After 28 years with the company, Nucor Corp. chief executive officer (CEO) John J. Ferriola retired at the end of December. An electrical engineer by education, Ferriola began his steel career in 1974 at Bethlehem Steel Corp. He joined Nucor in 1991 as manager of maintenance and engineering at its Jewett, Texas, bar mill. In 2002, he was promoted to executive vice president, and five years later was named chief operating officer of steelmaking operations. In January 2011, Ferriola was appointed Nucor’s president and chief operating officer, and took over as CEO in 2013. As chief executive, Ferriola was a leading voice in Washington, D.C., for the U.S. steel industry and led one of the largest capital expansions in his company’s history.

Ferriola also is a longtime AIST member and is a recipient of one of the association’s highest honors, the Steelmaker of the Year Award. He recently spoke to Iron & Steel Technology magazine about his career and his plans in retirement.

What drove your decision to retire?
I’m a big believer in succession planning, and when you start thinking about succession planning for the CEO position, you need to develop a robust, thoughtful and well-executed plan. We did that about seven years ago, when I became CEO.

We put together a program of development that involved formal educational training, development at universities around the country and work with personal development professionals. And over the course of a couple of years, we recognized that we had three exceptional candidates. At the end of the day, we selected one of those as the next CEO — Leon Topalian.

I’ve been able to work with him and mentor him. He’s ready, and he’s surrounded by a team that is really strong. And based on that, it just felt like was the right time.
Like yourself, Leon is a longtime Nucor manager and executive. So it’s probably not a coincidence that the next CEO was an internal candidate, is it?

Leon has 23 years with the company. He has worked for Nucor in at least three divisions, seven states and on two continents.

We have a culture of promoting from within. And there’s a reason for that — you can’t lead a company that depends so strongly on its culture if you haven’t lived that culture. It’s very hard to come in and learn a culture. So future leaders at Nucor will be people who have lived in the culture.

After having lived and led the Nucor culture, what would you say you are most proud of?

I look back on my career, and I think of three things that I feel really proud of. Number one would be — and it’s the one I’m most proud of — continuing the drumbeat of safety. I have an expression that I use — it has become kind of a mantra for me and for our company — and that is, “There is nothing more important than safety. Absolutely nothing.”

Whenever I walk into one of our mills and I see that stenciled on the wall or made into a sign that’s been hung up, I’m really proud of that.

I want every one of our 27,000 teammates to know that there is nothing more important than safety and absolutely nothing, nothing, was more important than their safety to me, to Nucor, and certainly to their family members at home.

I’m proud of the fact that safety has improved significantly during my time as a leader at Nucor.

What else would you include in your list?

I’m also proud of the fact that we successfully refocused our commercial operations.

When we started as a company, we had such a tremendous cost advantage that the only marketing we had to do was take orders. We weren’t sales people, we were order takers. If our order books weren’t filled up, we’d drop the price US$10, and we’d fill up.

But the market changed, and other companies built in the image and likeness of Nucor entered the market.

Against those companies, we don’t have the same tremendous operational advantage. So how do you differentiate yourself from somebody who has duplicated your technology? Well, you recognize that (there is room to improve commercially) and you find a way to make yourself excellent in the commercial aspects.

So about six or seven years ago, we began a program we call “Commercial Excellence.” We really focus on understanding our customers’ needs and develop partnerships with them. We have a phrase we say, “Powerful partnerships resulting in powerful results.” And that’s what we’ve done. We’ve changed the way that we market our product; we’ve reorganized our sales team. And it’s been effective.

What is the third thing?

The third thing is the digitalization visualization of our company. As you get bigger and bigger, the amount of information that you have to assimilate and convert into useful data becomes greater and greater.

We began an initiative about four years ago to digitalize so that we can much more easily understand the key metrics that drive our business and our performance so that we can improve it by understanding it better.

In your 46 years in the steel industry, what would you say was your biggest engineering challenge?

Probably the biggest one that I had was when I worked in our Jewett, Texas, plant. We needed to replace the entire No. 2 mill, and we only had 28 days to do it.

It actually started out as a six-month project, but business got so good they cut it back to three months. But then business got even better so they cut it back to one month.

The new mill was replacing the old mill within the same footprint in the plant. We demolished a caster, reheat furnace, 18 rolling stands and the cooling bed. And then we put a new one in its place.

It required a tremendous amount of coordination. We had, I think, about 750 to 1,000 contractors working two shifts per day, one from 7 a.m. to 7 p.m., and the second from 7 p.m. to 7 a.m.

We went section by section. We started at one end and we demolished the caster. And then we had a team go in and rebuild the caster while another team was demolishing the reheat furnace. And we just worked our way down the line.
We got it done. We started up on time, on budget, and on the same day we started up, we had saleable product. We’re still talking about it today.

What was the key to completing such a large project in such a small window?
We had a lot of great people working on it. Obviously, everybody was there, night and day. I slept in my office for 28 days. I brought in an Army cot. I would sleep a few hours every eight hours, because if you didn’t, if you went home for eight hours or 12 hours, you just lost track of what was going on.

With so many people on-site, how did you even begin to coordinate an effort like that?
We had a great team of engineers. There were several young engineers were working with me and we worked together as a team.

Speaking of engineering, your title says CEO, but your diploma says electrical engineer. So which would you hope to be remembered as — a business leader or an engineer?
Definitely both. I would think that in my early days, people thought of me more as an engineer. And certainly in my later career, as an executive vice president or as a general manager of a plant, as a CEO. But what I would really want people to remember me as a mentor.

Throughout my career, I’ve always focused on doing my very best to help those who were part of my team develop to the best that they could be. Nothing made me prouder than when people who worked for me got promoted.

As CEO, if you were to ask me as part of this interview, “John, how many people work for you?” My answer would be zero. My job is to work for the 27,000 Nucor teammates, not the other way around.

My job is to make sure that they have the resources, the education, whatever they need to do their job most effectively and to prepare them for the most effective and rewarding career that they can have.

How did you start your own steel career?
(After college) I got a job with Bethlehem Steel shipbuilding. I studied a lot of naval architecture. But right before I started in their shipbuilding
division at Sparrows Point, they called me and told me that they were short of electrical engineers in their steel mill, and they asked if I’d be willing to transfer to the steel operation. I hesitated and told them, “Well, I don’t know anything about steelmaking.” They said, “We’ll give you a 15% raise.” So I said, “I can learn about steelmaking.”

They said, “If you would just go and visit the plant, and if you don’t like it, we won’t force you to take it and we’ll get you back in shipbuilding.”

I’ve got to tell you, I walked into a steel mill and that was it.

**Many in the industry can relate to that. Why do you suppose that is?**
I tell people that when you walk into a steel mill, you either love it or hate it. You’re either in it for the rest of your life, or you’re gone within a matter of days. I walked in, and I just loved that.

I loved the effects. I loved the massive equipment, the engineering complexities, the engineering challenges, watching the hot metal. I was just fascinated by every aspect of it. Forty-six years later, here I am.

**What can we do as an industry to better share that excitement?**
The way we help get people into it is through internships. And I’ll tell you, when we have young men and women come in and work during the summer, they come back. They see that excitement.

If you love engineering, whether it be civil, mechanical or electrical, you need to explore a career in steelmaking, particularly with a modern company like Nucor. You’ll be tested beyond your imagination and you’ll get to use the skills that you’ve learned in college and many more.

**What’s something a young person entering this industry could do to boost his or her career?**
I would strongly recommend anyone who gets into the steel industry become an AIST member early on in their career and remain a member. I didn’t stop being a member when I became a general manager. AIST is a great organization for both knowledge transfer and networking, and I strongly recommend it. The price of admission is so low and so reasonable for the return that you get. It’s a bargain.

**What kept you in the steel business?**
You know what still gets me excited about the steel business? It’s ever-changing. I think about what the technology was like and what our products were like when I started in 1974, and I look at where we are today, and it’s incredible.

When we started with the CSP process in 1989 and 1990, I remember the team telling me about how excited they were when they were qualified to make garbage cans. But our goal was to rise up the value chain.

That’s what happened with automotive. We all got tired of hearing (market participants) say we’ll never be able to produce automotive-grade steels. And we started doing it. This year we’ll sell about 2 million tons on an annualized basis into automotive.

Continuing to improve, finding new ways to make steel and improving the quality of steel, that excites me. I still get excited about that when I see, for example, our new cold mill (in Hickman, Ark.).

It’s what we call a flexible 6-high cold mill. It is one of only five of its type in the world, and it is the only one of its type in North America.

What it does for us is it takes our sheet and rolls it down to ultralight gauges while still maintaining its ultrahigh strength. I could spend eight hours watching it run.

**Insofar as spending time is concerned, do you have any particular plans in your retirement?**
I always tell people this — I’m not certain about what I am going to do, but I am certain about what I am not going to do. What I’m not going to do is get on an airplane for a while. I’ve had my fill of traveling.

I’ll look to serve on a couple of boards. I might do some consulting work, maybe take on a managing director role in private equity.

And, you know, I have five grandkids all under the age of five. I could count the days I’ve spent with them this year because of my schedule. I want to spend more time with them.

At Nucor, it’s a 24/7/365 schedule. It really is. And I just want a little bit more time to myself.