August 27, 1984

MEMORANDUM FOR: Karl V. Seyfrit, Chief AEOD/E422
Reactor Operations Analysis Branch
Office for Analysis and Evaluation
of Operational Data

THRU: Stuart D. Rubin, Lead Engineer
Reactor Systems 4
Reactor Operations Analysis Branch

FROM: Thomas R. Wolf, Reactor Systems Engineer
Reactor Systems 4
Reactor Operations Analysis Branch

SUBJECT: ENGINEERING EVALUATION REPORT: HIGH PRESSURE COOLANT INJECTION SYSTEM PERFORMANCE AT E. I. HATCH UNITS 1 & 2

References: (1) NRC Memorandum from R. M. Bernero, RES, to C. Michelson, AEOD, and T. E. Murley, NRR, Subject: LER Trend, Hatch 1, Hatch 2, January 2, 1981.

(2) NRC Memorandum from H. R. Denton, NRR, to C. Michelson, AEOD, Subject: NRR Comments on AEOD Final Report: Survey of Valve Operator-Related Events Occurring During 1978, 1979 and 1980, August 19, 1982.

Prompted, in part, by comments contained in the referenced memorandums, I conducted a study of the high pressure coolant injection (HPCI) system performance at E. I. Hatch Units 1 and 2. Enclosed is an AEOD Engineering Evaluation report documenting the results of this study.

In summary, it was found that operational problems reported in the HPCI system by the licensee through 1983 primarily involved pressure instrumentation, human factors, valves, and the HPCI turbine trip and throttle system. Except for instrument setpoint drift, no pervasive common cause of these problems was identified. Upon comparing these findings with relevant industry reports, it was also determined that the HPCI system performance and problems at Hatch were not significantly different from the HPCI systems at the other domestic boiling water reactor plants. Consequently, it is concluded that monitoring of safety system performance at Hatch does not have to be separated from generic studies of similar systems throughout the domestic industry.

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Since this engineering evaluation addresses concerns raised in the referenced memorandums, it is suggested that courtesy information copies of this report be transmitted to RES and NRR. It is also suggested that a copy of this report be sent to Region II for their information since the subject plant is in Region II. Additionally, during recent discussions with personnel at NSAC, they expressed a desire to get a copy of this report as soon as possible. This request is made because they are in the final stages of producing a revision to NSAC-53, one of the industry reports used in my study, and wish to incorporate this engineering evaluation into their revised document. Therefore, it is suggested that a copy of this engineering evaluation report be sent to them promptly.

Thomas R. Wolf, Reactor Systems Engineer
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Enclosure:
As stated

bcc w/encl:
NRC PDR
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