



energy
harbor

Beaver Valley Power Station
200 Shippingport Hill Rd
P.O. Box 4
Shippingport, PA 15077-0004

February 18, 2022
L-22-062

50-334
50-412

Department of Environmental Protection
Waterways and Wetlands Program

Attn: Joe Snyder

~~Attention: DMR Clerk~~

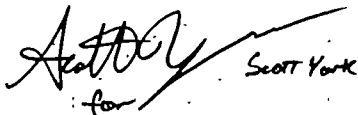
400 Waterfront Drive
Pittsburgh, PA 15222

SUBJECT: **Emergency Dredging Application**

Enclosed is the application for Emergency Dredging Permit for the Beaver Valley Power Station in Shippingport, PA. We are requesting emergency permission to conduct dredging at our auxiliary intake structure in March, 2022. An application for the Army Corps permit was submitted December 2, 2021 with the final permit being expected in early March, 2022.

Should you have any questions regarding the attached and enclosed documents, please direct them to Amy Savage, at 724-682-7359 or by email at aesavage@energyharbor.com and Michael.Tincher@erm.com.

Sincerely,


for Scott York

Matthew J. Enos
General Plant Manager

A001
NRR

Beaver Valley Power Station, Unit Nos. 1 and 2
L-22-062
Page 2

Enclosure(s):

A. PADEP From 3150-PM-BWEW0023, Emergency Permit with additional pages

Attachment(s):

B. Emergency Permit Sketch Plan

cc: Document Control Desk US NRC *(NOTE: No new US NRC commitments are contained in this letter.)*

ENCLOSURE A



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATERWAYS ENGINEERING AND WETLANDS

DEP USE ONLY

EP _____

PASPGP Authorization Included
☐ Yes ☐ No

PNDI receipt # _____
potential impacts ☐ Yes ☐ No
if yes, species ☐ State ☐ Federal

EMERGENCY PERMIT

SECTION A. PERMITTEE	SECTION B. SITE LOCATION DATA (Attach 8½ x 11 copy)
<u>Beaver Valley Power Station</u> (Name) <u>PO Box 4 Route 168</u> (Mailing Address) <u>Shippingport, PA</u> <u>15077</u> (City and State) (Zip Code) () <u>(724) 682-5379</u> (Home Telephone #) (Work Telephone #)	<u>Ohio River</u> (Stream Name) <u>Shippingport</u> (Municipality) <u>Beaver</u> (County) <u>Midland</u> Latitude: 40.626995 Longitude: <u>Hookstown</u> -80.429127 (7½ min. Quad Name)
SECTION C. PROJECT DATA (DESCRIPTION OF WORK) See attached for description of work and project justification.	
SECTION D. PERMIT CONDITIONS 1. Contact and advise the Pennsylvania Fish and Boat Commission's <u>Southwest</u> Regional Office as to when the work will begin and when the work has been completed at telephone number <u>(814) 445-8974</u> . 2. Contact the <u>Allegheny</u> County Conservation District at telephone number <u>(412) 241-7645</u> prior to commencement of work. 3. An Erosion and Sediment Control Plan, meeting the requirements of Chapter 102, must be implemented during and after construction and available on the project site. 4. All work will be accomplished from the stream bank. In those cases where this is <i>not</i> possible, the use of equipment in the stream channel is to be minimized. 5. All excavated material shall be disposed of beyond the limits of the floodplain. 6. Secure all other approvals that may be necessary under other Federal, State or local regulations. 7. This approval 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; neither does it authorize any injury to private property or invasion of private rights. 8. Notify the affected municipality as soon as possible verbally and provide a follow-up notice in writing within forty-eight (48) hours from the issuance of this permit. 9. SPECIAL CONDITIONS as follows: <u>It is not possible to perform dredging from the stream bank at this location.</u>	
THIS PERMIT WILL EXPIRE IN 60 DAYS UNLESS WRITTEN PERMISSION EXTENDING THAT TIME IS ISSUED BY THE DEPARTMENT.	
SECTION E. APPROVAL	
APPROVED BY _____ DATE _____	X <u>[Signature]</u> ^{for Matt Enns} SIGNATURE OF PERMITTEE <u>3/1/22</u> DATE

☐ PA Fish and Boat Commission
☐ County Conservation District

☐ U.S. Fish and Wildlife Service
☐ U.S. Army Corps of Engineers

☐ DEP, Central Office

EMERGENCY PERMIT

(continued)

Beaver Valley Power Station

Applicant Name

EMERGENCY PERMIT SKETCH PLAN

To ensure the sketch plan is complete, include the following on the site plan in the immediate vicinity of the project.
(√ all that apply)

YES	NO		YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stream Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 year Flood Elevation OR FEMA map
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stream Limits and Flow Direction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Limits of Earth Disturbance Associated with Activity
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stream Impacts on site (including dimensions)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Location of Property Lines Relative to the Project
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wetlands on site (Including acres)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Existing Utilities, ROWs, Easements
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wetland Impacts on site (Including acres)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Existing Buildings, Roadway, etc.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other Waters (i.e. pond, lakes, wetlands)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed Buildings, Roadways, ROW etc.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Specific / Standard Drawings location(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Photograph location(s)	<input type="checkbox"/>	<input type="checkbox"/>	Other _____

Beaver Valley Power Station (BVPS) is a two-unit nuclear power plant located in the Borough of Shippingport in Beaver County Pennsylvania. The plant features two Pressurized Water Reactors (PWRs) that reliably generate over 1,800 MW of carbon-free electricity. During normal plant operation, the plant utilizes the primary intake structure that draws from the Ohio River to supply plant system cooling water. The plant also maintains an Auxiliary River Water (WR) System for Unit 1 and a Standby Service Water (SWE) System for Unit 2. Both systems utilize an alternate intake structure approximately 0.35 miles east of the primary intake on the Ohio River. These additional water supplies ensure that sufficient cooling capacity is available to bring the reactor to cold shutdown condition in the event that the primary intake structure would sustain catastrophic damage, or any other event would render all of the normal river water (Unit 1) and service water (Unit 2) systems non-functional.

The station's operating license requires at least one of the two subsystems (Train A or B) for both the BVPS-1 ARW and BVPS-2 SWE to be functional. Although the subsystems are redundant, each unit's bay draws water for both of its system's two subsystems. (i.e., each unit has its own auxiliary bay to draw water for its two trains.) This results in both subsystems being challenged simultaneously with sediment build-up.

During operation at least one of the two Auxiliary River Water or Standby Service Water subsystems shall be functional. If there is a loss of both subsystems, the site has 7 days to restore at least one subsystem to functional status. Going beyond 7 days places the unit outside of its design and licensing basis and the safety significance of the condition is required to be evaluated since this could compromise the plants' ability to safely shut down in an emergency situation.

Inspections of alternate intake structure silt depth are performed twice a year and inspections of river silt depth in front of the auxiliary intake structure are performed periodically. River-side silt depth measurements were recorded high in August of 2020 during performance of a maintenance surveillance procedure. Then in November of 2021, the depth of the river-side silt challenged the maintenance team's ability to seat the stop logs needed to perform auxiliary intake bay cleaning. The bay isolation stop logs would not fully seat due to the amount of solids accumulated in front of them. Commercial divers were utilized on several occasions for assistance seating the stop logs.

Based on this information, the maintenance team has determined that mechanical dredging of the area in front of the auxiliary intake is necessary to ensure reliable operation of the SWE and should be performed in the Spring of 2022 and not later than that. Dredging would be completed before April 1. BVPS is proposing to utilize a vendor with a dredging rig that will mechanically remove material from the front of the auxiliary intake structure. That material will be deposited into a barge and transported to an approved disposal facility.

Energy Harbor is also preparing a Joint Permit Application (JPA) for perpetual maintenance at five locations at the BVPS, including the auxiliary intake structure. However, the

auxiliary intake structure needs to be dredged immediately to continue to meet safety standards for the facility. The other four locations are not proposed to be dredged under this Emergency Permit. An authorized Emergency Permit for the immediate dredging of the auxiliary intake structure will be included as an appendix withing the JPA.

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
REGIONAL OFFICES
WATERWAYS AND WETLANDS PROGRAM SECTION**

Regional Office

Northcentral Regional Office
208 W. Third Street, Suite 101
Williamsport, PA 17701
(570) 327-3574

Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18711-0790
(570) 826-2511

Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335
(814) 332-6984

Southcentral Regional Office
909 Elmerton Avenue, Second Floor
Harrisburg, PA 17110
(717) 705-4802

Southeast Regional Office
2 East Main Street
Norristown, PA 19401-4915
(484) 250-5970

Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222-4745
(412) 442-4000

County Responsibility

Bradford, Cameron, Centre, Clearfield, Clinton,
Columbia, Lycoming, Montour, Northumberland,
Potter, Snyder, Sullivan, Tioga and Union

Carbon, Lackawanna, Lehigh, Luzerne, Monroe,
Northampton, Pike, Schuylkill, Susquehanna,
Wayne and Wyoming

Butler, Clarion, Crawford, Elk, Erie, Forest,
Jefferson, Lawrence, McKean, Mercer,
Venango and Warren

Adams, Bedford, Berks, Blair, Cumberland,
Dauphin, Franklin, Fulton, Huntingdon, Juniata,
Lancaster, Lebanon, Mifflin, Perry and York

Bucks, Chester, Delaware, Montgomery and
Philadelphia

Allegheny, Armstrong, Beaver, Cambria,
Fayette, Greene, Indiana, Somerset,
Washington and Westmoreland

BUREAU OF WATERWAYS ENGINEERING AND WETLANDS

P.O. Box 8460
Harrisburg, PA 17105-8460
(717) 787-3411

ATTACHMENT B



Legend

- MLLW Water Elevation (ft)
- Parcels
- Project Boundary

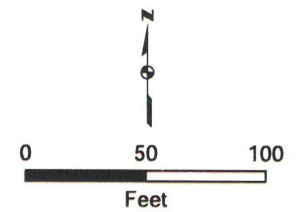


Figure 2-2. Bathymetry Map
Beaver Valley Power Station
Dredging
Energy Harbor
Shippingport, PA
February 2022



**Dredge an Trapezoidal area
In front of Alternate Intake Structure
(upstream of Shippingport Bridge).
Across the front of the Intake and
out at approximate 45° angles for 50 feet.
Dredge down to elevation 644 feet.**

