United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property

County and State

Section number _____ Page _____

Name of multiple property listing (if applicable)

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 100001473 Date Listed: 8/14/2017

Property Name: Ocoee No. 3 Hydroelectric Project (TVA Hydroelectric System, 1933-1979 MPS)

County: Polk State: TN

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Signature of the Keeper

8-14-2017
Date of Action

Amended Items in Nomination:

Section 8: Area(s) of Significance

INDUSTRY, and SOCIAL HISTORY are hereby deleted as areas of significance. None of these areas are well-supported in the nomination.

The TVA FPO and the Tennessee State Historic Preservation Office was notified of this amendment.

United States Department of the Interior
National Park Service

MP-1473

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Ocoee No. 3 Hydroelectric Project

Other names/site number: Ocoee Dam

Name of related multiple property listing: Historic Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979

2. Location

Street & Number: 1988 U.S. Highway 64

City or town: Benton State: Tennessee County: Polk

Not For Publication: N/A Vicinity: N/A Zip: 37307

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X 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 X meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

[ ] national [X] statewide [X] local

Applicable National Register Criteria: [X] A [ ] B [X] C [ ] D

Patricia Bernard Eggell 11-9-16

Signature of certifying official/Title: **Date**

Dr. Program Mgr., Tribal Relations & History & Federal Preservation Officer

State or Federal agency/bureau or Tribal Government

In my opinion, the property ✓ meets ___ does not meet the National Register criteria.

Signature of Commenting Official: Claudette Sipe **Date** 11-28-16

Deputy State Historic Preservation Officer,
Tennessee Historical Commission

Title: **State of Federal agency/bureau or Tribal Government**

Ocoee No. 3 Hydroelectric Project | Polk County, Tennessee
Name of Property | County and State

4. 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:) ___

Signature of the Keeper — Date of Action: 6.14.2017

5. Classification

Ownership of Property
(Check as many boxes as apply.)

Private	☐
Public – Local	☐
Public – State	☐
Public – Federal	X

Category of Property
(Check only **one** box.)

Building(s)	☐
District	X
Site	☐
Structure	☐
Object	☐

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
1	2	buildings
0	0	sites
7	0	structures
0	0	objects
8	2	Total

Number of contributing resources previously listed in the National Register 0

Ocoee No. 3 Hydroelectric Project | Polk County, Tennessee
Name of Property | County and State

6. Function or Use

Historic Functions

INDUSTRY/PROCESSING/EXTRACTION/
Energy Facility

Current Functions

INDUSTRY/PROCESSING/EXTRACTION/
Energy Facility

7. Description

Architectural Classification

MODERN MOVEMENT: Streamlined Moderne
OTHER: Hydroelectric Dam

Materials:
Principal exterior materials of the property: CONCRETE; STEEL; GLASS; ROCK; EARTH; CERAMIC

Summary Paragraph

The Ocoee No. 3 Hydroelectric Project includes a dam, reservoir, tunnel, and powerhouse, all of which lie within Polk County, Tennessee. The dam is located at mile twenty-nine on the Ocoee River, with the powerhouse located four and two-tenths of a mile downstream. The Ocoee River flows through northwest Georgia and into the Hiwassee River thirty-four miles above its confluence with the Tennessee River. The nearest town to the project site is Ducktown, Tennessee (pop. 475 in 2010), four miles to the east. The Ocoee No. 3 Project impounds the Ocoee No. 3 Reservoir, which extends upstream twenty-three miles to the Blue Ridge Reservoir and five miles downstream at the Ocoee No. 2 Dam. The Ocoee No. 3 Reservoir has a drainage area of 496 square miles and contains twenty-four miles of shoreline and 360 acres of water surface. The project has a flood-storage capacity of 9,100 acre-feet.[1] The primary purpose for construction of the dam was to improve flood storage and power development in anticipation of World War II.[2] Construction of the project began in 1941 and it was completed in 1942. The Ocoee No. 3 project takes its name for the river it is on and for its position among the three TVA projects located on the Ocoee River.

[1] Tennessee Valley Authority, *The Hiwassee Valley Projects, The Appalachia, Ocoee No. 3, Nottely, and Chatuge Projects: A Comprehensive Report on the Planning, Design, Construction, and Initial Operations of the Four Projects, in the Hiwassee Basin, Constructed on an Emergency Basis during World War II, Technical Report No. 5 Volume 2*, (Washington, D.C.: U.S. Government Printing Office, 1948), 40.
[2] ñOcoee No. 3 Reservoir,ò at TVA webpage http://www.tva.gov/sites/ocoee3.htm accessed August 19, 2015.

INVENTORY

The Ocoee No. 3 Hydroelectric Project consists of the concrete dam across the Ocoee River, a powerhouse, pipeline tunnel, surge tank, valve house, penstock and a switchyard on the left bank the river, and a concrete bridge crossing the Ocoee River from U.S. Highway 64 on the right bank of the river. The concrete dam is located approximately four miles upstream from the powerhouse. This hydroelectric facility does not possess any maintenance or recreational buildings (*see Photo 1*).

1. Ocoee No. 3 Dam, 1943 (Contributing Structure)

The Ocoee No. 3 projectôs dam is a concrete gravity, non-overflow dam and spillway (*see Photo 2*) measuring 612 feet in length.[3] Its maximum height is 110 feet and its top level is at an elevation of 1,443 feet above sea level. The length of the dam provides for seven radial gates measuring twenty-three feet high and thirty-two feet wide, divided by concrete piers six feet thick (*see Photos 3-5*). The spillway has an ogee-type overfall section and a crest at an elevation of 1,412 feet above sea level. The piers dividing the gates rise twenty-eight feet above the crest to an operating deck.[4] This operating bridge deck is twenty-one feet in width and is surrounded by metal railing. There are four (4) thirty-inch wide flange beam stringers for sliding the steel gates. A gallery runs through a large part of the interior of the dam for inspection and interior drainage. The dam is accessed by a concrete staircase with an aluminum railing located at the left (west) side of the downstream face of the dam. Construction of the dam used 111,000 cubic yards of concrete.[5] The spillway is a 260-foot long section of concrete (*see Photo 6*) located in the natural river channel and is designed to discharge water at a rate of 117,000 cubic feet per second. The spillway is flanked by two training walls extending downstream to the end of the bucket type apron bucket.[6]

The intake is a located on the left (west) abutment adjacent to the upstream face of the non-overflow dam and is designed to operate effectively after the reservoir is filled with silt brought down from the Ducktown and Copperhill Copper Basin. The intake opening is controlled by a wheel-type gate handled by a stiff-leg derrick crane on the operating deck. The opening of the intake tunnel is twelve feet wide by eleven feet high and located forty feet behind the trashracks. The intake trashracks are located in two openings, each twelve feet wide, separated by concrete piers four feet thick and twenty-two feet high. A concrete baffle extends to the top of the intake. There are two sluice openings twenty feet below the intake sill; each opening measures five feet wide by seven feet high and is equipped with a steel gate. In addition to the intake gate, the derrick crane located on top of the dam handles the gate hoist, sluice gates, trashracks, and stop logs. There is also a rectangular, steel operator cabinet located on top of the spillway operating bridge deck. Attached to the intake opening is a conduit or pipeline, which diverts water two-and-one-half miles downstream to the surge tank, penstocks and powerhouse.[7]

[3] Commonly, dam design includes a section that permits the overflow of water from the reservoir (the spillway) and other sections that do not allow the passage of water (non-overflow). Together, these sections contribute to the total length of the dam structure that impounds the reservoir. A gravity type dam is one constructed of concrete or stone and uses the sheer weight of the structure to resist the horizontal pressure of the water pushing against it. Gravity dams are designed in sections that are independently stable.
[4] Tennessee Valley Authority, *The Hiwassee Valley Projects,* 138-149.
[5] Ibid., 666.
[6] Ibid., 143.
[7] Ibid., 151.

2. Pipeline, 1943 (Contributing Structure)

Dictated by topography, the pipeline conduit attached to the intake travels 13,000 feet along the left (west) bank of the river. The average flow of water through the pipeline is 1,200 cubic feet per second. The pipeline is of concrete and steel, twelve feet, six inches in diameter.[8] The concrete lining for the tunnel is six inches thick except in timbered sections where the thickness reaches twelve inches. Curves in the tunnel are on a radius of sixty feet. Construction of the tunnel used 28,500 cubic-yards of concrete and the steel was manufactured by the Chicago Bridge and Iron Company.[9]

3. Surge Tank, 1943 (Contributing Structure)

The steel pipeline reaches the surge tank located on the top of a hill west of the powerhouse. The surge tank is above-ground and designed for both full-load demand and full-load rejection at the generating unit. The surge tank is a differential type tank made of steel plate with a diameter of forty feet and a height of 142 feet (*see Photo 7*). The interior has a steel riser ten feet, six inches in diameter resting on a concrete foundation slab approximately fifty-two feet in diameter and five inches thick. The riser is supported by six brackets spaced uniformly around the pipe.[10] The surge tank is accessed by a wooden staircase from the valve house below.

4. Valve House, 1943 (Contributing Structure)

Located between the surge tank and the penstocks is a valve house (*see Photo 8*). The valve house is a reinforced concrete structure twenty-six feet wide, thirty-one feet long and twenty-three feet high containing one twelve-foot-diameter butterfly valve. There is a solid metal door and louvered vent on the west elevation. The butterfly valve controls the water flow to the penstock at the powerhouse and is powered by a twenty-five-horsepower, 250-volt, direct current motor at 1,200 revolutions per minute (*see Photo 9*). The structure is accessed by a gravel road up the hill from the powerhouse.

5. Penstock, 1943 (Contributing Structure)

Down the slope from the valve house is the steel penstock (*see Photo 10*). This welded steel-plate construction penstock has an internal diameter of eleven feet and downstream thirty feet, six inches from the valve house.[11] The penstock then descends down the slope for fifty-five feet with the use of steel elbow brackets connecting the sloping section of the continuing penstocks, now nine-feet in diameter. The elbow brackets are anchored into concrete anchor blocks, while the steel pipes are anchored by steel ring supports. Once reaching the ground elevation at the powerhouse, the penstock continues underground beneath the concrete access road and into the powerhouse on its south elevation (*see Photo 11*).

6. Powerhouse, 1943 (Contributing Building)

Located four miles downstream from the dam, the powerhouse was constructed of concrete and steel. It consists of a two-story wing on the south and a three-story wing on the north. The two-story wing houses the equipment bay, containing the control rooms and entrance of the penstock. The three-story wing contains the generator bay, which houses the generator room and crane support. Both wings have flat roofs. The building is constructed of structural steel frame, and all exterior walls are of concrete finished with rough-sawed Indiana limestone.[12]

[8] Ibid., 156.
[9] Ibid., 430.
[10] Ibid., 160.
[11] Ibid., 161.
[12] Tennessee Valley Authority, *The Design of TVA Projects, The Mechanical Design of Hydro Plants: Technical Report No. 24 Volume 3*, (Washington, D.C.: U.S. Government Printing Office, 1960), 135.

The east elevation of the building is the façade and contains the main entrance within the three-story wing. The two-story wing has no openings on the east façade *(see Photo 14 becomes 12).* The entrance consists of two columns of fixed glass and steel-frame panels. Each column has seven pairs of horizontal fixed lights. At ground level, the bottom two lights of each column are within a steel bay door, a design that accommodates machinery *(see Photo 15 becomes 13)*. The bay door on the left also has a built-in pedestrian door. Above each bay door are the remaining six pairs of horizontal fixed lights. Above the entire entrance are aluminum letters spelling out ñOCOEE NO. 3.ò Above the block letters is a rectangular clerestory window of structural glass blocks.

On each story of the two stories of the south elevation, there is a bank of eight steel frame window sets. Each window set on the first floor has a large, square, single-light window with a fixed horizontal window above and below. The window sets on the second floor are similar, except have horizontal vents above the square lights. Above the roof of the two-story section, the south elevation of the three-story wing is visible. It has a clerestory bank of structural glass block *(See photo 13 becomes 14)*.

The west elevation of the two-story wing *(See photo 12 becomes 15)* has no fenestration. It has a suspended walkway against the building that continues to a solid metal door in the three-story wing at the north end of the west elevation. The walkway has a metal pipe rail, and the entrance has an aluminum, shed-roof canopy. Above the entrance, at the top of the three-story wing, there is a long, horizontal, metal louvered vent.

The north elevation has three banks of steel windows. Each bank contains seven pairs of original four-light, steel, fixed windows. These windows are glazed with blue-tinted, heat-absorbing glass that coordinates with the blue interior tile.[13] These windows correspond to the interior of the generator room. Below the generator floor, the powerhouse substructure is visible on the north elevation of the building. The substructure projects to the north to accommodate a walkway along this elevation. The walkway has metal railing. Two sluice gates are located at the rear (west) end of the north elevation. At the top of the powerhouse on this elevation there is a long horizontal clerestory window of structural glass block *(See photo 16)*.

Entering the interior from the east elevation is the main level, or first floor of the powerhouse. This level is the main deck and generator room. The interior walls of the generator room have blue glazed tile. On the interior north wall of the generator room the tiles extend to just below the concrete surround of the structural glass block clerestory windows *(See photo 17)*.

The frame of the powerhouse in the generator room consists of steel piers which extend to the ceiling to support the roof structure. The floor has the original brown ceramic tile surface. The powerhouse has one single-runner, vertical shaft, steel plate, spiral case type turbine manufactured by S. Morgan Smith Co., from York, Pennsylvania, rated at 33,500HP at 280-foot net head and 200 revolutions per minute. This turbine is connected to a vertical shaft generator with a normal rating of 30,000kva, 13.8 kilovolts, 3 phase, 60 cycles, 200 revolutions per minute and discharges 1,200 cubic feet per second. The generator is fully enclosed and air-cooled with water-cooled heat exchangers *(see Photo 18)*.[14] The generator room is equipped with an overhead 100-ton capacity bridge crane, supported by steel frames.

[13] Tennessee Valley Authority, *The Hiwassee Valley Projects*, 170.
[14] Ibid., 171-172.

On the interior south wall of the generator room, above the entrance to the control room, are aluminum letters spelling ñ1941 BUILT FOR THE PEOPLE OF THE UNITED STATES 1943.ò The entrance into the control room consists of a single door and double doors of solid metal. Each door has a narrow, vertical, fixed light (*see Photo 19*).

The control room is located on the main floor in the equipment bay, which houses the actuator cabinets, main control unit boards, and the 440-volt switchboard room. The first floor also contains a machine shop area and employee facilities including a restroom with an original solid aluminum door with louvers, original marble stalls, blue tile walls, and tile floors *(See photos 20-21)*. The stairwells in the powerhouse are original with concrete treads and glazed tile walls.

At the rear of the equipment bay are a battery room, motor generating room and vent fan room *(See photo 22)*. These are located above the entry of the penstock, which is in the lowest level of the building. This level is accessed by a steel staircase and also includes the oil purification room, oil storage room, water treatment room, and wheel pit access *(See photo 23)*. This level is constructed with both concrete walls and six-course brick walls. The floors in this level are both poured concrete and concrete floor tiles. A cable tray tunnel connects the powerhouse with the switchyard (*see Photo 24*).

7. Switchyard and Transmission Lines, 1943, (Contributing Structure)

The Ocoee No. 3 Project is located within a transmission system connected to the hydroelectric projects power systems at Apalachia, Ocoee No. 2, and to the Copper Basin. The electrical structures at Ocoee No. 3 consist of a switchyard and transmission lines located on the river bank immediately upstream from the powerhouse. The switchyard is a low, narrow type structure which is enclosed behind a chain link fence and has a gravel surface. The switchyard steel structure measures 314 feet long by 121 feet wide and is built of three-foot square latticed box columns and truss construction located twenty-six feet apart creating nine bays.[15] The structure is designed for 9,000 pounds per phase conductor and 6,000 pounds per ground wire with 3,000 pounds per conductor and ground wire for outgoing lines. Steel transmission lines extend west from the switchyard before leaving the projectôs boundary (*see Photo 25 & 26*).

8. Switchyard Storage Building, ca. 1990 (Non-Contributing Building)

Located at the south end of the switchyard is a steel storage building constructed ca. 1990. The building is a prefabricated storage building with a gable-front roof. It has a solid steel door and one-over-one vinyl window located on the east elevation (*see Photo 27*).

9. Flammable Storage Shed, ca. 1990 (Non-Contributing Building)

This is a ca. 1990 flammable storage building with metal paneling and a flat metal roof. The east elevation has two solid steel access doors. The building is located at the south end of the switchyard.

10. Powerhouse Access Bridge, 1943 (Contributing Structure)

Access to the powerhouse from U.S. Highway No. 64 is by way of a six-span concrete slab and steel stringer bridge which spans the Ocoee River on a slight vertical curve just upstream from the powerhouse. The bridge is 448 feet in length to each abutment and is eighteen feet in width with a three-foot sidewalk on the downstream side. The abutments and piers are reinforced concrete and the piers are spaced seventy-five feet apart on center (*See Photo 28*). Cast iron scuppers were placed at in the concrete slab to allow for drainage of the roadway. The

[15] Ibid., 192.

railing consists of a concrete parapet with a steel pipe railing. The bridge was designed in accordance with the ñStandard Specifications of Highway Bridges adopted in 1935 (*see Photo 29*).[16]

[16] Ibid., 197.

Ocoee No. 3 Hydroelectric Project | Polk County, Tennessee
Name of Property | County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations N/A
(Mark "x" in all the boxes that apply.)
Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance

ARCHITECTURE
ENGINEERING
INDUSTRY
RECREATION
SOCIAL HISTORY

Period of Significance

1941- 1965

Significant Dates

1941-1943

Significant Person

N/A

Cultural Affiliation

N/A

Architect/Builder

Architect: Tennessee Valley Authority; U.S. Army Corps of Engineers; Roland Wank; Rudolph Mock; Mario Bianculli
Builder: Tennessee Valley Authority

Statement of Significance Summary Paragraph

The Ocoee No. 3 Hydroelectric Project meets National Register Criteria A and C for its historical and architectural and engineering significance on the local and state levels as an integral part of the Tennessee Valley Authority Hydroelectric Project. Its period of significance is from 1941, when the project commenced, to 1965, in keeping with the fifty-year guideline. The Ocoee No. 3 Hydroelectric Project was completed in 1943 and is significant in the expansion of energy, and improvement of quality of life through transmission of electricity, and control of seasonal flooding. The Ocoee No. 3 Hydroelectric Project was one of twenty-five dam sites constructed by the Tennessee Valley Authority (TVA) for the purpose of generating electrical power from, improving navigation of, and controlling seasonal flooding of the river system of the region. The main objective of the 1933 Tennessee Valley Authority Act was the creation of a continuously navigable nine-foot channel from the mouth of the Tennessee River to Knoxville, as well as flood control, power generation, and public benefits. To further the aims of electrical power and flood control, the Ocoee No. 3 Hydroelectric Project was part of a group of four dams built on the Hiwassee River itself and its tributaries as proposed by TVA in its 1936 report to Congress.

For architecture, it is significant for its Streamlined Moderne style, embodying the TVAôs mission of progress in its economy of adornment, as well as the industry of the machine age. The projectôs significance in engineering is reflected in TVAôs overall plan for an integrated system of river management through site-specific designs tested on scaled models. The significance of the Ocoee No. 3 project in industry is seen through the increase of household electricity use and in war-related manufacturing. The project is significant in recreation because of the extensive outdoor opportunities it fostered. Ocoee No. 3 was significant in social history for its influence on employment, housing, and improvement of quality of life. The Ocoee No. 3 Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, ñHistorical Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979.ò

Narrative Statement of Significance

The Tennessee Valley Authority (TVA) was created under President Rooseveltôs New Deal program as part of his ñFirst One Hundred Days.ò Roosevelt envisioned ña corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise.ò To this end, Congress passed the TVA Act on May 18, 1933.[17] The multi-purpose legislation sought to improve navigation and flood control of the Tennessee River, spur agricultural and industrial development in the Tennessee Valley, and provide for national defense via government facilities in the proximity of Muscle Shoals, Alabama (Sec. 1). The act authorized the TVA Corporation to acquire real estate for the construction of dams, reservoirs, power houses, transmission lines, or navigations projects at any point along the Tennessee River and its tributaries (Sec. 4i).[18]

The Ocoee No. 3 Hydroelectric Project takes its name from the river it is on, as well as its placement among the three dams on the lower Ocoee.[19] The area of the three Ocoee reservoirs was originally inhabited by the Cherokee Indians until Anglo settlers migrated to the area in the early nineteenth century. Copper was discovered in the eastern parts of Polk County, Tennessee, around 1843, spurring extensive copper mining

[17] ñHistory of the Tennessee Valley Authority,ò at TVA website http://www.policyalmanac.org/economic/archive/ tva_history.shtml accessed August 19, 2015.
[18] Ibid.
[19] Tennessee Valley Authority, ñThe Hiwassee Valley Projects,ò (Knoxville: Tennessee Valley Authority, 1948), 8.

operations at Ducktown and Copperhill. Wood was the primary fuel for the copper smelting furnaces and much of the area in the Ocoee watershed was denuded of trees in the nineteenth century.[20] At the turn of the twentieth century, the Ocoee River was examined as a potential site for hydroelectric power by the Eastern Tennessee Power Company. The company purchased property along the Ocoee River and constructed the Ocoee No. 1 Dam in 1911, followed shortly after by the Ocoee No. 2 constructed in 1913. The power furnished by these dams provided electricity to Chattanooga, Knoxville, Nashville, and other cities in the region. The Eastern Tennessee, Chattanooga Railway and Light, and the Tennessee River Power Company merged in 1922 to form the Tennessee Electric Power Company (TEPCO).[21]

In 1934, the TVA engineers began surveying the Hiwassee River and its tributaries for potential power expansion. The results of this survey were eventually proposed as the Hiwassee Valley Projects. At this time, a site further upstream from the Ocoee No. 2 Dam was identified as a potential location for additional power generation. In 1939, TVA acquired the Ocoee River properties belonging to TEPCO and examined the potential to build an additional hydroelectric project on the river.[22] World War II broke out in 1939, and the TVA prepared recommendations to the President and Congress to begin construction on the Hiwassee Valley Projects. One of the projects was designated as Ocoee No. 3, which was to consist of a dam, a two-and-one-half-mile tunnel, and a powerhouse. The TVA Board of Directors requested funding of the project in fiscal year 1941. Initially, the bill recommended $40,000,000 in funds for the Hiwassee projects, with $1,000,000 available immediately. However, the entire $40,000,000 was approved immediately due to the urgency of the war. The final bill for the Hiwassee projects passed both Houses of Congress and was signed by the President on July 16, 1941. The TVA formally approved the project July 17, 1941. The closure of the dam and filling of the reservoir began April 30, 1943.[23]

Total land costs for the Ocoee No. 3 project amounted to $125,603, which included acquisition by fee or condemnation proceedings, flowage easements, and highway relocation. Direct construction costs, such as labor, materials, equipment, transportation, totaled $7,213,892. Indirect construction costs, including accounting, timekeeping, office supplies, and police service, came to $468,605. Design and engineering expenditures, which included salaries and expenses of executive engineers, technicians, and inspectors, amounted to $985,022. These amounts plus other categorized costs brought the total project to $8,793,123.[24]

No family relocation was required for construction of the Ocoee No. 3 project. Since the lands of the reservoir were acquired from TEPCO, the property was already cleared of buildings and farms. Of the 3,877 acres acquired for the project, only 300 was cleared land. Due to the mountainous terrain of the Ocoee No. 3 project reservoir, timber land was the only reservoir clearing necessary.[25]

The Ocoee No. 3 project required the acquisition of 3,877 acres of land. Of the total acreage, 3,541, or ninety-one percent was acquired from TEPCO. Of the 3,877 acres acquired, seventy-two acres were flowage easements and two acres were highway easements. Highway easements at the Ocoee No. 3 project site were comparatively

[20] Robert W. Myers MD, ñThe Ocoee Story: Seventy Five Years of Changing Lives,ò at Camp Ocoee website http://www.campocoee.com/fullpanel/uploads/files/the-ocoee-story.pdf accessed August 20, 2015.
[21] James B. Jones, ñTEPCO,ò at Tennessee Encyclopedia of History and Culture webpage, http://tennesseeencyclopedia.net/entry.php?rec=1369 accessed August 20, 2015.
[22] Ibid., 3.
[23] Tennessee Valley Authority, ñMechanical Design of Hydro Plants,ò (Knoxville: Tennessee Valley Authority, 1960), 132.
[24] Tennessee Valley Authority, ñThe Hiwassee Valley Projects,ò (Knoxville: Tennessee Valley Authority, 1948), 598.
[25] Ibid., 532.

more expensive than previous TVA projects at $205 per acre due to the close proximity to the town of Copperhill. No condemnations were necessary for this project, and all properties were acquired through voluntary sale.[26] Reconnaissance surveys made by the TVA indicated that no cemeteries would be affected by the construction of the dam, tunnel, or reservoir of the Ocoee No. 3 project.[27]

Completed in 1943, the Ocoee No. 3 dam and powerhouse were designed by the architectural office of the TVA. The initial design of the powerhouse was for two small generating units but this approach was abandoned in favor of the installation of one larger generating unit. Since their construction, the dam, pipeline, surge tank, valve house, penstock and powerhouse have not been significantly altered and retain their original exterior design and detailing. The interior of the powerhouse remains intact as well with minor renovations to include an enclosed office constructed of drywall walls and a dropped ceiling at the southwest corner of the first floor. All other interior walls, floor finishes, and restroom fixtures remain original to the 1943 construction date.

SIGNIFICANCE IN ARCHITECTURE

The design of the Ocoee No. 3 dam and powerhouse reflects the ñmodernismò that the TVA architects and engineers strived for in the 1930s and early 1940s. The dam was built utilizing the most advanced methods of its time, and the powerhouse was built with Streamlined Moderne characteristics on both its exterior and interior. The style became popular during this period as an expression of progress, a particularly important underpinning of the New Deal agenda. Stylistic elements that manifested this ideology include the use of geometric shapes, basic and pure in form, sleek and shiny materials evoking machinery and movement, and restrained décor suggesting an economical design ethic. The Ocoee No. 3 powerhouse retains several elements expressing the style. The generating unit itself conveys the Streamlined Moderne style, with its smooth-finish metal housing and perfectly cylindrical form. The powerhouse interior retains its original interior aluminum doors, original light fixtures, interior wall and floor finishes, and original restroom fixtures and finishes. These elements express the streamline minimalism of the Streamlined Moderne architectural style.

On the exterior, the powerhouseôs geometric block form is Streamlined Moderne in style and expresses utilitarian simplicity. The powerhouse retains its original architectural features including streamlined groupings of windows and structural glass block clerestory windows. The dam itself embodies progress, in its engineering and its design. Its massive scale represents the immensity of the project, spatially and philosophically. The architectural design of the dam employs smooth surfaces of concrete, and its steel elements such as spillway gates, emphasize geometric forms and horizontal lines. The support structure consists of embedded cantilevered concrete piers.

SIGNIFICANCE IN ENGINEERING

The Ocoee No. 3 Hydroelectric Project is an integral part of the overall engineering design of the TVA system. The four Hiwassee Valley projects are located in the Hiwassee River Basin along the Hiwassee River and its tributaries. The Hiwassee Valley projects cover a six county region with a rugged mountainous terrain inundated with valleys where the Tennessee-North Carolina state line joins the Georgia state line. The rivers and streams follow the contours of the valleys. The TVA developed its network of hydroelectric projects in the context of the natural conditions at each location. Site, plans, materials to be used, architectural designs, exact

[26] Ibid., 519.
[27] Ibid., 552.

placement of a dam axis and its associated components, spillway type, and many other engineering nuances of each project took into account the natural topography, elevation changes, rock strata, foundation bedrock, annual rainfall, and watershed volume. The numerous laboratory models and studies performed on most other TVA projects seeking information on ideal combination of dam site, reservoir size, turbine count, and many other inter-related aspects engineering design were streamlined for the Hiwassee Valley Projects due to the emergency nature for war-driven power generation.

In terms of site preparation, the Hiwassee projects required the usual amount of detailed engineering investigation, and planning as all other TVA projects; however, due to the immediate need for construction, site preparation and analysis were completed as soon as the TVA board authorized the project in July of 1941. Surveying and mapping included basic control surveys, aerial photography of 424 square miles, land ownership reconnaissance surveys through panimetric-base plane table sheets and deed copying of 52,521 acres, marking and mapping contours of 615 miles, planning and mapping relocation of roads, rail lines, and utility lines, drainage surveys for malaria control, and numerous other adjustments and computations and the work progressed.[28]

The TVAôs hydroelectric projects were designed, in part, to manage the rise and fall of the annual cycles of the Tennessee River system. While the reservoirs on the Tennessee River are designed to provide proper water depth for navigation of barge traffic, reservoirs on the tributary rivers, such as the Hiwassee Valley Reservoir, serve to produce additional power to the TVA power system as well as store water to manage water flow into the Tennessee River. Since the drainage of the Hiwassee River contributes to floods in Chattanooga, the necessary storage space was created by the four Hiwassee Valley projects to retain a large portion of the flood flow into the Tennessee River. The four Hiwassee Valley reservoirs, completed between 1941 and 1943, provide a substantial degree of flood control to the Tennessee River watershed, diminishing potentially damaging floods at Chattanooga.[29] Individually, the Ocoee No. 3 Dam aids in flood control from the Blue Ridge Dam twenty-three miles upstream, controlling flow into the Ocoee River, and into the Hiwassee River further downstream. The storage capacities of the Hiwassee reservoirs figure into the power potential downstream.[30]

SIGNIFICANCE IN INDUSTRY

Completed in 1943, the Ocoee No. 3 Hydroelectric Project contributed electrical power to the overall TVA system. Upstream reservoirs such as Ocoee No. 3 contributed to navigation and flood control as an integral component of the overall river system. Cheap electricity generated at TVA plants lured new industry to the region, influencing diversification of economy in the heretofore agriculturally-based economy of the Tennessee Valley. The workforce employed in manufacturing grew from 222,000 jobs to 382,000 from 1929 to 1950. The pay rate for a manufacturing job in the region increased by 442 percent compared with the national average gain of 282 percent. During the early post-war years, the TVA supplied electricity at a rate (1.35 cents per kilowatt-hour) less than half of the national average (2.78 cents per kilowatt-hour).[31] By 1946, the TVAôs power plants had a capacity of 2.5 million kilowatts of power and brought electricity to 668,000 households in the Tennessee Valley.[32]

[28] Ibid, 506.
[29] Ibid., 49.
[30] Ibid., 133.
[31] Patricia Bernard Ezzell, ñTennessee Valley Authority in Alabama (TVA).ò At Encyclopedia of Alabama webpage http://www.encyclopediaofalabama.org/article/h-2380. Accessed April 22, 2015.
[32] Carroll Van West, *Tennessee's New Deal Landscape*, (Knoxville: University of Tennessee Press, 2001), 11.

In recent decades TVA has continued to recruit industry with attractive affordable power. Economic development is a critical component of TVA's mission. In 2013, TVA Economic development helped attract or retain almost 52,000 jobs and generate nearly $5.0 billion in capital investment across the TVA region.[33] The Ocoee No. 3 Hydroelectric Project contributes electrical power to industries throughout the region.

SUMMARY

The Ocoee No. 3 Hydroelectric Project is one of twenty-five projects constructed by the Tennessee Valley Authority (TVA) for the purpose of generating electrical power from, improving navigation of, and controlling seasonal flooding of the river system of the region. The project brought construction jobs and later electricity to this rural area. The Ocoee No. 3 Hydroelectric Project brought new opportunities and spurred economic development in the surrounding counties. The Ocoee No. 3 project is an important component in the vast TVA system of flood control and power generating, as well as contributing to management of river navigation.

The Ocoee No. 3 Hydroelectric Project retains much of its integrity from its original design of the early 1940s. The dam and powerhouse have not been significantly altered and display their original Streamlined Moderne design in their exterior and interior detailing. The Ocoee No. 3 Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, ñHistorical Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979ò and this MPDF contains additional contextual information concerning TVA and its hydroelectric system.

[33] ñEconomic Development,ò at TVA webpage http://www.tva.com/econdev/index.htm accessed May 5, 2015.

9. Major Bibliographic References

ñEconomic Development.ò At TVA website http://www.tva.com/econdev/index.htm. Accessed August 20, 2015.

Ezzell, Patricia Bernard.ñTennessee Valley Authority in Alabama (TVA).ò At Encyclopedia of Alabama website http://www.encyclopediaofalabama.org/article/h-2380. Accessed August 20, 2015.

ñHistory of the Tennessee Valley Authority.ò At TVA website http://www.policyalmanac.org/economic/archive/tva_history.shtml. Accessed August 19, 2015.

Jones, James B. ñTEPCO.ò Available at Tennessee Encyclopedia of History and Culture webpage http://tennesseeencyclopedia.net/entry.php?rec=1369. Accessed August 20, 2015.

Myers, Robert W. MD. ñThe Ocoee Story: Seventy Five Years of Changing Lives.ò At Camp Ocoee website http://www.campocoee.com/fullpanel/uploads/files/the-ocoee-story.pdf. Accessed August 20, 2015.

ñOcoee No. 3 Reservoir.ò At TVA website http://www.tva.gov/sites/ocoee3.htm. Accessed August 19, 2015.

ñTennessee Valley Authority Act of 1933.ò At TVA website http://www.policyalmanac.org/economic/archive/tva_history.shtml. Accessed August 19, 2015.

Tennessee Valley Authority. *Design of TVA Projects Technical Report No. 24, Vol. 1, Civil and Structural Design.* Washington, D.C.: U.S. Government Printing Office, 1952.

_____. *The Hiwassee Valley Projects, The Apalachia, Ocoee No. 3, Nottely, and Chatuge Projects: A Comprehensive Report on the Planning, Design, Construction, and Initial Operations of the Four Projects, in the Hiwassee Basin, Constructed on an Emergency Basis during World War II, Technical Report No. 5 Volume 2*. Washington, D.C.: U.S. Government Printing Office, 1948.

West, Carroll Van. *Tennessee's New Deal Landscape*. Knoxville: University of Tennessee Press, 2001.

Ocoee No. 3 Hydroelectric Project | Polk County, Tennessee
Name of Property | County and State

Previous documentation on file (NPS):		Primary location of additional data:	
	preliminary determination of individual listing (36 CFR 67 has been requested)	**X**	State Historic Preservation Office
	previously listed in the National Register		Other State agency
	previously determined eligible by the National Register	**X**	Federal agency
	designated a National Historic Landmark		Local government
	recorded by Historic American Buildings Survey #		University
	recorded by Historic American Engineering Record #		Other
	recorded by Historic American Landscape Survey #	Name of repository: Tennessee Valley Authority Knoxville, TN	
Historic Resources Survey Number (if assigned):			

10. Geographical Data

Acreage of Property å 191 acres **USGS Quadrangle** Ducktown 133 SW

Latitude/Longitude Coordinates

A. Latitude: 35.078801 Longitude: -84.491281

B. Latitude: 35.078184 Longitude: -84.462487

C. Latitude: 35.036149 Longitude: -84.491296

D. Latitude: 35.035959 Longitude: -84.463965

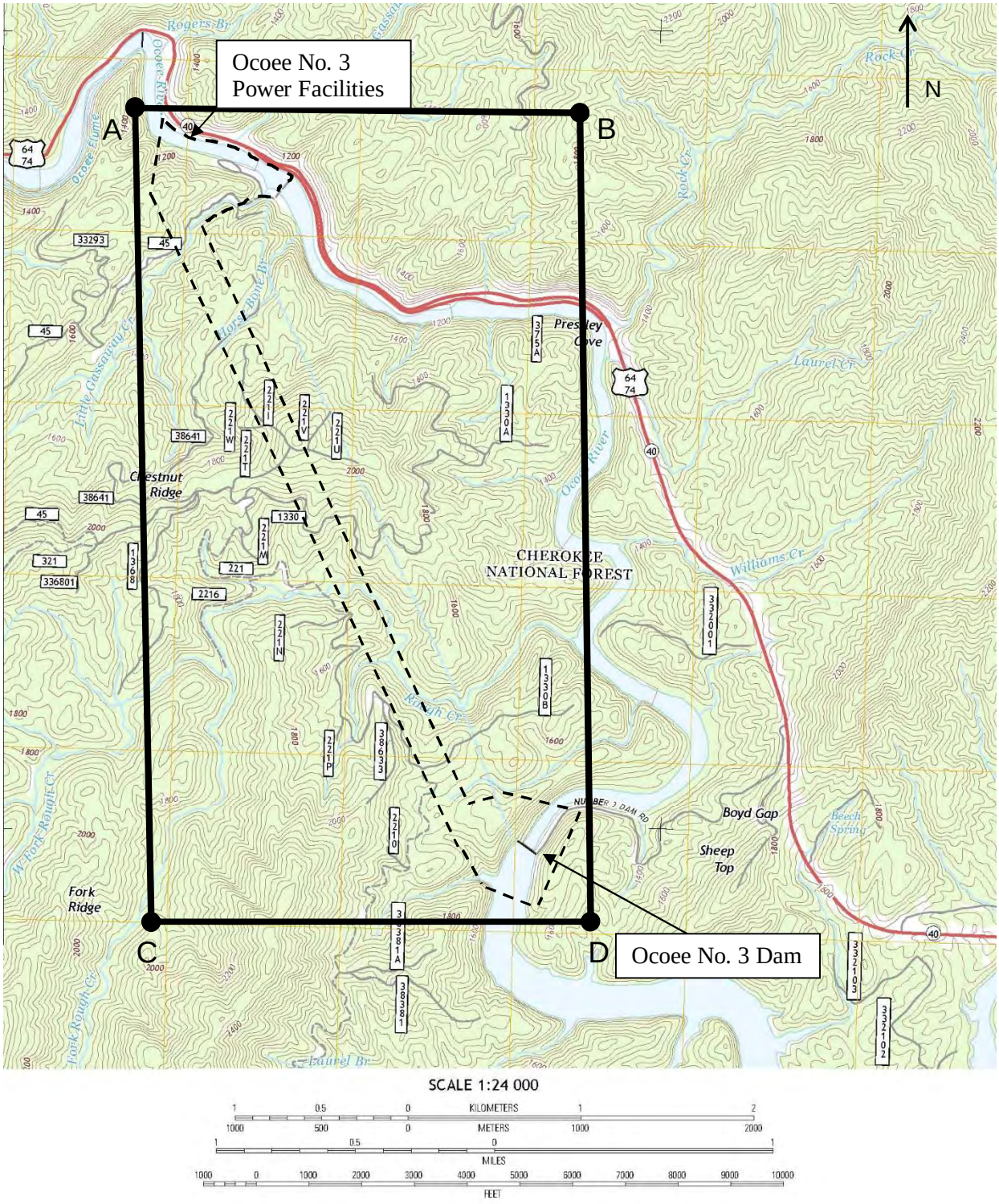
Verbal Boundary Description

The boundary for the Ocoee No. 3 Hydroelectric Project is depicted as a dashed line on the accompanying US Quadrangle map and TVA site plan map. The boundary is drawn to include the dam on the southeast, the powerhouse on the northwest, and a 500-foot-wide pipeline corridor linking the two facility sites. At the southeast end of the corridor, the boundary lines flare into a bell-like shape to include the area around the dam, including a portion on the south bank of the Ocoee River to the south of Number 3 Dam Road. At the northeast end of the corridor, the boundary lines flare at Little Gassaway Creek into a bell-like shape that overlays the property lines of a 56.5-acre parcel identified in Polk County property records as 091 002.00. The northern boundary line of this parcel follows the curve of the north bank of the Ocoee River.

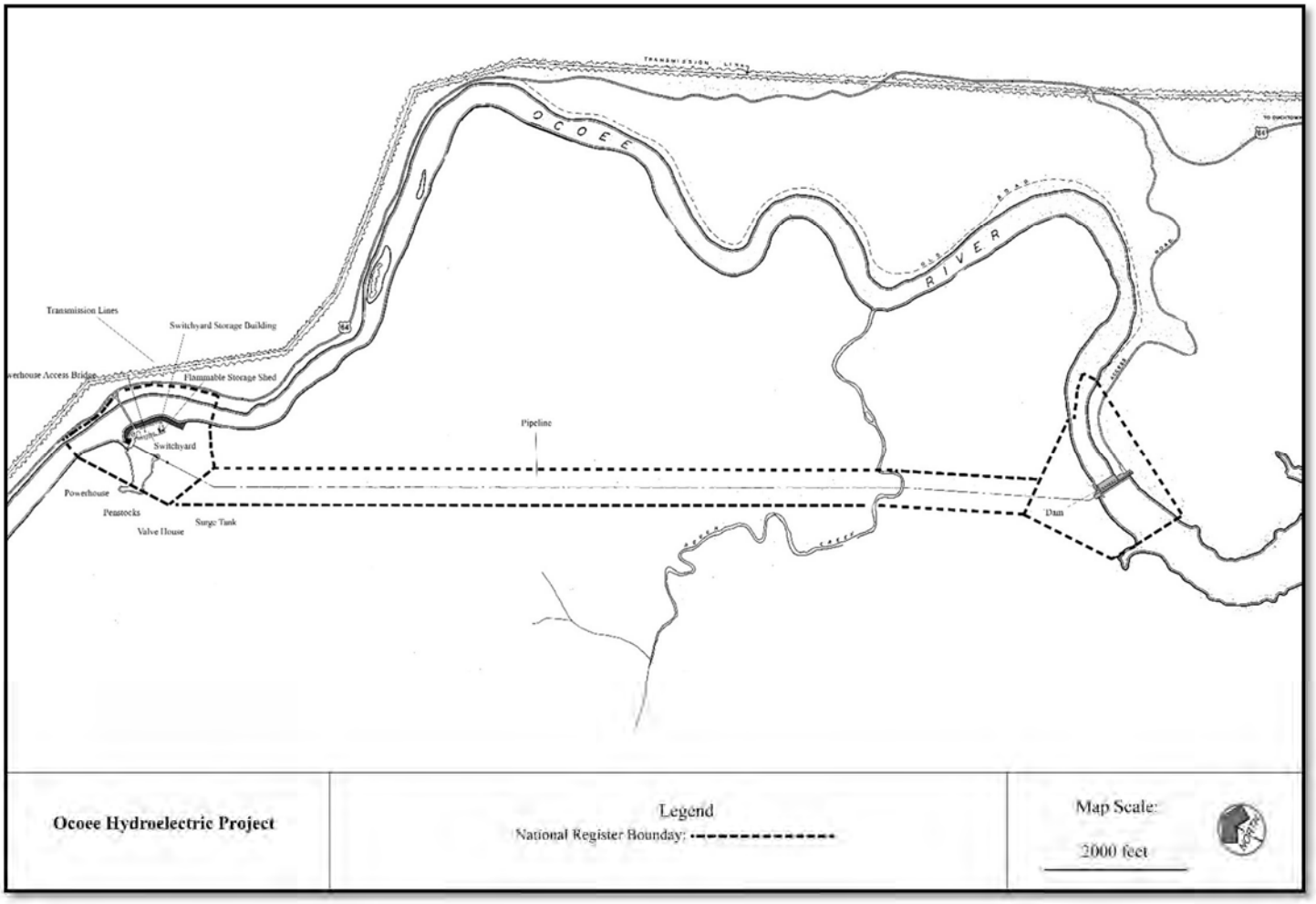
Boundary Justification

The boundary includes all facilities necessary for the operation of the hydroelectric project and/or associated with the mission of TVA of power generation, navigation, and public recreation. The boundary omits other TVA lands not directly associated with hydroelectric production.

Ducktown TN USGS Topographical Quadrangle depicting the National Register Boundary for Ocoee No. 3 Hydroelectric Project



Ocoee No. 3 Hydroelectric Project | Polk County, Tennessee
Name of Property | County and State



Site Plan and National Register Boundary for Ocoee No. 3 Hydroelectric Project
(See 11 x 17" map for enlarged view)

Ocoee No. 3 Hydroelectric Project | Polk County, Tennessee
Name of Property | County and State

11. Form Prepared By

Name	Rebecca Hightower; Phil Thomason; Andra Kowalczyk Martens				
Organization	Thomason and Associates				
Street & Number	P.O. Box 121225	Date	October 21, 2016		
City or Town	Nashville	Telephone	615-385-4960		
E-mail	Thomason@bellsouth.net	State	TN	Zip Code	37212

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to map.
- **Photographs (**refer to Tennessee Historical Commission National Register *Photo Policy* for submittal of digital images and prints**)**
- **Additional items:** (additional supporting documentation including historic photographs, historic maps, etc. should be included on a Continuation Sheet following the photographic log and sketch maps)

Photographs

Photo Log

Name of Property: Ocoee No. 3 Hydroelectric Project
City or Vicinity: Ducktown
County: Polk State: Tennessee
Photographer: Thomason and Associates
Date Photographed: June 24, 2015

1 of 30 - General View of Ocoee No. 3 Power Facilities looking south.

2 of 30 - Ocoee No. 3 Dam and Spillway looking southwest.

3 of 30 - Dam Gallery looking south.

4 of 30 - Top of Ocoee No. 3 Dam looking northwest.

5 of 30 - South side of Dam looking northeast.

6 of 30 - Spillway Gates looking south.

7 of 30 - Surge Tank looking south.

8 of 30 - Valve House, exterior west elevation, looking east.

9 of 30 - Valve House, interior valve room.

10 of 30 - Penstock looking southwest.

11 of 30 - Penstock looking north towards the powerhouse.

12 of 30 - Powerhouse exterior, façade (east) elevation.

13 of 30 - Powerhouse exterior, main entrance, east elevation.

14 of 30 - Powerhouse exterior, south elevation.

15 of 30 - Powerhouse exterior, west elevation.

16 of 30 - Powerhouse exterior, north elevation.

17 of 30 - Powerhouse interior, generator room looking northwest.

18 of 30 - Powerhouse interior, generator No. 1.

19 of 30 - Powerhouse interior, interior south wall of generator room, entrance to control room.

20 of 30 - Powerhouse interior, breakroom entrance.

21 of 30 - Powerhouse interior, restroom.

22 of 30 - Powerhouse interior, second floor vent fan room.

23 of 30 - Powerhouse interior, basement turbine wheel pit access.

24 of 30 - Powerhouse interior, cable tray tunnel to switchyard.

25 of 30 - Switchyard looking west.

26 of 30 - Switchyard and Transmission Lines looking south.

27 of 30 - Switchyard Storage Building looking south.

28 of 30 - Flammable Storage Shed looking south.

29 of 30 - Powerhouse Access Bridge looking northeast.

30 of 30 - Powerhouse Access Bridge looing southwest.

Photo Key Maps for Ocoee No. 3 Hydroelectric Project - Dam Area
(Photos #2-6)

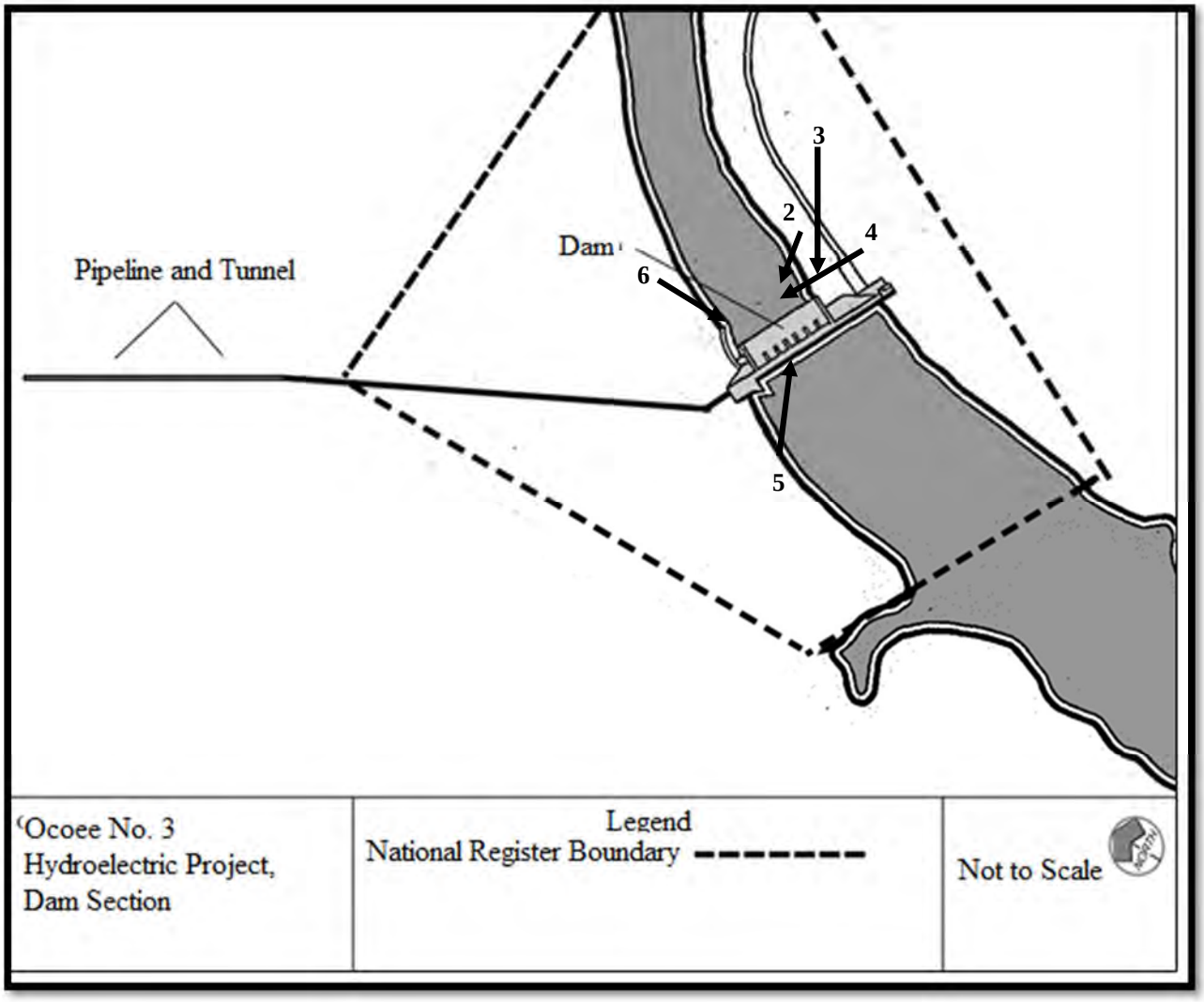
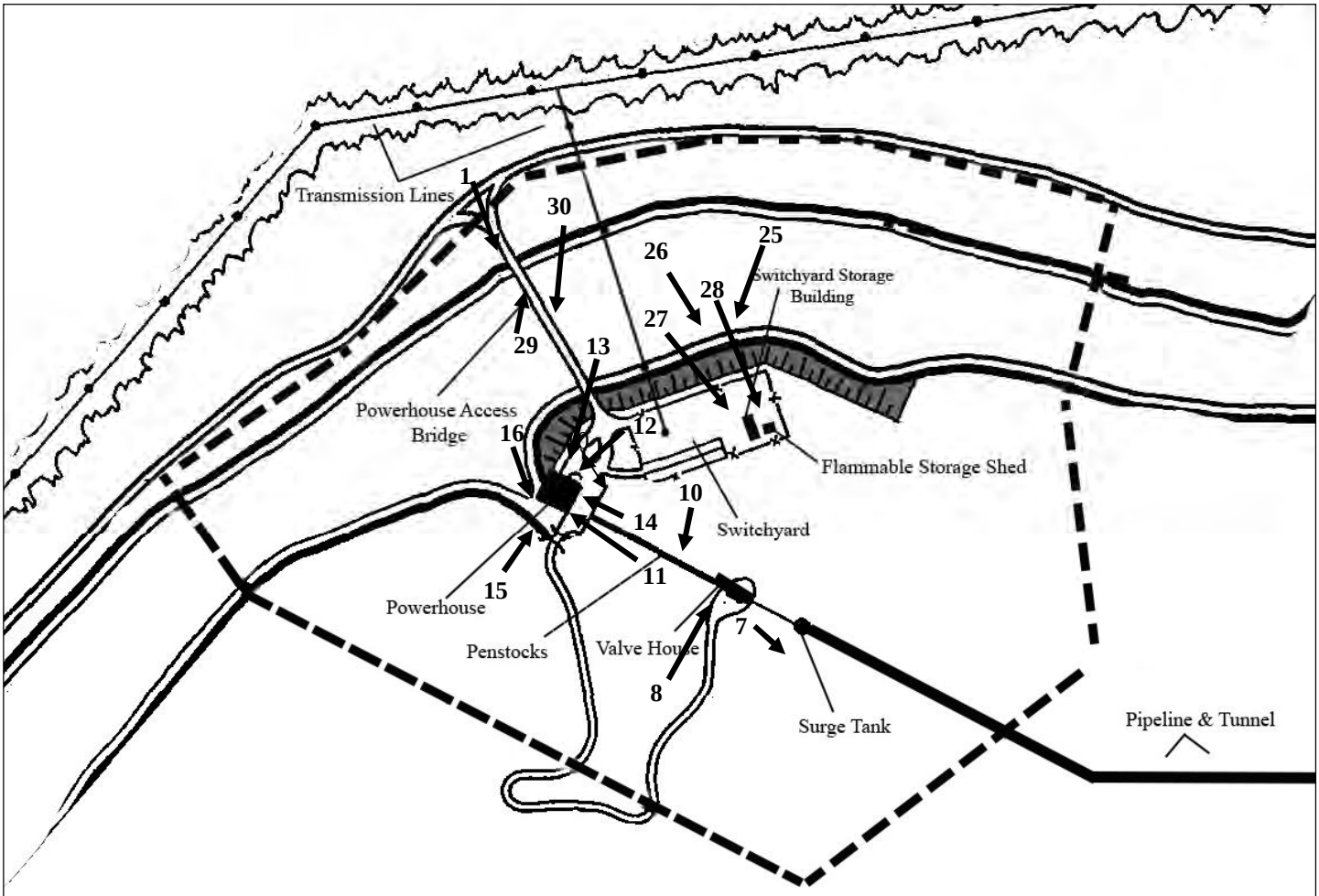
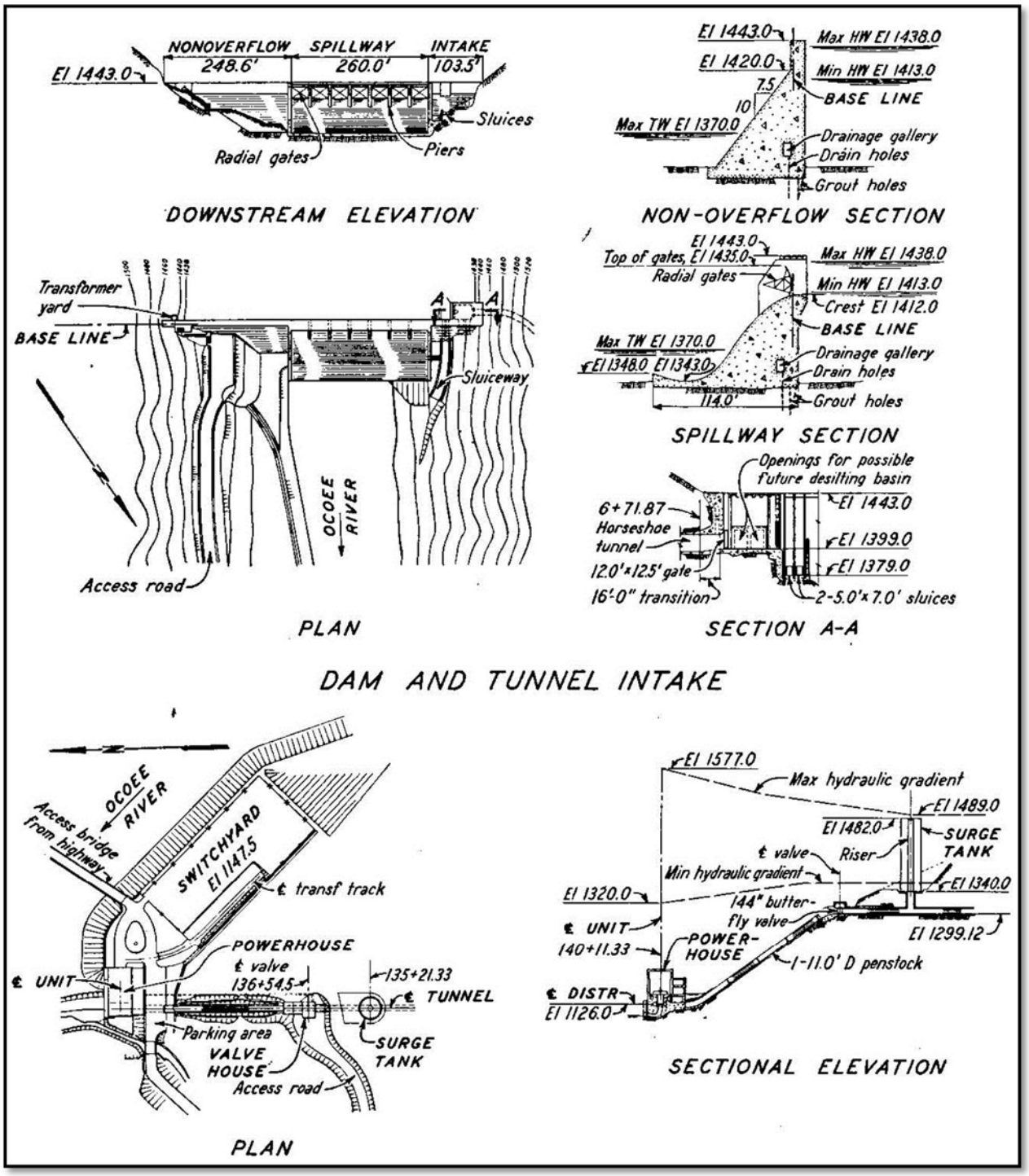


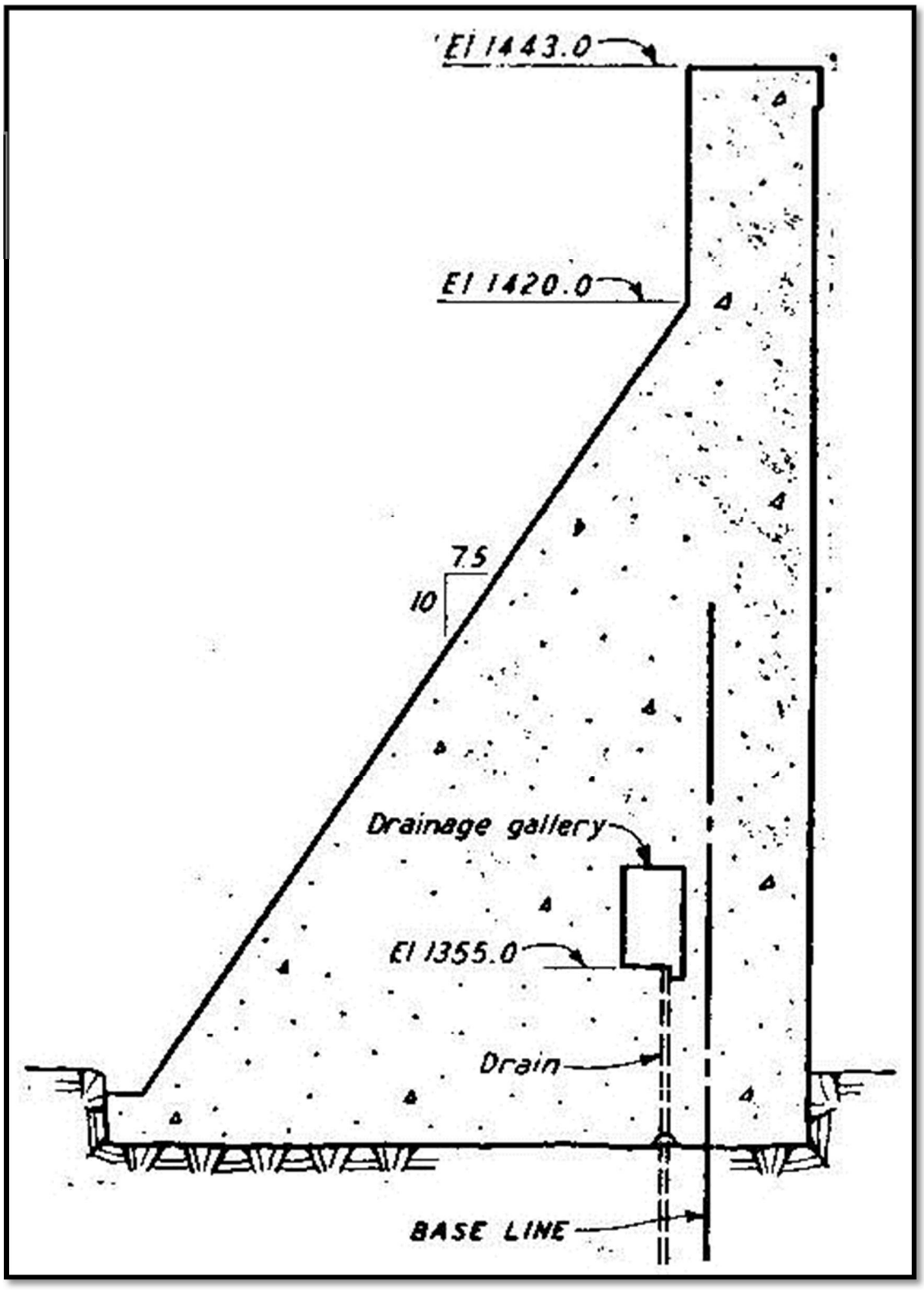
Photo Key Maps for Ocoee No. 3 Hydroelectric Project - Power Facilities



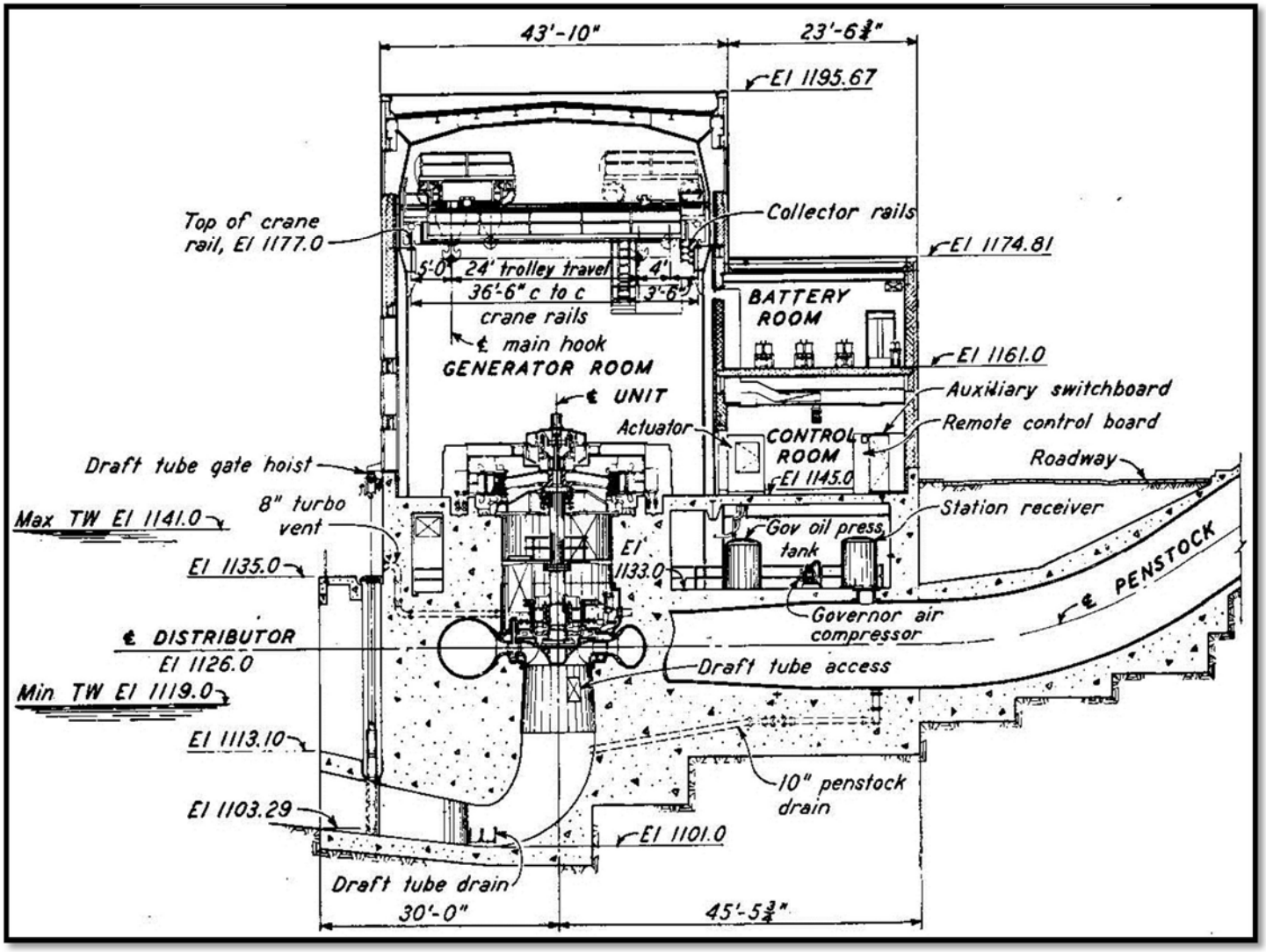
Site Plans and Sections



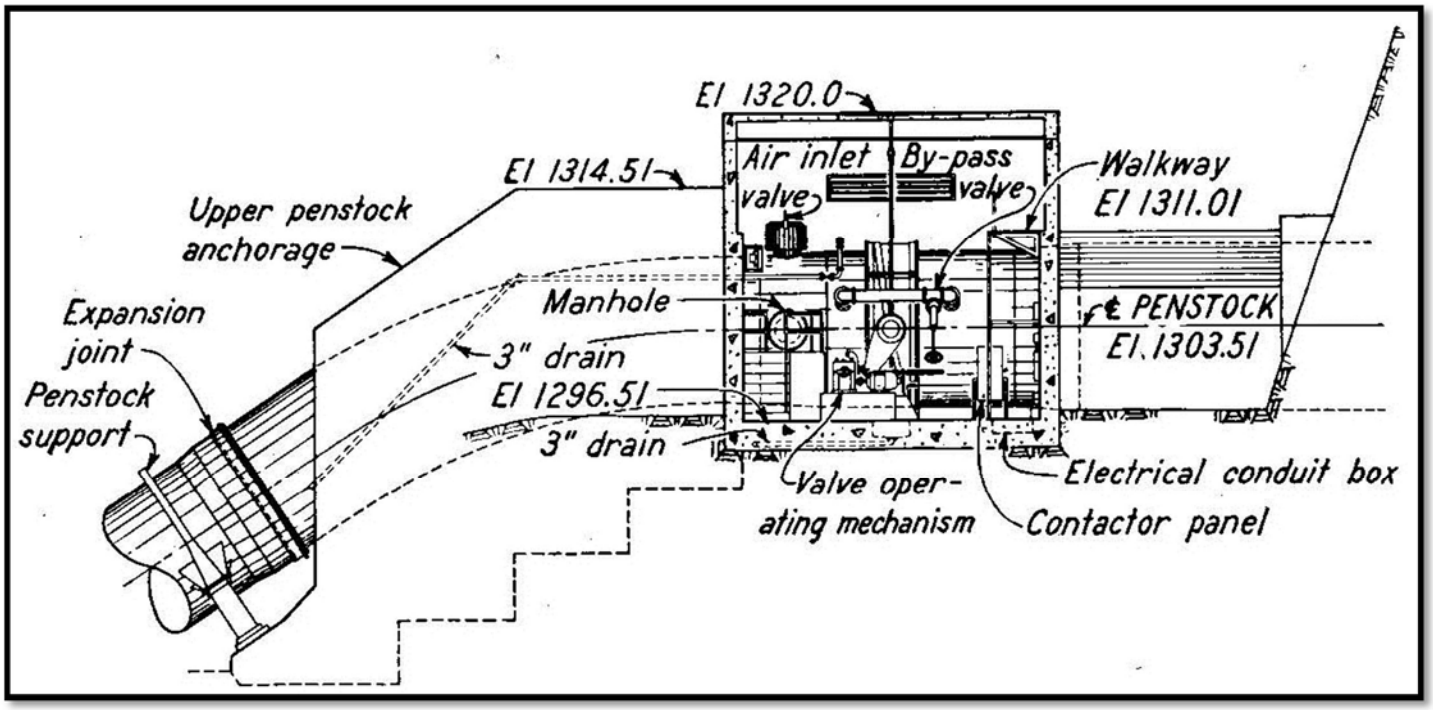
Site Plan of Ocoee No. 3 Hydroelectric Project



Section of the Ocoee No. 3 Dam



Section of Ocoee No. 3 Powerhouse



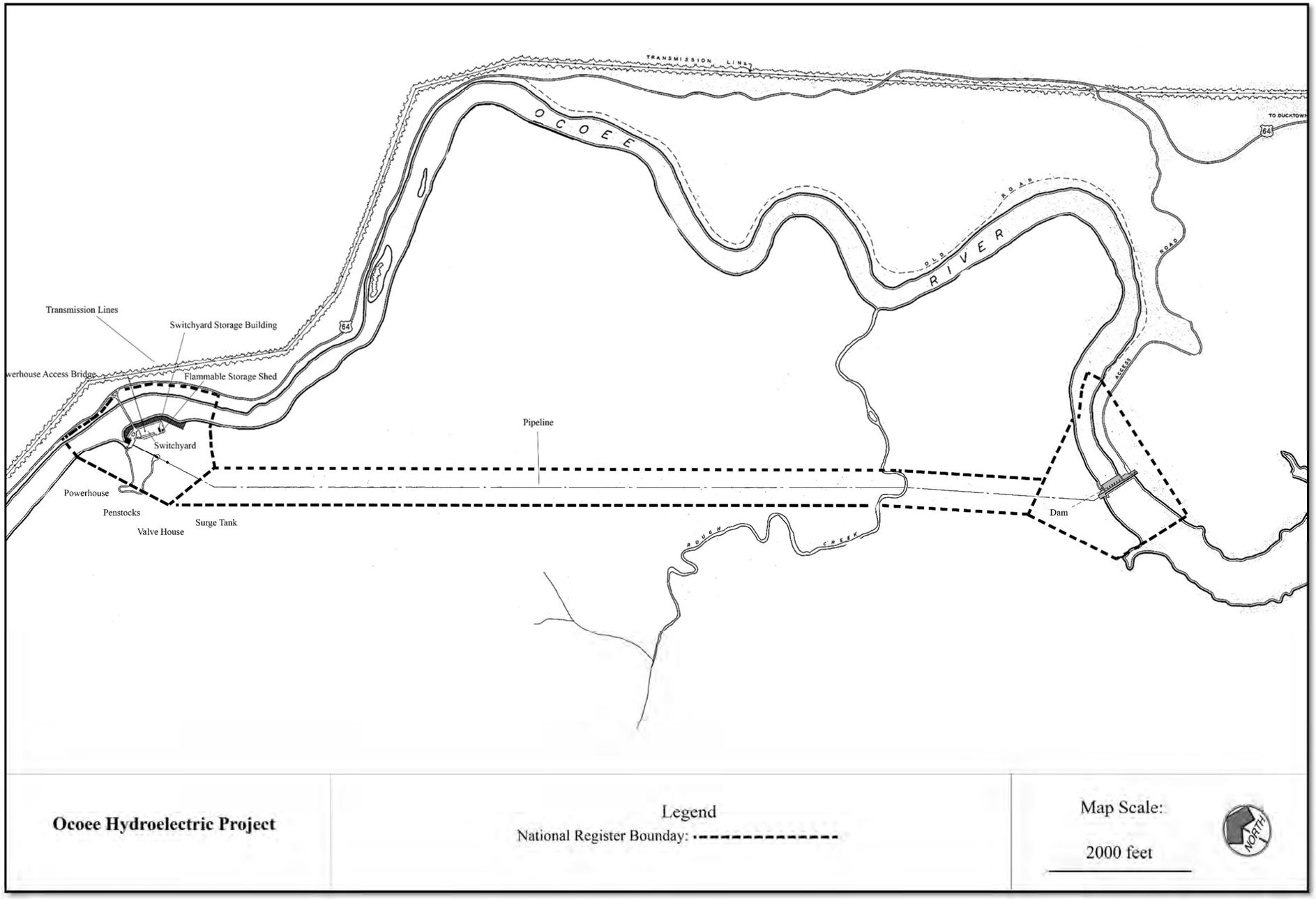
Section of Ocoee No. 3 Valve House and Penstock

Property Owner:

(This information will not be submitted to the National Park Service, but will remain on file at the Tennessee Historical Commission)

Name	Tennessee Valley Authority ï Pat Ezzell		
Street & Number	400 West Summit Hill Drive 460WT7D-K	Telephone	865-632-6461
City or Town	Knoxville	State/Zip	TN 37902

Site plan and National Register boundary for the Ocoee No. 3 Hydroelectric Project

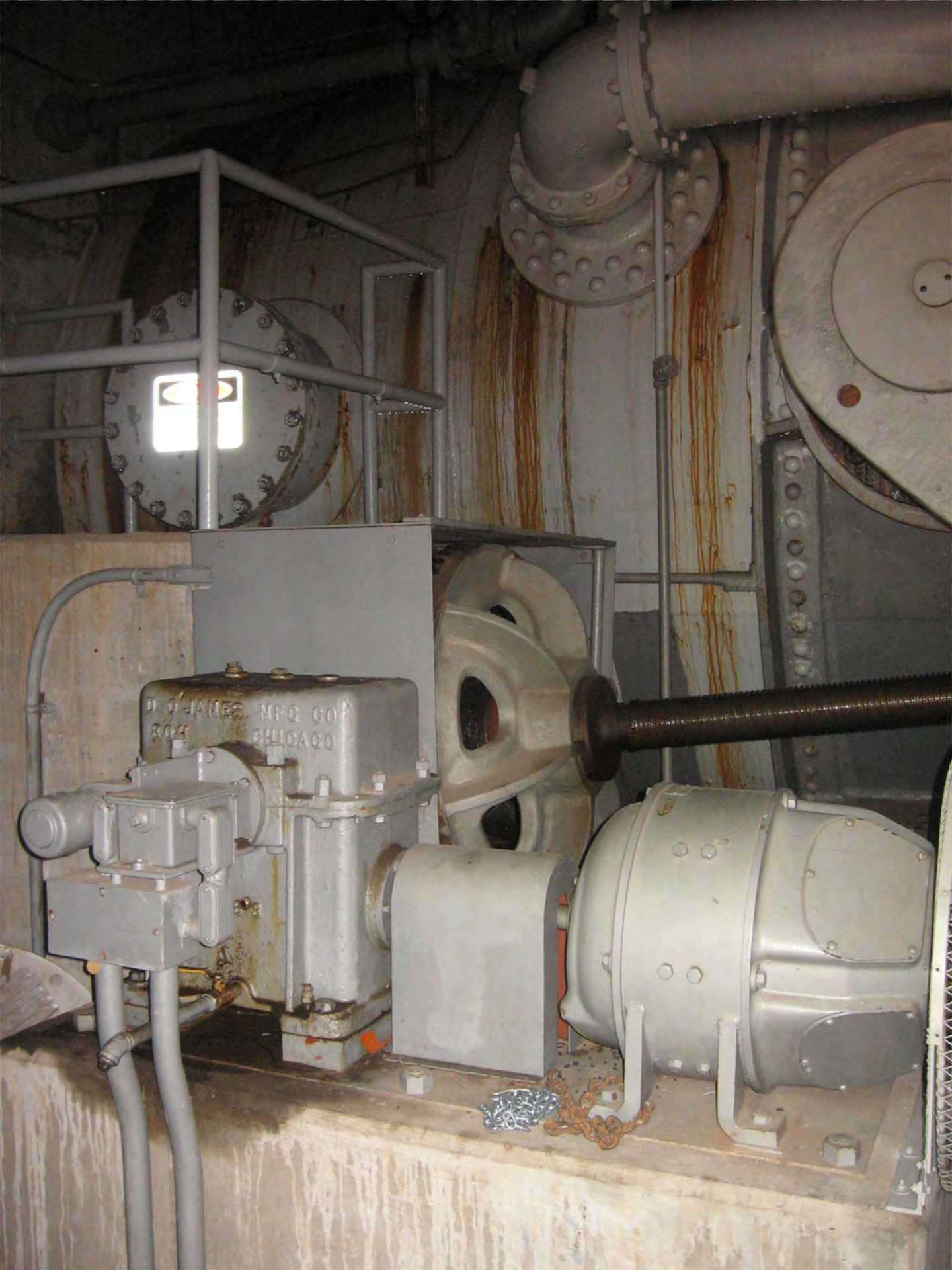



AUTOMATIC SPILLWAY


NO SMOKING
NO
EXIT


3


RESTRICTED
AREA
KEEP OFF
DAM


D. O'JAMES MFG CO
CHICAGO


TVA
OCOEE NO. 3


TVA
OCOEE NO. 3
RESTRICTED AREA
STOP
Powerhouse
Employees Only


DANGER

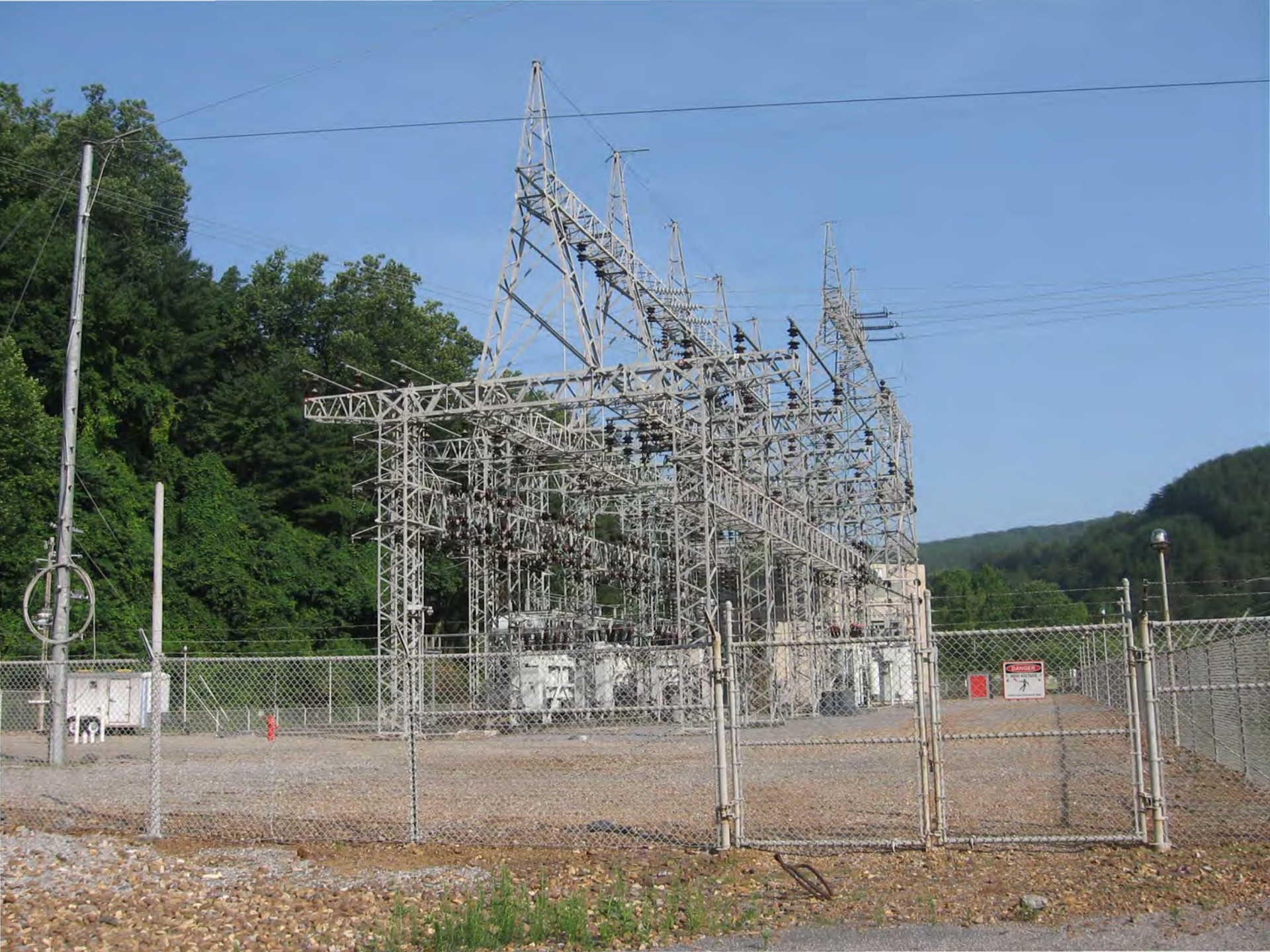

1941 – BUILT FOR THE PEOPLE OF THE UNITED STATES OF AMERICA – 1943


RESTROOMS
NOTICE
NON-POTABLE
WATER
NOT FOR DRINKING
OR COOKING USE
MEN


Fort Howard


FLAMMABLE
KEEP FIRE AWAY
EXIT


DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
CAUTION
FIBER OPTIC CABLE
CAUTION
FIBER OPTIC CABLE
AIR


DANGER

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:	Nomination
Property Name:	Ocoee No. 3 Hydroelectric Project
Multiple Name:	Tennessee Valley Authority Hydroelectric System, 1933-1979 MPS
State & County:	TENNESSEE, Polk

Date Received:	Date of Pending List:	Date of 16th Day:	Date of 45th Day:	Date of Weekly List:
6/30/2017	7/27/2017	8/11/2017	8/14/2017	

Reference number:	MP100001473
Nominator:	State

Reason For Review:

__ Appeal	__ PDIL	__ Text/Data Issue
__ SHPO Request	__ Landscape	__ Photo
__ Waiver	__ National	__ Map/Boundary
__ Resubmission	__ Mobile Resource	__ Period
__ Other	__ TCP	__ Less than 50 years
	__ CLG	

__X__ Accept _____ Return _____ Reject **8/14/2017** Date

Abstract/Summary Comments:	Meets registration requirements of MPS. Industry and Social history not supported
Recommendation/ Criteria	Accept / A & C

Reviewer Jim Gabbert Discipline Historian

Telephone (202)354-2275 Date

DOCUMENTATION: see attached comments : No see attached SLR : **Yes**

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.

Thomason&Associates
preservation planners

June 21, 2017

Paul Loether
National Register of Historic Places, Keeper
Mail Stop 7228
1849 C Street NW
Washington, D. C. 20240

Dear Mr. Loether,

The Tennessee Valley Authority (TVA) contracted with Thomason and Associates, Preservation Planners to complete nominations to the National Register of Historic Places (NRHP) for twenty-five of its hydroelectric projects. Three nominations - for the Norris, Guntersville, and Wheeler Hydroelectric Projects - were previously submitted, resulting in listing in the NRHP in 2016. The TVA proposes the nomination of the remaining twenty-two hydroelectric projects. The enclosed disks contain the true and correct copies of the nominations of:

Georgia: the Nottely Hydroelectric Project;
Kentucky: the Kentucky Hydroelectric Project;
North Carolina: the Apalachia, Chatuge, Fontana, and Hiwassee Hydroelectric Projects; and
Tennessee: the Boone, Cherokee, Chickamauga, Douglas, Fort Loudoun, Fort Patrick Henry, Melton Hill, Nickajack, Normandy, Ocoee No. 3, Pickwick Landing, South Holston, Tellico, Tims Ford, Watts Bar, and Watauga Hydroelectric Projects.

The overall context for these nominations, the MPDF "Historic Resources of the Tennessee Valley Authority Hydroelectric System, 1933-1979" was approved by your office on March 12, 2016. The enclosed nominations have been reviewed by TVA as well as the respective State Review Boards and enclosed are the twenty-two physical signed copies of the signature pages of each nomination. All local governments have been notified of the intent to list these hydroelectric projects in the National Register.

We are pleased to submit these nominations to you which recognize the diverse history and contributions made by the Tennessee Valley Authority to our nation.

Please contact me if any additional information is needed.

Sincerely,

Philip Thomason
Principal

cc. Pat Ezell, Senior Program Manager, TVA

Enc/

p.o. box 121225 nashville, tn 37212 615.385.4960 www.thomasonandassociates.com

Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

August 9, 2017

Mr. Paul Loether
National Register of Historic Places, Keeper
Mail Stop 7228
1849 C Street NW
Washington, D. C. 20240

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Please contact me if any additional information is needed.

Sincerely,

Pat Bernard Ezzell

Patricia Bernard Ezzell
Federal Preservation Officer
Communications

Enclosures