



(Above) Studio at 3614 Jackson Highway, 2010. Photographer Carol M. Highsmith (Library of Congress)

and B. B. King. FAME is significant for the numerous African American artists who would have their own music recorded and produced at FAME through the 1960s and 1970s. While the studio does not produce exclusively African American musicians, it certainly has helped to solidify the legacy of many African American artists, who in turn have shaped and solidified the fame of FAME Recording Studios.

Muscle Shoals Sound Studio (MSSS)

The vocal artists at FAME were usually backed by the Muscle Shoals Rhythm Section (MSRS), founded in 1959 by Rick Hall and former partners Billy Sherrill and Tom Stafford. The MSRS provided the music for many of the vocal artists and were talented in pop, rock, blues, soul, and country music. In 1969, four men of MSRS went out on their own to open a studio at 3614 North Jackson Highway, known as the Muscle Shoals Sound Studio (MSSS) – technically in nearby Sheffield today. One of the first songs produced at the Muscle Shoals Sound Studio was R. B. Greaves “Take a Letter Maria,” which hit number two on the Billboard Chart in 1969 and earned a gold record. From 1969 and 1978, the MSRS continued to work with African American artists and producers in defiance of Southern racial relations to create the “Sound.”

While the MSRS and the MSSS were not the first to create and record the “Muscle Shoals Sound,” the studio and its collaborators did much to promote the

unique style by deliberately naming their enterprise for the Muscle Shoals area in a time when regional independent recording styles were at a peak. In an effort to distinguish themselves from FAME and claim intellectual property over the “Sound,” MSSS began to attract artists who performed the rhythm and blues.

The original MSSS building at 3614 Jackson Highway was added to the National Register of Historic Places

in 2006. The MSRS moved from that location in 1978 and built a new studio in Sheffield. The old studio was purchased in the early 2000s and is operational again.

WLAY-AM

Also, in the realm of music, the WLAY-AM radio station broadcasted on 1450-AM in the Shoals area from 1933 to 2014. Originally, the station aired a

mix of gospel, country, and African American artists, which was refer to as “race music” at the time. WLAY became known for its open acceptance of music performed by white and African American artists. Renowned record producer, Sam Phillips of Florence, was a DJ and radio engineer at WLAY in the early 1940s. Because of this “open format” his career and success would continue to promote the “Muscle Shoals Sound” and African American artists

at radio stations across the South. WLAY was often the first to play many of the records produced at the sound studios of the Shoals. Producer Quin Ivy, owner of NORALA Recording Studios and Quinvy Studios, was a DJ at WLAY before striking out on his own and finding a big hit in African American singer Percy Sledge.

The station was located on Second Street in Muscle Shoals at the height of its success and influence. In 2007, the Alabama Historical Commission deemed it a Historic Landmark, however, WLAY ceased broadcasting in 2014 and now the original studio is on exhibit at the Alabama Music Hall of Fame.

**U.S. NITRATE PLANT No. 2
MUSCLE SHOALS, ALABAMA**

REGIONAL MAP

VICINITY MAP

SITE MAP

U.S.N.P. No. 2 c. 1936

Based on a Photograph from TVA Special Report #66 A

U.S.N.P. No. 2 stands today only as a shell of its original industrial grandeur. One of the largest collections of equipment ever assembled for the fixation of atmospheric nitrogen has since been removed, scrapped, or buried.

The field work, measured drawings, historical report and photographs were prepared under the direction of Eric N. DeLony, Chief of HAER and Project Leader; Richard O'Connor, Project Historian; Jet Lowe, HAER Photographer; and Craig N. Strong, Project Architect. The recording team consisted of Tom Behrens, Field Supervisor; Baliza Krikovszky (ICOMSI) and Sergio Sanchez, Architects; Brian F. Coffey, Historian; and Susie B. Leong, Illustrator.

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As a supplier of ammonium nitrate for World War One, United States Nitrate Plant Number 2 was in the right place at the wrong time. Built to fulfill dual defense and domestic peacetime goals, the immense size of the plant was an obvious handicap to economic operation in saturated fertilizer markets. The plant and adjoining Wilson Dam became the birthplace of the Tennessee Valley Authority, and the promise of hydroelectric power and fertilizer development did indeed come to fruition, albeit many years later than expected.

With the signing of the armistice, the wartime demand for ammonium nitrate ceased and the Ordnance Department was directed to keep the plant in standby condition. U.S.N.P. No. 2 stood idle until taken over by the Tennessee Valley Authority in 1933. Over the course of the next few decades, many of the plant's buildings and equipment were used in TVA experimental work in fertilizer development. In addition, during World War Two, the plant was an important supplier of calcium carbide and ammonium nitrate, using rehabilitated portions of its original furnace department and ammonium nitrate departments.

As a chemical plant for the production of ammonium nitrate, U.S.N.P. No. 2 was actually a series of discreet plants, each producing an intermediate product in a lengthy and mechanically complex industrial process. On an unprecedented scale, U.S.N.P. No. 2 assembled state of the art technologies for the production of calcium carbide, liquid air, cyanamide, ammonia gas, nitric acid, and ammonium nitrate.

Incorporated as a producer of cyanamide fertilizer, American Cyanamid had only recently begun to experiment on the production and oxidation of ammonia, key steps in the manufacture of ammonium nitrate. These new processes involved steam-heating cyanamide in large pressure vessels, known as autoclaves, to produce ammonia and converting ammonia into nitric oxide by means of a special catalyzer. Just prior to the American entry into the war, American Cyanamid secured these special autoclaves from Germany and had set up experimental plants in Canada and in this country to produce ammonia and nitric oxide using the new equipment. U.S.N.P. No. 2 utilized this new technology in the largest installation of its kind with 56 autoclaves and 696 catalyzers capable of producing 50,000 tons of fixed nitrogen annually.

Using the commercially successful "cyanamide process" for the fixation of atmospheric nitrogen, U.S.N.P. No. 2 superseded U.S. Nitrate Plant Number 1, which had been constructed in the adjacent town of Sheffield, Alabama. Plant Number 1 used the then innovative Haber process, a synthetic method of producing ammonia. Difficulties in operating Plant Number 1 and an urgent, unexpected demand for ammonium nitrate led the Ordnance Department to contract the American Cyanamid Company, the only manufacturer on the continent with proven experience in nitrogen fixation, to build U.S.N.P. No. 2. A subsidiary company was formed, the Air Nitrates Corporation, and construction commenced February 16, 1918.

Built as a war measure for the production of ammonium nitrate, a key component in high explosives, United States Nitrate Plant Number 2 was among the largest synthetic nitrogen works in the world, with a capacity of 110,000 tons of ammonium nitrate per year. The plant and its adjoining industrial town were erected with little regard to cost between February and November of 1918. After two brief periods of operation, one at the end of November 1918 and the other in February of 1919, the 2,506 acre site lay idle for the next fourteen years while Congress and private industry debated its disposition, a problem that had less to do with the plant itself than it did with the hydro-power of the nearby Wilson Dam.

(Left) United States Nitrate Plant No. 2, Reservation Road, Muscle Shoals, Colbert County, Alabama, Thomas M. Behrens - Creator, 1994 (Historic American Buildings Survey, Library of Congress)