

A F F I D A V I T

My name is Howard Samuel Nunn, Jr. I am giving this statement to Robert Guild, who has identified himself to me as counsel for the Palmetto Alliance, a party to the NRC operating license proceeding involving Duke Power Company's Catawba Nuclear Plant where I was formerly employed as a welder.

I have reviewed reports by Duke Power Company and the NRC Staff with regard to their investigation of the issue of "foreman override" -- pressure by supervision on crafts to perform work in violation or deviation of applicable standards and procedures in order to meet production schedules. I initially presented sworn testimony regarding my knowledge of the foreman override practices at Catawba to the Atomic Safety and Licensing Board during an in camera hearing session held on November 9, 1983 and at later sessions in December, 1983 and January, 1984. The NRC Staff and Duke Power Company conducted further investigations of the foreman override issue which identified related concerns first by an individual identified as "Welder B" and later concerns by some 5 other 'unidentified' Catawba workers who identified instances involving foreman override and related quality assurance failures.

I understand that as a result of this identification of numerous additional foreman override concerns, the NRC Staff instructed Duke to begin their own investigation to determine

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whether instances of foreman override represented a significant breakdown of quality assurance at Catawba. I have reviewed the NRC Staff's Inspection Reports 50-413/84-31 and 50-414/84-17 of April 23, 1984 including the attached results of interviews; Duke's "Investigation of Issues Raised by NRC Staff ..." in these inspection reports, dated August 3, 1984; and the NRC Staff's inspection reports 50-413/84-88 and 50-414/84-39 of August 31, 1984, and attached Notice of Violation.

I strongly disagree with Duke's conclusions, apparently concurred in by the NRC Staff, that "quality construction standards at Catawba are being met" and that "foreman override is not a problem at the Catawba site." I believe that the experience of the Catawba workers, reflected in the concerns expressed to the NRC Staff by the 10 workers they interviewed and the subsequent 73 additional concerns documented in Duke's investigation, confirms my experience and belief that there is a widespread and pervasive problem of production pressure to perform work improperly and in violation of procedures at the Catawba Nuclear Station.

I haven't any confidence in the thoroughness or integrity of the investigations conducted by Duke and the NRC Staff, and I urge the members of this Licensing Board to take all action necessary to thoroughly and honestly determine the full extent of this problem and require the necessary corrective action before final authorization of an operating license for the Catawba Nuclear Station. I believe that the evidence of widespread foreman override at Catawba raises serious doubts about the "as-built" quality of construction at the plant. I urge this Board to order an independent and objective audit of the quality of construction

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at Catawba.

I was employed by Duke Power Company from September 1978 until October 1983 as a welder, first at the McGuire Nuclear Station and beginning in November 1980 at Catawba. From December 1981 until March 1982 I was temporarily assigned to work the night or second shift on Foreman Arlon Moore's welding crew. Arlon was one of 15 or 20 foremen who reported to General Foreman Billy Smith, who in turn reported to Catawba Welding Superintendent W.E. "Bill" Rogers. Arlon Moore was the regularly assigned foreman on second shift, although at times Foremen N.T. Lawing and Gary Baldwin supervised other crews on second shift. Based on my own knowledge, and confirmed by other present and former Duke workers, I believe that Foreman Arlon Moore is "Individual 142" in Duke's investigation report and identified as "Individual A" in the reports of the NRC Staff. I believe General Foreman Billy Smith is identified by Duke to be "Individual 184".

Following Duke's investigations, both Billy Smith and Arlon Moore were removed from their supervisory positions. Billy Smith's supervisor, who is Welding Superintendent W.E. Rogers, is to be "formally counseled," having allowed these instances of improper foreman override. Three other supervisors (Individuals 64, 217 and 218) are to be counseled for improper production pressure. I have strong suspicions as to the identity of these supervisors, and with additional information I believe I would be able to provide further information regarding the extent and significance of their practices of foreman override.

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I also feel certain that I know the identity of "Welder B" based on my experience while assigned to Arlon Moore's crew. This has been confirmed by information passed on to me from other present and former Catawba workers. I'm confident that Welder B's identity is widely suspected on the job and is almost certainly known by Bill Rogers, Billy Smith, Arlon Moore, and other Duke supervision, all of whom Welder B fears reprisal from. He still remains unknown only to this Board and the general public who have the power and responsibility to insist that his concerns are fully probed and resolved.

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As corroborated by the statements of several welders to the NRC, the production pressure which resulted in instances of foreman override consistently came from General Foreman Billy Smith. Foreman Arlon Moore was only one of the many foremen who were subject to this same pressure. My own experience with instances of foreman override, likewise traceable to Billy Smith, were mostly encountered at the hands of my foreman Larry Rudasill, who worked for Billy Smith, and significantly did not occur during the few months that I worked for Arlon Moore when I was assigned to second shift. During most of my time in Arlon's crew he reported not to Billy Smith but to General Foreman J.R. Wilson, who was temporarily assigned on the second shift for a 6-month period from January to June 1982.

As was stated by "Individual B-1" in the NRC Results of Interview:

During this period of time, approximately 6 months during 1982, there was no pressure for quantity and everything went very well with the entire crew in general. He said that the foreman seemed more relaxed under INDIVIDUAL D and there never was any pressure

to get large quantities of work completed. He said that during this period when INDIVIDUAL D was General Foreman he was not aware of anyone doing any work out of procedure. After INDIVIDUAL D left and the previous General Foreman returned, the problems again started to occur.

The results of interviews with Individuals B-3, E, and B-2 similarly confirm that pressure from Billy Smith was the common source of their experience with incidents of foreman override.

The investigations by Duke and the NRC Staff focused most of their efforts on Individual 142/Individual A -- who I believe is Arlon Moore -- and fail to thoroughly probe the extent of the foreman override problem in all of the other crews whose foremen reported to General Foreman Billy Smith. How much have we learned about the work of crews who reported to Foremen N.T. Lawing and Gary Baldwin, who also worked the night shift at times, when only one QC Inspector was on duty and problems left from the day shift were 'corrected'? apparently little effort was expended to focus on the many other foremen who reported to Billy Smith, such as Larry Rudasill, Henry Best, Harry Barker, "Red" Wood, B.J. Myers, Ed Herndon, Tim Hollingsworth, R.E. Baker, Barney Cobb, and L.D. Bragg. Duke's interviews with these and other foremen under Smith would likely produce only the same denials of wrongdoing which the NRC's interview of Individual 142 (believed to be Arlon Moore) produced.

To some degree the NRC Staff recognized the need to determine whether the foreman override practices extended to other crews and crafts beyond the single crew they focused on. Duke interviewed these other welding foremen and a limited number of other

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welders and workers in other crafts. I have very serious doubts about the validity of Duke's efforts to investigate the extent of the foreman override problem beyond this single crew.

Duke fails to specify the number of other welding crews from which it selected welders to be interviewed, or the manner of selecting them based on the areas of the plant in which they worked. Similarly, they fail to detail the process for selection of persons in other crafts. Duke does reveal that it limited its selection of persons to be interviewed based on length of service, choosing only craftsmen whose service extended at least 4 years. Such a limited sample ensured that only those with the most to lose in pay, benefits and seniority -- those most likely to be 'company men' -- would be asked to "blow the whistle" on management at Catawba. Duke failed to interview those who are most likely to leave (or have already left) the Company for other work and who would be more willing to tell the whole truth, regardless of the consequences.

I was told by General Foreman Billy Smith, when I received my "punishment" assignment to the night shift in December 1981, that there were some 550 welders, then, at Catawba; however, Duke "randomly" selected only one welder from each specified crew, 35 additional welders, each meeting the length of service criterion, to investigate the extent of foreman override in other welding crews. How can this be an adequate sample? Only 33 other craftsmen with seniority: 19 powerhouse mechanics, 8 electricians, and 6 steelworkers were interviewed to determine the extent of the foreman override problem in other crafts. This cannot adequately represent the experience of the over 4,000

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workers at Catawba.

The most serious flaw in the "investigations" of the foreman override issue is the inexcusable trust in Duke Power's management to fairly investigate its own management's wrongdoing. Harassment and intimidation of conscientious workers who try to do their job and see that the Catawba Nuclear Station is built "by the book" is a fact of life on the job. This Licensing Board has seen the treatment of Welding Inspector Supervisor Gary "Beau" Ross and his crew at the hands of responsible Duke Power management for simply trying to do their job in identifying QA deficiencies. Welder B himself explains that he did not raise his concerns to Duke management or the NRC earlier out of fear that he would lose his job.

The same fear was expressed by other workers who were interviewed by the NRC Staff in their Welder B investigation. Yet the NRC Staff seems to have learned nothing from the record at Catawba, and they entrust the 'fox' with the mission of investigating the extent of complaints by the rest of us 'chickens' in the Catawba henhouse. Little surprise that Duke Power Company reports that there is no "pervasive" problems voiced by the work force at Catawba and that only "isolated" incidents of 'little or no safety significance' have been brought to their attention.

I can personally attest to the seriousness of the threat which must be understood by a worker who must weigh his personal welfare -- his job security, his family's well-being and his reputation and self esteem -- against the desire to tell the whole truth and do his job to the best of his ability. I hope that this Board understands the reality facing the 217 "Individuals"

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asked by Duke Power's Employee Relations' "skilled interviewers" to make the choice that I have had to make. Based on what I have experienced I would hesitate to encourage any of those interviewed by Duke to tell all they know unless they are prepared to suffer the consequences. The 4 months that I spent looking for work after my termination by Duke were some of the most difficult times of my life for me and my family. I now drive almost 250 miles each day so that I can work in the trade for which I am qualified. I can only hope that you Judges will value my contribution as a witness in this proceeding enough to honor all of these other conscientious Catawba workers who are asking you to get to the bottom of these serious problems, and not simply accept the company line at face value.

I have also reviewed the specific technical concerns which are identified in the NRC Staff Reports and Duke's Investigation Report and can confirm that a number of the practices described occurred at Catawba based on my own personal knowledge and experience. In addition I have been informed by another former Catawba worker that he was interviewed by the NRC Staff in connection with their investigation of the foreman override issue, and that he provided the NRC with information concerning the practice of performing 'illegal repairs' on the safety-related containment spray system on the second shift. Such repairs were performed on bad welds made by others without required QC inspections or documentation reflecting the later repair work. There is no evidence of such a concern reflected in the NRC Staff reports. What did the NRC Staff do to document and investigate these concerns?

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On or about June 24, 1984, I called Bruno Uryc of the NRC Staff and asked him what action had been taken regarding these concerns. He would not give me a straight answer. I repeated my offer to assist in pursuing the investigation of the foreman override concerns. Although I was a member of Arlon Moore's second shift welding crew and have expressed desire to cooperate in this investigation, I have yet to be interviewed by the NRC Staff regarding my knowledge of this subject; nor has the Staff explained to me the results of their investigation as promised.

For example, I am quite familiar with the common practice of failing to adhere to interpass temperature requirements. Contrary to the suggestion in Duke's report, welders most commonly employed a 350° "temp. stick" for making stainless welds and a 500° "temp. stick" for work on carbon steel. The use of touch to determine interpass temperature reflected a conservative practice generally employed by more experienced welders to more than assure compliance with procedural requirements. The frequent violation of specific interpass temperature requirements in order to speed production was common knowledge on the job.

Also contrary to the suggestion in Duke's report, arc strikes often cause serious damage and are not simply cosmetic problems confined to weld zone areas. For example, when welding leads short out against a pipe due to a defect in the cable insulation, the resulting arc strike can burn a hole completely through the pipe. Serious arc strikes often occur outside the weld zone due to carelessness or welding in confined spaces. I believe that many such repairs have been made without proper

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documentation due to production pressure, and many more have gone undetected. I seriously question whether file and grinding marks on a valve body are attributable to the manufacturer as suggested by Duke where such marks more likely indicate improper arc strike repairs. I can confirm that temperature requirements on the welding of teflon plug valves have been violated repeatedly and that welders have improperly remarked the critical heat affected zone after melting the temp. stick marking in order to pass inspection.

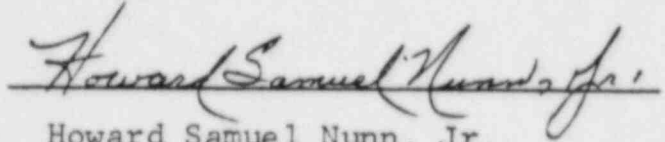
In addition, I am willing to provide further information on the subjects of interaction with inspectors, stencilling of welds, vertical stiffeners, sequence of making socket welds, cold springing, vendor weld quality, preheat, welding weave width, painting over defects, and use of stainless steel filler material to hide porosity.

I believe that there is evidence of a significant breakdown in QA at Catawba stemming from foreman pressure to violate QA procedures and perform defective work in order to meet production schedules. I am convinced that the full extent of such defective work and procedure violations have yet to be identified, but that such effects of foreman override are pervasive at Catawba.

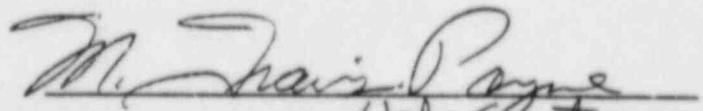
Although it is troubling that such evidence is only coming to light at this late date in the construction of the plant, I am thankful that the expressions of concerns by this large number of Catawba workers may prompt this Board to require a full and complete investigation by an independent organization and necessary corrective action prior to licensing this plant. I am willing to assist this Board in any manner in order to assure that the plant is safely built.

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I have read the above 11 pages of affidavit, and it is true, accurate and complete to the best of my knowledge and belief.


Howard Samuel Nunn, Jr.

SUBSCRIBED AND SWORN this 15th day of September, 1984, in Raleigh, North Carolina.


NOTARY PUBLIC *Wake County*
My Commission Expires: 11-17-87

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of) Docket Nos. 50-413
) 50-414
DUKE POWER COMPANY, et al.)
)
(Catawba Nuclear Station)
Units 1 and 2))

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CERTIFICATE OF SERVICE

I hereby certify that copies of Motion By Palmetto Alliance and Carolina Environmental Study Group For The Conduct Of Further Proceedings To Consider Evidence Of Foreman Override in the above captioned matter has been served upon the following by deposit in the United States mail this 17th day of September, 1984.

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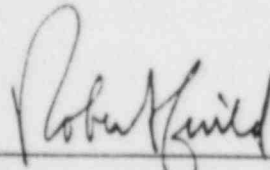
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* By next day service