April 10, 1979

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-79-77(NRR)

This preliminary notification constitutes EARLY notice of event of POSSIBLE safety or public interest significance. The information presented is as initially received without verification or evaluation and is basically all that is known by NRC staff on this date.

Facility: All Light Water Power Reactor Facilities

Subject: REVIEW OF OPERATIONAL AND SYSTEM PROBLEMS IDENTIFIED DURING THE THREE MILE ISLAND INCIDENT

As previously discussed in IE Bulletins 79-05 and 79-05A, the Three Mile Island Nuclear Power Plant, Unit 2, experienced significant core damage which resulted from a series of events initiated by a loss of feedwater transient and compounded by operational errors. Pressurizer level indication appears to have been a contributing factor by leading to erroneous inferences of level in the reactor coolant system. It has been determined that in some Westinghouse designed facilities, coincident low pressurizer pressure (Pp) and low pressurizer level (Lp) signals are required to actuate safety injection, and further that preliminary analyses of a small break in the pressurizer indicate that Lp may remain high while Pp continues to decrease. In such a case, safety injection would not automatically occur, and reliance by the operator on Lp could possibly lead to erroneous actions. On April 7, 1979, Westinghouse advised owners with plants having coincident logic for safety injection signals that operators should manually intiate safety injection if Pp drops below the safety injection initiation setpoint. Available related information is attached.

The extent to which this and other important aspects of the Three Mile Island accident are generically applicable to Westinghouse and Combustion Engineering designed reactors is still being reviewed, but it has been concluded that further actions should be considered on a priority basis for all light water power reactor facilities. Meetings are scheduled to be held on April 11, 1979 with vendors to discuss the extent to which all aspects of the Three Mile Island accident have generic applicability to Westinghouse and Combustion Engineering designed reactors so that further appropriate short-term corrective actions can be developed and implemented.

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Attachment: As stated (2 pages)

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