

Lake Lynn Hydroelectric Power House and Dam
8 mi. NE of Morgantown West Virginia on
NE bank of the Cheat River at the West
Virginia/Pennsylvania state line
Morgantown vicinity
Monongalia County
West Virginia

HAER WV-30

HAER
WVA
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PHOTOGRAPHS

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, DC 20240

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HISTORIC AMERICAN ENGINEERING RECORD

Lake Lynn Hydroelectric Power House and Dam

HAER No. WV-30

Location: In West Virginia, Monongalia County, 8 miles NE of Morgantown, West Virginia, and 0.5 mile SSE of Lake Lynn, Pennsylvania, on the NE bank of the Cheat River, 100 yards south of the West Virginia/Pennsylvania state line.

UTM: 17.598000.4397100
Quad: Lake Lynn

Date of Construction: Begun 1913-1914, completed 1925-1926

Present Owners: West Penn Power Company (part of the Allegheny Power System), 800 Cabin Hill Drive, Greensburg, Pennsylvania 15601

Present Use: Electric power generation

Significance: When built, the Lake Lynn power house and dam reflected the state of the art in American hydroelectric power technology and developed a very substantial portion of West Virginia's hydrologic resources. This utility helped provide electricity to much of northern West Virginia and southwestern Pennsylvania and encouraged economic development in these areas. The reservoir created by the dam also permits the Monongahela River (into which the Cheat River flows) to run normally during dry, late summer months.

Historians: Field Curry, P.E. and John R. Bowie, Architect, 1980

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**United States Department of the Interior
Heritage Conservation and Recreation Service**

For HCRS use only

**National Register of Historic Places
Inventory—Nomination Form**

received

date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Hydroelectric Power House and Dam at Lake Lynn

and/or common

2. Location

street & number 0.5 mile SSE of Lake Lynn, Pennsylvania, on NE bank not for publication

city, town of the Cheat River, 100 yards south of West Virginia/Pennsylvania state line
vicinity of congressional district

state West Virginia code county Monongalia code

3. Classification

Category	Ownership	Status	Present Use	
<input type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture	<input type="checkbox"/> museum
<input checked="" type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial	<input type="checkbox"/> park
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational	<input type="checkbox"/> private residence
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment	<input type="checkbox"/> religious
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input checked="" type="checkbox"/> yes: restricted	<input type="checkbox"/> government	<input type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial	<input type="checkbox"/> transportation
		<input type="checkbox"/> no	<input type="checkbox"/> military	<input checked="" type="checkbox"/> other: Power generatir

4. Owner of Property

name West Penn Power Company (part of the Allegheny Power System)

street & number 800 Cabin Hill Drive

city, town Greensburg vicinity of state Pennsylvania 15601

5. Location of Legal Description

courthouse, registry of deeds, etc. West Penn Power Company

street & number 800 Cabin Hill Drive

city, town Greensburg state Pennsylvania 15601

6. Representation in Existing Surveys

title Historic American Engineering Record has this property been determined eligible? yes no

date Summer 1980 federal state county local

depository for survey records Library of Congress; Division of Prints and Photographs

city, town Washington, D.C. 20540 state

7. Description

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Condition
 excellent
 good
 fair

deteriorated
 ruins
 unexposed

Check one
 unaltered
 altered

Check one
 original site
 moved date _____

Describe the present and original (if known) physical appearance

The Lake Lynn Hydroelectric Power House and Dam, built in two stages between 1913-14 and 1925-26, controls the flow of the Cheat River on its way north into Pennsylvania, and creates a thirteen mile long reservoir. The concrete gravity dam, which was originally known as the "State Line Dam" stretches over 1000 feet in length across the River and stands 135 feet in height. High water that nears the concrete walkway on the crest of the dam is controlled by a series of 26 concavely-curved steel tainter gates that are hinged into reinforced concrete walls and swing open and closed as necessary to maintain a constant flow of water into the power house turbines.

The power house is situated on the northeastern side of the dam. Volumetrically, it is set into the dam and is composed of a five bay, roughly 60' by 100' building that houses the generators, turbines, switches, and switching equipment; on top of it is a four bay, roughly 30'x80' building that houses the turbine head gates and gate controls, which regulate water flow into the turbines. Both structures are constructed of steel framing, with Pratt-type flat roof trusses supported by steel columns. Non-bearing brick walls are used as infill with near floor-to-roof metal frame industrial windows grouped into pairs to delineate each bay. In the main part of the power house, each of the five groups of windows is broken vertically into three sections, with the steel crane support girder providing the break between the top and center sections; on the exterior, the break is delineated by a soldier bond belt course at sill level to the top window section. The gate control section of the power house, however, has four groups of windows, each broken vertically into two sections.

The power house is equipped with four complete sets of generating machines capable of producing 51.2 megawatts of electricity. Four 16,000 kVA Westinghouse, vertical shaft generators that rotate at 133.3 rpm are direct connected to four I.P. Morris (Philadelphia, PA) center discharge, Francis-type, single runner, 18,000 hp turbines. Turbine speed control is maintained by four Pelton Type N-115, 720 rpm electrically connected governors that activate 115,000 ft-lb of pressure to close the turbine wicket gates. On a small concrete platform located on the downstream side of the plant sit three banks of transformers. Two of the banks are 25 kV Pittsburg Co. units that provide power for local area use; the third is a set of four (three single phase and one spare unit) Westinghouse 132 kV transformers that transmit power up to the West Penn Power Company station at Charleroi, PA.

8. Significance

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Period	Areas of Significance—Check and justify below		
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input checked="" type="checkbox"/> engineering	<input type="checkbox"/> music
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government
		<input type="checkbox"/> invention	<input type="checkbox"/> religion
			<input type="checkbox"/> science
			<input type="checkbox"/> sculpture
			<input type="checkbox"/> social/
			<input type="checkbox"/> humanitarian
			<input type="checkbox"/> theater
			<input type="checkbox"/> transportation
			<input type="checkbox"/> other (specify)

Specific dates 1912-1913; 1925-1926 **Builder/Architect** West Virginia Power and Transmission Company

Statement of Significance (in one paragraph)

The Lake Lynn Hydroelectric Power House and dam, while being part of the state of the art in American power technology development in the 1910's and 1920's, represented a very substantial advancement in the development of West Virginia's hydrologic resources. The construction of the Lake Lynn Hydro Plant and reservoir helped to open up economic development not only in the northern sections of West Virginia, (such as the Morgantown vicinity), but throughout south-western Pennsylvania as well. It provided electrification to northern West Virginia and helped boost the West Penn Company's total power reserves. In addition, the storage capabilities of the reservoir allow the Monongahela River (into which the Cheat River flows) to run normally during dry, late summer months.

9. Major Bibliographical References

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Fifty Years At Your Service - The Origins and Development of the West Penn Power Company - by Robert B. Van Atta, available from the West Penn Power Co. Public Relations Department.

10. Geographical Data

Acreeage of nominated property approx 1.0 acres

Quadrangle name Lake Lynn WV/PA

Quadrangle scale 7.5 min series

UMT References

1:24,000

A

1	7	S	9	7	9	6	0	4	3	9	7	0	4	0
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B

Zone		Easting				Northing								

C

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D

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Verbal boundary description and justification On southwest, along shoreline of river to a point 100' downstream of dam. On northwest, a line parallel to dam 100' away from it, crossing river. On northeast, along shoreline up to power house on southeast, along upstream side of log boom to a point 100' above upstream side of dam, then across Lake to shore line. (See cont. sheet).

List all states and counties for properties overlapping state or county boundaries

state code county code

state code county code

11. Form Prepared By

name/title John R. Bowie, Architect (with assistance from Mr. Field Curry P.E., under contract with HAER)

organization Historic American Engineering Record date 1 February 1981

street & number 440 G Street NW, Rm. 326 telephone (202) 343-4256

city or town Washington, D.C. 20243 state

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature

title date

For HCERS use only

I hereby certify that this property is included in the National Register

date

Keeper of the National Register

Attest:

date

Chief of Registration

United States Department of the Interior
Heritage Conservation and Recreation Service

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National Register of Historic Places
Inventory—Nomination Form

Continuation sheet

Item number

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