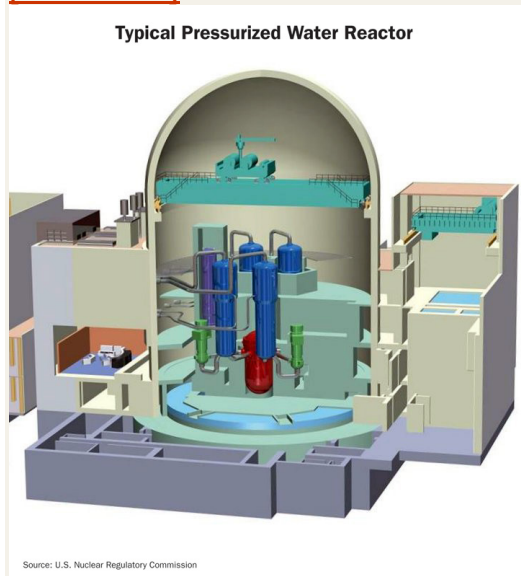


## Ft. Calhoun Containment Structure Failures Admitted

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Representatives from Ft. Calhoun's operator OPPD, hired engineering firms, and the NRC held a meeting Wednesday to discuss details of what has been described as issues with containment structures.

The portion of the containment structure that is being investigated was described as a portion that supports plant equipment including air handling, steam generators and class 1 piping.

A number of concrete beams within this structure were found to be "failed" as part of a plan to obtain a power uprate for the plant. Babcock & Wilcox were to begin engineering work for the uprate during the spring 2011 refueling outage that turned into the massive spring 2011 flood. Calculation work for the uprate was stopped after the first 6 beams investigated were considered failed.

The problems go back to the original design of the plant. Further investigation discovered that the original design drawings submitted for the plant license had missing and incorrect calculations. They also differed from the construction drawings. OPPD, Ft. Calhoun's owner and operator has known about this since the 1990's. The source of these original designs appears to be Gibbs, Hill, Durham & Richardson Inc., an Omaha, NE architect firm that may have gone out of business at some point. No reference for this company could be found online except their work on Ft. Calhoun.

OPPD has known since the 1990's about the missing calculations through safety checks at that time. They claim they were not aware of the miscalculations but they also did nothing about the missing calculations. They decided to do nothing about the unknowns and only worry about them if they had to make a change or modification to the plant. OPPD had to "reconstitute" the design of the water intake systems in 2007 due to these same problems.

The planned uprate would have caused system pipes to run hotter than normal causing additional loads on the air coolers and pipe systems. The beams could not handle the uprated power demands and they didn't

meet the design specs of the current operation of the plant. The beams under the air coolers all failed the design requirements. The beams under the new steam generators, OPPD claims are sound enough to hold up but provided no proof to back up this claim.

OPPD has hired a number of engineering firms to review their design and help them convince the NRC they should be allowed to restart with no changes. The first engineering firm took the “as constructed” building plans and attempted to create a 3-d model and computer modeling to prove the critical plant systems are sound. Someone from the NRC asked about visual walkdowns but there appears to have been no technical attempts to confirm the “as constructed” matches the actual construction. All other 3rd party technical consultants worked off of the first engineering firm’s computer models meaning that many kinds of miscalculations could have been repeated by the additional firms. If the initial assumptions were wrong, the other firms wouldn’t find it since they are only checking the outcomes of the first firm’s work. The consultants do mention that the “as built” does not meet the design standard of the license.

This modeling did not include the slab the critical containment structures sits on. There are known concerns with erosion, OPPD had had two different geo-tech companies investigating the site but have been tight lipped about what was found. The modeling also did not include missiles such as projectiles inside the containment caused by a failure at the plant.

OPPD’s “plan” stated in the meeting was that they want to restart without making changes to the structure then to “restore” the licensing basis of the plant later after it is running. They were also unable to explain if or how it would change critical operating factors like air flow within the containment building and on critical equipment. OPPD did not explain why the NRC should allow them to restart when the plant can no longer meet the established licensing requirements.

NRC representatives did mention that the review of this issue will be a very long process and may take months. There has been no mention to the media from OPPD if they still intend to “restart” at a low power in December as they previously claimed, or if that is even possible at this point.

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