

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

NR 5/29/07

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 Central Texas Gravel Locomotive #210

other names/site number Site #JE0688

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not for publication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.)

Cassie Matthews
Signature of certifying official/Title

3/12/07
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

Signature of the Keeper

Date of Action

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): _____

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

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

1953

Significant Dates

1953

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

Central Texas Gravel Locomotive #210
Name of Property

Jefferson County, Arkansas
County and State

10. Geographical Data

Age of Property Less than one.

UTM References

(Place additional UTM references on a continuation sheet.)

1	<u>15</u>	<u>593489</u>	<u>3787874</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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SUMMARY

Central Texas Gravel Locomotive #210 is a diesel-powered General Electric 25-ton switch locomotive built by General Electric in April 1953 for Central Texas Gravel. The locomotive is a later, Phase II carbody, 25-ton model, which was slightly more aerodynamic than the previous generation. The locomotive was in use at several facilities in Texas, Louisiana, and Arkansas, before arriving at the Arkansas Railroad Museum in 2005.

ELABORATION

The general specifications for Central Texas Gravel Locomotive #210 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.

Central Texas Gravel Locomotive #210 is a diesel-powered General Electric 25-ton switch locomotive built by General Electric as construction #31784 in April 1953. The locomotive is a later, Phase II carbody, 25-ton model, which was slightly more aerodynamic than the previous generation. The locomotive was in use at several facilities in Texas, Louisiana, and Arkansas, before arriving at the Arkansas Railroad Museum in 2005. The locomotive sits on two two-wheel trucks, which are connected by side rods.

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 hood's front.

Walkways with metal railings go from the cab to ladders at each front corner of the locomotive. Doors on the 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 yellow while the frame is painted black. Each side of the cab, along with the back, has the logo for Rescar, one of the most recent owners, painted on it. The handrails along the walkways are also painted black.

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Integrity

Central Texas Gravel Locomotive #210 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.

Central Texas Gravel Locomotive #210 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 Central Texas Gravel Locomotive #210's period of significance.

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SUMMARY

Central Texas Gravel Locomotive #210 is being nominated to the National Register of Historic Places with **statewide significance** under **Criterion C** for its engineering as an excellent late-model 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 1860.³

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 1874.⁴

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.⁵

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.

³ Elliott West. *The WPA Guide to 1930s Arkansas*. Lawrence, KS: University Press of Kansas, 1987 reprint of 1941 publication p. 54.

⁴ *Ibid.*

⁵ 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.⁶

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.⁷

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.⁸

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.⁹

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

⁶ Colin Garratt & Max Wade-Matthews. *Illustrated Book of Steam and Rail*. New York: Barnes and Noble Books, 2002, pp. 24-25 and 28-31.

⁷ *Ibid.*, p. 78.

⁸ 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.

⁹ *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.¹⁰

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.¹¹

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.¹²

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.¹³

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

¹⁰ Brian Hollingsworth and Arthur Cook. *The Great Book of Trains*. New York: Salamander Books, Ltd., 1987, p. 272.

¹¹ Brian Solomon. *GE Locomotives: 110 Years of General Electric Motive Power*. St. Paul, MN: MBI Publishing Company, 2003, pp. 52-53 and 55.

¹² *Ibid*, p. 56.

¹³ *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.¹⁴

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 area 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".¹⁵ 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.¹⁶

Central Texas Gravel #210 was built by General Electric as construction #31784 in April 1953. The design of the locomotive reflected the second generation of the 25-ton model. (The first generation, which was replaced prior to 1947, had a boxier front end and hood area.) It is not known how long it worked at Central Texas Gravel, but when they replaced the locomotive, it remained in the gravel business going to Gifford-Hill & Co., first in Shreveport, Louisiana, and then at Eagle Mills, Arkansas.¹⁷ A small locomotive like the GE 25-ton model would have been ideal for operations around an industrial facility such as Central Texas

¹⁴ Solomon, p. 57.

¹⁵ Roy V. Wright (ed.) 1947 *Locomotive Cyclopedia of American Practice*. New York: Simmons-Boardman Publishing Corporation, 1947, Sec. 16, p. 1052.

¹⁶ Information on GE 25-ton locomotives found at: <http://www.thedieselshop.us/PRSVDge.HTML>.

¹⁷ Information on Central Texas Gravel Locomotive #210 provided by the Arkansas Railroad Museum.

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Gravel or Gifford-Hill & Co. where the number of cars being hauled would have been small and the tracks would likely have had tight curves.

After being used in the gravel industry, the locomotive was sold to Rescar in Cicero, Illinois. Rescar provides maintenance services to companies that own or lease railroad rolling stock, including mechanical repairs, painting, and cleaning, and a 25-ton model locomotive would be ideal for switching other pieces of rolling stock from one part of their facility to another. In 1997, the locomotive was transferred from the Cicero, Illinois, to Longview, Texas, location.¹⁸

In 2004, Locomotive #210 was sold to Power Source Supply, a company that supplies locomotives and locomotive parts to other railroads around the world. Although Power Source Supply never used the locomotive, they sold it to an individual in 2005. It arrived at the Arkansas Railroad Museum in 2005, and they have plans to restore the locomotive in order to use it to switch the museum's rolling stock.¹⁹

Central Texas Gravel Locomotive #210 remains an excellent example of a late-model GE 25-ton locomotive. The entire line of GE switch engines, from the 25-ton model up to the 95-ton model, were and are important locomotive designs, providing switching services for railroads, the U.S. Government and other private companies and industries. The Arkansas Railroad Museum has done a good job of saving and preserving Locomotive #210, and their plans to restore the locomotive will once again put this railroad workhorse back in service.

STATEMENT OF SIGNIFICANCE

Central Texas Gravel Locomotive #210 is being nominated to the National Register of Historic Places with **statewide significance** under **Criterion C** for its engineering as an excellent late-model 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.

¹⁸ Information on Central Texas Gravel Locomotive #210 provided by the Arkansas Railroad Museum and information on Rescar from <http://www.rescar.com/>.

¹⁹ Information on Central Texas Gravel Locomotive #210 provided by the Arkansas Railroad Museum.

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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.

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

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

Information on Central Texas Gravel Locomotive #210 provided by the Arkansas Railroad Museum.

Information on Rescar from <http://www.rescar.com/>.

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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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 165 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 Central Texas Gravel Locomotive #210.





