



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30303

MAY 23 1984

MEMORANDUM FOR: FILE

FROM: J. Blake, Chief, Materials and Processes Section, Engineering Branch, Division of Reactor Safety

B. Uryc, Investigative Coordinator

SUBJECT: TRIP REPORT - REVIEW OF DPC INVESTIGATION (May 1-3, 1984)

CASE NO: RII-84-A-0012

On April 27, 1984, the Regional Administrator was briefed by selected members of the Region II staff regarding the status of Duke Power Company's (DPC) investigation into the "Welder B" issue. Following the briefing, a general discussion was conducted with the Regional Administrator to consider any additional activity the staff should undertake in this matter. It was agreed that the staff should conduct a review of DPC's investigative activity to date and that this review should be conducted on site. The Regional Administrator directed that this review cover as a minimum two principle areas, the first being the technical adequacy of DPC's investigative effort and second, the administrative methodology used during the DPC interview process. J. Blake, Chief, Materials and Processes Section, Engineering Branch, Division of Reactor Safety, and B. Uryc, Investigative Coordinator, were subsequently directed to go to the Catawba site to conduct the review and evaluation.

Administrative Review of Investigative Process

The administrative review was conducted to examine the investigative and administrative methodology involved in the DPC investigation. Of particular interest was the technique and methods utilized during the interviews; to include completeness of the interviews, the atmosphere during the actual interview, documentation of the interviews, credentials of interviewers, and general adequacy of the investigative process.

The licensee provided copies of 146 unsigned affidavits which were reviewed in detail. Generally, the affidavits which contained information pertinent to the investigation were detailed and well written. Those affidavits taken from individuals who could provide no substantive information contained a minimum of detail.

Discussions were held with Mr. R. Hollins, a DPC engineer who is in charge of the DPC investigation. He advised that the initial interviews and affidavits served as a screening mechanism in which DPC personnel who could provide relevant information were identified. Mr. Hollins stated that those individuals would be interviewed again to obtain additional details. He said these subsequent interviews would be conducted by appropriate technical teams which would then begin working on the resolution of the concerns.

Four DPC employees had been selected to conduct the initial interviews. They had interviewing experience based on their personnel related jobs with DPC. They were given a short course of instruction pertaining to the technical aspects of the allegation to familiarize them with terms and processes which could be brought up during the interviews. In addition, they were provided with a four page glossary of welding and construction terms to which they could refer to during the interviews if required.

When the interviews were started, the individuals to be interviewed were called to the Welding Superintendent's office; there they were introduced to the interviewer, and the Welding Superintendent gave the individual a short briefing as to why they were going to be interviewed and the fact that an investigation was being conducted. The individuals were introduced to the interviewers and encouraged to be completely open and honest in their conversations with the interviewers. They were further advised by the Welding Superintendent that they were not being accused of any wrongdoing but simply being solicited for any information which would assist in the evaluation of work quality. Finally, the Welding Superintendent advised them that every effort would be made to keep their information confidential. Following this briefing by the Welding Superintendent, the interviewer escorted the interviewee to another room to conduct the interview. One noteworthy aspect of this process was the fact that there were no schedules for the interviewers. This factor precluded the interviewers from being rushed in their interviews due to scheduling requirements. When the interviewers completed an interview they then called for the next available interviewee.

Discussions were held with the four DPC individuals who conducted the interviews to obtain an understanding and sense of the environment and atmosphere during the interviews; the credentials and experience level of the interviewers; and the depth of preparation for the interviews. All four interviewers had been selected because of interviewing experience gained from their work in the employee relations department. One individual also had prior law enforcement experience. The interviewers had been briefed that their primary function was to elicit information regarding any concerns expressed by the interviewees in addition to covering specific questions from a prepared list. The prepared questions generally dealt with knowledge regarding the quality of work at Catawba; production pressure which may have affected quality; deliberate attempts to violate QA procedures and welding procedures; possible cases where procedures were violated and corrective action not taken; knowledge where anyone was directed to violate QA or welding procedures; violations of interpass temperatures; improper removal of arc strikes; and general questions regarding product quality. The interviewers had been instructed to develop any information along these lines. In addition, they stated they were not under any pressure to rush interviews and they were given sufficient latitude to explore appropriate areas of concern as required. They stated that interviews which developed no substantive information lasted anywhere from 30 to 45 minutes, and interviews which developed substantive information lasted up to three hours or more. In closing the interviews, the interviewers instructed the interviewees that their conversation was to be kept confidential and that they should not discuss the nature or content of the interview. The interviewers stated that they felt they had been able to do a good job and that the substantive affidavits were thorough.

Examination and review of investigative strategy indicated a logical approach was developed in an attempt to define parameters and induce development within those parameters. Establishment of parameters involved determining crew members and lead men of the foreman in question from the time he was made a foreman until present; time frame the foreman in question was on the second shift; and, preparation of a list of crew members assigned to the Foreman during the 1980-1981 time frame. The interview team was briefed and a training session was held to familiarize the team members with technical terms. Interviews were initiated with identified crew members and exit interviews were reviewed of those individuals no longer employed. Interviewees who raised technical concerns were identified for additional interviews by a technical interviewer to develop the scope of those concerns.

In addition to the above interviews, additional random interviews were conducted with individuals assigned to powerhouse mechanics, electricians, steel workers, and other welding craft. This random interview process resulted in 68 individual interviews.

The investigative process was initiated from a high level of corporate management. Specific responsibility was fixed at the highest level of management at the site and a corporate level professional engineer was assigned to direct the investigative effort. This responsibility is clearly fixed and documented.

Following the review of the affidavits, three individuals were randomly selected and interviewed to determine if they felt they were provided suitable opportunity to discuss their concerns. The interviewees stated they were satisfied that their interviews were conducted in a professional manner and that they were given ample opportunity to discuss their concerns in a supportive atmosphere. One interviewee did comment that he was told his information was to be kept confidential and when he went to the Employee Relations Office to sign his affidavit he noticed it was laying unprotected on a desk in a common area of the office. He stated that anyone in the office would have been able to pick up the affidavit and read it. He said he would like to see such documentation given better protection.

Throughout the review, Mr. Hollins was available to answer questions and clarify procedures used during the investigation. A free exchange of information facilitated the review. At the beginning of the review, it was explained to Mr. Hollins that the intended purpose of the review was to determine progress and direction of the investigative activity. It was made clear that there was no intent to offer or provide consultation services and discussions were offered with the intent of providing an outside opinion to facilitate the investigative process.

An exit interview was conducted with Mr. Hollins and Mr. Dick, Vice President - Construction. This was an unstructured, free flowing discussion which generally covered impressions and comments regarding the review of investigation. The following points were discussed and their relative position as listed below does not reflect their importance:

- The interviews conducted to date should be considered screening interviews which developed substantive concerns requiring additional technical followup.
- Each concern identified should be thoroughly examined and adequately resolved.
- Information involving other foremen needs to be expanded to include additional interviews.
- Technical interviews should utilize those interview team members as facilitators during these interviews.
- Efforts should not be directed at attacking credibility of those who provided substantive information, but rather at developing the information provided.
- Interviewees should be given feedback when concerns are resolved.
- Some interviews should be expanded to develop additional required information.
- A personnel management issue appears to be developing and should be pursued from an effective management perspective. First line supervisors (foremen) seem to be a problem with regards to their management style.
- Interviewees who provide substantive information should be advised that if they feel their concerns were not adequately resolved they can go to the NRC without fear of repercussion.
- Employee Relations should be given access to the investigation report when completed so they can review personnel management issues.

#### Technical Review of the Investigative Process

Discussions were held with Mr. R. Hollins concerning the overall plan for the resolution of concerns identified during the screening interviews. During these discussions Mr. Hollins presented a program outline which showed the major steps for developing and resolving the concerns. The program indicated that the concerns would be sorted into specific technical areas and then assigned to appropriate DPC staff members for resolution.

One apparent weakness noted during the review of the program outline was that there appeared to be no requirement that the technical resolvers present anything but final resolutions for Mr. Hollins and Mr. Dick to review. While it was implied that Mr. Hollins would be working closely with the technical resolvers there was no formal feedback mechanism to document that they understood the necessity to fully define the concerns, and prepare to defend the resolutions in a hostile environment.

Mr. Hollins agreed that this would be a useful step in the resolution process and indicated that he would be adding it to his outline.

The two major categories of concerns were in the areas of welding concerns and personnel concerns. The welding concerns had been assigned to Dave Llewellyn of the site engineering staff and the personnel actions had been assigned to Dave Abernathy of the corporate personnel staff in Charlotte, NC.

Mr. Llewellyn was interviewed to determine how he was conducting the technical review and resolution of the concerns. Mr. Llewellyn informed us that while he had been involved with the preparation and examination of socket weld samples for the follow-up of the "Burnt Socket" issue, he was not aware of any other concerns until he was assigned the complete package of welding concerns during the week of April 23-27, 1984. Mr. Llewellyn indicated that he was still trying to complete his review of the package and formulate a plan for resolution.

Mr. Brian Kruse of Mr. Llewellyn's staff was introduced as the engineer conducting the metallurgical analysis of the "Burnt Socket" weld samples. Mr. Blake held discussions with Mr. Kruse and accompanied him on a visit to the DPC metallurgical laboratory adjacent to the McGuire site. Mr. Kruse was working on completing metallographic examinations of socket weld cross sections to determine the degree of sensitization in each sample. No work had been initiated to see if the test welds could be used as standards for in situ testing of production welds.

During the discussions with Mr. Llewellyn and Mr. Kruse it was pointed out that with the Electrical Power Research Institute (EPRI) J. A. Jones Engineering Center located in Charlotte it would be prudent if the final resolution to the welding concerns reflected what EPRI knew to be the state-of-the-art in weld inspection and examination.

Mr. Abernathy was interviewed to determine how he was conducting the technical review and resolution of the personnel concerns. Mr. Abernathy admitted that he had not had time to develop a plan for the review or the resolution. He had read through the concerns and was aware that additional interviews would be necessary to develop the concerns expressed about additional foreman identified during the original screening interviews.

During final discussions with Mr. Hollins and Mr. Dick, the following discussion items were reinforced:

- Technical resolvers should define the concerns and identify the resources required to resolve the issues.

- Technical resolvers should consult with outside authorities during their resolution efforts and reference these contacts to support the DPC resolutions.
- Final resolutions wherever possible should be bounded in real numbers.

*J. Blake*  
J. Blake  
*B. Wryc*  
B. Wryc

MEMORANDUM TO CASE FILE

TYPE ACTION <input checked="" type="checkbox"/> RECORD OF CONVERSATION <input type="checkbox"/> CASE REVIEW / STATUS <input type="checkbox"/> OTHER	PARTICIPANTS <u>B. Uryc</u>	FILE NO. _____ DATE <u>01.20.84</u>
	CONFIDENTIALITY REQUESTED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	TIME <u>8:57-9:08 am</u>

SUMMARY

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PAGE OF

PREPARED BY B. Uryc

DATE 01.20.84

ACTION REQUIRED

REVIEWED BY

DATE

ALLEGATION REPORT

DO NOT DISCLOSE  
Contains Identity of  
Confidential Source

ALLEGATION: FAILURE TO MAINTAIN INTER-	FACILITY: CATAWBA
PASS TEMPERATURES ON	FILE NO:
STAINLESS STEEL SOCKET	DATE: 01.20.84
WELDS.	TIME:
CONFIDENTIALITY REQUESTED: <input checked="" type="radio"/> YES <input type="radio"/> NO	DOC NO:

SUMMARY OF INFORMATION: ALGR was interviewed on 01.11.84 in connection with issues the staff was reviewing for the Catawba ASLB. During this interview he stated that sometime in 1981 he was working on [redacted] crew doing stainless steel socket welds in the Unit 1 pipe chase. He said these 2 1/2 inch sockets were stainless steel. He said [redacted] told them to fire up their torches and to keep welding. [redacted] had his lead man [redacted] stand guard to watch for inspectors. ALGR stated he was aware of temperature requirements and when he told [redacted] that they were exceeding the heat interpass temperature, [redacted] told them to keep welding or "hit the road." ALGR said they (the welders) had to wrap their hands with padding to protect them from the heat. He said they were welding so hot and so fast that the weld material was turning black from the heat and they were clearly welding out of the heat zone. In addition they were welding so fast that interpass temperatures were being exceeded. ALGR stated he did check one weld with a 350° temperature stick and when he touched the weld with the temp stick it blistered immediately. ALGR stated he could recall only three other welders who were involved in this incident: [redacted]

PREPARED BY: B. Urjc

DATE: 01.20.84

ACTION REQUIRED: DO NOT DISCLOSE  
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Confidential Source

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



## MEMORANDUM TO CASE FILE CONTINUATION SHEET

The ALGR also stated that on a [redacted] sometime in early [redacted] [redacted] asked him to go to the [redacted] to help weld some socket welds. When he walked into the [redacted] he saw that some stainless steel pipe had been burned black. He asked (not to anyone in particular) "Who burned it up?" [redacted] then came over to him and took him out of the [redacted] saying that he wanted him to go with him and do some work in the [redacted]. The ALGR said he got the distinct impression that [redacted] was concerned because he (ALGR) saw the burnt stainless steel pipe and that he did not want him in the [redacted]. The ALGR also said that [redacted] was there and witnessed the burnt sockets.

The ALGR stated that as a result of being harassed by [redacted] he told [redacted] that he was tired of being harassed and that he was keeping "book" on him regarding what was going on. [redacted] then said that if anyone ever messed with his job he would cut their throat. ALGR said that [redacted] did not directly threaten him with this remark, but he (ALGR) certainly took it as a threat. He said he believed in the threat as much as [redacted] had told everyone he [redacted]. The ALGR stated he never reported the above instances concerning welding as he believed that [redacted] would carry out his threats.

NOTE: Prior to the interview, the ALGR advised that any information he provided would be kept confidential and that the fact he provided information would be protected.