

June 20, 1985

NOTE TO: William J. Dircks
Executive Director for Operations

FROM: C. J. Heltemes, Jr., Director
Office for Analysis and Evaluation
of Operational Data

SUBJECT: STATUS REPORT FROM THE NRC INCIDENT INVESTIGATION TEAM AT
DAVIS BESSE (CONFERENCE CALL AT 3:30pm AND DISCUSSION AT
APPROXIMATELY 9:00pm ON JUNE 19, 1985)

During the subject calls, E. Rossi reported on the status of the team's activities as follows:

1. He indicated that the fundamental activities of the team during the time at the site have been to: (a) interview people that had direct knowledge of the event or were involved in the event; (b) review pertinent records and documentation; (c) tour the plant and inspect plant equipment involved with the event; and (d) review the licensee's plans on how to handle the quarantined equipment. The team mentioned that the first three items have been largely completed.
2. Activities remaining to be completed on Thursday and Friday of this week include: (a) Two or three interviews (these include reinterviews of Davis Besse operations personnel and discussions with the NRC Senior Resident, Walt Rogers); and (b) reviewing the action plans for several items on the freeze list. Items on the freeze list of particular interest to the team include the steam feedwater rupture control system, AFW turbine and controls, and the PORV and controls. As noted previously, the team plans to return on Saturday morning and will reconvene next week in order to start preparation of the report. They plan to return to the site perhaps for three or four days after the licensee has completed its inspection and troubleshooting procedures of the quarantined equipment. The troubleshooting of equipment is proceeding slowly, and the schedule for completion is not known; however, the team has assumed the availability of results by July 5. Assuming the availability of the information and other supporting analysis, the team is estimating that its report can be completed and issued to the Commission and the EDO by July 22. Distribution as a NUREG document would follow.

3. The sequence of events, as forwarded by the team, was considered to be fundamentally sound, although it is anticipated that there will be some changes and additions.
4. During the conference call, the team discussed the loss of both trains of the AFW. It was noted that both trains of the AFW were lost because of the failure of two valves and the loss of both pumps. Either one of these alone would have caused both trains to be lost (i.e., one pump and one valve must be operable in order for an AFW train to be functional). The team also mentioned the difficulty and the number of actions necessary to get the startup pump back into action. It was noted that four valves had to be opened and a fuse had to be installed for the breaker control. It was also noted that the valves were not designed to be opened from the control room, and that these actions were necessary because the particular pump is not seismically qualified nor safety-related, and its associated piping runs through the safety-related AFW pump rooms. A number of actions were also necessary in order to return the AFW pumps and valves to service. In order to reach much of the equipment, the equipment operators had to pass through key-locked doors which were a potential area of concern.
5. The team has initiated review of procedures applicable to the event. In this review, the team has reinterviewed the Shift Supervisor and Assistant Shift Supervisor together on the ATOG procedures and the extent these procedures were followed during the event.
6. A question was raised concerning the sequence of events as to how 50-100 gallons of water was injected if the primary system pressure was 1720 psi although the HPI had a cut-off of around 1680 or so. The team responded that the piggyback approach using the low pressure ECCS system feeding the high pressure system allows the discharge pressure of the HPI to be increased to approximately 1800 psi. It is believed that this pressure was sufficient to allow a small amount of water to be injected into the system.
7. A question was raised as to the status of the two makeup pumps. Each is rated at approximately 150 gpm. It was indicated that one makeup pump was running at all times and the second one was started right after the trip. Further, letdown was isolated immediately following the trip.
8. A question was raised about the performance of the plant operators. It was indicated that the equipment operators performed well, and that they seemed to have a good knowledge of the plant and were able to accomplish a number of complex actions in a short time. Other performance aspects remain under study; for example, whether further actions were required by procedures. A question was raised whether the team was pursuing whether any NRC regulations, requirements, or procedures influenced or impacted the event. The team confirmed that it was understood that this subject was within their scope and they have been addressing it during their onsite investigation.

9. The team also indicated that they are focusing on some design-related aspects of the event, including the steam and feedwater rupture control system; performance of valves under potential high delta pressure conditions; and alignment of steam to the AFW pumps. These and other design aspects are under current study.

(signed)

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cc: H. Denton
J. Taylor
J. Keppler
E. Rossi

6/21

Please place in NRC
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