

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 an 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 Wabash Alloys Locomotive  
other names/site number Site #JE0686

2. Location

street & number 1700 Port Road  not for publication  
city or town Pine Bluff  vicinity  
state Arkansas code AR county Jefferson code 069 zip code 71601

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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 for 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.)

Cacheri Matthews 3/12/07  
Signature of certifying official/Title Date  
Arkansas Historic Preservation Program  
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 certifying official/Title Date  
\_\_\_\_\_  
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the 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 the Keeper Date of Action

5. Classification

Ownership of Property  
(Check as many boxes as apply)

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

Category of Property  
(Check only one box)

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

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

|              |                 |  |
|--------------|-----------------|--|
| Contributing | Noncontributing |  |
|--------------|-----------------|--|

|   |            |
|---|------------|
|   | buildings  |
|   | sites      |
| 1 | structures |
|   | objects    |
| 1 | Total      |

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

N/A

Number of Contributing resources previously listed  
in the National Register

6. Function or Use

Historic Functions

(Enter categories from instructions)

TRANSPORTATION/rail-related/locomotive

Current Functions

(Enter categories from instructions)

TRANSPORTATION/rail-related/locomotive

7. Description

Architectural Classification

(Enter categories from instructions)

N/A

Materials

(Enter categories from instructions)

foundation N/A

walls N/A

roof N/A

other STEEL

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.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B.** removed from its original location.
- C.** birthplace or grave of a historical figure of outstanding importance.
- 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.

**Levels of Significance** (local, state, national)

State  
\_\_\_\_\_  
\_\_\_\_\_

**Areas of Significance** (Enter categories from instructions)

Engineering  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Period of Significance**

c.1940  
\_\_\_\_\_  
\_\_\_\_\_

**Significant Dates**

c.1940  
\_\_\_\_\_  
\_\_\_\_\_

**Significant Person** (Complete if Criterion B is marked)

\_\_\_\_\_  
\_\_\_\_\_

**Cultural Affiliation** (Complete if Criterion D is marked)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Architect/Builder**

General Electric, Builder  
\_\_\_\_\_

**Narrative Statement of Significance**

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

**9. Major Bibliographical References**

**Bibliography**

(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: Cotton Belt Rail Historical Society, Inc./  
Arkansas Railroad Museum

Wabash Alloys Locomotive  
Name of Property

Jefferson County, Arkansas  
County and State

**10. Geographical Data**

Page of Property Less than one.

**UTM References**

(Place additional UTM references on a continuation sheet.)

|   |                   |                   |                   |   |                   |                   |                   |
|---|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------------|
| 1 | <u>15</u>         | <u>593479</u>     | <u>3787838</u>    | 3 | <u>          </u> | <u>          </u> | <u>          </u> |
|   | Zone              | Easting           | Northing          |   | Zone              | Easting           | Northing          |
| 2 | <u>          </u> | <u>          </u> | <u>          </u> | 4 | <u>          </u> | <u>          </u> | <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 By**

name/title Ralph S. Wilcox, National Register & Survey Coordinator  
organization Arkansas Historic Preservation Program date September 28, 2006  
street & number 1500 Tower Building, 323 Center Street telephone (501) 324-9787  
city or town Little Rock state AR zip code 72201

**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 SHPO or FPO.)

name Arkansas Railroad Museum  
street & number PO Box 2044 telephone             
city or town Pine Bluff state AR zip code 71611

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listing. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.)

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P. O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20303.

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## National Register of Historic Places Continuation Sheet

Section number 7 Page 1

### SUMMARY

The Wabash Alloys Locomotive is a diesel-powered General Electric 25-ton switch locomotive built by General Electric c.1940. Although the original owner of the locomotive is not known, in recent years it was operated by Wabash Alloys. The locomotive was donated to the Arkansas Railroad Museum by Wabash Alloys in March 2003.

### ELABORATION

The general specifications for the Wabash Alloys Locomotive are as follows:

Make: General Electric 25-ton diesel electric switch locomotive.

Builder: General Electric.

horsepower: 150 hp.

Length: Approximately 12 feet.

Width: Approximately 10 feet.

Height: Approximately 15 feet.

Weight: 50,000 lbs.

The Wabash Alloys Locomotive is a diesel-powered General Electric 25-ton switch locomotive built by General Electric c.1940. Although the original owner of the locomotive is not known, in recent years it was operated by Wabash Alloys until 2003 when it was donated to the Arkansas Railroad Museum. The locomotive sits on two two-wheel trucks.

The body of the locomotive consists of a rear cab with a hood at the front end sheltering the engine. Doors along the sides of the hood allow access to the engine for repairs. The end of the hood contains metal louvers to allow cooling of the engine, and a single headlight is located in the center of the top of the cab. Walkways with metal railings go from the cab to ladders at each front corner of the locomotive. Doors on one side of the cab and the front of the cab's other side provide outside access.

The hood and cab of the locomotive is painted a dark blue while the frame is painted black with four diagonal yellow stripes, two on each side of the couplers, on the front and rear. The handrails along the walkways are painted in yellow.

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### Integrity

The Wabash Alloys Locomotive possesses good integrity. Since the locomotive was built, parts of the locomotive have been replaced and repaired. However, this is a normal practice for railroad rolling stock as parts wear out.

The Wabash Alloys Locomotive currently resides at the Arkansas Railroad Museum, which is housed in the building where the Cotton Belt built and repaired steam locomotives. The current setting reflects the plant or industrial setting that the locomotive would have operated in originally. As a result, its current setting still reflects the Wabash Alloy Locomotive's period of significance.

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## National Register of Historic Places Continuation Sheet

Section number 8 Page 1

### SUMMARY

The Wabash Alloys Locomotive is being nominated to the National Register of Historic Places with **statewide significance** under **Criterion C** for its engineering as an excellent early example of a General Electric 25-ton diesel-electric switch locomotive. The small General Electric diesel-electric switch locomotives, like the 25-ton model, were an important switch engine design that was used not only throughout the United States, but in several foreign countries as well.

### ELABORATION

Although the first railroad line in the United States was laid in the late 1820s, very little railroad construction was completed in Arkansas prior to the Civil War. The Memphis & Little Rock Railroad, which had laid some track westward from Hopefield and eastward from Little Rock, and the Mississippi, Ouachita, & Red River, which had laid a few miles of track inland from Chicot and Arkansas City, were the only railroads to complete any construction prior to 1860.<sup>1</sup>

The Civil War, however, delayed the building of railroads by a decade, and it was not until the 1870s that railroad building took off again. The St. Louis, Iron Mountain & Southern built a line south from St. Louis to the Arkansas border. They wanted to go to Texas, and purchased the Cairo & Fulton. Although the Cairo & Fulton had not done any construction, they had secured rights-of-way prior to the Civil War. The St. Louis, Iron Mountain & Southern reached Little Rock by 1872, and had completed the first line across Arkansas when it reached Texarkana in 1874.<sup>2</sup>

The second railroad line to reach across the state incorporated the Memphis & Little Rock Railroad, and the newly constructed Little Rock & Fort Smith, which had reached the coal fields of Clarksville in 1874 and Fort Smith five years later. The Little Rock & Fort Smith was purchased by Jay Gould (who already owned the Iron Mountain lines) in 1882, and became part of the Iron Mountain system – the largest railroad system in the state in the late nineteenth-century.<sup>3</sup>

From the 1830s onward, steam locomotives were the standard workhorses on American railroads. The earliest locomotives were usually custom, one-off designs and it was not until the 1850s that locomotive builders progressed beyond the experimental stage of locomotive design and construction to the employment of standard designs that were developed to meet the various conditions that railroads faced. By the late nineteenth century, as trains became longer and heavier and the increased demand for railroad traffic brought about faster and tighter schedules, American steam locomotives became much larger and more sophisticated.

<sup>1</sup> Elliott West. *The WPA Guide to 1930s Arkansas*. Lawrence, KS: University Press of Kansas, 1987 reprint of 1941 publication p. 54.

<sup>2</sup> *Ibid.*

<sup>3</sup> West, p. 55.

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The larger locomotives also brought about a change in manufacturing as well with a shift from small workshops manufacturing locomotives to large industrial factories.<sup>4</sup>

Even though larger scale locomotives were built as time progressed, there was still a need for smaller steam locomotives designed specifically for switching duties in yards. Switchers were usually built to conventional designs, but were relatively small, operated at slow speeds, and had high adhesion in order to move long strings of railroad cars.<sup>5</sup>

However, by the 1930s and early 1940s many railroads began to upgrade their motive power by purchasing diesel locomotives. Many American railroads began using diesel-powered locomotives on their lines during the period since they presented several advantages over steam locomotives. Diesel locomotives are able to start a heavy train from a standstill more quickly than can a steam locomotive. Additionally, diesel locomotives are ready to work at any time, and spend much less time out of service for service and repairs than do steam locomotives. They can also travel greater distances without stopping for fuel. The many advantages of diesel power would have been appealing to many railroads.

The diesel engine was patented in Augsburg, Germany, in 1892 and was the invention of Dr. Rudolf Diesel. Although the first one built ran on coal, the second one ran on refined oil, and as early as 1893 Diesel wrote about the possible applications of his engine to railroad locomotives. The first experimental diesel locomotive was produced in 1909 while Diesel was working with the firm of Klose and Sulzar and by 1913 an experimental diesel-electric railcar appeared in Sweden.<sup>6</sup>

In the United States, General Electric began experimenting with diesel-electric motive power in the early 1910s and had produced five experimental diesel-electric switch engines early during World War I. However, they did not have any impact on the type of locomotives that American railroads purchased. As a result, General Electric decided to focus their efforts on building the electrical components for diesel locomotives while letting other companies build the engines and bodies.<sup>7</sup>

The development of a lightweight diesel engine capable of producing lots of horsepower did not occur, however, until the 1930s. In 1930, General Motors, which mainly manufactured automobiles, acquired the Winton Engine Company, a company that specialized in lightweight diesel engines, and the Electro-Motive Corporation, which had been created in 1922 to design and market gas-electric railcars. The merger of these

<sup>4</sup> Colin Garratt & Max Wade-Matthews. *Illustrated Book of Steam and Rail*. New York: Barnes and Noble Books, 2002, pp. 24-25 and 28-31.

<sup>5</sup> *Ibid.*, p. 78.

<sup>6</sup> Gordon Chappell. *Steam Over Scranton: The Locomotives of Steamtown Special History Study*. National Park Service, 1991, found at [http://www.cr.nps.gov/history/online\\_books/steamtown/shs.htm](http://www.cr.nps.gov/history/online_books/steamtown/shs.htm).

<sup>7</sup> *Ibid.*



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three companies signified the beginning of the era of lightweight streamlined passenger trains, such as the Burlington and Quincy Railroad's *Pioneer Zephyr*, and the beginning of serious use of diesel-electric motive power for passenger trains.<sup>8</sup>

The growth of the Electro-Motive Division (EMD) of General Motors in the 1930s caused General Electric (GE) to rethink its abandonment of diesel locomotive development. As a result, in 1940, GE and Alco teamed up to produce and market diesel-electric locomotives for long-haul road work, and they also worked together on locomotive designs. Although World War II and the War Production Board severely curtailed diesel locomotive design and production in order to conserve crucial materials, such as copper, which is a large component in electrical systems, the Alco-GE partnership introduced several new models after the war.<sup>9</sup>

Although the Alco-GE partnership helped both companies, they were never able to topple EMD as the top diesel locomotive manufacturer, and consistently held the second-place position. The reasons for the company remaining in second place were attributed to Alco's steam-era business practices and higher maintenance costs and reliability problems with the locomotives. Due to the problems, GE terminated their partnership with Alco in 1953, although GE continued to provide Alco (and other manufacturers) with electrical gear for its diesel-electric locomotives.<sup>10</sup>

Even though GE had teamed up with Alco to produce and market locomotives for long-haul road work, GE had produced its own line of switchers and, in fact, it was GE's original diesel locomotive market. In 1940, GE introduced new standard models of switch engines, including a 25-ton model. (The 44-ton model, which became one of the most popular GE models, was specifically designed to comply with 1930s legislation that allowed one-man operation of locomotives weighing less than 45 tons. Locomotives weighing more than 45 tons required both an engineer and fireman.) Even though several other manufacturers produced center-cab switchers, GE's were the most popular.<sup>11</sup>

The GE 25-ton switcher was popular with a wide variety of railroads and industries for many purposes. As with other switch engines in the GE model range, large Class I railroads would have used them for switching on light branch lines and especially in industrial areas where heavier locomotives could damage the track and bridges. Shortline railroads could have also used them to replace aging steam locomotives. Electric

<sup>8</sup> Brian Hollingsworth and Arthur Cook. *The Great Book of Trains*. New York: Salamander Books, Ltd., 1987, p. 272.

<sup>9</sup> Brian Solomon. *GE Locomotives: 110 Years of General Electric Motive Power*. St. Paul, MN: MBI Publishing Company, 2003, pp. 52-53 and 55.

<sup>10</sup> *Ibid*, p. 56.

<sup>11</sup> *Ibid*, pp. 56-57.

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interurban railroads also used the GE models to handle their freight operations, and they were also popular with industrial railroads and private companies.<sup>12</sup>

The popularity and great features of the entire line of GE switching locomotives was touted in the 1947 *Locomotive Cyclopedia of American Practice*, which wrote:

G-E Diesel-Electric Locomotives for Industrial Use  
Built in Standard Sizes  
For Low Cost and Quick Delivery

For economical industrial switching, General Electric offers a line of standard locomotives for industrial use. Salient features are service-proved design and construction, low first cost, and quick delivery. Special locomotives are available to meet unusual requirements. ...

[The] smallest unit in the standard line, the 25-ton, 150-hp locomotive has a top speed of 20 mph and a maximum tractive effort of 15,000 pounds.

This locomotive's ability to do a real job is the result of features which are generally found only on larger units. Besides the heavy-duty traction motor, which is a feature of the G-E electric drive, this unit also has anti-friction journal bearings and air brakes.

GE was able to manufacture locomotives that could be used on track gauges (distance between the rails) from 36 inches to standard gauge of 4' 8½".<sup>13</sup> Purchasers of GE 25-ton model locomotives included the Alabama River Woodlands, Inc., Colorado Fuel & Iron (narrow gauge railroad), Providence & Worcester, Consolidated Sand & Gravel, Central Texas Gravel, and the U.S. Government.<sup>14</sup>

Little is known about the early history of this particular locomotive. It is known that it was built c.1940, and represents an example of an early generation GE 25-ton locomotive. By the late 1940s, the 25-ton model had been redesigned with a slightly more aerodynamic hood that matched the hood design on the larger GE switch locomotives.<sup>15</sup>

Polomon, p. 57.

Roy V. Wright (ed.) *1947 Locomotive Cyclopedia of American Practice*. New York: Simmons-Boardman Publishing Corporation, 1947, Sec. 16, p. 1052.

<sup>14</sup> Information on GE 25-ton locomotives found at: <http://www.thedieselshop.us/PRSVdge.HTML>.

<sup>15</sup> Roy V. Wright (ed.) *1947 Locomotive Cyclopedia of American Practice*. New York: Simmons-Boardman Publishing Corporation, 1947, Sec. 16, p. 1052, and information on Wabash Alloys Locomotive provided by the Arkansas Railroad Museum.

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In recent years the locomotive was operated by Wabash Alloys, a company that produces aluminum alloy, at their Haskell, Arkansas, facility. A small locomotive like the GE 25-ton model would have been ideal for operations around an industrial facility such as the Wabash Alloy facility. However, by early 2003 the locomotive was no longer needed by Wabash Alloys, and in early March 2003, the locomotive was donated to the Arkansas Railroad Museum. In the past few years, the Museum has restored the locomotive and will use it as a switch engine for their rolling stock at the museum building in Pine Bluff.

Although not a large locomotive, the GE 25-ton model was an important locomotive, providing service at railroads and industrial facilities throughout the United States. Today, those examples that survive mainly represent the later design of the locomotive, and it appears that relatively few early models remain. The Arkansas Railroad Museum has done a great job of restoring the Wabash Alloys Locomotive so that it can once again provide rail service at their facility.

### STATEMENT OF SIGNIFICANCE

The Wabash Alloys Locomotive is being nominated to the National Register of Historic Places with **statewide significance** under **Criterion C** for its engineering as an excellent early example of a General Electric 25-ton diesel-electric switch locomotive. The small General Electric diesel-electric switch locomotives, like the 25-ton model, were an important switch engine design that was used not only throughout the United States, but in several foreign countries as well.

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### BIBLIOGRAPHY

Chappell, Gordon. *Steam Over Scranton: The Locomotives of Steamtown Special History Study*. National Park Service, 1991, found at [http://www.cr.nps.gov/history/online\\_books/steamtown/shs.htm](http://www.cr.nps.gov/history/online_books/steamtown/shs.htm).

Garratt, Colin & Max Wade-Matthews. *Illustrated Book of Steam and Rail*. New York: Barnes and Noble Books, 2002.

Hollingsworth, Brian, and Arthur Cook. *The Great Book of Trains*. New York: Salamander Books, Ltd., 1987.

Information on GE 25-ton locomotives found at: <http://www.thedieselshop.us/PRSVDge.HTML>.

Information on Wabash Alloys Locomotive provided by the Arkansas Railroad Museum.

Solomon, Brian. *GE Locomotives: 110 Years of General Electric Motive Power*. St. Paul, MN: MBI Publishing Company, 2003.

West, Elliott. *The WPA Guide to 1930s Arkansas*. Lawrence, KS: University Press of Kansas, 1987 reprint of 1941 publication.

Wright, Roy V. (ed.) *1947 Locomotive Cyclopedia of American Practice*. New York: Simmons-Boardman Publishing Corporation, 1947.

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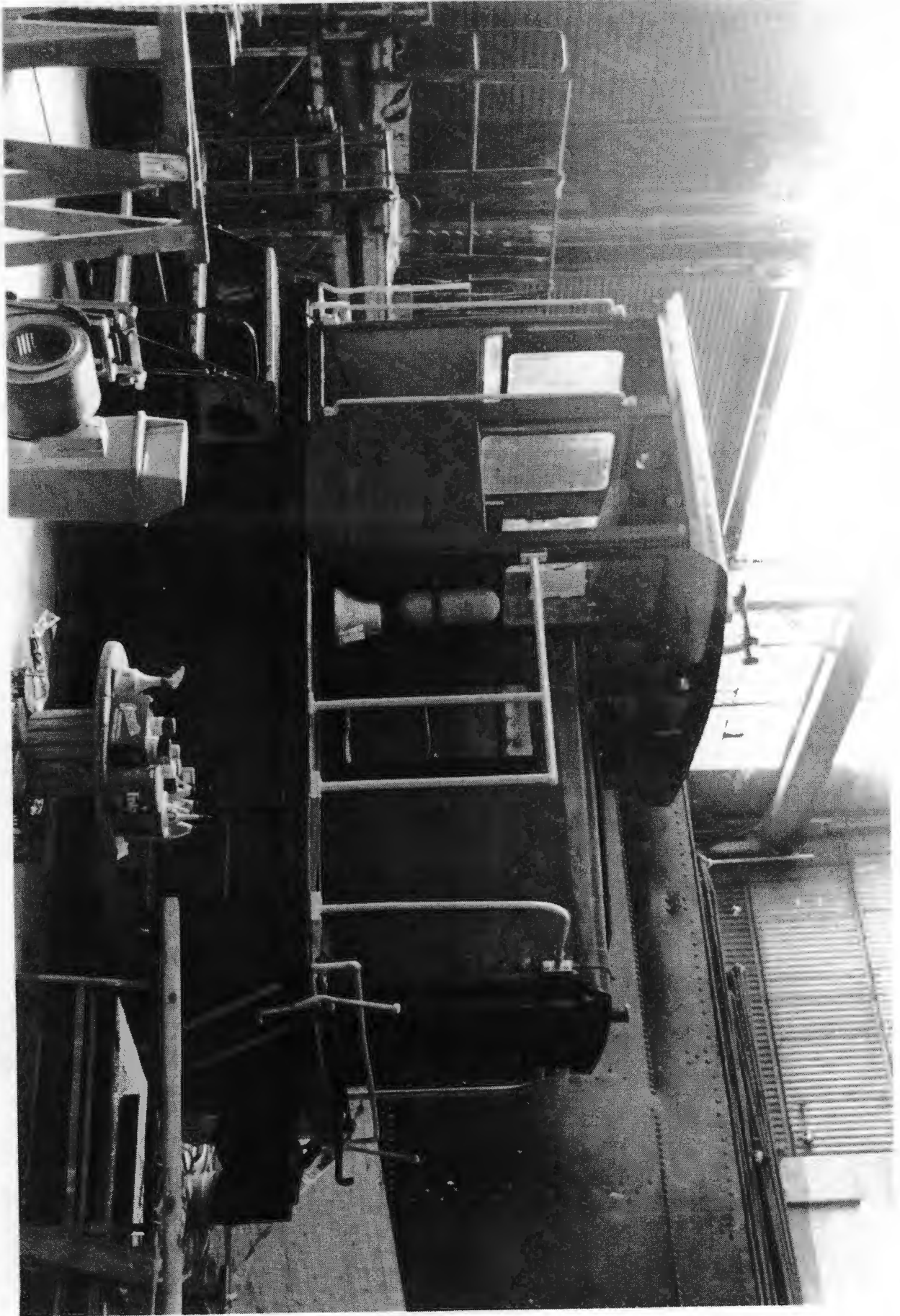
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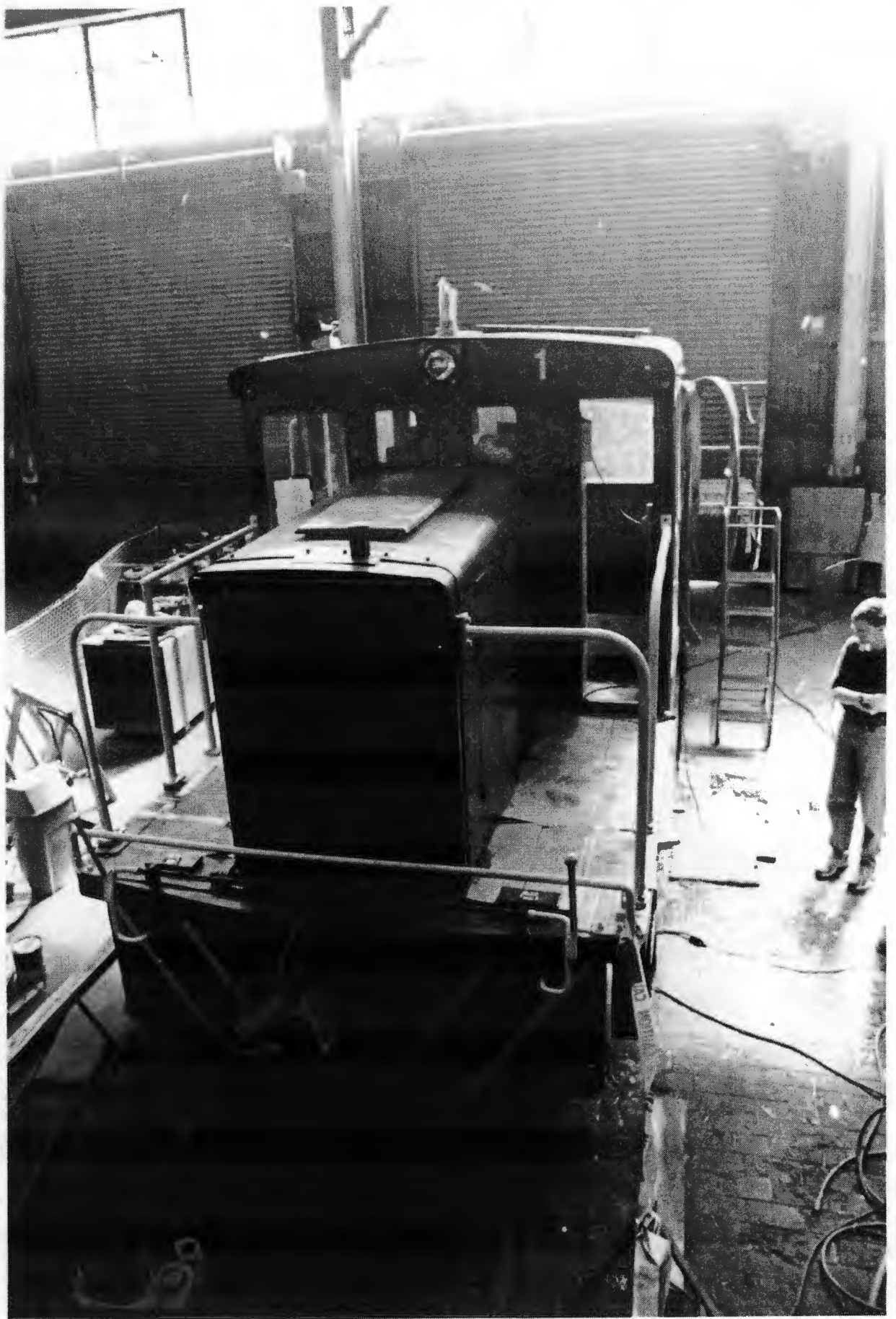
### VERBAL BOUNDARY DESCRIPTION

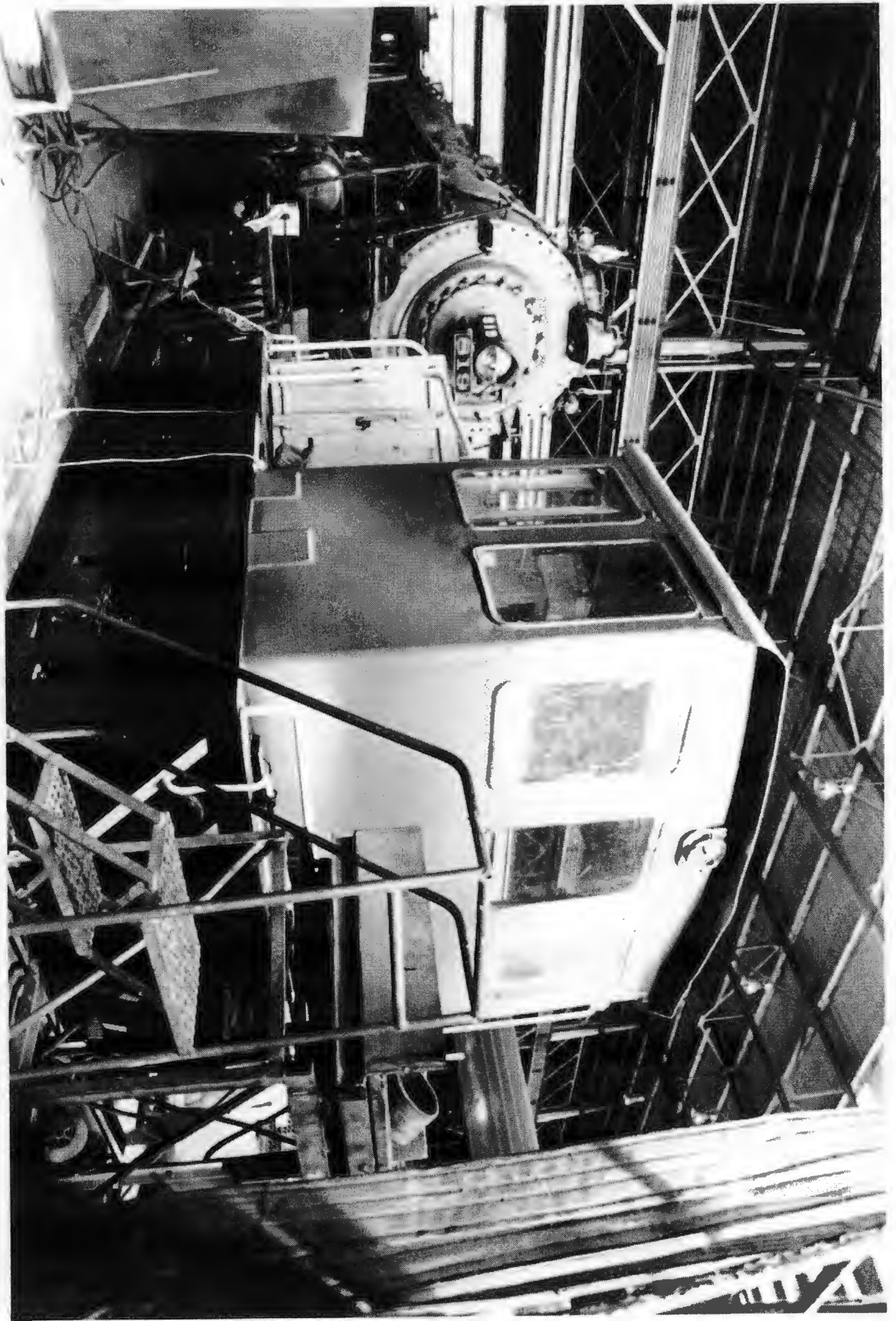
From the southeast corner of the Arkansas Railroad Museum building at 1700 Port Road, proceed northerly along the east wall of the building for 40 feet to the point of beginning. From the point of beginning, proceed northerly along the east wall of the building for 20 feet, thence proceed westerly perpendicular to the wall for 40 feet, thence proceed southerly parallel to the wall for 20 feet, thence proceed easterly perpendicular to the wall for 40 feet to the point of beginning.

### BOUNDARY JUSTIFICATION

The boundary encompasses all of the property that contains the Wabash Alloys Locomotive.









7552 (SE  
(WHITE HALL)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

