Named for President Woodrow Wilson, the Wilson Dam, located on the Tennessee River at Muscle Shoals, Alabama, was constructed by the U.S. Army Corps of Engineers to provide hydro-electric power for nearby nitrate plants, as well as to improve navigation for river traffic on the Tennessee River.

When construction began on the dam in 1918, it was the largest of its kind. A special engineering district was created at Florence, with Col. Hugh L. Cooper, National Army, named as district engineer. Colonel Cooper later became consulting engineer for the Aswan Dam on the Nile River. At its completion in 1926, the Wilson Dam was the largest hydro-electric installation in the world. A test site for draft tube design, three different designs were incorporated in the first three turbines.

The dam is 137 feet high, 4,862 feet long, and 105 feet thick at the base. The cost of the project was $119,000,000.

In addition to providing 630 megawatts of electricity, the Wilson Dam also serves as the basis for the Tennessee Valley flood control system. The lock allows commercial and recreational traffic to flow up and down the river, while the 16-mile, 15,500-acre lake formed in the rear of the dam provides beauty and tourism to the area.

The design and engineering of the structure established two world’s records, one for the length of the dam and one for lock lift height. The knowledge gained from ongoing studies of the ecology and environment surrounding the Wilson Dam may help to solve problems associated with most single large dams around the world, like the Aswan Dam.

During the construction of the dam and the nitrate plants, more than 18,000 workers were housed at one time in the construction camp. Total camp population was 21,000 at its highest. One of the 23 mess halls seated 4,000 persons and was the largest mess hall ever built. Nine hundred sixty workers were employed at one time in preparing meals, and free schools were provided with an enrollment of 850 children.

Originally constructed with eight hydro generators, the Wilson Dam has been expanded to include ten additional generators capable of generating 630 million watts of power per hour at full load, which is equal to or greater than many fossil power units built in the state or in the Tennessee Valley Authority (TVA) system. A new single-lift lock has replaced the original locks, increasing barge traffic and providing community and visitor access to recreational facilities up and down the river.

The U.S. Army Corps of Engineers operates and maintains the navigation locks and performs maintenance dredging in the main channel and safety harbors. The dams and reservoirs are operated by TVA, which also promotes navigational development.