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July 26, 1979

Mr. Stan Helfman
President's Commission on TMI
2100 M Street, N.W., Suite 714
Washington, D. C.

Dear Stan:

Attached is the information you requested from Edson Case,

Deputy Director, Office of Nuclear Reactor Regulation.

Sincerely,

/S/

Thomas A. Rehm
Assistant to EDO

Enclosure
Background info to 1/10/78
re Loop Seals in Pressurizer
Surge Line

bcc: William Besaw/ADM ✓
E. Kevin Cornell/NRC-TMI
EDO R/F

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| OFFICE ➔ | OEDO | | | | | |
| SURNAME ➔ | TARehm/sms | | | | | |
| DATE ➔ | 7/26/79 | | | | | |

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Background Information to January 10, 1978
Note to RSB -- Loop Seals in Pressurizer Surge Line

The potential effect of loop seals (i.e., a manometer effect) in a pressurizer surge line on pressurizer level indications was considered by Mr. S. Israel (RSB) back in 1977 as a generic technical matter rather than during the review of any specific plants; however, he did recognize that the loop seal configuration appears to be unique to B&W plant designs. The nature of the concern for the loop seal deals with behavior as a manometer where level changes would be associated with differences in pressure between the primary system and the pressurizer. In some transient situations where voids would be formed in the primary system, the pressurizer may not be the hottest point in the system. This could lead to the manometer effect in the pressurizer. Since the pressurizer is where the instrumentation is installed to measure system coolant level, this situation could lead to misleading level information. The operator relies on level indication for the control of makeup flow to the plant system.

Operating experience available at the time that the memorandum was prepared did not reveal any situation for which the operator could not effect safe plant shutdown; consequently, actions to pursue this matter further at the time were not taken. This has remained generally true up to now. The experience of the TMI 2 accident, makes it apparent that greater emphasis in the review must be given to this matter.