

The 385-foot-high Jocassee Dam was built in the early 1970s and helps provide cooling for the Oconee reactors. KEN OSBURN/STAFF

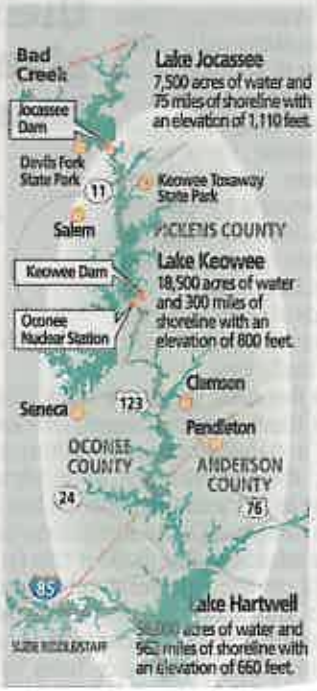
CLAIM: NRC FAILED TO ACT ON DAM RISKS

AGENCY, DUKE POWER SAY JOCASSEE, NUCLEAR PLANT SAFE

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The Lake Jocassee dam is as massive as its waters are deep, looming 385 feet high over both the people who live in the valley below and the three huge nuclear reactors that power the Upstate and beyond.

One question standing in the shadow: Forty years since the dam was built, just what would happen to the Oconee Nuclear Station downstream if the dam failed?



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SAFETY CONCERNS

Perkins' letter and the July 2011 report detailing concerns over the safety of the Lake Jocassee dam can be found at GreenvilleOnline.com.

According to one federal whistleblower integral in assessing the dam's safety, the public would be surprised to know just how concerned federal nuclear regulators have been over how a dam failure could affect nuclear operations downstream — and how they've not done enough to act on their worries.

The Nuclear Regulatory Commission "has been in possession of relevant, notable and derogatory safety information for an extended period but failed to properly act on it," NRC risk analysis engineer Richard Perkins has written to the commission's inspec-

DAM

Continued from Page 1A

tor general.

The NRC and Duke Power both say the Jocassee Dam presents no immediate safety issues, and they defend the decision to block out sections of the report for security reasons.

"We have anticipated the maximum flooding scenario," Duke Energy spokeswoman Sandra Magee said, "and the plant has the means to safely shut down and cool the reactor units. As for our dams, the Duke Energy dams are safe, modern dams that were constructed to the highest federal safety standards."

In a 2011 report Perkins wrote, engineers determined that the threat posed by Jocassee's failure would be worse than originally thought.

GreenvilleOnline.com first reported on the findings last year.

"With regard to Oconee Nuclear Station," the report said, "recent estimates of the resulting flood levels from failure of the upstream dam have increased substantially relative to previous estimates, and the site is theorized to enter station blackout due to loss of off site and station power."

In his recent letter, Perkins alleges that the 2011 report he wrote analyzing upstream dam flooding was released to the public with significant portions redacted that included details "strictly relevant to the safety" of America's power plants, their workers and the public.

Perkins wrote that security concerns cited in a response to a Freedom of Information Act request weren't valid and that they were referenced because disclosure would "embarrass the agency."

In a telephone interview with GreenvilleOnline.com, Perkins declined to comment "at this time." Perkins said he stands behind the September letter but can't divulge what information lies beneath the redactions.

In 2010, the NRC's division of risk analysis was tasked with studying the potential issues involved in upstream flooding at 20 reactor sites.

The March 2011 tsunami nuclear disaster in Fukushima, Japan, vaulted the issue even more into the spotlight, and nuclear plants across the country are undergoing review of seismic and flooding risks following the Japan meltdown.

Oconee Nuclear Station and Fort Calhoun in Missouri, which is still shut down since extensive river flooding in 2011, were specifically highlighted in the report, which determined that the issue of dam failure flooding should be studied in depth.

The report led to an NRC announcement last March that it would begin a "formal evaluation" of the generic issue of upstream dam failure flooding at the nation's nuclear power plants.

The Oconee and Fort Calhoun plants were mentioned specifically because there was recent inspection data available, said NRC spokesman Scott Burnell.

Over the past several years, Burnell said, "Those inspections have demonstrated that there's new information available for the potential of flooding to occur."

The inspections prompted the NRC to direct its engineers to conduct the "screening analysis" that Perkins wrote.

The analysis wasn't designed to speak to whether current licensing guidelines are sufficient; that subject would be addressed in future studies, Bernell said.

"The intent of the screening analysis was simply to say, 'Is it necessary for U.S. nuclear power plants to re-analyze their flooding potential based on the possibility of dams upstream from the plant failing?'" Burnell said. "The short answer was, yes, there's enough information out there to suggest this re-analysis should be done."

In the 2011 report, a heavily redacted section is devoted to Oconee Nuclear Station.

In the section, the report states that "the original licensing basis for Oconee Nuclear Station did not include the impact of failure of Jocassee."

The report continues with a reference to a 2009 NRC letter that "indicates that the NRC staff's position is ...," followed by four lines of redacted text.

The report then cites 1995 information predicting that a flood wave would "overtop the Keowee Dam as well as overtop the Oconee intake dike and would flood the plant," eliminating off site and station power.

The statement is followed by blocks of redacted text that indicate references to 2008 and 2009, before stating that Duke Energy "has developed an action plan and has begun physical modification at the Oconee Nuclear Station site to mitigate the consequences of a potential Jocassee Dam failure."

In his letter, Perkins alleged that the NRC violated the Freedom of Information Act by citing false security concerns.

"The Nuclear Regulatory Commission staff may be motivated to prevent the disclosure of this safety information to the public because it will embarrass the agency," Perkins wrote.

Burnell denied that NRC had violated the Freedom of Information law.

The redactions of "sensitive information" were also cleared through other federal agencies, he said, including the Department of Homeland Security, the Federal Energy Regulatory Commission and the U.S. Army Corps of Engineers.

Magee said the company supports the redactions.

"We do agree that there is a risk when specific technical information is made available to parties that might misuse or misunderstand the information," Magee said.

Before 2008, Magee said, Duke Energy had been working on updated analysis of flooding.

Duke revisited the flood safety issue after the NRC asked additional questions of the nuclear industry, and the company developed "interim and permanent actions," including raising barriers and strengthening walls, Magee said.

Duke personnel inspect both the Jocassee and Keowee dams at least every two weeks, she said.

The Federal Energy Regulatory Commission inspects the dams annually, and every five years an independent engineering consultant inspects above and below water, she said.