

RESULTS OF INTERVIEW WITH ROBERT C. JONES AS RECORDED BY INVESTIGATOR WILLIAM J. WARD, US NUCLEAR REGULATORY COMMISSION ON MAY 29, 1979

Jones, employed as a Senior Engineer with the Babcock & Wilcox (B&W) Nuclear Power Generation Group, Lynchburg, Virginia was interviewed at the B&W facility in Lynchburg under favorable conditions (private office) commencing at 1415 hours, on May 29, 1979 by the reporting investigator. Jones provided the following information in substance:

He was familiar with a report prepared by Mr. Carlyle Michelson, an engineer with the Tennessee Valley Authority (TVA) and consultant to the NRC Advisory Committee on Reactor Safeguards which raised some questions regarding the vulnerability of the B&W Pressurized Water Reactors to small break loss of coolant accidents. He received a copy of the Report sometime in early May, 1978 and was asked to review it and to reply to TVA regarding its concerns. He was quite busy at the time on a small break analysis project that prevented him from paying immediate attention to the Report. These small breaks that he was analyzing were of a larger size than those postulated by Michelson. Shortly afterwards, sometime in the period of May-June 1978, he took the Report home with him and gave it a cursory review. Based on this preliminary evaluation, he decided that although some of the concerns appeared to be valid, he did not see that they had significant safety implications. He particularly disagreed with what he described as Michelson's claim that small breaks would discharge more water than would larger breaks. He also disputed that an energy balance methodology was the valid way to approach the analysis. He did agree with the following points:

1. That small breaks would require the use of the steam generator in order to maintain adequate cooling.
2. That a loss of natural circulation would cause repressurization.
3. That pressurizer level indications alone did not provide an accurate depiction of water level (water over the core).

On the other hand, he felt that these were obvious conclusions and that B&W essentially already knew the foregoing. For this reason, he assigned the response to the Report a very low priority and so informed his supervisor, Bert Dunn, Manager of the ECCS Analysis Group. He indicated that he had full authority as a senior engineer to make a decision of this nature.

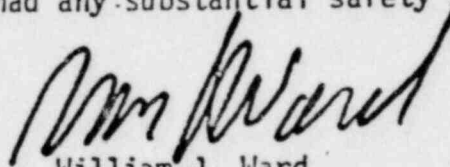
He remained very busy over the next few months, often working 14 hour days. He estimated that a proper response would require one full week of effort and that he did not have the week to devote to it. He emphasized that most of the work would be in the area of proving the

validity of his position with more sophisticated modeling and computation than Michelson had used in his report, and that at no point did he think that such analysis would prove him wrong and Michelson right. He was chided by Robert Lightle of the B&W Project Management on several occasions to reply to TVA, but he kept getting interrupted and just could not come up with the needed one week. During this period he did not discuss the Report with any higher management officials and had no discussions concerning it with anyone from the NRC.

Telephone conferences and receipt of a one page summary from Michelson in addition to completion of his small break analysis served to allow him to complete his work on the Report and to dispatch a reply to TVA in January 1979. He added that as he had expected, his calculations vindicated his position. Upon receipt of another letter from TVA in early February, 1979, he agreed to do additional analysis, but informed his supervisor that he would assign the response a low priority. He promised that he would finish it within two months. The Three Mile Island accident and the work that it engendered has prevented him from drafting a formal reply to TVA. On the other hand, he claimed that Appendix K to a two volume study entitled "Evaluation of Transient Behavior and Small Reactor Coolant Assembly Breaks in the 177 Fuel Assembly Plant" prepared by B&W and furnished to the NRC on May 7, 1979 is the formal response to the Michelson Report.

Jones did not at any time in his handling feel that the issues raised by Michelson fell within the scope of 10 CFR 21. Thus he did not discuss it with higher management nor generate any internal correspondence regarding it. He added that he was quite familiar with Part 21 and that he, himself had recently filed a Part 21 report.

The interview was concluded at 1458 hours with Jones averring that he did not view the Michelson Report as having had any substantial safety significance.



William J. Ward
Senior Investigator
Office of Inspection
and Enforcement