

VLR-3/17/99

United States Department of the Interior
National Park Service

DRAFT

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 Catawba Furnace 11 #40

other names/site number _____

2. Location

street & number Route 600, North of Catawba Creek
George Washington and Jefferson National Forests

city or town Fincastle not for publication
state Virginia code VA county Botetourt vicinity X
zip code _____ code 023

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this _____ nomination _____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _____ meets _____ does not meet the National Register Criteria. I recommend that this property be considered significant _____ nationally _____ statewide _____ locally. (_____ See continuation sheet for additional comments.)

Signature of certifying official _____ Date _____

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)

Category of Property
(Check only one box)

- private
- public-local
- public-State
- public-Federal

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed properties in the count)

Contributing	Noncontributing	
<u>4</u>	<u> </u>	buildings
<u>6</u>	<u> </u>	sites
<u> </u>	<u> </u>	structures
<u> </u>	<u> </u>	objects
<u>10</u>	<u>0</u>	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.) The Iron Industry of Virginia, 1620-1920

6. Function or Use

Historic Functions
(Enter categories from instructions)
Industry/Processing/Extraction
Iron Furnace

Current Functions
(Enter categories from instructions)
Vacant/Not in Use

7. Description

Architectural Classification
(Enter categories from instructions)
No Style

Materials
(Enter categories from instructions)
foundation: Stone, dry-laid
walls: Stone, dry-laid
roof: N/A
other: N/A

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)

- 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.
- 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)

Architecture _____
 Industry _____

Period of Significance

1830-1850 _____
 1861-1865 _____

Significant Dates

1830 _____
 1861 _____
 1865 _____

Significant Person
(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Unknown _____

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

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: _____

10. Geographical Data

Acreage of Property 6

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

	Zone	Easting	Northing	Zone	Easting	Northing
A	<u>17</u>	<u>588150</u>	<u>4147625</u>	D	_____	_____
B	_____	_____	_____	F	_____	_____
C	_____	_____	_____	F	_____	_____
	<u> </u> 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.)

11. Form Prepared Byname/title Heather Crowl; Steven H. Moffson, Architectural Historianorganization Dames & Moore, Cultural Resource Servicesdate 9-30-96street & number 7101 Wisconsin Avenue, Suite 700telephone (301) 652-2215city or town Bethesdastate MDzip code 20814

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 George Washington and Jefferson National Forests, USDA Forest Service
C/O Mike Barberstreet & number 5162 Valley Pointe Parkwaytelephone (540) 265-5100city or town Roanokestate VAzip code 24019-3050

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Catawba Furnace
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Description of Historic Resources

Catawba Furnace is situated west of Route 600 on the north bank of Catawba Creek. The furnace is located within the George Washington and Jefferson National Forests, in an area of young deciduous forest.

Original

The Catawba iron furnace complex included the iron furnace and its support facilities, as well as facilities necessary to support the workers and animals who operated the furnace. The original cold-blast charcoal stack was constructed in 1830. The furnace was constructed of dry-laid local stone on an unusual round plan (most furnaces were built on a square plan), with a central brick chimney. It was connected to an embankment to the north by a charging bridge over which iron ore, limestone flux, and charcoal were wheeled and dumped into the central, brick-lined cavity. A casting house where molten iron was formed into pigs and sows by the sand molding process was located on the tap arch side of the furnace. The tub bellows that produced a blast were powered by a waterwheel set close to the stack. The furnace was rebuilt in 1861, changing the dimensions to 41' x 9.5'. The property included numerous buildings: a corn mill, saw mill, stable, granary, coal shed, a blacksmith and wheelwright shop, a managers house, one frame boarding house, six cabins for laborers, an office, sheds, and an ore-washing machine.

Present

A large part of Catawba Furnace collapsed in the 1930s when vandals removed two of the arch lintels. The furnace is constructed of limestone, probably quarried at the site, in a circular plan roughly 30 feet in diameter. The tap arch has collapsed. The tuyere arch remains intact, although sand and corroded brick cover the tuyere opening. The south side of the stack is collapsed, revealing the fire brick lining of the stack. Only a few feet of the brick stack are visible. The tap arch is located on the east side of the furnace and opens to an area bounded by an approximately three foot stone wall along the north (along the base of the ridge). The wall is only visible for about twenty feet because erosional material from the ridge has washed over it. The casting shed may have been located here. The tuyere arch faces the west and is also bounded by a small stone wall. This one, however, extends several feet westward, then, heads south at a right angle. This may have held the water-powered blast equipment.

The stone structure wheel pit is cut into the tail race and sits west of the furnace. The wheel pit is still intact, but has a layer of dirt on the bottom. The tail race continues around west of the furnace, but has been filled in by road construction. It apparently headed south and returned to the creek. Metal bands extending from the west end of the wheel pit were probably used to secure flumes.

A mill dam is approximately a quarter mile up Catawba Creek. The only visible remains are three pins imbedded in the river bottom bedrock, and a sediment bank and sediment bar in the river. A remnant of the flue-way follows the creek in the direction of the furnace, but is disturbed and its actual course to the furnace unknown.

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A stone wall along the ridge at the furnace's north side supported the charging deck and is still intact. Behind the charging area, a wall feature is cut into a low ridge and appears to have held the charcoal house; much charcoal is evident on the ground in this area. The ridge was possibly used as a road or dock from which charcoal was loaded into the storage area.

A limestone quarry is located northwest of the furnace and was used to extract structural materials and flux. Numerous drill holes exist in the boulders. As the ridge descends to the creek, several flat areas exist which may have been leveled to accommodate furnace-related structures.

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History

This cold-blast charcoal furnace was built on an unusual round plan in 1830. It ran on water power from the Catawba Creek. The original furnace consisted of one stack, 41' by 9 1/2', and many wooden buildings situated on 10,000 acres in Botetourt County. In 1863, the property included a corn mill, saw mill, stable, granary, coal shed, blacksmith and wheelwright shop, manager's house, one frame boarding house, six cabins for laborers, an office, sheds, and an ore washing machine. Although abundant coal was found on the property of Catawba, the furnace was never converted into using coal or coke. Pig iron was hauled from Catawba Furnace over twenty miles of rough roads to Buchanan and the James River and Kanawha Canal, where it was loaded onto barges to be sent to Richmond. Difficulties in transportation limited production after the Civil War. Pig iron from this furnace was so valued that it sold for as much as \$60 per ton, and was transported (in small quantities) to Boston, and all the way to Maine.

In 1847, J. R. Anderson of Tredegar Iron Works in Richmond bought the furnace. The furnace went out of blast in 1850 after shipping a poor batch of iron to Maine. It was rebuilt in 1861 to support the efforts of the Confederate army. The furnace produced strong, high quality iron that was used to produce cannons for the Confederacy. In 1862 Captain George Minor, the chief of the Bureau of Ordnance and Hydrography, commissioned 3000 tons of pig iron from Catawba to be used by the navy. The high grade iron was used to convert the warship Merrimack into the ironclad Virginian. Tredegar purchased Catawba Furnace from Anderson in 1862. However, production was inhibited by Tredegar's shortage of experienced founders; the same men ran both Catawba and Cloverdale Furnaces. In 1864, General Hunter of the Union Army burned Cloverdale Furnace; there is no evidence, however, that nearby Catawba Furnace was destroyed. It may have been out of blast when the Union troops passed by. The furnace ceased production after the Civil War.

In 1880 the furnace was sold to J. H. Bramwell of Ohio. In 1882 it was owned by Miss Virginia Mathews of New York. The furnace property, however, was not used after 1865 and was abandoned by 1875.

Significance and Integrity

Catawba iron furnace is representative of the importance of the iron industry in western Virginia during the nineteenth century. Its round construction plan is unusual in nineteenth-century Virginia. The activities of Catawba Furnace altered the local landscape through deforestation for charcoal production, and brought money and people into the area of Virginia. The history of Catawba Furnace reflects the history of the Virginia iron industry as a whole in its construction in the 1830s, increased production during the Civil War, and decline after the war. Catawba produced high quality iron and gained national importance as a key producer of iron for the Confederacy during the Civil War.

The potential for archaeological investigation is significant at Catawba Furnace. The furnace and surrounding features could yield information about iron extraction technology, innovation, and change through time. Research could provide information about workers' living conditions, ethnicity, and economic background. Transportation of raw materials and finished products could be investigated as well as the relations between the rural furnace and the urban manufacturer, Tredegar Iron Works.

Although Catawba Furnace is collapsing, important elements of the complex remain intact. The area retains integrity and has the potential to contribute information about the nineteenth century iron industry in Virginia.

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Bibliography

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1930 *Virginia Iron Manufacture in the Slave Era*. New York: the Century Company.

Capron, John D.

1967 *Catawba Furnace, Botetourt County*. Personal Files of John D. Capron. Typescript dated March 29, 1967. Lynchburg College, Virginia.

Dew, Charles B.

1966 *Ironmaker to the Confederacy: Joseph R. Anderson and the Tredegar Iron Works*. Yale University Press, New Haven.

Hotchkiss, Jed

1880-1884 *The Virginias*. A mining and scientific journal.

Lesley, J. Peter

1859 *The Iron Manufacturers Guide to the Furnaces, Forges and Rolling Mills of the United States*, New York: Wiley.

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Boundaries

The property of Catawba Furnace is bound on the east by route 600, on the south by Catawba Creek, on the north by the boundary of the George Washington and Jefferson National Forests, and extends west past the remnants of the dam. The boundary includes the furnace, race, charcoal storage area, dam, wheel well, and all other possible features and supporting structures that retain a high level of integrity and are likely to yield information about the history of Virginia's iron industry.