

NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD

DOCKETED  
USNRC

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In the Matter of  
SOUTH CAROLINA ELECTRIC AND GAS  
COMPANY, et al.  
Virgil C. Sumner Nuclear Station,  
Unit 1

Docket No. 50-395  
OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

AFFIDAVIT IN SUPPORT OF  
INTERVENOR'S MOTION TO REOPEN HEARINGS

I am a 28-year old former cadwelder on the V.C. Sumner nuclear station. I worked there for a total of three years, doing cadwelding from mid 1975 to mid 1976. Cadwelding is a type of welding that fuses buttwelds with 3 to 4,000 degrees F. I did over a thousand cadwelds and was shown a trade secret for making a bad cadweld look good. I believe most of the welders on the job did this, and all of the welders on my shift (2nd) falsified cadwelds.

Early on the job at V.C. Sumner as a cadwelder I was the only one on the crew not "making production". I wondered out loud about this and the crew leader told me the secret was #9 wire. Most bad welds were caused when the bottom packing on a vertical weld was not quite right. This caused the hot slag to run out of the bottom until there was no powder left in the pot. If the hot slag did not damage the sleeve enough to be noticed we would either reshoot it or patch it. This was determined by how close to being a good shot it was. If the sleeve did not fill up to the ceramic insert we put in a new insert and reset the shot, guessing at the amount of powder it would take to fill it up. Most of the time there wasn't enough so we would light the torch and melt #9 tie wire into the sleeve until it filled up. Then we would take a hammer and chisel and rough it up so it would look like it had been properly welded. I have just about completely filled a sleeve with the #9 wire and it would pass inspection. In order to meet production standards we couldn't afford to take the time to cut the bad welds out. It normally took two good welds to repair one bad weld.

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While working on #18 vertical rebar on the containment building I "patched" 30 to 40 welds with #9 wire. There is no way this wire could hold the rebar together as design required.

In 1979 and 80 I worked at the Harris nuclear reactor doing cadwelding and crane rigging. The cadweld procedures at Harris were much stricter than at V.C. Summer. At Harris they checked every weld in the outside wall of the containment building to insure no welds were packed with wire. At V.C. Summer the tests were infrequent and at random. I only remember two intentionally bad cadwelds being caught. I was always amazed that you could get fired for minor things but not for falsifying welds. Cheating on welds was a game we used to bet on. I remember one night most all the fusing slag ran out of my #18 vertical weld on the containment wall, another welder bet we I couldn't pack that one with #9 wire and get away with it. I did. We used to joke about using so much #9 wire on the job - we weren't supposed to need or use #9 wire at all.

*Harold L. Jennings*

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*Lee J. Caldwell*