

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY
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DEC 10 1980

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC Dam No. 5 Hydroelectric Plant

AND/OR COMMON

2 LOCATION

STREET & NUMBER Along Potomac River at Dam No. 5, 4.3 miles from Marlow on Route 2/1. Take Route 1 west at Marlow which runs into Rt. 1/4. Follow it to it intersects with Rt. 2/1. Continue 1.6 miles to Power Plant.
NOT FOR PUBLICATION

CITY, TOWN

CONGRESSIONAL DISTRICT

___ VICINITY OF

002

STATE

CODE

COUNTY

CODE

West Virginia

54

Berkeley

003

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 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 checked="" type="checkbox"/> INDUSTRIAL <input type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER:

4 OWNER OF PROPERTY

NAME Potomac Edison Co. Contact Supervisor of Minor Power Stations for information and access.

STREET & NUMBER

Downsville Pike

CITY, TOWN

STATE

Hagerstown, Md. 21740

___ VICINITY OF

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, Berkeley County
REGISTRY OF DEEDS, ETC.

STREET & NUMBER

CITY, TOWN

STATE

Martinsburg, WV 25401

6 REPRESENTATION IN EXISTING SURVEYS

TITLE NAHR (HAER) 1980 WV Recording Project and H-80-Group D, Section III, Berkeley County Historical Society & Berkeley County Historical Landmarks Commission Survey

DATE

1973-78

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR SURVEY RECORDS

Berkeley County Courthouse, Martinsburg, WV 25401
Library of Congress, Div. of Prints and Photographs

CITY, TOWN

STATE

Washington, DC. 20204

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input type="checkbox"/> ORIGINAL SITE
<input type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED DATE _____
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Site: Modified C & O Canal N.H.P. Dam No. 5, * in same way as Dam No. 4, by adding onto it. Forebay, carved out of limestone cliffs, partially lined with concrete; four 22' wide inlet gates give river water access to forebay (tainter gates were original proposed but never installed). Three sets of vertical steel slat trash racks that screen out tree branches and miscellaneous debris.

* Original dam finished in 1834-rock filled wood cribbage. Very leaky; new contract let in 1857 but constant flooding and Civil War activity postponed completion of the stone and mortar dam until 1868. Still in very good condition today; NPS owns dam, Potomac Edison maintains it.

Building: 41' x 68', four bays deep. 2 floors. Ground floor (which contains no machinery except the vertical shafts) set on projecting concrete sill, solid concrete walls with horizontal rustication on exterior. Second floor (main floor) framed with lightweight steel columns, girders, fink trusses, horizontal and vertical cross bracing. Brick veneer on three sides with horizontal wood siding on south (entry) side-which allows for large equipment to be moved in and out (easy to remove and reset siding). Gable roof with 3 monitors for ventilation. Upstream (west elevation contains 4 wooden operating head gates that control water flow into turbine scroll cases. Four segmentally arched windows with concrete keystones are set in wall about the gates, with rectangular fixed pane windows set above them near the roof line. Two concrete scroll cases combine the water flow underneath the ground floor, and funnel it counter clockwise as a vortex into the turbines. After passing through the turbines, the water discharges through the concrete draft tube and into the tail race below the building. A mezzanine above the second floor on the upstream side contains the switchboard.

Machinery: Two vertical shaft type Z, 51", left hand Leffel turbines operating under 16 feet of head at 112.5 rpm are direct connected to two three-phase, 2300 Volt, 176 Amp 700 KVA, 64 pole Electric Machinery Co. (Minneapolis, MN) generators. Direct current excitation provided by 75 hp, 2200 Volt, 1200 rpm three-phase, 60 cycle, induction motor with a 50 KW, 125 Volt, 400 Amp, 720 rpm, 4 pole generator. Two type "T" belt driven Lombard governors (Ashland, MA), operating at 12000 ft. lobs, with separate, belt driven, vertical, oil pressure and sump tanks control wicket gates to turbines. Three cylindrical air cooled, oil insulated, single phase, 2300/34500 Volt, General Electric transformers, with lightning arrestors, are located in a hollow, adjacent to forebay.

8 SIGNIFICANCE

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"/> RELIGION
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

Significant because it increased the power generating capabilities of the Potomac Light and Power Company, which in 1919 also owned the hydro plant at Dam 4 and the steam plant in Martinsburg. With this increase in power production, Martinsburg and Berkeley County could continue to attract industry and commerce as it had been doing since the 1890s.

Dam 5 Hydro Plant represents the final fruition of PLPC's plan to expand its generating capabilities within the County; i.e. power generated within the County for County use. In 1933, when PLPCo merged with Potomac Edison, power for the county was re-routed and tapped off the PE grid.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Hydroelectric Plants at Dams 4 and 5, Historical Report for NAER 1980, Charles Scott, Principal Historian; available from Library of Congress, Div. of Prints and Photographs, Washington, D. C. 20204 (probably not available until mid-1981).

Special issue, Berkeley County Historical Society Journal, 1977, Honeywood Mills, Dam No. 5, the Colstons and The Civil War by Don C. Wood

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 5 acres

QUADRANGLE NAME Hedgesville

QUADRANGLE SCALE _____

UTM REFERENCES

A 18 249 030 4387 920

B

ZONE EASTING NORTHING

ZONE EASTING NORTHING

C

D

E

F

G

H

VERBAL BOUNDARY DESCRIPTION Beginning at the south bank of the Potomac, 100 ft. east of the power plant, thence southwest 100 ft. thence northwest along the foot of the hill and the south side of the road 400 ft, thence northeast, parallel to and 100 ft. northwest of the dam, 800 ft. thence along the north bank of the Potomac southeast 200 ft. thence southwest

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES
600 ft., thence southeast 200 ft, thence southwest 100 ft. to the beginning.

STATE	CODE	COUNTY	CODE

STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME/TITLE Don C. Wood, Genealogist, Historian, Historic Archeologist

ORGANIZATION President, Berkeley County Historical Society, DATE _____
Chairman, Berkeley County Historical Landmarks Commission

STREET & NUMBER Route 3, Box 79 TELEPHONE _____

CITY OR TOWN Martinsburg, WV 25401 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 National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE _____

TITLE _____ DATE _____

FOR NPS USE ONLY	
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER	
	DATE _____
ATTEST: KEEPER OF THE NATIONAL REGISTER	DATE _____
CHIEF OF REGISTRATION	