



potential generic aspects of the accident on other reactors, the NRC staff initiated prompt action to: (1) assure that other reactor licensees, particularly those plants such as Rancho Seco which have a similar design to TMI-2, took the necessary actions to substantially reduce the likelihood of future TMI-2-type events from occurring, and (2) start comprehensive investigations into the potential generic implications of this accident on other operating plants. To accomplish some of this work, the Bulletins and Orders Task Force (B&OTF) was established within the Office of Nuclear Regulator Regulation (NRR) in May 1979. The B&OTF was responsible for reviewing and directing the TMI-2-related staff activities associated with loss of feedwater transients and small break loss-of-coolant accidents (LOCAs) for all operating plants to assure their continued safe operation.

The initial priority of the B&OTF was placed on evaluating the actions taken by the B&W operating plant licensees in response to the Confirmatory Shutdown Orders issued in May 1979. We were assigned to the Task Force in mid-June 1979. Upon assuming those positions, we participated in the final preparation of the Staff Safety Evaluation which documented our evaluation of SMUD's compliance with the immediate requirements of the May 7, 1979 Order. On the basis of this report, issued on June 27, 1979, the Rancho Seco Facility was authorized to return to power operation.

Q.4 What is the purpose of your testimony?

A. The purpose of our testimony is to respond to Friends of the Earth Contention IIIa which reads:

"The NRC orders in issue do not reasonably assure adequate safety because the orders fail to evaluate or comment upon the acceptability of 27 feedwater transients over the past year in nine Babcock and Wilcox (B&W) reactors, a frequency which is 50 percent greater than the corresponding rate for other pressurized reactors."

Q.5 Identify the origin of the allegation in this contention that 27 feedwater transients have occurred in the period of one year in nine Babcock & Wilcox facilities, a frequency which is 50 percent greater than the corresponding rate for other pressurized water reactors.

A. Following the accident at Three Mile Island Unit No. 2, a study was initiated to assess the effect of feedwater transients on B&W reactors. All significant feedwater events which had occurred at B&W reactors were reviewed to provide insight into B&W plant response during this type of event.

When the staff was reviewing the significant feedwater transients that had occurred at B&W plants, they also reviewed the March 1978 to March 1979 operating experience at PWR plants to get some perspective on feedwater related events in general. The events reviewed in this study were simply the cases where forced plant shutdown resulted from a feedwater system malfunction. This study was cursory in nature and was conducted to see if a vast difference in feedwater related malfunctions existed for the various vendors. The results showed that the nine operating B&W plants had experienced 27 feedwater related transients over the past year. While somewhat larger, it was not felt to be appreciably higher than the other vendors. It was also thought that the greater number of feedwater transients may have been due to the generally younger age of B&W plants, since plants often experience greater numbers of problems during their shakedown period. In any event, a somewhat greater frequency of feedwater related transients was not by itself considered to be a safety concern.

Q.6 Did the Commission's May 7, 1979 Order relative to the Rancho Seco facility evaluate or comment upon the acceptability of such a feedwater transient frequency rate in Babcock & Wilcox facilities?

A. No.

Q.7 Explain the reasons for the Order's failure to evaluate or comment upon these events.

- A. There is no reason why those events should have required specific comments in the Order. The 27 events referred to in this contention were only a general listing of incidents where difficulties with the feedwater system resulted in plant shutdown. Mechanical problems with the feedwater systems are to be expected occasionally, and the plants are designed to cope with these difficulties by shutting down. A discussion of loss-of-feedwater initiated reactor trips was included in the staff's status report to the Commission dated April 25, 1979.

In Chapter 3 of NUREG-0560, the NRC staff reviewed and discussed every feedwater transient which has occurred at B&W plants and which were reportable occurrences. The information obtained in this review was evaluated and used by the staff to make appropriate determinations for actions to be taken at operating plants.

Specifically, review of all safety-related feedwater transients provided guidance to the staff in the areas of feedwater system reliability and PORV set point, which relate specifically to the Order and how the actions taken were based on observed events. The feedwater transients not discussed in the NUREG were those where system response was not unusual, and there were no indications that staff actions were required and thus no need for their specific inclusion in the Order.