'Amazing legacy'

PHOTOS SPECIAL TO THE JOURNAL

Facing north in February 1969, Oconee Nuclear Station construction progresses. The Oconee unit 1 containment building is mid-construction, and the unit 2 and unit 3 footprints are starting to take shape. The World of Energy is seen behind unit 1, and the S.C. Highway 130 bridge near Keowee Key is visible in the background.

OCONEE NUCLEAR STATION FAST FACTS

- Oconee Nuclear Station began startup of unit 1 commercial operation on July 16, 1973.
- Units 2 and 3 began commercial operation in 1974.
- The three-unit nuclear power plant produces electricity for 2 million homes and has generated 900 million megawatt-hours since 1973.
- Oconee Nuclear had the first accredited operator training program in the country and was the second nuclear station in the United States to have its licenses renewed by the Nuclear Regulatory Commission (NRC) for an additional 20 years. All U.S. reactors are initially licensed by the NRC for 40 years.
- Oconee Nuclear Station celebrated its 50-year anniversary with a community outdoor celebration July 21 at the World of Energy. An outdoor movie night, featuring "Finding Nemo," was held at the World of Energy peninsula.

Nuclear station part of local fabric since '73

BY GREG OLIVER
THE JOURNAL

SENECA — The year 1973 nationally saw the death of former U.S. President Lyndon Johnson, the first oil crisis and the end of the U.S. involvement in the Vietnam War.

Locally, it not only marked the 100th anniversary of the founding of the city of Seneca, but also another very significant event — the startup of Oconee Nuclear Station.

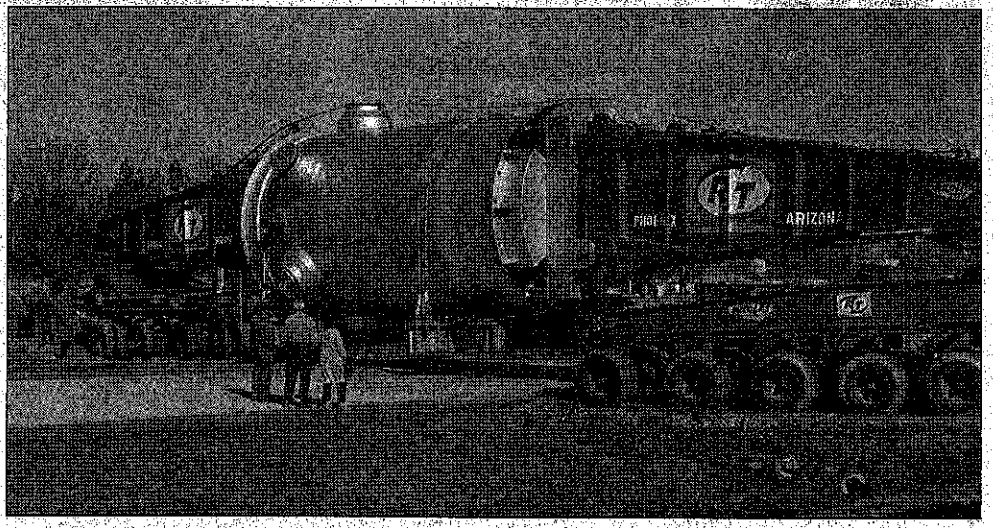
This year marks the 50th anniversary of the plant's first reactor vessel, which traveled from Indiana to South Carolina. The huge vessel traveled 2,000 miles over two months by barge, special rail car and large truck.

Loaded with fuel in the containment building, the reactor vessel weighed some

SEE NUCLEAR, PAGE A5

EDITOR'S NOTE

This is the first of a three-part series commemorating the 50th anniversary of Oconee Nuclear Station, what has transpired since and efforts by the plant to seek relicensing, along with how the facility has impacted the area over the past half-century.



The first reactor vessel to arrive at Oconee Nuclear Station traveled from Indiana to South Carolina over a two-month period. The huge vessel traveled by barge, special rail car and large truck, covering 2,000 miles. Pictured, the vessel is transported across Interstate 20 in January 1970. Loaded with fuel in the containment building, the reactor vessel weighs about 660 tons.

FROM PAGE A1

660 tons. The containment buildings that housed the reactor vessel and steam generators were made of concrete and steel.

Oconee was the first of three nuclear stations built by Duke Energy — or Duke Power, as it was known at the time. In order to construct the dam on the Keowee River that created Lake Keowee, historic sites such as the Cherokee town of Keowee were excavated before being submerged. The site of the former Fort Prince George was also excavated, and artifacts were recovered.

When asked why this area was chosen as the site of the plant, Steve Snider, who has served as Oconee Nuclear Station site vice president since 2021, said it all goes back to the leaders of Duke Power Company and their vision.

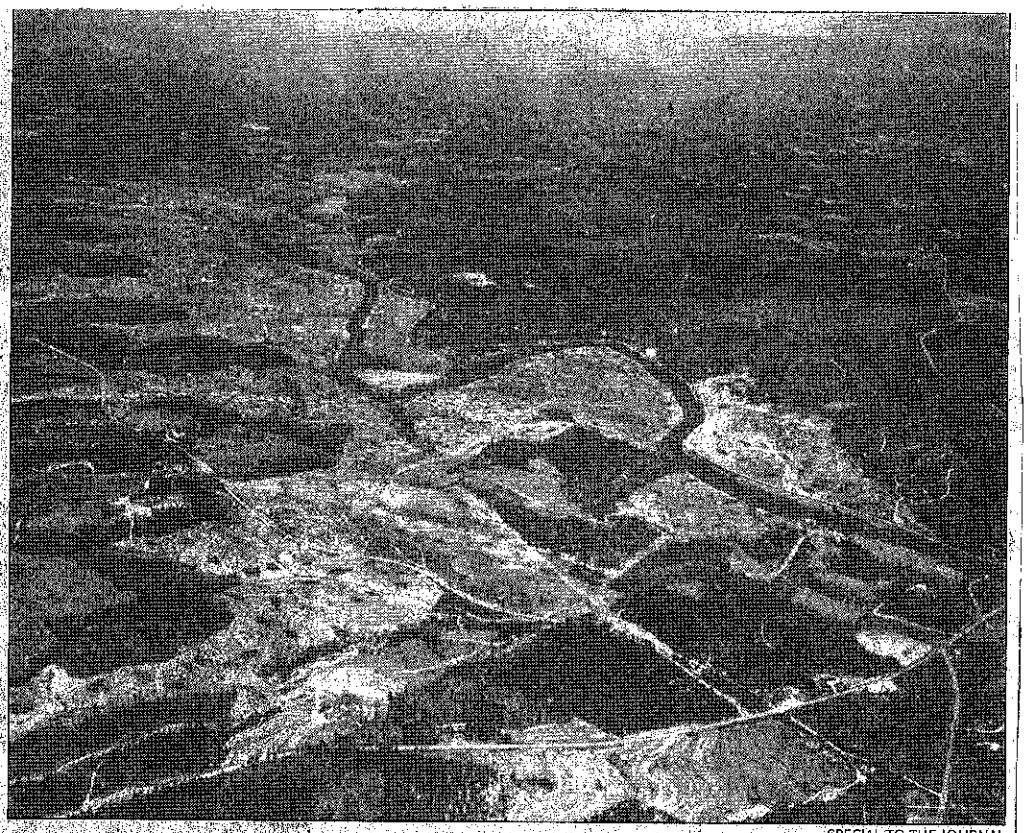
"The things that I really learned to appreciate were that the leaders who came before us — both within the company and in the community related to the Keowee-Toxaway project — were very visionary in terms of what's been done between the hydro units, the stored units and also Oconee itself," Snider said. "It was very visionary in terms of how to provide power and electricity, as well as the beautiful landscape and facilities that you see from the community around us.

"It's something we enjoy and are reaping the benefits of today from that amazing legacy," Snider said.

By the mid-1950s, Duke Power was looking to nuclear power as a clean, safe and economical alternative for meeting growing electric energy needs. Mikayla Kreuzberger, lead communication manager at Duke Energy in Oconee, said the company created the Keowee-Toxaway project, which also includes Lake Keowee and Lake Jocassee, as well as the Keowee Hydro Station and Jocassee Pumped Storage Hydro Station.

Kreuzberger added that Duke announced its intention to build the Keowee-Toxaway project on Jan. 2, 1965, which included the intention to build a power plant that would use thermal energy to produce electricity. The following year, the company announced that the plant would be nuclear powered, and Oconee Nuclear Station became Duke's first nuclear plant. It was completed in seven years.

Initial construction began in 1967 for Oconee Nuclear Station and the Keowee-Toxaway project. J. Ed Smith and Everett H. Gladden, two veteran specialists in nuclear and hydro plant operation, were given responsibility for operating the project. Smith served as superintendent of Oconee Nuclear Station and Gladden as superintendent of the hydroelectric operations at Keowee Dam and Jocassee Dam.



SPECIAL TO THE JOURNAL

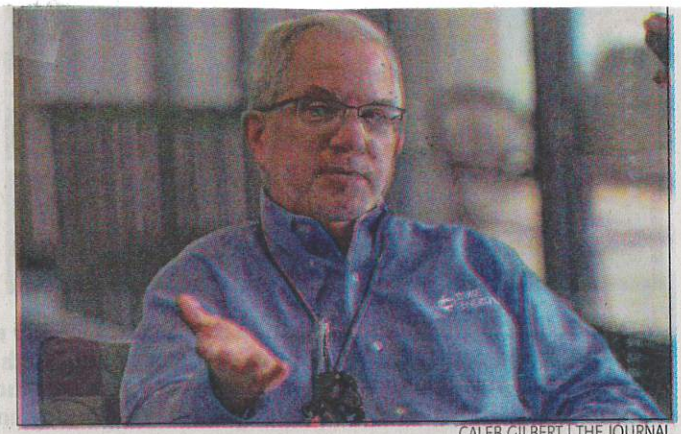
This aerial view, facing north in March 1967, shows the Keowee River basin, which would become Lake Keowee. The footprint for Oconee Nuclear Station is located near the bottom center of the photo. The road heading to the right edge of the photograph would become S.C. Highway 183 heading toward Pickens County.

Preston Gillespie, who began work at Oconee Nuclear in 1982 as a Clemson University co-op student, recalled the first time he saw the plant on the way back from a family vacation in 1975.

"I remember riding by the nuclear station that was practically brand new and being mesmerized by the size of the buildings and the like," Gillespie said.

Gillespie said he became interested in working at Duke as a co-op student, alternating semesters working inside the plant and going to classes. He eventually landed a job at Duke and has been at the plant for 41 years.

"The Keowee-Toxaway project showed up and transformed an area, as well as the entire Upstate," Gillespie said. "It brought good jobs, businesses in over time, as that area



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Steve Snider has served as site vice president at Oconee Nuclear Station since 2021.

became more and more developed. That area is probably the most beautiful part of the country."

Tyler Hayes became acquainted with Duke through his father, Doug, who worked for the company from 1980 through 2018. The younger Hayes began work in the plant as a maintenance co-op in 2006 and then entered operations in 2011. Today, he serves as senior reactor operator.

"I think it's really the people who have come before me, and even Steve and Margie (Barnes, who was among the first women employed at the plant) and the innovation and the approach they took in operating this facility and the groundwork they laid that we've tried to continue to build upon," Hayes said. "We have a lot of visitors come in, and most of them leave saying Oconee is just different — in a positive way. It's really the people that have made a difference."

Next: Shortening outages and increasing safety, as well as efforts to seek relicensing to ensure Oconee Nuclear's continuing presence in the future.