Department of Energy

Washington, DC 20585

November 13, 2026

NOTICE OF FLOODPLAIN ACTION

for

Vistra Operations Company LLC, Beaver Valley Nuclear Power Station

Beaver County, Pennsylvania

The Department of Energy (DOE), Office of Energy Dominance Financing, is considering whether to issue Federal financial assistance to Vistra Operation's Company LLC (Vistra) for the Beaver Valley Power Station Units 1 and 2 Power Uprate (Project). The Project would modify existing generating equipment and undertake associated construction within the approximately 500-acre existing power station on the south bank of the Ohio River.

DOE has determined that the potential Federal financial assistance for the Project would constitute a floodplain action; therefore, the requirements of 10 Code of Federal Regulations (CFR) 1022 apply.

Pursuant to 10 CFR Part 1022, a 15-day public comment period for this proposed floodplain action commences with publication of this notice and will conclude on November 25, 2026. At the end of the public comment period, DOE will consider all substantive comments received and prepare a floodplain statement of findings.

The floodplain assessment is attached to this notice.

Submit comments by email to EDF_Environmental@doe.gov. Please include "Vistra: Beaver Valley Nuclear Power Station" in the subject line. Comments must be received by November 25, 2026.

FLOODPLAIN ASSESSMENT

for

Vistra Operations Company LLC, Beaver Valley Nuclear Power Station

Beaver County, Pennsylvania

Introduction

The Beaver Valley Power Station (BVPS) will be conducting a power uprate project (the Project) to support increased generating capacity and improved long-term plant performance and reliability. All modification activities under the power uprate project will occur within the existing restricted owner-controlled area and protected area at the BVPS site. BVPS is an approximately 500-acre site located in the Shippingport Borough in Beaver County, Pennsylvania and situated on the south bank of the Ohio River.

Most of the Project footprint is within Zone A and Zone AE of the Federal Emergency Management Agency (FEMA) mapped 100-year floodplain (also known as Special Flood Hazard Areas (SFHA) for the Ohio River). The Project is located on FEMA FIRM Panel 42007C0143D effective August 17, 2015.

The Project, a series of construction and modifications to existing structures at Beaver Valley Nuclear Power Station, is not considered to be a critical action, as defined at 10 CFR 1022.4. This memo describes the U.S. Department of Energy's (DOE) assessment of floodplains pursuant to 10 CFR 1022.

Floodplain Assessment

As defined at 10 CFR 1022.4, *Floodplain action* means any DOE action that takes place in a floodplain, including any DOE action in a wetland that is also within the floodplain. DOE has determined that the Project is a floodplain action.

Project Description

The first project segment will be the demolition of one of the warehouse buildings in the northeast portion of the site, and construction of an office building in the location of the demolished warehouse. The building will measure approximately 40 feet tall at the highest point. Construction of the building will require approximately 30,0000 square feet of ground disturbance and the building footprint will be approximately 20,000 to 25,000 square feet. Activities include removal of building supports and foundations, minor clearing, grading to establish pad elevations and drainage, excavation for foundations and underground utilities, structural fill as needed, foundations, and restoration/stabilization. Grading will be minimal and will have no substantial change in grade to remain consistent with adjacent buildings.

The second project segment will be the construction of a maintenance support building inside the protected area in an area previously used as a parking lot. The building will measure approximately 40 feet tall at the highest point. Construction of the building will require approximately 30,000 to 35,000 square feet of ground disturbance and the building footprint will be approximately 20,000 to 25,000 square feet. Activities include asphalt removal, minor clearing of miscellaneous surface features, grading to establish required building pad elevations and drainage, excavation for foundation and underground utilities, placement of structural fill as needed, installation of building foundations, and restoration or stabilization of disturbed areas following construction.

The third project segment will be the demolition of an office building in the owner-controlled area to allow for expansion of the current parking lot. Construction will include approximately 25,000 square feet of ground disturbance and include removal of current building support and foundation, grading to establish required elevation and draining, and installation of asphalt parking lot.

The fourth project segment will be a series of modifications to existing plant systems and components within the boundaries of existing buildings and structures; no ground disturbance will be required. Modifications may include main turbine replacement, main generator rotor replacement, various main generator auxiliaries' upgrades, moisture Separator-Reheaters replacement, turbine control system upgrade, various pump and valve replacements, feedwater heater replacements, and other related equipment modifications.

The final potential project segment will be the construction of an auxiliary cooling tower adjacent to the existing cooling towers, positioned on a slab that currently sits a temporary storage structure. The auxiliary cooling units would be mechanical draft cooling units to serve as augmentation of the existing natural draft cooling towers. The new cooling structures would consist of a series of mechanical draft cooling cells, each measuring approximately 54 ft. by 54 ft. and 45 ft. high. The structure would occupy approximately 60,000 sq. ft. and connect to the basin of the currently operating natural draft cooling towers.

Alternatives

The alternatives before DOE include: (1) to provide Federal financial assistance for the Project; or (2) not provide Federal financial assistance for the Project. No siting alternatives were considered by DOE.

Proposed Statement of Findings

Portions of the Beaver Valley Power Station Units 1 and 2 Power Uprate Project are located within FEMA-mapped Special Flood Hazard Areas (Figure 1). The proposed maintenance support building is located within the currently mapped Zone AE regulatory floodway of the Ohio River. The proposed demolition of the existing office building (SEB) and associated parking lot expansion are partially within Zone A, outside the regulatory floodway. The potential auxiliary mechanical-draft cooling units are also located within Zone A, outside the regulatory floodway. The proposed new office building is located in Zone X, outside the Special Flood Hazard Area, and modifications to existing plant buildings will not involve ground disturbance.

Description of Activities and Mapped Regulatory Floodways

Based on Vistra's evaluation to date, the only Project component within the currently mapped regulatory floodway is the proposed maintenance support building, inside the protected area. The building would be constructed on an existing impervious asphalt parking lot and have a footprint of 20,000–30,000 square feet. Construction activities would include asphalt removal, minor clearing, grading to establish the building pad and drainage, excavation for foundations and underground utilities, placement of structural fill as needed, foundation construction, building erection to a height of approximately 40 ft, installation of new stormwater piping and inlets, and site restoration and stabilization. No substantial changes in existing ground elevations are anticipated.

Although the maintenance support building site is within the mapped regulatory floodway, existing ground elevations range from approximately 705 to 715 feet, above the nearest published base flood elevation (BFE) of 695 feet on the Flood Insurance Rate Map (FIRM). The site lies on an ancient floodplain, and much of the area was filled during construction of Unit 1 and the former Shippingport Atomic Power Station.

Vistra Engineering and Project contractors are evaluating two approaches to address the mapped floodway designation:

- **Letter of Map Amendment (LOMA):** Vistra is conducting a floodplain and elevation analysis to support a LOMA request to FEMA to revise the mapped floodplain designation based on existing site elevations above the currently published BFE.
- **No-Rise Hydraulic Analysis:** If a map amendment is not feasible, Vistra would complete a no-rise hydraulic analysis to demonstrate that construction of the maintenance support building would not increase regulatory flood elevations. The analysis would evaluate potential changes to floodwater conveyance and flow conditions associated with the proposed building. A demonstration of no increase in flood elevations would support Vistra obtaining a floodplain development permit from Shippingport Borough under Ordinance 214.

For the Project components in Zone A floodplains, Vistra will also follow the applicable permitting and design requirements under Shippingport Ordinance 214.

Evaluation of Potential Floodplain Impacts

Construction activities within the mapped floodplain, particularly for the maintenance support building, could temporarily increase erosion and sedimentation runoff, affect drainage patterns, alter localized flood elevations, or increase flood risks to adjacent properties.

For the maintenance support building, construction activities are not expected to substantially alter existing ground elevations, meaningfully displace or redirect flood flows or diminish floodplain storage, conveyance, or natural and beneficial floodplain functions. This finding is based on the existing developed and impervious conditions of the area as a parking lot, the limited grading anticipated, and the reported elevation of the maintenance support building site above the identified BFE. All Project components would be designed and permitted in accordance with

applicable floodplain development requirements to minimize potential changes to drainage, floodwater conveyance, and flood risks to adjacent properties.

To mitigate temporary construction impacts, Vistra's construction vendor will develop erosion and sediment control plans and site-specific Stormwater Pollution Prevention Plans for the proposed work. The plans will identify applicable construction controls, including silt fencing, filter socks, inlet protection, concrete washout areas, and rock construction entrances, as needed. Additionally, erosion and sediment controls will be inspected and documented regularly and after major weather events and adjusted as necessary during construction.

Based on the information currently available, the Project is not expected to result in substantial adverse effects on flood elevations, floodplain storage, conveyance, or the natural and beneficial values of the floodplain. These preliminary findings are subject to completion of applicable engineering evaluations, confirmation of final design elevations, and receipt of required floodplain development approvals.

Figure 1. Beaver Valley Nuclear Power Station Project Area and 100-year Floodplain

