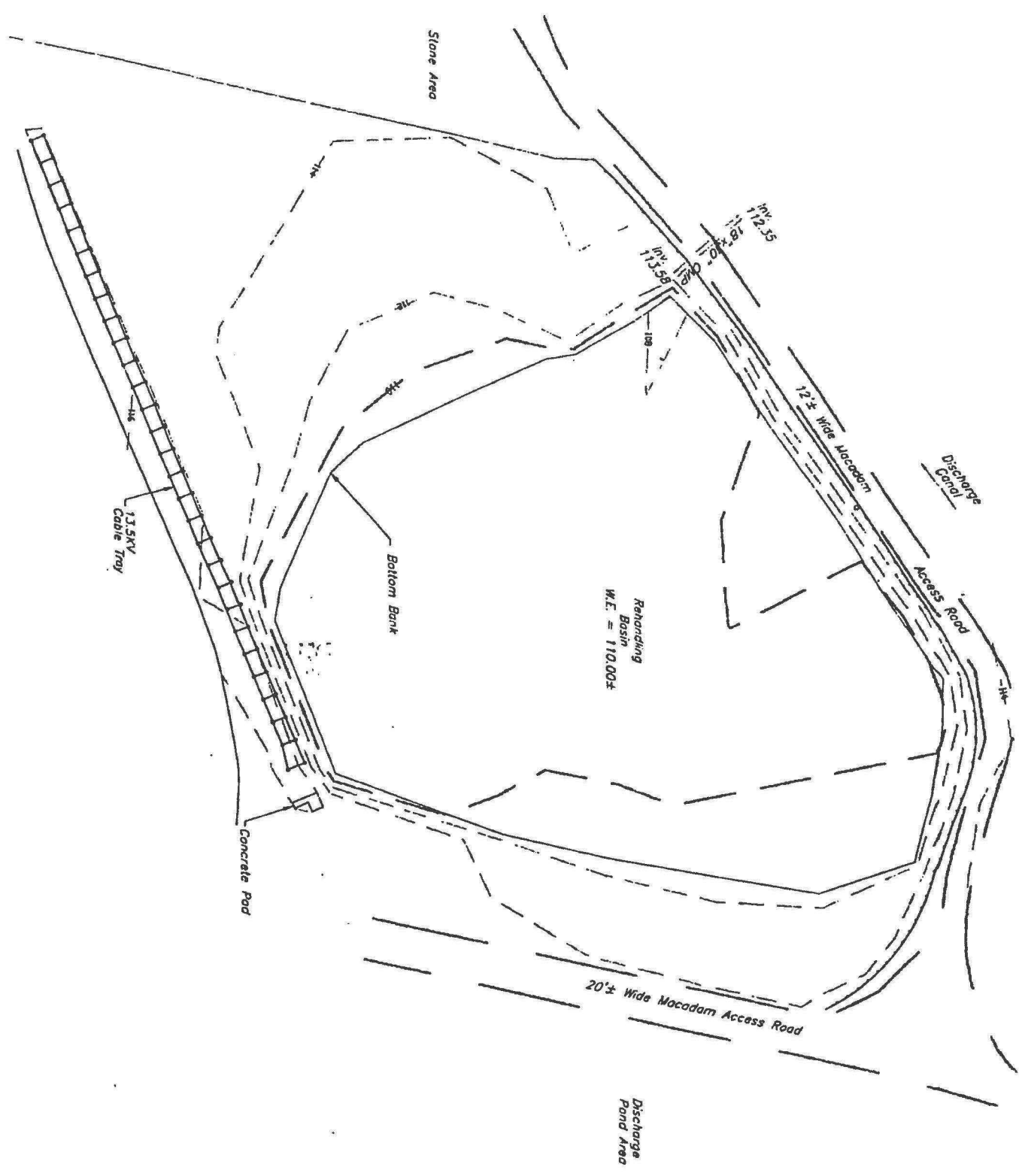
PEACHBOTTOM ATOMIC POWER STATION

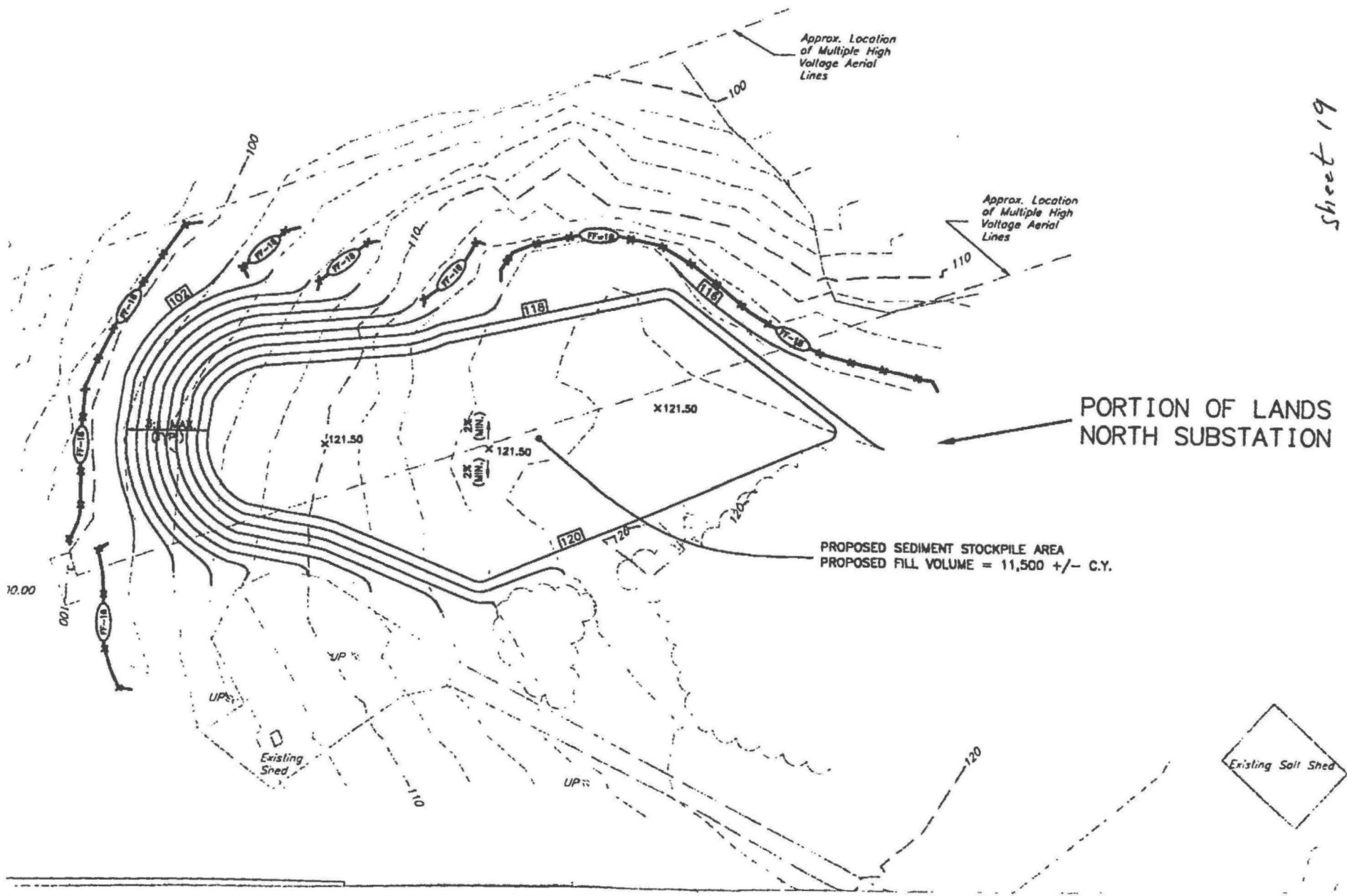


NORMANDEAU ASSOCIATES
 ENVIRONMENTAL CONSULTANTS
 3438 Schuylkill Road Spring City, Pa 17475-1124

DREDGE DISPOSAL AREA
 MAINTENANCE DREDGING PROJECT
PEACHBOTTOM ATOMIC POWER STATION

DRAWN BY:	SGS	DATE:	7/18/01	FIGURE
CHECKED BY:	KRM	DETAIL NO.:	17972008	
JOB NO.:	17972.002	SCALE:	1"=200'	





Approx. Location of Multiple High Voltage Aerial Lines

Approx. Location of Multiple High Voltage Aerial Lines

PORTION OF LANDS NORTH SUBSTATION

PROPOSED SEDIMENT STOCKPILE AREA
PROPOSED FILL VOLUME = 11,500 +/- C.Y.

Existing Salt Shed

Existing Shed

**ENCLOSURE TO LETTER FROM EXELON GENERATION TO PADEP DATED 8/16/2017
ITEM #3 (9 pages)**

152 FERC ¶ 62,142
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Exelon Generation Company, LLC

Project No. 405-113

**ORDER MODIFYING AND APPROVING NON-PROJECT USE OF PROJECT
LANDS AND WATERS**

(Issued September 2, 2015)

1. On May 1, 2015, Exelon Generation Company, LLC (licensee), licensee for the Conowingo Hydroelectric Project, FERC No. 405, filed an application for non-project use of project lands and waters for Federal Energy Regulatory Commission (Commission) approval, pursuant to standard Article 13. In its application, the licensee proposes increases to the permitted water withdrawal and consumptive use amounts from the Conowingo Reservoir for use at Peach Bottom Atomic Power Station (Peach Bottom), which the licensee co-owns. The Conowingo Hydroelectric Project is located on the Susquehanna River in Cecil and Hartford counties, Maryland and Lancaster and York counties, Pennsylvania. Peach Bottom is located in York County, Pennsylvania.

LICENSE REQUIREMENTS AND BACKGROUND

2. The Commission issued a license for the Conowingo Hydroelectric Project to Susquehanna Power Company and Philadelphia Electric Power Company on August 14, 1980.¹ The Commission approved the transfer of the project license to Exelon on November 24, 2008.² The project license expired on September 1, 2014; however, the project continues operation under an annual license pending Commission action on Exelon's relicensing application.

3. The project primarily consists of a concrete gravity dam, powerhouse, and reservoir, and it is the last impoundment on the Susquehanna River, at river mile (RM)

¹ Order Issuing New Major License. 19 FERC ¶ 61,348 (1980), and the Order on Rehearing. 13 FERC ¶ 61,132 (1980). Due to an oversight the 1980 Order Issuing New Major License for the Conowingo Project was published subsequent to the Order on Rehearing.

² Ordering Approving Transfer of License. 125 FERC ¶ 62,181 (2008).

10, before discharging into the Chesapeake Bay. The reservoir extends upstream 14 miles from the dam and has an average depth of 20 feet. The project operates as a peaking facility, and the licensee is authorized to operate the reservoir between 101.2 and 110.2 feet National Geodetic Vertical Datum (NGVD). However, the licensee typically maintains the reservoir at 109.2 NCVD, but always above 105.2 NGVD to ensure that the upstream (RM 22) Muddy Run Pumped Storage Hydroelectric Project (Muddy Run), FERC No. 2355, is able to operate. The Conowingo reservoir serves as the lower reservoir for Muddy Run.

4. There are five existing water withdrawal and consumptive use permits that utilize water from the Conowingo reservoir. In total, the City of Baltimore, Chester Water Authority, Connective Mid Merit, LLC, and Old Dominion Electric Cooperative are allowed to consume 296.62 million gallons per day (mgd). The fifth authorization permits the licensee to withdraw 2,236.264 mgd and to consume 35.5 mgd for the purpose of operating Peach Bottom.³ The licensee currently employs a single, 15-foot diameter submerged pipe to convey water between the Conowingo reservoir and Peach Bottom. The 1,450-foot-long pipe is located on a 20-foot-wide strip of crushed rock, approximately 15 feet below the normal reservoir elevation.

LICENSEE'S PROPOSED ACTION

5. The licensee's May 1, 2015 filing requests that the Commission approve increases in the permitted water withdrawal and consumptive use amounts for cooling water needed for the operation of Peach Bottom. Specifically, the licensee requests an increase in the permitted water withdrawal from 2,236.264 mgd to 2,363.62 mgd and in the consumptive use from 35.5 mgd to 49.0 mgd. The licensee indicates that it would use the existing project infrastructure to implement the requested increases. Accordingly, it does not anticipate that any construction or modifications to project operations would be necessary to accommodate the request.

6. The licensee's filing also assesses the potential for fish impingement and entrainment at the project intake using the proposed withdrawal rate increase. The licensee indicates that the approach velocity would be 0.75 feet per second (fps) and the through-screen velocity would be 1.21 fps. The intake facilities consist of 24 single-entry, single-exit traveling water screens on the outer intake structures. The licensee's filing reaffirms that the outer screen of the intake structure was designed with a low approach velocity specifically to reduce the impingement and entrainment of aquatic organisms.

³ Order Approving Use of Project Lands and Waters. 55 FPC 2607 (issued June 1, 1976).

CONSULTATION

7. Prior to filing its May 1, 2015 request with the Commission, the licensee consulted with the Susquehanna River Basin Commission (SRBC),⁴ which was established to facilitate public interest in issues concerning the Susquehanna River Basin and its associated water resources. The SRBC indicated that it does not anticipate adverse impacts associated with the proposed withdrawal increase, and it approved the proposed increases on June 23, 2011.

8. The licensee received a National Pollutant and Discharge Elimination System Permit (NPDES, No. PA 0009733) from the Pennsylvania Department of Environmental Protection (PDEP), effective January 1, 2011 through May 31, 2015. On September 22, 2014, the PDEP renewed this permit through September 30, 2019, after providing a public notice on July 5, 2014 and allowing a 30-day comment period. The permit includes a record of consultation between the licensee, PDEP, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service (FWS), and Pennsylvania Fish and Boat Commission (PFBC).

9. The licensee currently withdraws water for use at Peach Bottom under the PDEP's July 23, 2014 Water Quality Certification. During the PDEP's review of the licensee's application, it determined that the primary impacts of withdrawing water from the Conowingo Reservoir would be to aquatic resources and include the physical loss of water from the withdrawal and consumption, and thermal impacts of the water returned to the reservoir.

10. The licensee also repeatedly consulted with the Nuclear Regulatory Commission (NRC) regarding its request, initially on February 28, 2012. On August 25, 2014, the NRC approved the proposed withdrawal increase.⁵ The NRC's Environmental Assessment, which found no significant impacts, was published in the Federal Register on March 31, 2014.

11. As a part of its application process for the NRC, on January 22, 2012, the licensee also requested input from the Pennsylvania Department of Conservation and Natural

⁴ The SRBC was established pursuant to the Susquehanna River Basin Compact of 1970, with duties and responsibilities for comprehensive planning, water supply allocation, programming, and management of the water and related resources of the Susquehanna River Basin by all three states involved (Maryland, New York, and Pennsylvania) and with the federal government.

⁵ Peach Bottom implemented the additional water withdrawal prior to Commission approval. This action is being reviewed under a separate Commission proceeding.

Resources (PDCNR) regarding potential environmental effects of the proposed withdrawal and consumptive use increases. The PDCNR provided recommendations on February 21, 2012 describing how the licensee could conserve sensitive plant habitat but ultimately determined that it does not anticipate any adverse impacts from the proposed increases.

12. On January 23, 2013, the licensee formally requested input from the PFBC and the Pennsylvania Historical and Museum Commission (PHMC) as a part of the NRC application process. Previously, on February 8, 2012, the PHMC had indicated that, while archaeological resources likely exist in the area, the proposed modifications would not impact such resources. On February 24, 2012, the PFBC further indicated that it does not expect adverse impacts as a result of the proposed water withdrawal and consumption increases.

PUBLIC NOTICE, INTERVENTIONS, AND COMMENTS

13. On May 7, 2015, Commission staff issued a public notice of the licensee's application for non-project use of project lands and waters, establishing June 7, 2015 as the deadline for providing comments and interventions. By letter dated May 26, 2015, Calpine Corporation filed a motion to intervene. Calpine Corporation owns the York Energy Center which uses and consumes water from the Conowingo reservoir; therefore, Calpine Corporation indicated that it has a direct and substantial interest in the outcome of this proceeding and its intervention and participation is in the public interest. Calpine Corporation did not file any comments on the licensee's proposed action.

14. By letter dated June 2, 2015, the Susquehanna River Boaters Association (SRBA) filed a motion to intervene and a protest; however, the content of the filing does not qualify as a protest of the pertinent application. The SRBA expressed concern with the reservoir elevation, particularly during the May 1 through October 1 recreation season; however, the licensee's application does not propose any modifications to existing reservoir levels requirements. The SRBA also requested that Exelon develop a plan for dredging at the Peach Bottom Marina, to improve accessibility. This issue, also, is not relevant to the proposed water withdrawal as the existing access should not be impacted by this proposal. Under the proposed action, the licensee would still be required to maintain the required reservoir elevations. Any additional consumptive use by Peach Bottom would not affect the reservoir levels as the licensee would manage discharges from Conowingo dam to maintain the required reservoir levels.

15. The SRBA also commented on a number of issues being addressed as a part of the project relicensing. Accordingly those aspects of the SRBA's filing will be addressed under the relicensing process which is currently underway in a separate Commission proceeding. The SRBA indicated that it relies on the use of project waters for recreation and reiterated its interest in the outcome of this proceeding and its intervention and participation in the public interest. On June 18, 2015, Exelon responded to the SRBA's

comments. The licensee indicated that many of the SRBA's concerns are topics of ongoing consultation that it intends to address as a part of the relicensing process.

16. By letter dated June 5, 2015, the FWS filed comments pertaining to the protection of fish and wildlife resources. The FWS provided the results of a thermal variance study, which was conducted pursuant to Section 316(a) of the Clean Water Act. The study results confirmed that Exelon's requested water withdrawal and consumptive use increases would result in water temperature increases and provided quantification of temperature reductions achievable based on the number of cooling towers utilized. The FWS's comments also outlined concerns with water temperature impacts to migratory fish. As such, the filing recommended operational rules to minimize and mitigate for water temperature increases.

17. On June 18, 2015, the licensee responded to the FWS's comments. The licensee's response included the results of a thermal plume modeling study which suggest that the increased water temperature would disseminate locally and not create any type of thermal barrier to migrating American shad (*Alosa sapidissima*) or American eels (*Anguilla rostrata*). While the extent of the thermal plume depends on inflows and ambient temperature as well as numerous operational factors, the licensee's study predicts that the thermal plume only alters fish migration behaviors, prompting avoidance of the warmed plume, during relatively low flows, less than or equal to 12,500 cfs,⁶ that occur concurrently with water temperatures between 50 and 60 degrees Fahrenheit. The study concludes that the joint occurrence of these flows and water temperatures with fish migratory seasons is not likely to occur.

DISCUSSION

18. Section 10(a)(1) of the Federal Power Act (FPA)⁷ provides that a licensed project must be:

such as in the judgement of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public purposes, including irrigation flood control, water supply, and recreational and other purposes.

⁶ Average flow from the Susquehanna River into the Conowingo reservoir is approximately 40,000 cfs.

⁷ 16 U.S.C. § 803(a)(1).

19. Further, section 10(a)(1) of the FPA requires the Commission to ensure that any hydropower project it licenses will be consistent with the optimal utilization of a waterway, taking into account and balancing all the various developmental and environmental values. In addition, section 10(a)(1) standard informs the Commission's actions with respect to a project throughout the term of the license, including its review of requests to use a project's lands and waters for non-project purposes.

20. The considerations specified in section 10(a)(1) are reflected in Article 13 of the project license, a standard article commonly referred to as the joint-use article. Article 13 provides that, in pertinent part:

...on the application of any person, association, corporation, Federal agency, State or municipality, the licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses.⁸

21. The Commission's review of a joint-use application is only to examine whether, and to what extent, the proposed use would adversely affect any other beneficial use of the water, and, if so, whether the benefits of the proposed use outweigh such effects.⁹ For the reasons discussed below, Commission staff finds that the licensee's request to increase water withdrawal and consumptive use amounts from the Conowingo reservoir complies with Article 13.

22. Commission staff's September 2, 2015 Environmental Assessment (EA) for the proposed action concludes that the increases would not interfere with operations at the Conowingo Hydroelectric Project. The EA finds that the proposed action, with recommended measures, would not result in any significant impacts to geology and soils, water quantity or quality, aquatic resources, threatened or endangered species, or recreation.

23. Section 6.0(B) of the EA includes Commission staffs' recommendations, based on consultation between the licensee and resource agencies and other stakeholders, for

⁸ 19 FERC ¶ 61,348 (issued August 14, 1980), at ordering paragraph (D) (citing L-Form 3 in *Standard Conditions for Inclusion in Preliminary Permits and Licenses Issued Under Part I of the Federal Power Act*, 54 FPC 1792, at 1,821 (1975)).

⁹ See 74 FERC ¶ 61,157 (issued February 16, 1996).

ensuring that no significant impacts occur as a result of the proposed action. Commission staff recommends that the licensee (1) monitor the temperature of waters discharged from Peach Bottom, (2) require Peach Bottom to adhere to cooling tower operating guidelines established by the PDEP,¹⁰ and (3) ensure that all necessary state and local permits have been acquired prior implementing the proposed increases. The second and third recommendations would ensure compliance with all other pertinent regulations.

24. The first Commission staff recommendation, to monitor the temperature of waters discharged from Peach Bottom, intends to validate the results of the licensee's thermal plume modeling study and to ensure that migratory fish species are not adversely impacted by the thermal plume, which was a primary concern expressed by the FWS during consultation. Similarly, thermal monitoring of Peach Bottom's discharged water would verify that the PDEP's cooling tower operating guidelines are being employed and that the guidelines provide adequate cooling to the water prior to discharge. In order to accomplish these aims, the licensee should require Peach Bottom to develop and implement a plan to monitor the water temperature of Peach Bottom discharge and the dispersion of the thermal plume for a minimum of five upstream and five downstream fish migration seasons. Five upstream and downstream migration periods should allow for sufficient variation in environmental conditions to detect any significant difference between the model's predictions and actual water temperatures. Accordingly, the first season to implement the temperature monitoring plan should be during the spring of 2016. The plan should include response measures to be implemented if the anticipated discharge temperatures are exceeded or if any adverse impacts to migrating fish are observed. In order to keep the Commission apprised of its actions, the licensee should file a copy of Peach Bottom's temperature monitoring plan with the Commission upon receiving it, but no later than March 1, 2016. This should provide sufficient time for Peach Bottom to consult with the resource agencies on the development of the plan and provide it to the licensee. The plan should also include a schedule for reporting the results of the study annually to the Commission for review. Initially, the first report should be due December 31, 2016.

¹⁰ The PDEP's National Pollutant and Discharge Elimination System Permit (No. PA 0009733) requires Peach Bottom to operate one, two, or three cooling towers between June 15 and August 31 annually, based on average intake temperatures. One tower must be operated continuously from June 15 through August 31. The second tower must commence operation within 48 hours of the average intake temperature reaching or exceeding 83 degrees Fahrenheit (°F), and the third tower must commence operation within 48 hours of the average intake temperature reaching or exceeding 86 °F

CONCLUSION

25. As modified, the Commission's approval of the licensee's request to increase water withdrawals and consumptive use of water from the Conowingo reservoir, for use in the Peach Bottom cooling towers, will not result in significant adverse impacts to the environment. The proposed non-project use of project lands and waters is consistent with the hydropower project purposes set forth in the project license. The proposed increases would not adversely affect any other existing uses of the waterway, and would therefore be consistent with the waterway's comprehensive development. Therefore, the licensee's application, as modified to incorporate the staff recommendations described in the EA, should be approved.

26. The Commission should reserve the right to require changes to the non-project use of project lands and waters, based on information provided by the licensee or any resource agency, to ensure effective protection of the environmental resources at the Conowingo Hydroelectric Project.

The Director orders:

(A) Exelon Generation Company's (licensee) May 1, 2015 non-project use of project lands and waters application, to increase water withdrawal and consumptive use permitted for the operation of the Peach Bottom Atomic Power Station (Peach Bottom) to 2,363,620 million gallons per day (mgd) and 49.0 mgd respectively, as modified by paragraphs (B) through (F) below, is approved.

(B) The licensee must require Peach Bottom to develop and implement a water temperature monitoring plan to verify that operating under the cooling tower operating guidelines provided by the PDEP adequately reduces discharge temperatures, and that the thermal plume disseminates locally, as predicted by the modeling study results filed by the licensee on June 18, 2015. The plan must, at a minimum: be implemented for at least five upstream and five downstream fish migration seasons; include response measures to be implemented if anticipated discharge temperatures are exceeded or if any adverse impacts to migrating fish are observed; and include a schedule for implementing the plan and reporting the results to the Commission. The licensee must file Peach Bottom's temperature monitoring plan by March 1, 2016 and the first of 5 annual reports must be filed by December 31, 2016.

(C) The licensee must require Peach Bottom to adhere to the cooling tower operating guidelines established by the Pennsylvania Department of Environmental Protection (PDEP) to ensure the protection of aquatic resources.

(D) The licensee must require Peach Bottom to comply with the terms of the July 23, 2014 Water Quality Certification, issued by the PDEP under section 401(a)(1) of

the Clean Water Act, 33 U.S.C. § 1431(a)(1).

(E) The licensee must file with the Commission documentation that Ordering Paragraph (C) and (D) have been executed.

(F) The Federal Energy Regulatory Commission (Commission) reserves the right to require changes to the non-project use of project lands and waters, based on information provided by the licensee or any resource agency, to ensure effective protection of the environmental resources at the Conowingo Hydroelectric Project.

(G) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2012), and the Commission's regulations at 18 CFR § 385.713 (2015). The filing of a request for hearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Thomas J. LoVullo
Chief, Aquatic Resources Branch
Division of Hydropower Administration
and Compliance



November 20, 2017

Mr. Michael P. Gallagher
Vice-President, License Renewal and Decommissioning
Exelon Generation
200 Exelon Way
Kennett Square, PA 19348

RE: Peach Bottom Atomic Power Station, Units 2 and 3
Water Quality Certification
DEP File No. EA 67-024
NRC Docket Nos. 50-277 & 50-278
York and Lancaster County

Dear Mr. Gallagher:

The Pennsylvania Department of Environmental Protection (PADEP) is in receipt of your letter dated August 16, 2017 regarding the status of Exelon Generation Company, LLC's (Exelon) State Water Quality Certification (WQC) for Exelon's Peach Bottom Atomic Power Station (PBAPS). In your letter, Exelon requests concurrence from PADEP that the State WQC, dated July 23, 2014, issued to Exelon for the PBAPS does not need to be modified for a second license renewal (SLR) that Exelon is preparing to file with the Nuclear Regulatory Commission (NRC) for PBAPS Unit 2 & 3.

Upon review of your August 16, 2017 letter, information that you provided, and based on past discussions with Exelon, PADEP is confirming that the existing July 23, 2014 State WQC remains valid and does not need to be modified for the purpose of Exelon simply seeking additional operating time through a SLR. Exelon shall fully comply with the State WQC, including full compliance with the conditions and required permits identified as part of the State WQC, specifically including but not limited to NPDES Permit No. PA0009733.

Should Exelon propose to conduct any maintenance activities at the PBAPS which involve regulated waters of the Commonwealth or should Exelon make changes in operation that may change or otherwise affect any discharges from the project, modification of the State WQC and/or its companion permits and conditions may be required.

If you have any additional questions regarding this matter, please contact me at the address below, by email at scwilliams@pa.gov or by phone at 717.705.4799.

Sincerely,


Scott R. Williamson
Program Manager
Waterways and Wetlands Program

cc: Ms. Maria Bebenek, PADEP Southcentral Region Clean Water Program
Mr. Richard Janati, PADEP Radiation Protection
Ms. Nancy Ranek, Exelon Generation
Mr. Andrew Dehoff, Susquehanna River Basin Commission
Ms. Patricia Strong, U.S. Army Corps of Engineers, Baltimore District
Mr. Josh Tryniewski, PA Fish and Boat Commission
Mr. Rick McCorkel, U.S. Fish and Wildlife Service, State College Field Office

Appendix E

Coastal Zone Management Act Correspondence

Peach Bottom Atomic Power Station Environmental Report – Operating License Renewal Stage

Ranek, Nancy L.:(GenCo-Nuc)

From: Elder Ghigiarelli -MDE- <elder.ghigiarelli@maryland.gov>
Sent: Tuesday, June 13, 2017 10:42 AM
To: Ranek, Nancy L.:(GenCo-Nuc)
Subject: [EXTERNAL] Peach Bottom Atomic Power Station
Attachments: Peach.Bottom.License.Ren.FC.Deter.4.23.2002.pdf

Nancy,

I am responding to the information provided by Exelon Generation, LLC, and our subsequent conversations, regarding the Section 307 Federal Consistency provisions of the Federal Coastal Zone Management Act of 1972, as amended (CZMA), relative to the Peach Bottom Atomic Power Station (PBAPS) Second License Renewal project. Exelon Generation intends to apply to the Nuclear Regulatory Commission (NRC) in July, 2018 for second license renewal for PBAPS Units 2 and 3. This would extend the licenses to 08/08/2053 for Unit 2 and 07/02/2054 for Unit 3.

In May, 2003, the NRC renewed the operating licenses for Units 2 and 3 for an additional 20 years beyond the initial 40-year terms. By letter dated April 23, 2002, the Maryland Department of the Environment (MDE) determined this action to be consistent with the Maryland Coastal Zone Management Program, as required by Section 307 of the CZMA (attached). The Second License Renewal project will simply extend the current license and will not entail any new construction activities. Based on this consideration, MDE has no concerns with the proposed license renewal and the State's initial consistency determination would continue in effect and be applicable to the Second License Renewal project.

With regard to the current regulatory setting, the information provided correctly points out that for Maryland to perform a consistency review on an activity in an adjacent State, that activity would have to be on an Interstate Consistency Review list approved by NOAA. As you are aware, at this time Maryland does not have an Interstate Consistency list approved by NOAA.

If you have any questions, please contact me.

Elder

Elder Ghigiarelli, Jr.
Deputy Program Administrator
Maryland Federal Consistency Coordinator
Wetlands and Waterways Program
Maryland Department of the Environment
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