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SEP 10 1979

MEMORANDUM FOR: Lee V. Gossick, Executive Director for Operations

FROM: Richard C. DeYoung, Deputy Staff Director
NRC/TMI Special Inquiry Group

SUBJECT: POTENTIAL 10 CFR PART 21 VIOLATIONS BY B&W

Our review of B&W internal documents subpoenaed by the President's Commission, investigating the TMI-2 accident, has revealed the potential of 10 CFR Part 21 violations by B&W.

The enclosed documents indicate that during the review of a proposed dual level setpoint for the steam generators at Davis Besse, B&W identified at least two significant safety issues that had not been reported to the NRC. It appears that B&W made specific efforts to conceal, from the NRC, deficiencies in their analysis. The specific issues are:

1. The B&W small break LOCA analysis does not assume that the RC pumps continue to operate. Enclosure 6 states that "it is not obviously clear that leaving the RC pumps running results in an enhanced ECCS analysis." It also states that "they [the B&W ECCS Analysis Group] have not investigated small breaks with RC pumps running. If such an analysis were to be made, the results would probably be unfavorable." These statements appear to indicate that B&W was concerned that the ECCS analysis was not conservative when the RC pumps are assumed to continue to run.

Enclosure 9 also states that the "B&W position to TECo is that the status of R.C. pumps should not be included in the dual setpoint control logic at this time. If questioned by the NRC, however, B&W must be in a position to state that the small break topicals have considered the worst possible conditions (i.e., loss of offsite power). Our inability to respond conclusively to such an inquiry could result in the NRC

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derating or shutting down all of B&W's 177 F.A. operating plants (except SMUD) until the issue is resolved. ECCS (Reference 3) has proposed that a generic study with the R.C. pumps powered be initiated now on the 205 F.A. plant, ECCS model. I agree that this analysis work should take place and be performed at B&W's expense. This course of action will require identification of funding (B.M. Duan to secure) to resolve this unanalyzed small break. If this work effort is completed and results are acceptable, B&W may then be in a better position to support TECO's request to include the status of the R.C. pumps into the dual setpoint logic.

Note: The customer should not be informed of the ECCS analysis efforts to examine the pumps running case. It is imperative that B&W be totally prepared to defend an FOAK analysis of this type or to have a planned course of action if results are unacceptable."

2. B&W appears to have had a concern that the 10 foot SG level proposed as part of the dual level setpoint was not consistent with their topical report on small break LOCAs. Enclosure 2 states that "both B&W and Toledo are in a "risk" position because the Toledo small break topical was based on a 32' level position; any change to that position may require re-analysis and re-licensing. Nevertheless, a steam generator level value has not been reported to NRC, and the ECCS Unit believes that a 10' level setpoint will be adequate."

This statement is amplified by Table 1 of Enclosure 4 which states that the "Revised instructions to acquire a 10 foot steam generator level for ESFAS events (small LOCA mitigation) may represent an unreviewed safety problem." However, in Enclosure 7, referring to the B&W small break analysis, Toledo Edison told the NRC, that "B&W advised that this analysis is acceptable for nominal SG level as low as 120". In Enclosure 11, concerning the dual level setpoint, Toledo Edison also told the NRC, "No unreviewed safety questions exist."

Enclosure 13 states that "Direct reference to the DB-1 specific analysis using a 10-ft. AFW level is not planned in order to avoid NRC requests to review such information."

Enclosure 13 is a draft memo. In the final version of this memo (Enclosure 14), the statement, "in order to avoid NRC requests to review such information" is omitted.

We would appreciate knowing whether the NRC is looking into this from the standpoint of 10 CFR Part 21. Also, please provide any information NRC has already developed or is developing on this matter.

It would greatly assist the Special Inquiry Group if the above information can be obtained by September 19, 1979.

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If further information is necessary, please contact either Fred Hebdon or Evangelos Marinos of the Special Inquiry Group.



Richard C. DeYoung, Deputy Staff Director
NRC/TMI Special Inquiry Group

Enclosures: Listed on Attached Sheet

cc: M. Rogovin, w/o encl.
G. Frampton, w/o encl.
W. Johnston, w/o encl.
W. Parler, w/o encl. ✓
E. Marinos, w/encl.
F. Hebdon, w/encl.
J. Dienelt, w/encl.

ENCLOSURES

1. Memorandum from N. H. Shah (B&W) to E. W. Swanson (B&W), dated Nov. 13, 1978.
2. Memorandum from E. W. Swanson (B&W) to W. H. Spangler (B&W), dated Nov. 15, 1978.
3. Letter from Terry D. Murray (TECO) to Tom Tambling (NRC), dated Nov. 28, 1978.
4. Memorandum from L. R. Cartin (B&W) to B. A. Karrasch (B&W), dated Nov. 29, 1978.
5. Letter from C. R. Domeck (TECO) to A. H. Lazar (B&W), dated Dec. 4, 1978.
6. Memorandum from R. C. Jones (B&W) to L. R. Cartin (B&W), dated Dec. 11, 1978.
7. Letter from L. E. Roe (TECO) to R. Reid (NRC), dated Dec. 11, 1978.
8. Memorandum from J. S. Creswell (NRC) to J. F. Streeter (NRC), dated Dec. 15, 1978.
9. Memorandum from L. R. Cartin (B&W) to R. C. Luken (B&W), dated Dec. 19, 1978.
10. B&W report on "Steam Generator Level Effects on Plant Operation," prepared by E. Swanson and B. M. Dunn, dated Dec. 21, 1978.
11. Letter from L. E. Roe (TECO) to R. Reid (NRC), dated Dec. 22, 1978.
12. Memorandum from B. M. Dunn (B&W) to E. Swanson (B&W), dated Dec. 22, 1978.
13. Draft memorandum from L. R. Cartin (B&W) to R. C. Luken (B&W), dated Jan. 9, 1979.
14. Memorandum from L. R. Cartin (B&W) to R. C. Luken (B&W), dated Jan 11, 1979.
15. Memorandum from E. L. Jordan (NRC) to B. K. Grimes (NRC), dated Jan. 16, 1979.
16. Memorandum from N. H. Shah (B&W), to L. R. Cartin (B&W), dated Feb. 14, 1979.
17. Memorandum from L. R. Cartin (B&W) to R. C. Luken (B&W), dated Feb. 15, 1979.
18. Letter from L. E. Roe (TECO) to R. Reid (NRC) dated Feb. 26, 1979.
19. Memorandum from J. D. Brew (B&W) to R. W. Winks (C&W), dated Feb. 27, 1979.
20. Memorandum from L. R. Cartin (B&W) to R. C. Luken (B&W), dated March 1, 1979.
21. Telecon between J. F. Streeter (NRC) and S. Weiss (NRC), dated March 9, 1979.
22. Transcript Notes from the DB-1 Manager's Daily Telephone Log (December 23, 1978).
23. Letter from C. R. Domeck (TECO) to A. H. Lazar (B&W), dated January 2, 1979.