

# Nuke plant to discuss safety upgrades

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Safety will be a key topic Wednesday when Nuclear Regulatory officials and the public get an update from Duke Energy on the latest progress on \$2 billion worth of upgrades to prepare Oconee Nuclear Station for its next 20 years.

Upgrades include stronger protection against tornadoes, floods and fire at Duke's three reactors on the shore of Lake Keowee, about 30 miles from Greenville.

Walls around key equipment and structures are being strengthened and reinforced with materials including an advanced fiber wrap to protect against projectiles that could become airborne in a tornado or high winds, and the height of existing seawall-type barriers between the plant and Lake Keowee is being increased to add flood protection, said Sandra Magee, a Duke spokeswoman.

Flooding was a concern for U.S. nuclear plants in general in a task force review of Japan's Fukushima Dai-ichi plant crippled by a combination of earthquake and tsunami. Japan's experience increased awareness of potential vulnerability to combinations of natural forces. The NRC is reviewing the task force recommendations.

Oconee also is constructing a protected service water piping system to provide another layer of fire protection and an alternate method of safely shutting the plant down in an emergency, Magee said.

"Oconee was built before we had significant fire regulations in place and the separation of safe shutdown equipment you find in newer plants," Magee said. The new protected service water system "adds separation and puts everything outside of the turbine building."

Other upgrades at Oconee include added protection against breaks in steam lines and installation of main steam isolation valves that can quickly isolate any leak and protect the reactor core from cooling too rapidly, Magee said.

And Oconee is continuing its digital conversion of control room safety systems from analog instrumentation, Magee said.

Duke recently was the

nation's first nuclear power plant to convert control room safety systems to digital when changes were made to Unit 1 during a scheduled refueling and maintenance outage in 2011. Unit 3 will be converted this spring and Unit 2 will be converted in the fall of 2013, Magee said.

"We're making an investment to make sure that Oconee continues to operate safely," Magee said.

Much of the work being done uses new technology and materials not developed at the time the plant was built, Magee said.

Unit 1 went into commercial operation in 1973 and Units 2 and 3 began operating in 1974. Originally licensed for 40 years, Oconee was the nation's second nuclear power plant to have its license renewed for an added 20 years.

The NRC is holding the meeting because the projects are fairly significant in scope.

This will be the agency's first update on the projects since January 2011, and NRC officials will see a lot of changes, said Andy Sabisch, senior resident inspector for the NRC at Oconee.

"A lot of work went into some of these projects in the last six months," Sabisch said.

The bulk of the work, including tornado protection upgrades and protected service water work, is wrapping up and these upgrades "significantly reduce the overall risk" if an event should occur, Sabisch said.

"We are getting an update on the upgrades that have been made on the site in recent months," said Joey Ledford, an NRC spokesman. "I don't know that we have another upgrade as significant at another facility in our region at this time."

## YOU CAN GO

NRC officials meet with Duke at 9:30 a.m. Wednesday at the World of Energy at Oconee Nuclear Station to discuss the ongoing major projects. The meeting is open to the public. There will be an opportunity for public comments or questions after the business portion of the meeting. Parts of the meeting involving discussions of security will be closed to the public.