NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

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 for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. 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. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Cheoah Hydroelectric Development

other names/site number N/A

2. Location

street & number 1512 Tapoco Road, Highway 129 . not for publication N/A

city or town Robbinsville vicinity X

state North Carolina code NC county Graham & Swain code 075 & 173 zip code 28771

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, 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 ___ nationally ___ statewide _X_ locally. (___ See continuation sheet for additional comments.)

Signature of certifying official — Date 4/2/04

North Carolina Department of Cultural Resources
State or Federal agency and bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria. (___ See continuation sheet for additional comments.)

Signature of commenting or other official — Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

____ entered in the National Register
___ See continuation sheet.
____ determined eligible for the National Register
___ See continuation sheet.
____ determined not eligible for the National Register
____ removed from the National Register
____ other (explain): _____

Signature of Keeper — Date of Action

5. Classification

Ownership of Property (Check as many boxes as apply)

_X_ private
___ public-local
___ public-State
___ public-Federal

Category of Property (Check only one box)

___ building(s)
_X_ district
___ site
___ structure
___ object

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

Contributing	Noncontributing	
_5___	_2___	buildings
_0____	_0____	sites
_4____	_0____	structures
_0____	_0____	objects
_9____	_2___	Total

Number of contributing resources previously listed in the National Register _N/A_

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)

__Historic Resources of the Tapoco Hydroelectric Project

6. Function or Use

Historic Functions (Enter categories from instructions)

_INDUSTRY/PROCESSING_____ _Energy facility_____

Current Functions (Enter categories from instructions)

_INDUSTRY/PROCESSING_____ _Energy Facility_____

7. Description

Architectural Classification (Enter categories from instructions)

_LATE 19TH & EARLY 20TH CENTURY REVIVALS/Classical Revival_____

Materials (Enter categories from instructions)

foundation ___CONCRETE_____
roof _METAL/Aluminum_____
walls _BRICK_____
other _____

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

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
(Mark "X" in all the boxes that apply.)

____ A — owned by a religious institution or used for religious purposes.

____ B — removed from its original location.

____ C — a birthplace or a grave.

____ D — a cemetery.

____ E — a reconstructed building, object, or structure.

____ F — a commemorative property.

___ G — less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions).
_ENGINEERING_____
_ARCHITECTURE_____
_MILITARY_____
_INDUSTRY_____

Period of Significance
____ 1919 - 1953_____

Significant Dates
_1919_____

Significant Person
(Complete if Criterion B is marked above)
__N/A_____

Cultural Affiliation
__N/A_____

Architect/Builder
BUILDER: Power & Engineering Group of__
_Alcoa, Pittsburgh, PA_____

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)
___ 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 # _____

Primary Location of Additional Data
_X_ State Historic Preservation Office
___ Other State agency
___ Federal agency
___ Local government
___ University
___ Other

Name of repository: _North Carolina Division of Archives and History

10. Geographical Data

Acreage of Property _25 acres_

UTM References
(Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing	Zone	Easting	Northing
A	17	233345	3926835	B 17	233645	3926825
C	17	233645	3926625	D 17	233445	3926625

___ See continuation sheet.

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

Form Prepared By

name/title_Philip Thomason/Teresa Douglass_____

organization_Thomason and Associates_____ date_October 14, 2003_____

street & number_P.O. Box 121225_____ telephone_(615) 385-4960_____

city or town_Nashville_____ state_TN_____ zip code _37212_____

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps
A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name _Norman Pierson/Alcoa Power Generating Inc., Tapoco Division_____

street & number_300 North Hall Road_____ telephone_865-977-3321__

city or town_Alcoa_____ state_TN__ zip code _37701-2516___

SUMMARY DESCRIPTION

The Cheoah Hydroelectric Development is located on the Little Tennessee River in Graham and Swain Counties, North Carolina, approximately two miles east of the mouth of Slickrock Creek and the Tennessee-North Carolina border. The Cheoah Hydroelectric Development includes the dam, powerhouse, penstock, penstock building, tram bridge, two support buildings, and a bridge over the Cheoah River. The Cheoah Hydroelectric Development was the first of the four facilities that make up the Tapoco Hydroelectric Project to be constructed. Work began on the project in 1916 and was completed in 1919. The dam, powerhouse, and penstock building were originally built to serve four Vertical Francis turbines. A fifth larger turbine was added as an independent mechanism in 1949, and its intake is situated in a converted spillway gate. This penstock begins as a 17-foot diameter concrete conduit that runs down the face of the dam. The concrete portion is 112 feet in length with the remaining 375 feet of welded steel that is 16 feet in diameter. In order to accommodate the new turbine and associated generator, the Cheoah Powerhouse was expanded 71.5 feet. This section is the same architectural style as the original building. The total current capacity of the facility's five units is 110 MW and the total station hydraulic capacity is 9,426 cubic feet per second (cfs). The Cheoah facility utilizes flow delivered by the Tennessee Valley Authority (TVA) from Fontana Dam and Tapoco's Santeetlah Development, which are located upstream of Cheoah. A construction camp known as Tapoco was erected in 1916 to house workers on the project. The village was located approximately one quarter mile south of the Cheoah Hydroelectric Development and consisted of twenty-three houses, a church, two schools, and a playground and swimming pool. All of these buildings and structures have been razed. The Tapoco Lodge and additional tourist cabins constructed in the 1930s remain extant. These properties are addressed in the National Register nomination, "Tapoco Lodge Historic District." The Cheoah hydroelectric facility includes a Lunch Room built in 1994, and a Shop Building, which was largely rebuilt in 1994 into its present appearance.

INDIVIDUAL PROPERTY DESCRIPTIONS

CS = Contributing Structure
CB = Contributing Building
NCS = Non-contributing Structure
NCB = Non-contributing Building

Dam, 1919 (CS)
The Cheoah Dam is a gravity-type, concrete arched dam and is 750 feet in length. Thedam is 225 feet in height, and has 19 steel tainter gates, which are 25 feet in width and 19 feet in height. The steel handrail on top of the dam was added in 1998 to replace an original steel handrail. The dam impounds the Cheoah Reservoir, which has a full pool area of approximately 644 acres and a full pool elevation of 1276.8 feet. Its drainage area is 1,608 square miles.

Gatehouse, 1919 (CB)
On top of the dam are two, two-story poured concrete gatehouses built in 1919 and 1947. The original 1919 gatehouse is of poured concrete and was built in a rectangular plan. The main (NE) facade has two arched openings leading to an incised porch. The entrance has an original six-panel wood door. Windows are original sixteen-light steel hinged design with four-light transoms. The gatehouse has a concrete beltcourse dividing the two floors. At the roofline is concrete coping, and above the windows on the second floor is a concrete beltcourse. The interior has concrete floors, walls, and ceilings. On the second floor are sixteen-light steel windows with inset four-light hinged windows and twelve-light steel hinged windows.

Gatehouse, 1947 (CB)
The 1947 gatehouse was constructed to serve a fifth Francis Turbine installed in the powerhouse in 1949. This gatehouse is located to the north of the original 1919 gatehouse, and is also of poured concrete. On the south and north facades are double doors of solid steel added in 1991. On the west facade are two original windows of fourteen-light steel awning design. There is no other fenestration. Within the gatehouse is the mechanical equipment and steel gate for the penstock. The steel penstock leading from the base of the gatehouse rests on poured concrete abutments, and leads from the dam to unit 5, which was added in 1949.

Gantry Crane, 1919 (CS)
In addition to the gatehouses, the dam also contains a steel gantry crane which is used to raise materials to the top of the dam. Along the top of the dam is a steel track along which rides the steel gate hoist mechanical units. These units move along the track, and areused to raise and lower the steel tainter gates.

Tram Bridge, 1919 (CS)
Adjacent to the south end of the dam is a steel and wood tram bridge. This bridge rests on steel abutments and has a wood deck and steel railing. A steel track runs along the deck of the bridge, and the bridge is used to move mechanical equipment between the dam and penstock building.

Penstock Building, 1919 (CB)
To the southwest of the dam on the slope above the powerhouse is the penstock building constructed in 1919. The penstock building is of poured concrete, and has four penstock motors on the roof. The building has no fenestration and has a steel pipe railing on all four sides. On either side of the penstock motors are penstock motor stems containing the threaded rods for raising and lowering the penstock gates. The penstock building controls the flow of water to the powerhouse below. The powerhouse originally contained four vertical Francis turbines, each with a capacity of 33,000 hp. These units withdraw water through an intake located at the left abutment of the dam. This intake is connected by a 27-foot pressure tunnel with a surge chamber, which is situated within the penstock building above the powerhouse. Four steel penstocks, each 13.5 feet in diameter, carry water from the penstock building to the turbines.

Powerhouse, 1919 (CB)
The Cheoah Powerhouse is of reinforced concrete construction and is located just west of the Cheoah Dam. The design of the powerhouse safeguards against flood water twenty feet above the generator room floor. The north facade of the powerhouse is two stories and rests on a poured concrete foundation. The lower level is articulated through fifteen bays of rectangular recessed concrete panels. Dividing the two stories is a concrete beltcourse. The upper level has fifteen corresponding bays with original steel windows. These windows are original 144-light steel design with eight sets of inset eight-light hinged windows. The window bays are divided by a steel muntin bar. Above the windows is a transom bar with an indented concrete panel and a five-sided raised concrete design. Above the transom bar are original round arch multi-light steel transoms. Below the roofline is a beltcourse, and at the roofline is a concrete cornice.

On the west facade of the powerhouse is a central steel roll-up door with an inset steel and glass pedestrian door. This was installed ca. 1980. On the second story in the central bay is a fixed 144-light steel window. Above this window is a transom bar indented with concrete. Above the transom bar is a transom with an elliptical multi-light steel transom window. Flanking this window are original window bays containing twelve sets of eight-light steel hinged windows. The upper six sets of windows are separated by a steel muntin bar. Dividing the first floor and upper floor windows is a concrete beltcourse. At the roofline of the building is a concrete cornice.

The east four bays of the powerhouse were added in 1949. This addition was alsoof poured concrete and matches the original except in the wood mold profile. On the east facade of the powerhouse is a pedestrian door with a solid steel door added to the wing in 1949. Also on this facade is a solid steel gate that rolls on a track system for the removal and installation of transformers. There is no other fenestration on the east facade. The south facade of the powerhouse is of poured concrete and lacks fenestration.

The interior of the Cheoah powerhouse has poured concrete floors, concrete walls, and a steel deck and truss ceiling system. In the southwest corner of the powerhouse is a one-story poured concrete operator's room with an original nine-light and two-panel glass and wood door, and nine-light and twelve-light fixed steel windows. The interior of the powerhouse has five vertical Francis turbines manufactured by the Allis-Chalmers Company, and a modern switchboard.

On the west facade of the powerhouse is a two-story office wing added in 1947. The building has a poured concrete foundation, flat roof of concrete with a steel railing, and an exterior of poured concrete. The windows are vinyl clad, sliding track, twelve-light design added in 1996. The main entrance has a steel and glass door also added in 1996. The windows have original concrete sills. The interior of the office was remodeled in 1996 with new wood floors, wall paneling, dropped acoustical tile ceilings, and new partition walls.

Storage Building, 1919 (CB)
On the west facade of the 1947 office wing is an attached, one-story concrete storage building constructed in 1919. The building has poured concrete walls, foundations, and roof. On the north facade are three entrances, each of which has an original steel door. This facade also has an elevated concrete walkway with an added steel railing. On the west facade of the storage wing are two original nine-light steel hinged windows. There is no fenestration on the south facade of this building. At the roofline is a concrete cornice.

Cheoah River Bridge, 1919 (CS)
To the south of the powerhouse is an original steel and concrete vehicular bridge over the Cheoah River. This bridge connects the powerhouse facility with U.S. Highway 129. The bridge is a concrete and steel beam bridge resting on two poured concrete abutments. The deck is of poured concrete and rests on steel cross beams. On either side of the deck are steel railings and pipe handrails. To the west of the powerhouse is a lunchroom of concrete block construction built in 1994. Southwest of the powerhouse is the one-story shop building which was rebuilt in 1994 with new doors, windows, and steel panels.

Lunch Room, 1994 (NCB)
This one-story, concrete block building was constructed in 1994 as a dining facility.

Shop, 1994 (NCB)
This one-story, gable roof building was rebuilt in 1994 as a shop and has an exterior of metal panels and a ca. 1994 overhead metal garage door.

STATEMENT OF SIGNIFICANCE

SUMMARY STATEMENT

The Cheoah Hydroelectric Development meets National Register criteria A and C for its historical, architectural, and engineering significance. Under National Register criterion A, the Cheoah facility is significant in the industrial development of Tennessee. Although the hydroelectric development is located in North Carolina, the electricity it produced by Cheoah powers industry in Tennessee. By the mid-20th century, Alcoa emerged as one of the leading manufacturers in the state, and the development of the Alcoa facility in Blount County made this region an industrial center. Alcoa employed thousands of workers in its aluminum plants, and its hydroelectric facilities made this production possible. Under criterion A, the Cheoah Hydroelectric Development is also significant for its role in military history. During World War II, the increased reliance on air power to fight the axis powers required enormous amounts of aluminum for aircraft production and other war materials. The power supplied by Cheoah was integral with this significant role played by Alcoa.

The Cheoah Hydroelectric Development is also significant under criterion C for its engineering and architectural design. The Cheoah Powerhouse is a notable example of a classical influenced industrial building. The Cheoah Dam, a gravity-type arched dam, is notable for its engineering significance. When the Cheoah Dam was completed in 1919, it was the world's highest overflow dam, and its four 24,000 h.p. turbines were the largest in existence. The Cheoah Development served as a model for the construction of many dams and powerhouses across the country.

The primary buildings and structures that comprise the Cheoah Hydroelectric Development are also notable for the retention of their historic and architectural integrity. The dam possesses its original poured concrete exterior surface, along with ancillary structures such as gatehouses and gantry cranes. The powerhouse retains original windows,decorative detailing, and interior floor plan and layout, and its character remains intact.

In addition to the primary buildings and structures, the Cheoah Hydroelectric Development maintains its sense of time and place as a planned early- to mid-century hydroelectric development. The mountainous landscape looks much as it did when the facility was completed, and there is no substantial residential or commercial development in the vicinity of the dam and powerhouse, or along the reservoir shoreline. The intact hydroelectric facility retains its historical integrity and reflects the industrial growth of a major American industry. The facility's period of significance is 1919-1953 and reflects the initial operation of the facility, its role in the region's industrial development, the production of military products during World War II, and the introduction of electricity to the region. The Cheoah Hydroelectric Development meets the registration requirements set forth in the Multiple Property Documentation form "Historic Resources of the Tapoco Hydroelectric Project."

HISTORICAL BACKGROUND

The Cheoah Hydroelectric Development is part of the Tapoco Hydroelectric Project of western North Carolina and eastern Tennessee. Tapoco is a division of Alcoa Power Generating, Inc. (APGI). APGI is a subsidiary of Alcoa Inc.,which is one of the foremost aluminum manufacturers. A pioneer in modern aluminum production, the company is rooted in the late 19th century scientific efforts and discoveries of Charles Martin Hall, who formed the Pittsburgh Reduction Company in 1888. The company experienced rapid success and growth in the late 19th and early 20th centuries as markets for aluminum increased dramatically. The metal was used for a variety of products including kitchen utensils, medical and surgical instruments, foils, bottle caps, military implements, wire baskets and brushes, automobiles, and eventually airplanes. In 1907, the company changed its name to the Aluminum Company of America, or Alcoa, to reflect its role as the industry leader.

The process of making aluminum required extraordinary amounts of electrical power, and so the company sought out the least expensive methods for its production. The search for inexpensive electricity led the company to hydroelectric power and it became actively engaged in seeking its own hydroelectric sites and building and managing its own power plants. In 1909, Alcoa began to focus on the Little

Tennessee River and its tributaries in the Great Smoky Mountain region of Tennessee and North Carolina for sites on which to build hydroelectric facilities. In May of 1910, company executive J. W. Rickey examined the area around Chilhowee, Tennessee. The gorge through the Smoky-Unaka Mountains made by the Little Tennessee River proved to have a large number of favorable dam sites, and the company pursued the location for construction of hydroelectric systems.[1]

In 1913, Alcoa selected a site north of Maryville, Tennessee, on which to establish an aluminum reduction and fabricating plant. The company purchased 664 acres, and construction ofthe plant and temporary worker housing began in the fall of 1913. Operations began at the new plant, the largest of its kind in the country, on March 6, 1914.[2] The Tennessee Electric Power Company provided the plant with power initially while Alcoa scouted for sites on which to build its own electrical facilities. Alcoa engineers designed a dam system along the Little Tennessee River and its tributaries that eventually consisted of four hydroelectric projects: Cheoah, Santeetlah, Calderwood, and Chilhowee. The falling water from the dams flows through the penstocks and into the turbines to create electricity. The power then traveled from the powerhouses to the reduction works at Alcoa, Tennessee. Alcoa later formed a subsidiary division of the company to manage its hydroelectric facilities. Named Tapoco, the division reflected the name of the original power company of the region, the Tallassee Power Company.[3]

The general layout of Alcoa's Little Tennessee dam system was finalized in late 1915. The first Alcoa dam and powerhouse to be constructed in the Little Tennessee area was Cheoah. Alcoa made an arrangement with the Southern RailwayCompany for an extension of the Chilhowee branch to Alcoa (now Calderwood) and then on to the mouth of the Cheoah River. Train service between Knoxville and Alcoa started March 13, 1916, and the line reached the Cheoah Dam site the following September. During this period worker housing and other facilities at Alcoa and the Cheoah Dam site were being constructed. In March 1917, construction of the Cheoah Dam was underway.[4]

During the construction of the Cheoah facility, a series of floods in the fall and winter of 1918 hindered construction on the project. Other difficulties encountered over the course of construction included obtaining sufficient rock, securing an adequate labor force, transportation difficulties and factory delays in the production of equipment. On April 2, 1920, within a year of the dam's completion, the greatest flood on record caused great damage in the area. The flood washed away the railroad bridge to the Cheoah powerhouse as well as many of the camp buildings at worksite villages.[5]

To house the laborers working on the Cheoah dam, the company erected a construction camp near the worksite in 1916. It was originally named "Cheoah" but another settlement of this name was developing further east, and so the name of the community was changed to "Tapoco." This name was derived from that of the original power company in the area, Tallassee Power Company, which Alcoa had purchased in 1914.[6] The village of Tapoco contained twenty-three five- and six-room houses for permanent workers and their families.

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[1]"History Power Developments on Little Tennessee River, 1909-1947," n.p., copy on file at Alcoa archives.

[2]Charles C. Carr, *Alcoa: An American Enterprise* (New York: Rinehart & Co., Inc., 1952), 94.

[3]J. Elmer Housley, "Brief History of Tapoco and The Great Smoky Country" (Tapoco, NC: Tapoco Lodge, 1957), 1.

[4]"History Power Developments on the Little Tennessee."

[5]Ibid.

[6]Housley, 1.

It also included an elementary and high school, a church, swimming pool, and playground. None of these early buildings remain extant.

One of the engineering challenges in designing the Cheoah Dam was making sure that up to 200,000 cfs of floodwater could be passed over the dam without eroding its foundations. Researchers tested various models and concluded that the use of a secondary dam within a minimum distance would make the water form pools and thus prevent the formation of a potentially damaging fountain. With this in mind, engineers on the project redesigned the Cheoah system to enable the use of a secondary dam downstream from the main dam. After several revisions, the location for Cheoah Dam was changed from its original site 1,000 feet downstream from the mouth of the Cheoah River to its final location in a narrow section of the gorge above the mouth of the river. The powerhouse was located at a sufficient distance downstream to allow for a secondary dam; however, the natural channel depths of the new dam location were very near those required to form the jump, which would limit erosion. Thus a secondary dam was not constructed. The general principles employed in the design and construction of the Cheoah Dam solved the problem of erosion and undercutting, and became the accepted general design of future dam systems.[7]

Operation of the Cheoah Dam began in April 1919. Its gravity-type concrete arched dam of 225 feet was the highest overflow dam in the world to date, and the powerhouse had the world's largest hydroelectric generating units.[8] The transmission lines connecting the dam to the aluminum plant were also an engineering feat for their time. The distance between the two facilities was 28 miles and covered rugged country in the Great Smoky and Chilhowee Mountains. At one point the lines crossed the Little Tennessee River from mountaintop to mountaintop in a single span of 5,010 feet. With an original operating voltage of 154,000 volts, the lines were the world's longest transmission span for several years and pioneered the way for later lengthy spans.[9]

During times of war, the government turned to Alcoa for its aluminum needs. At thetime of World War I, Alcoa was the only producer of pig aluminum in North America, and had to meet war demands and civilian use. To meet war needs, Alcoa expanded existing plants and built new facilities, some of which were used onlyduring the war. During the conflict, aluminum for military use made up 90 percent of Alcoa's production. The company reached a peak production in 1917 of 152 million pounds.[10]

As one of the major suppliers of aluminum during World War II, Alcoa played a major role in America's victory over the axis powers. In the late 1930s in reaction to the mounting developments in Europe, Alcoa increased its production capacity in hard alloy sheet, forgings, and extrusions. After the invasion of Poland, demand for smelting capacity increased. The United States Military Aircraft Program fueled the need for sheet metal, and in October of 1940, the company began construction of a large sheet mill at Alcoa. This mill was designed to have a monthly capacity of five-million pounds. When it was completed in 1942, this facility, known as the North Plant, was one of the largest industrial buildings ever constructed in the mid-20th century.[11]

Overall, wartime needs increased aluminum production in America by 500 percent, and aluminum was used for submarines, quonset huts, and other products. Aluminum'smost significant use was in aircraft production. The possibilities of the defensive and offensive capabilities

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[7]"History Power Developments on Little Tennessee River."

[8]Carr, 95-96, 106; "Alcoa's Hydroelectric Developments in the Smoky Mountains," (Pamphlet prepared by Alcoa, February 1958), 11-12.

[9]"Alcoa's Hydroelectric Developments in the Smoky Mountains," 12.

[10]Ibid, 147-154.

[11]Ibid, Carr, 91-107.

of air power was limited during World War I. However, with the outbreak of hostilities in 1939, air power played a dominant role in the victory of the Allies. Aircraft carriers quickly became the most important surface ships on the ocean surpassing battleships. Attack aircraft launched from carriers led to major victories for America and its allies. The air campaign of the US Army Air Force and the Royal Air Force greatly disrupted Germany's industrial production, and diverted valuable resources away from offensive weapons to air defense. These achievements were gained above all by the "Allies' enormous industrial capacity which was the foundation of their air power."[12] By the beginning of 1945, Allied aircraft outnumbered their opponents by at least five to one.

The Cheoah Hydroelectric Development generated electricity to power Alcoa's plants during wartime. As the primary producer of aluminum sheet metal, Alcoa played a major role in the manufacture of aircraft and other wartime products necessary for the victory of the allies in World War II.

Alcoa continued to lead the aluminum industry in the post World War II years as it developed new uses for aluminum. Today, Alcoa continues to be a leader in the aluminum industry and operates numerous concerns nationwide. The Cheoah Hydroelectric Development remains an integral part of Alcoa's hydroelectric developments in Tennessee and North Carolina, and continues to fuel its major regional plants and work in conjunction with the Tennessee Valley Authority. Alcoa continues to be America's largest manufacturer of aluminum, and its operations in Blount County, Tennessee, employ over 2,000 workers.

Additional information is located in the accompanying Multiple Property Documentation Form, "Historic Resources of the Tapoco Hydroelectric Project."

[12] I.C.B. Dear, ed. *The Oxford Companion to World War II*, (New York, Oxford University Press, 1995), 22.

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VERBAL BOUNDARY DESCRIPTION

The boundary for the Cheoah Hydroelectric Development is shown as the dashed line on the accompanying map of the Cheoah Dam and Powerhouse which is drawn at a scale of 1" = 100' (map # TP526). The boundary includes approximately 25 acres in Graham County, North Carolina. The property is bounded on the east by an imaginary line which is approximately 175' east of the eastern face of the Cheoah Dam. The southern boundary is drawn to take in the Cheoah River Bridge and follows US 129 for a short length at its western end. The western boundary follows an imaginary line approximately 300' from the western face of the Cheoah Powerhouse. The northern boundary follows the southern right-of-way of US 129.

VERBAL BOUNDARY JUSTIFICATION

The boundary for the Cheoah Hydroelectric Development is drawn to include all buildings and structures historically associated with the property including the dam, powerhouse, penstock building, access bridge, and other support buildings. The boundary includes the buildings and structures which comprise this development and the immediate environs of the property. No other buildings or structures are known to be historically associated with this development

Cheoah Hydroelectric Development
Graham County, North Carolina
Swain County, North Carolina
Photo by: Thomason and Associates
Date: September-December, 2001
Location of Negatives: North Carolina Division of Archives and History

Photo No. 1 of 14: Overall view of the Cheoah Hydroelectric Development, view to the northeast.
Photo No. 2 of 14: Cheoah Dam, view to the northeast.
Photo No. 3 of 14: Cheoah Dam Gatehouse, 1947, view to the northeast.
Photo No. 4 of 14: Cheoah Dam Gatehouse, 1919, view to the southeast.
Photo No. 5 of 14 Cheoah Dam Tram Bridge, view to the west.
Photo No. 6 of 14: Cheoah Dam Penstock, 1947, view to the east.
Photo No. 7 of 14: Cheoah Powerhouse, west and north facades, view to the southeast.
Photo No. 8 of 14: Cheoah Powerhouse, interior.
Photo No. 9 of 14: Cheoah Powerhouse, interior, office.
Photo No. 10 of 14: Cheoah Powerhouse, west wing, view to the southeast.
Photo No. 11 of 14: Cheoah Powerhouse, storage wing, north facade, view to the south.
Photo No. 12 of 14: Cheoah River Bridge, view to the east.
Photo No. 13 of 14: Shop Building, view to the southwest.
Photo No. 14 of 14: Lunch Room, view to the west.

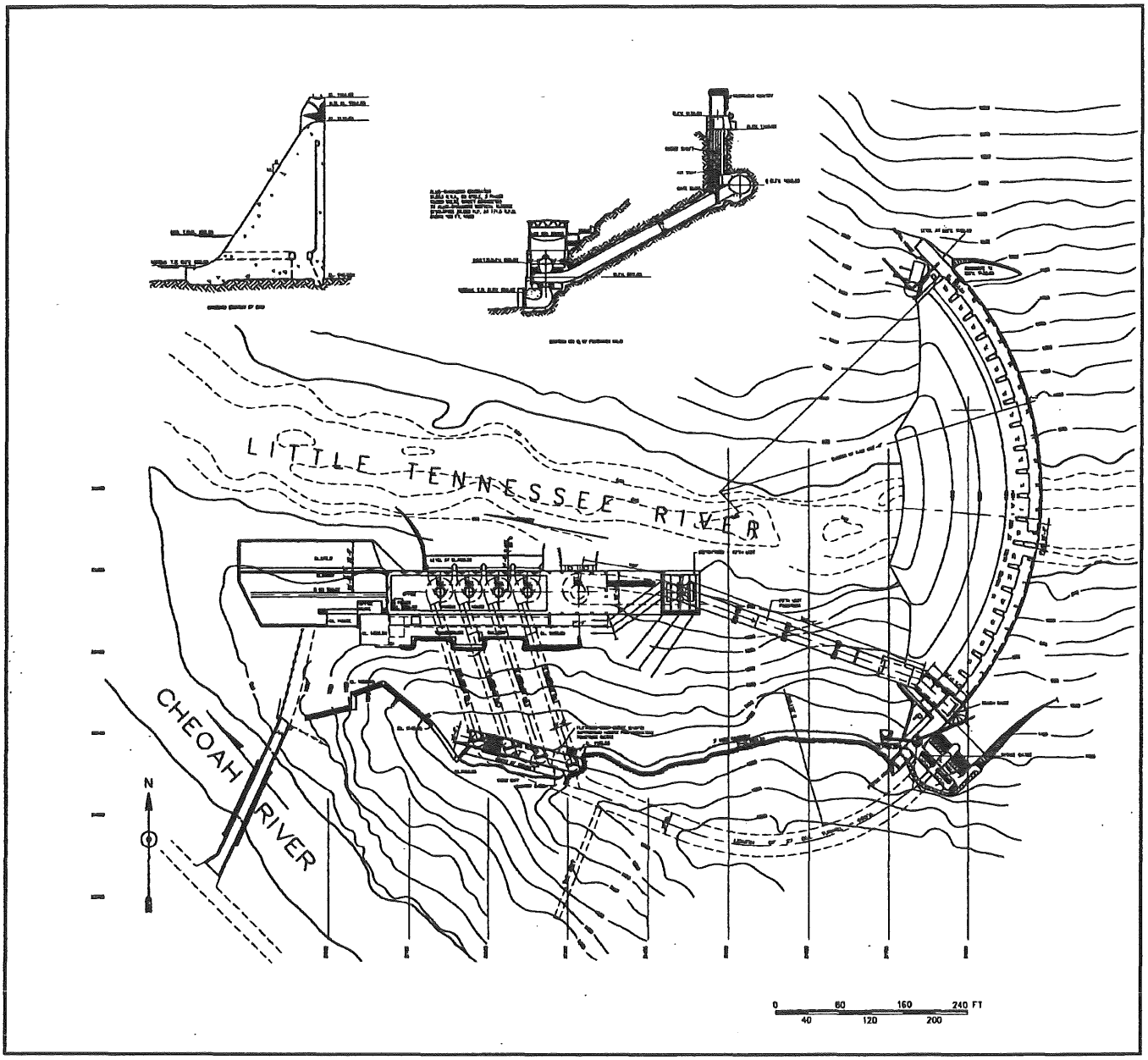


Figure No. 1. Cheoah Hydroelectric Development general plan.

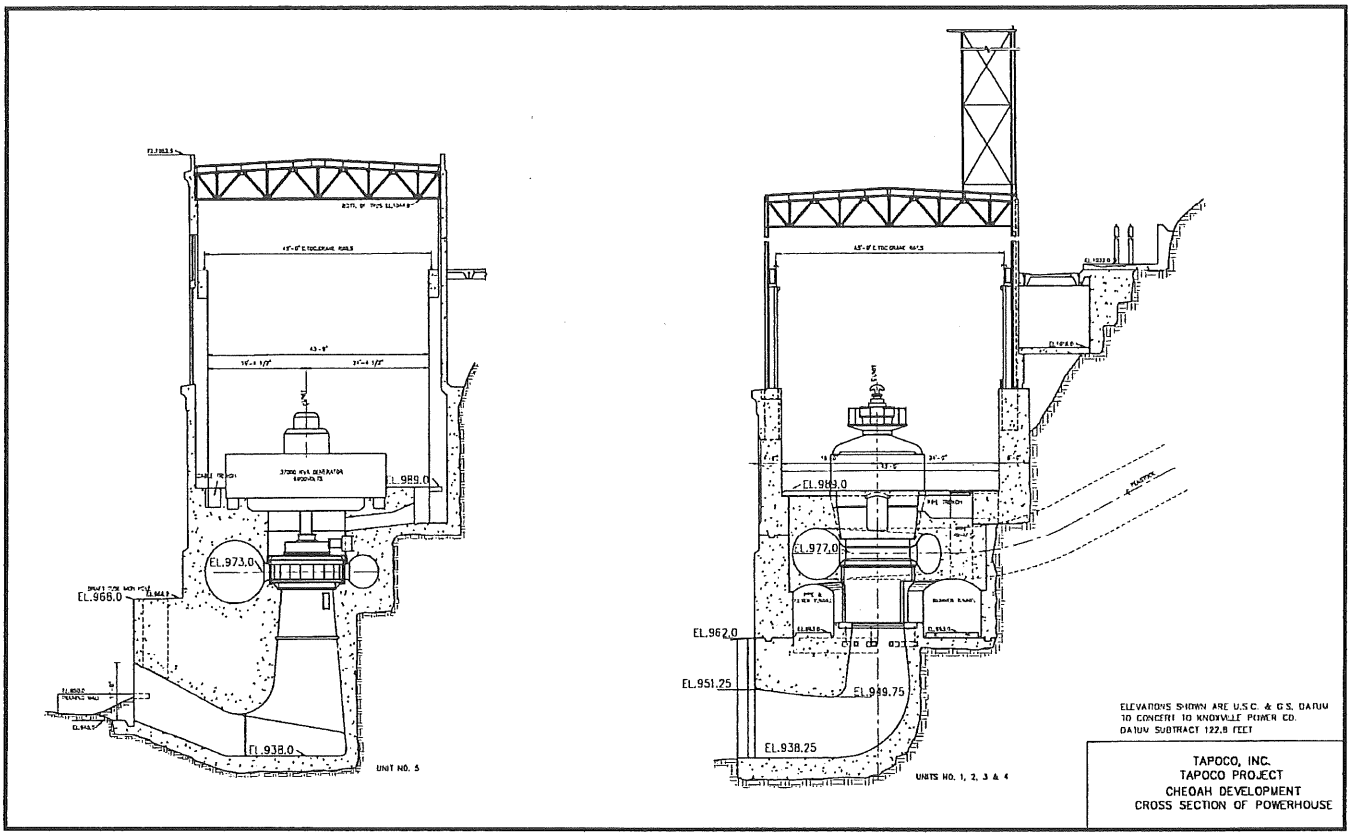


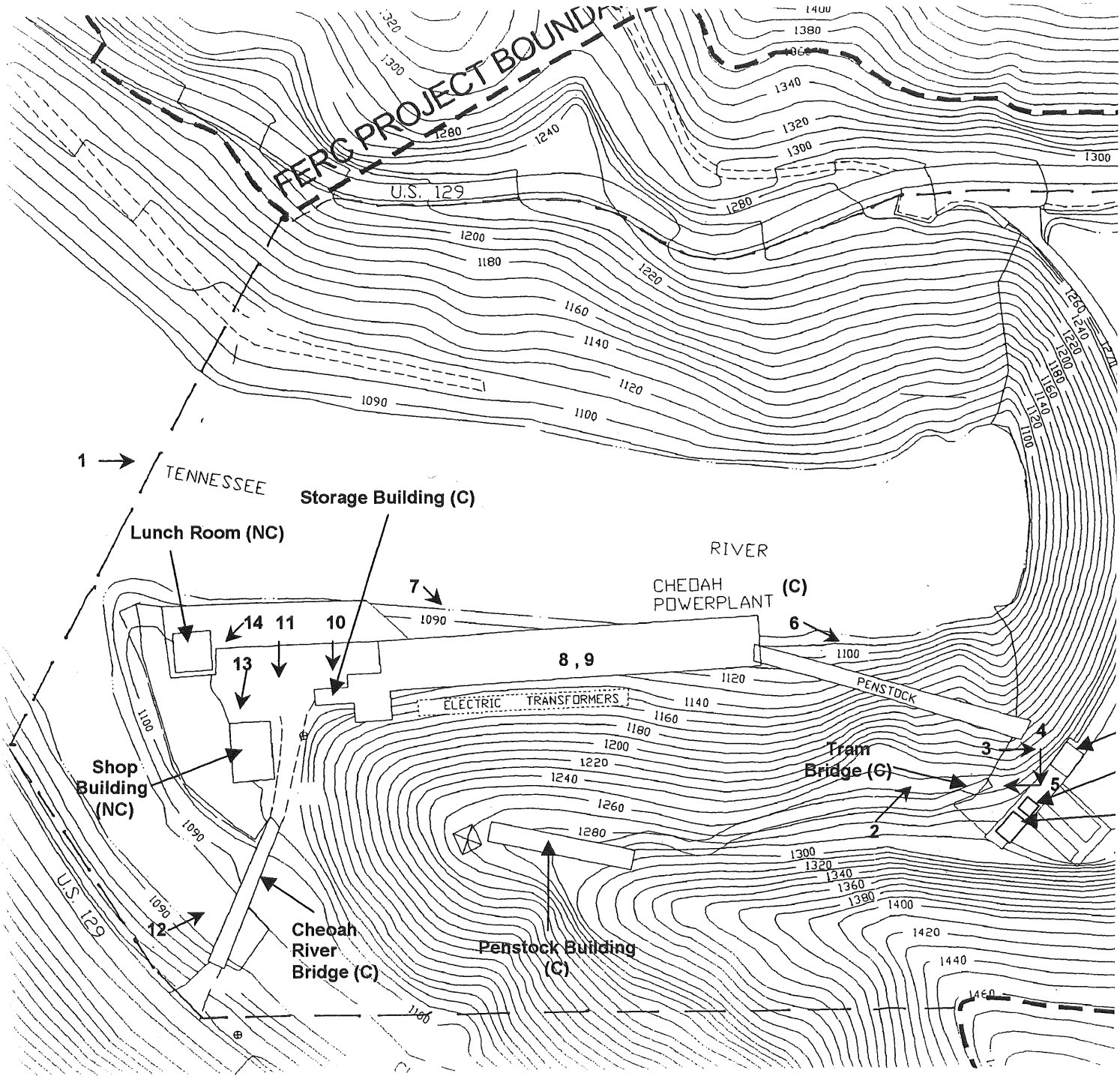
Figure No. 2. The Cheoah Hydroelectric Development, cross section of powerhouse.

United States Department of the Interior
National Park Service

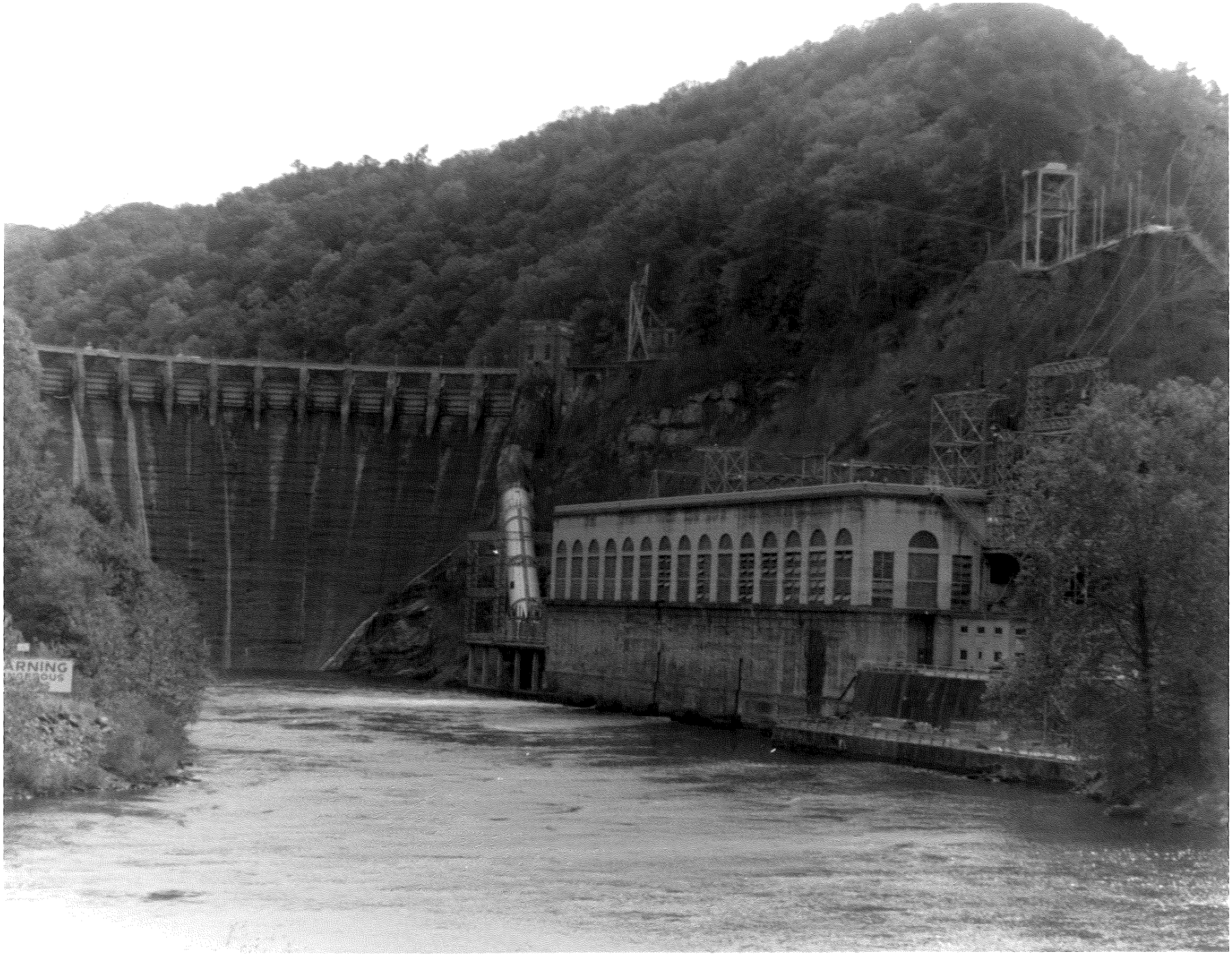
National Register of Historic Places Continuation Sheet

Section number Maps Page 13

Cheoah Hydroelectric Development
Graham and Swain Counties, North Carolina



Map No. 1. Site Plan and Photo Key for the Cheoah Hydroelectric Development. (not to scale)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