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United States Department of the Interior National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in Guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name McMinnville Hydroelectric Station other names/site number N/A

2. Location

street & number S.R. 55 & Calfkiller River city, town McMinnville state Tennessee code TN county Warren code 177 zip code 37110

3. Classification

Ownership of Property

- private public-local public-State public-Federal

Category of Property

- building(s) district site structure object

Number of Resources within Property

Table with columns: Contributing, Noncontributing, buildings, sites, structures, objects, Total. Values: 1, 0, 1, 0, 1, 0, 1.

Name of related multiple property listing:

Pre-TVA Hydroelectric Development in Tennessee, 1901-1933

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of certifying official Deputy State Historic Preservation Officer Tennessee Historical Commission

Date 1/23/90

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official

Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

- entered in the National Register. determined eligible for the National Register. determined not eligible for the National Register. removed from the National Register. other, (explain:)

Entered in the National Register

Signature of the Keeper

Date of Action 2/26/90

Signature of the Keeper

Date of Action

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**6. Function or Use**

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Historic Functions (enter categories from instructions)  
INDUSTRY: energy-facilityCurrent Functions (enter categories from instructions)  
NOT IN USE

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**7. Description**

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Architectural Classification  
(enter categories from instructions)N/A

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Materials (enter categories from instructions)

foundation CONCRETE  
walls CONCRETE

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roof CONCRETE  
other

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**Describe present and historic physical appearance.**

The McMinnville Pre-TVA Hydroelectric Station is located on the Barren Fork River at river mile 6.3 in Warren County (population 16,251), at McMinnville, Tennessee, the county seat. The major features of the site consist of a dam, an intake channel, and a powerhouse on the east (left) bank of the Barren Fork River. Access to both sides of the dam is by unimproved roads off State Highway 108 which crosses the river about 300 feet downstream. An L&N railroad bridge crosses the reservoir just upstream. Presently, the dam's chief purpose is to maintain the reservoir for the city's water supply.

Electricity was supplied to McMinnville by a steam-powered generator until 1907 when the Walling Light and Power Company "installed a generator in the Old Falcon Flour Mill on Barren Fork River...." It was, as in the example of Sparta, Tennessee, an impromptu affair and was utilized for only a few months until a new facility was built on the other side of the river, later in the same year. After floods in 1922 destroyed these facilities, the current power house was constructed in 1923. It housed a "Leffel Francis-type turbine rated at 380 HP and 164 RPM which was connected to a 250kW generator manufactured by General Electric." TEPCO purchased the site in 1925 and it was transferred to TVA in 1939 ten years later and sold back to the City of McMinnville in 1949 when it was retired. It stands today on the Barren Fork River and, although abandoned, it is a good example of what can be termed "early-twentieth-century-vernacular-concrete-hydro style."<sup>1</sup>

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<sup>1</sup> Correspondence from James A. Dillon, Jr., Warren County Historian, January 11, 1989, and his typed manuscript "History of Electricity in Warren County," pp. 1-4, and; System Control News, (hereafter: SCN) January 1, 1973, No. 57, pp. 4-5, and; Tennessee Valley Authority, Small Hydro Feasibility Report for the McMinnville Dam, Technical Report Series, Small Hydro Program Feasibility Reports, Division Water Resources, Office of Natural Resources, Norris, Tennessee, 1982, pp. 1-3, (hereafter: Feasibility Report - McMinnville Dam). [See also: Walter Womack, McMinnville at a Milestone, 1810-1960. A Memento of the Sesquicentennial Year of McMinnville, Tennessee, 1960, and Warren County, 1958, (McMinnville, Tenn: Womack Printing Co. and Standard Publishing Co. 1960),

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The McMinnville Hydroelectric Powerhouse (1923) is built of reinforced concrete, while the 320-foot long dam is twenty feet high and represents an unusual combination of concrete gravity and timber crib design overlain with concrete, similar in arrangement to the smaller dam in Manchester, in Coffee County on the Duck River. In 1929, a major rehabilitation of the right side of the dam took place. The right section is an ogee-shaped concrete gravity structure which ties into a railroad support at the right abutment. The railroad bridge was constructed in 1910. "The left section of the dam is the original rock-filled timber crib and the face is very rough and covered by small vegetational growth." The extant, but now empty, hydrostation contained a Leffel Francis-type reaction turbine, rated at 380 horsepower and 164 RPM, which was connected to a 250 kW General Electric generator. The intake channel is located on the left bank of the Barren Fork<sup>2</sup> River, conveying water seventy-five feet downstream to the powerhouse. A TVA study explains that the:

walls and floor [of the intake channel] are concrete except for the upper half of the wall nearest the bank which is formed by the limestone block foundation of an old building. [sic] A steel slide gate is in place at the channel entrance, and a wooden slide gate, used for dewatering purposes, is located on the wall nearest the river. A trashrack structure minus the steel trashracks is situated about 12 feet from the powerhouse with two empty slots for stop logs at the powerhouse. A lifting mechanism for the sluice gate is in place. The channel has deteriorated over the years with trees and other smaller vegetation growing in the floor and wall nearest the bank. A large hole is present where the dam joins the channel wall. Water which leaks<sup>3</sup> into the channel near the entrance disappears through the floor.

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pp. 96-101, for an entertaining account of a failed attempt at a hydroelectric facility in McMinnville in 1889].

<sup>2</sup> Feasibility Report - McMinnville Dam, pp. 1-6.

<sup>3</sup> Feasibility Report - McMinnville Dam, 6-7. See also: SCN, January 1, 1973, No. 57, p. 5.

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The tailrace is found directly downstream from the powerhouse and is parallel to the river. It is full of silt and debris and is approximately fifteen feet wide and is bounded by a short concrete wall on one side and the river bank on the other.<sup>4</sup>

The powerhouse itself is a concrete structure with three floors. The turbine sat on the second floor and discharged water into the lower level which directed the flow into the tailrace. The upper, or third, floor incorporated the governor, controls, generator and all electrical equipment. Doors and window glass are missing, and all machinery has long since been removed. The small substation used by this facility is extant and located about 200 feet from the powerhouse on a nearby hill. The Maloney transformers are in place. "Some small transmission lines radiate from the substation, and other lines cross the river at the railroad bridge, State Highway 108 bridge, and over the powerhouse."<sup>5</sup> The substation, noted for its Maloney transformers in a 1982 TVA report, is not included in this nomination as further assessment is required to better establish its temporal limits and significance.

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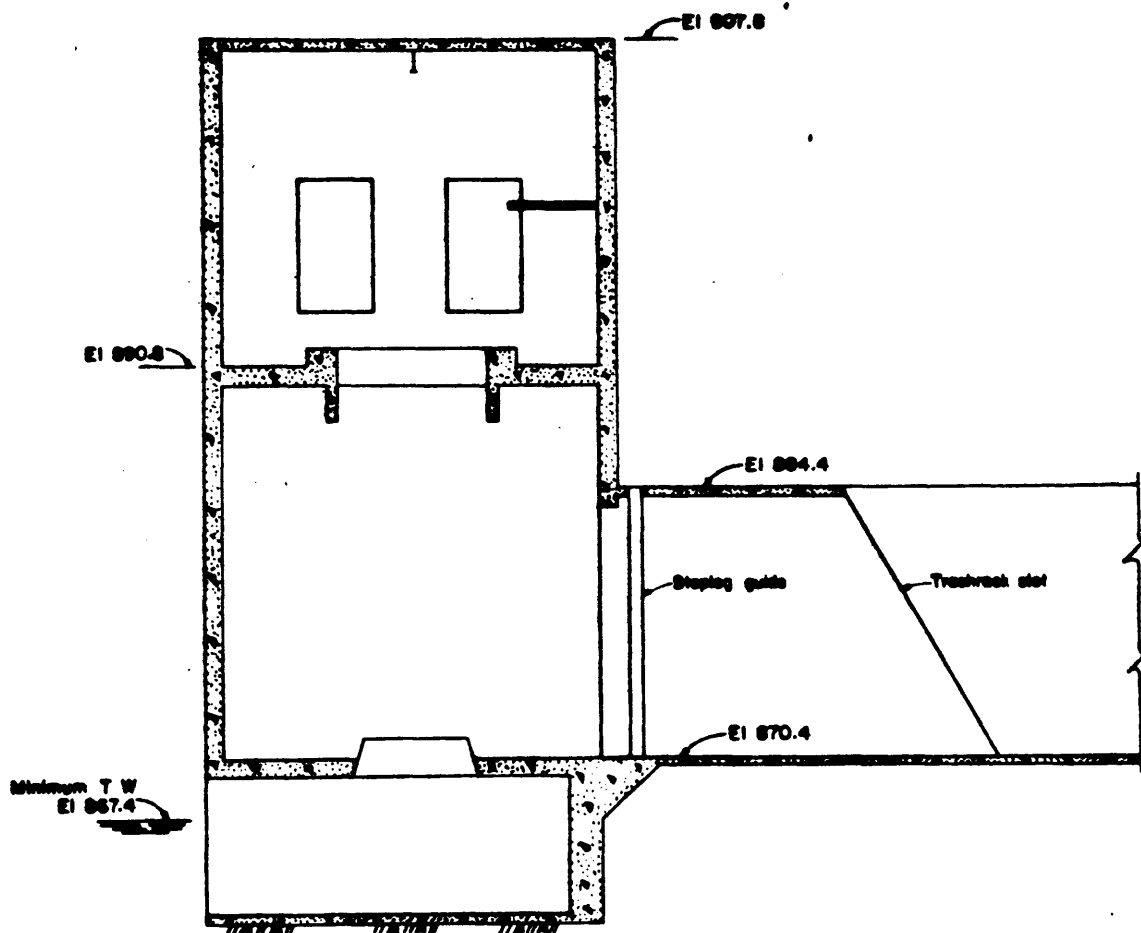
<sup>4</sup> Feasibility Report - McMinnville Dam, p. 7.

<sup>5</sup> Ibid.

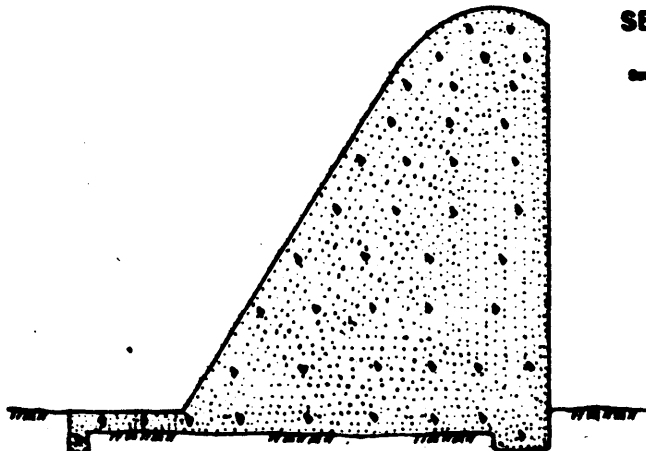
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SECTION THRU POWERHOUSE



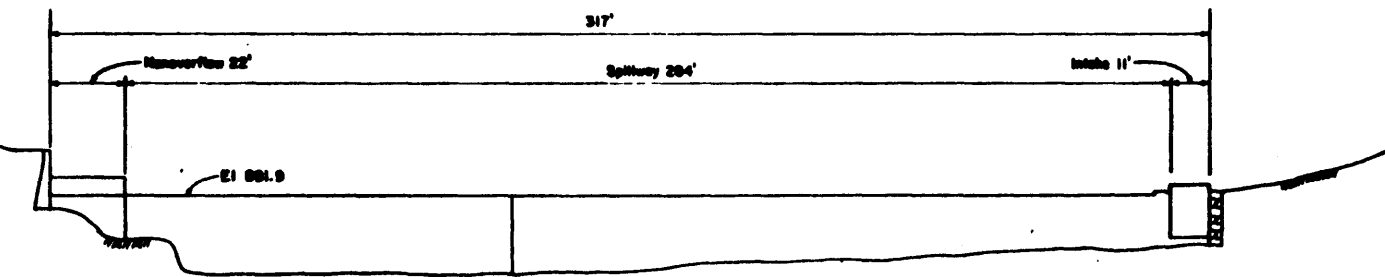
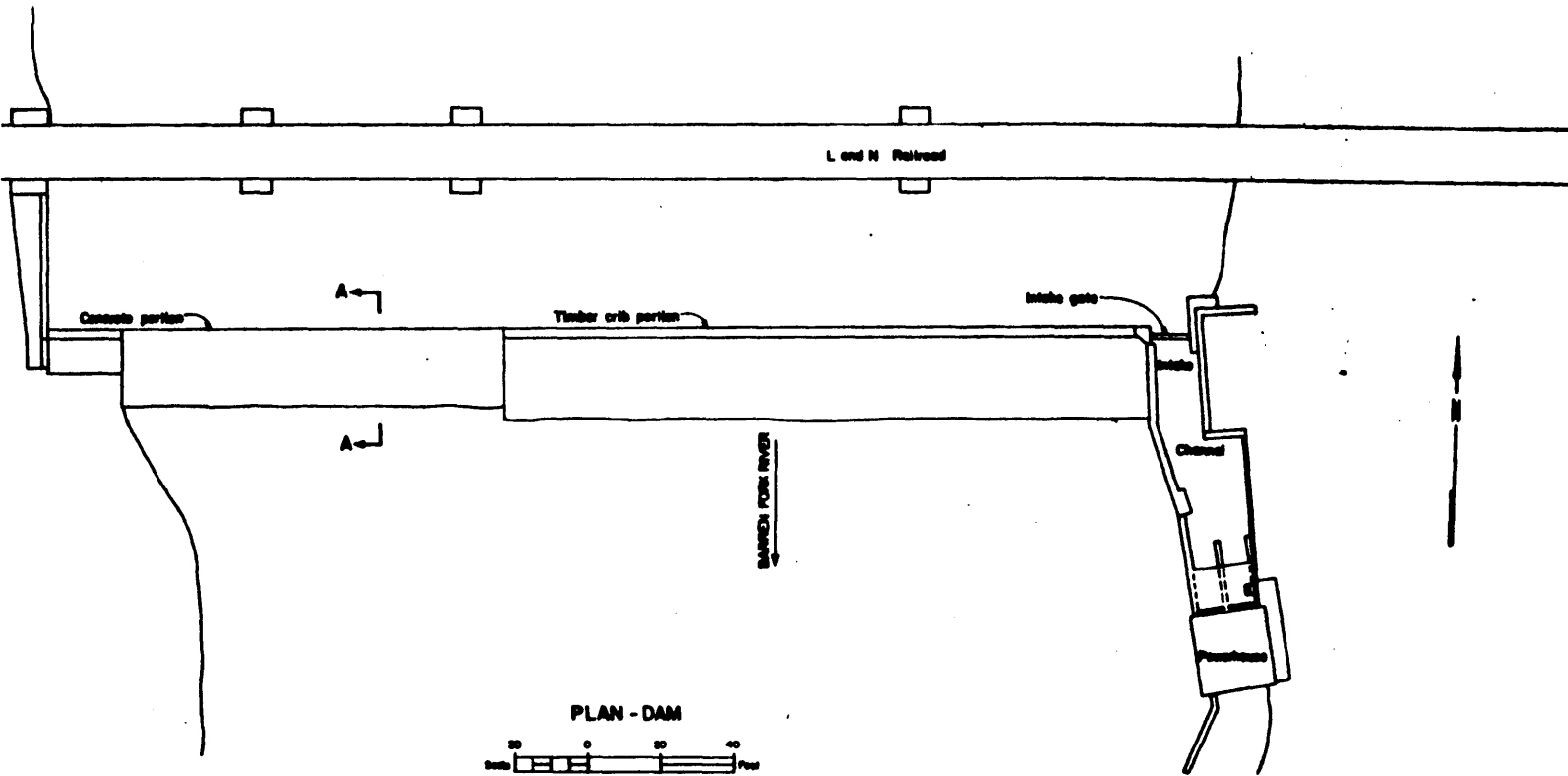
SECTION A-A



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1/26/90

**8. Statement of Significance**

Certifying official has considered the significance of this property in relation to other properties:

nationally  statewide  locally

Applicable National Register Criteria  A  B  C  D

Criteria Considerations (Exceptions)  A  B  C  D  E  F  G

Areas of Significance (enter categories from instructions)

ENGINEERING

COMMERCE

Period of Significance

1923-1933

Significant Dates

1923

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

unknown

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The McMinnville Hydroelectric Station is significant under criterion C for engineering because it represents the kind of small-scale, vernacularly designed steel reinforced concrete hydroelectric engineering projects typical throughout the initial days of electrical power development in the state of Tennessee. Its design - especially when considering its water intake system - shares consistency in construction materials, genre, temporal limits, and utilitarian functions with other Pre-TVA Hydroelectric sites on Tennessee's smaller rivers. Hydroelectricity was produced there, with intermittent interruptions from 1907 to 1949, supplying McMinnville's early industrial and domestic electric needs. Today the dam, intake structure, forebay, powerhouse, tailrace, and supporting walls downstream from the powerhouse are still extant. All are composed of steel-reinforced concrete and, although the station has been abandoned since 1949, it still retains sufficient integrity to reflect the criteria for engineering significance as set forth in the registration requirements for Pre-TVA Hydroelectric sites in the cover form, "Pre-TVA Hydroelectric Development in Tennessee, 1901-1933."

The McMinnville Pre-TVA Hydroelectric Station is also significant under criterion A for commerce in the State of Tennessee, as it represents the change from wood or coal to electricity as the source for domestic and industrial power. It represents, also, the introduction of a new business, that of supplying electricity, that would become one of the major hallmarks of the twentieth century in Tennessee and thus representative of a change in the business of trading, production, commerce, communications, and commodities in McMinnville and the State of Tennessee. Additionally, the Station is significant under criterion A for community planning and development, aside from being the major source of electricity for McMinnville.

See continuation sheet

**9. Major Bibliographical References**

Previous documentation on file (NPS): N/A  
 preliminary determination of individual listing (36 CFR 67) has been requested  
 previously listed in the National Register  
 previously determined eligible by the National Register  
 designated a National Historic Landmark  
 recorded by Historic American Buildings Survey # \_\_\_\_\_  
 recorded by Historic American Engineering Record # \_\_\_\_\_

See continuation sheet

Primary location of additional data:  
 State historic preservation office  
 Other State agency  
 Federal agency  
 Local government  
 University  
 Other  
Specify repository: \_\_\_\_\_

**10. Geographical Data**

Acreege of property Approximately 2 acres

UTM References

A 

1	6	6	1	0	7	0	0	3	9	4	8	3	6	0
Zone			Easting					Northing						

B 

Zone			Easting					Northing						

C 

Zone			Easting					Northing						

D 

Zone			Easting					Northing						

See continuation sheet

McMinnville, TN 92NE

Verbal Boundary Description

See continuation sheet

Boundary Justification

See continuation sheet

**11. Form Prepared By**

name/title James B. Jones, Jr. Historic Preservation Specialist  
organization Tennessee Historical Commission date January 1990  
street & number 701 Broadway telephone (615) 742-6718  
city or town Nashville state TN zip code 37243-0442



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MAJOR BIBLIOGRAPHICAL REFERENCES

Correspondence from James A. Dillon, Jr., Warren County Historian, January 11, 1989, and his unpublished-typed manuscript "History of Electricity in Warren County."

System Control News, January 1, 1973, No. 57, pp. 4-5.

Tennessee Valley Authority, Small Hydro Feasibility Report for the McMinnville Dam, Technical Report Series, Small Hydro Program Feasibility Reports, Division Water Resources, Office of Natural Resources, Norris, Tennessee, 1982: Report No. WR28-1-510-133.

Womack, Walter. McMinnville at a Milestone, 1810-1960. A Memento of the Sesquicentennial Year of McMinnville, Tennessee, 1960, and Warren County, 1958. McMinnville, Tenn: Womack Printing Co. and Standard Publishing Co. 1960.

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## **BOUNDARY DESCRIPTION**

The boundaries for the McMinnville Hydroelectric Station are as follows: parallel with and downstream from the L&N Railroad Bridge, from the dam footing on the west side, the Barren Fork River to the dam footing on the east side of the river, including the intake structure, tail race, and retaining wall immediately downstream and adjacent to the power station and parallel to the river, at mile 6.3 on the Barren Fork River, and near State Highway 55, in Warren County, Tennessee. See accompanying Warren County Tax Map 68K.

## **BOUNDARY JUSTIFICATION**

The boundaries for the McMinnville Hydroelectric Station are sufficient to protect the historic integrity of the site.

5/16/90

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McMinnville Pre-TVA Hydroelectric Station  
Near the State Highway 55 Bridge in McMinnville, as it crosses the  
Calfkiller River

McMinnville, Warren County, Tennessee

Photo by: James B. Jones, Jr.

Date: March 1989

Neg: Tennessee Historical Commission  
701 Broadway  
Nashville, Tennessee 37243-0442

Dam and hydrostation powerhouse, looking east  
#1 of 9

Flume with hydrostation powerhouse, looking southeast  
#2 of 9

Hydrostation, flume, retaining wall, looking southeast  
#3 of 9

Powerhouse superstructure, looking south  
#4 of 9

Trash rack support, forebay, flume structural supports and powerhouse,  
looking south  
#5 of 9

Tailrace exit, looking south  
#6 of 9

Turbine/generator coupler - collar, looking west  
#7 of 9

Powerhouse with dam, looking northeast  
#8 of 9

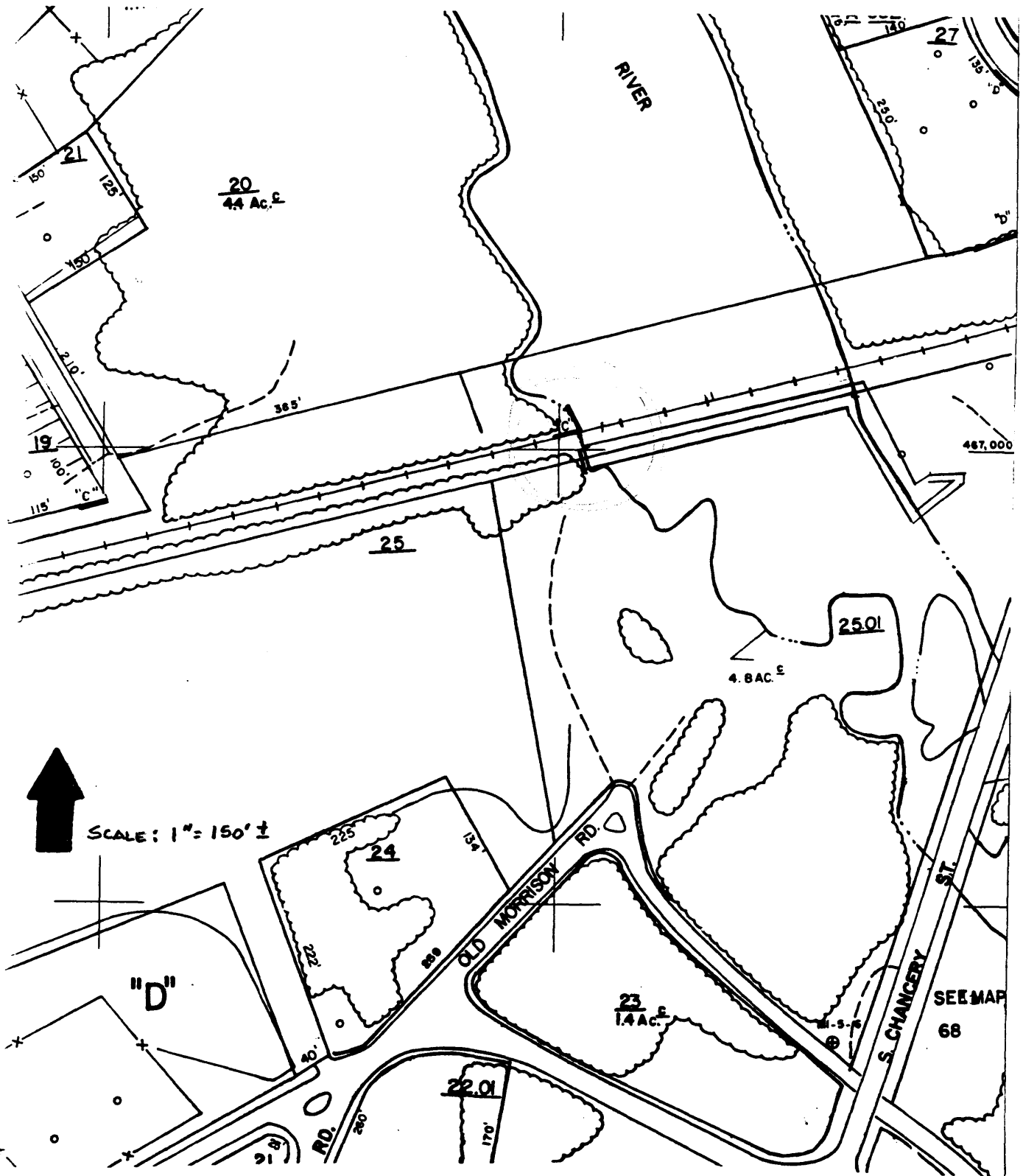
Interior of powerhouse, looking northeast  
#9 of 9

*Handwritten signature/initials*

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*State*

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McMinnville Hydroelectric Station      Warren County, TN  
(Pre-TVA Hydroelectric Development in Tennessee, 1901--1933 MPS)

ADDITIONAL DOCUMENTATION APPROVAL

*[Signature]* Keeper *Abelmas Zyden 9/24/70*

*4/27/90*

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The correct address for the McMinnville Hydroelectric Station should read:

State Route 55 Bypass at Barren Fork River

*Herbert L. Harper*

Deputy State Historic Preservation Officer  
Tennessee Historical Commission

*4/27/90*

Date