

Braeburn Alloy Steel  
Braeburn Road at Allegheny River  
Lower Burrell  
Westmoreland County  
Pennsylvania

HAER No. PA-254

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
National Park Service  
Department of the Interior  
P.O. Box 37127  
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HISTORIC AMERICAN ENGINEERING RECORD

BRAEBURN ALLOY STEEL

HAER No. PA-254

Location: Braeburn Road at Alleghsny River, Lower Burrell,  
Westmoreland County, Pennsylvania

Date of Construction: ca. 1893

Builder: William Metcalf  
(Miller-Metcalf & Park Tool Steel Co. of Pittsburgh)

Present Owner: Braeburn Alloy Steel

Present Use: abandoned

Significance: For much of its history Braeburn successfully  
maintained its share of the specialty steel market  
without expensive retooling and large outlays of  
capital for equipment. Much of the original equipment  
survives at Braeburn, including two Heroult furnaces  
which date from 1915 and are among the earliest  
electric-arc furnaces in existence in the United  
States.

Project Information: In February 1987, the Historic American Engineering  
Record (HAER) and the Historic American Buildings  
Survey (HABS) began a multi-year historical and  
architectural documentation project in southwestern  
Pennsylvania. Carried out in conjunction with  
America's Industrial Heritage Project (AIHP), HAER  
undertook a comprehensive inventory of Blair and  
Cambria countiss as the first step in identifying the  
region's surviving historic engineering works and  
industrial resources.

Compiler: Gray Fitzsimons and Kenneth Rose, Editors

**History:**

DESCRIPTION: Located on 8.8 acres, major structures at Braeburn include the Mill Building (107,400 sq. ft.), the Cold Finishing and Warehouse Building (34,300 sq. ft.), the Machine Shop and Heat Treatment Building (10,100 sq. ft.), and the Main Office Building (8,500 sq. ft.) Two buildings of relatively recent origin are the Metallurgical-Lab Building (built in 1964 and measuring 10,600 sq. ft.), and the Forge Press Building (built in 1976 and measuring 31,300 sq. ft.)

Equipment surviving at Braeburn, but no longer being used, includes machines and tools associated with both the 10" and 14" mills, a 12,000 pound and a 6,000 pound hammer, and two six-ton electric-arc Heroult furnaces. Both furnaces date from 1915 and are among the earliest electric-arc furnaces in existence in the United States. Neither furnace has been used since 1987. The Forge-Press Building contains operating furnaces, and a 2,000 pound press.

HISTORY: William Metcalf, a partner in the Miller-Metcalf & Park Tool Steel Co. of Pittsburgh, established this facility in the 1890s. The plant originally utilized crucible steel furnaces, producing carbon steel for specialty products. In 1915 two six-ton Heroult electric-arc furnaces were installed. The mill became the property of the Standard Steel and Bearings Company of Plainsville, Connecticut, in 1917, and began producing ball bearings for the parent company. By 1920 equipment at Braeburn included two crucible furnaces, two electric arc furnaces, and two rolling mills. The mill changed hands again in 1922, this time to a group of businessmen from Latrobe and Blairsville. By 1935 the crucible furnaces had been retired and the company was producing bar stock and a variety of alloys including tool steels and high-speed steels. Continental-United Industries (now CCX, Inc.) purchased the mill in 1944, and remains the parent company for Braeburn Alloy Steel. For much of its history Braeburn successfully maintained its share of the specialty steel market without expensive retooling and large outlays of capital for equipment. (The major exception being Braeburn's conversion from steam to electric power.) The 10" and 14" rolling mills, for instance, have remained virtually unchanged since their installation in the late 1890s.

Braeburn began to lose its competitive edge in the 1950s, and tried to regain its former position by expanding and modernizing. In 1963 Braeburn installed a new vacuum arc remelt furnace, and in 1974 added a 2,000-ton forging press. The company produced titanium-steel alloys for aircraft, and rings for jet engine shrouds, but the company's lack of an automated roll and bar mill continued to hurt its competitiveness. The last roll on the 10" mill was in 1987, and neither the 10" nor the 14" mills are currently being operated. The company's two Heroult furnaces also ceased operations in 1987, and except for finishing purposes, no melting is currently done at the plant. Employment at the Braeburn plant peaked at about 600. By 1980 there were 250 workers at the plant, and by 1988 employment fluctuated between thirty and sixty-five workers. The company anticipates a further reduction in the work force.

Sources:

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