



Inside the Cover

Nucor Steel Lexington

In April of 2022, Nucor announced its plan to build a reinforcing bar (rebar) micro-mill in Lexington, N.C., USA.

“We are very excited to grow our steel business here in our home state of North Carolina. The corridor between Washington, D.C., and Atlanta is one of the fastest-growing regions in our nation, and new federal spending for infrastructure will further increase demand for rebar in the region,” Nucor’s chair, president and chief executive officer, Leon Topalian, said.

The project represents an approximately US\$350 million investment in Davidson County, located off U.S. Highway 64 in Lexington. During construction, the mill has created 500 temporary jobs. When completed, the mill will have about 200 full-time employees.

“I love to see great-paying jobs come to North Carolina, and when you look at an area that had been hurt by the loss of textile manufacturing, to be able to bring these great-paying jobs here with advanced manufacturing, that’s a great accomplishment,” N.C. Gov. Roy Cooper said. Once completed, the mill is expected to have a US\$2 billion impact on the local community.



Construction image as of August 2024.



Construction image as of August 2024.

While before, most of the region was supplied with rebar from far out of state, Nucor Steel Lexington will create savings for customers by reducing transportation costs. The facility will be using the scrap available from various Nucor-owned recycling facilities including the three Metal Recycling Services locations in North Carolina.

“Nucor Steel Lexington will produce steel with nearly 100% recycled content, which means our new, modern infrastructure will be made with the most sustainable steel available anywhere in the world,” Topalian said.

Within every Nucor steel mill is an electric arc furnace that melts recycled scrap. The company is the largest recycler of materials in North America, processing millions of tons of ferrous scrap to make new steel each year. The Nucor Steel Lexington mill will have an annual capacity of 430,000 tons.

Following previous collaboration between the companies, Nucor has once again awarded a contract with Danieli for its Endless Casting-Rolling Technology. A MIDA® QLP mini-mill will be installed at the Lexington

facility, which will produce 430,000 tons of rebar, melted by Danieli’s Digimelter® and ladle furnace powered by Q-One® digital power feeder with the possibility of using renewable energy such as solar, wind and others.

A single-strand caster utilizing Danieli’s Octocaster® will feed the rolling mill in full endless mode. This technology maintains high product quality at competitive construction and conversion costs while keeping the environmental impact low.

Danieli Automation’s advanced process technologies and artificial intelligence will also be utilized, featuring Q3 pulpits for supervising the fully automated plant, robotized solutions to increase plant safety, and the Q3-Met manufacturing execution system.

The micro-mill is currently under construction and should be operational in the first half of 2025, according to the company. ♦

NUCOR®