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Director of Nuclear Reactor Rgulation
US Nuclear Regulatory Commission
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License No. DPR-42
50-306 DPR-60

Additional Information for Resolution of NUREG-0737, Item II.E.4.2, Position 5, Minimum Containment Pressure Setpoint

In our letter dated December 30, 1980 we provided information related to NUREG-0737, Item II.E.4.2, Position 5, which requires containment isolation setpoint pressure to be reduced to the minimum compatible with normal operating conditions. The purpose of this letter is to provide additional information to support our conclusion that the existing 4-psi setpoint cannot be reduced without increasing the probability of inadvertent operation to an unacceptable level.

The following information is provided relative to the Prairie Island containment isolation setpoint:

1. Technical Specification Limit

   The existing Technical Specification setpoint limit for containment isolation instrumentation is 4 psi. This instrumentation initiates closure of all automatic containment isolation valves, trips the reactor, and initiates engineered safeguards systems.

2. Maximum Expected and Observed Containment Pressure During Operation

   A change in barometric pressure of 1.5-inch Hg results in a 0.75-psi change in containment differential pressure. A change in cooling water supply to the containment fan coil units can result in a 1.1 psi increase in containment differential pressure. Therefore, a change in containment pressure of almost 2.0 psi could occur during normal operation. The maximum observed change has been about 1.5 psi.

3. Instrument Accuracy

   Experience has shown that leaving the containment isolation setpoint at approximately 3.5 psi provides reasonable assurance that the as-found setpoint in future calibration tests will not exceed the Technical Specification limit of 4 psi. Overall instrument error (upper bound) is therefore estimated to be 0.5 psi.

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4. Evaluation of Setpoint

During normal operation, pressure variations of almost 2 psi can be encountered. Actual setpoint of the instrumentation can be as low as 3.0 psi (3.5 psi - 0.5 psi error). There is a minimum margin of 1.0 psi between containment differential pressure and instrumentation setpoint to preclude initiation of containment isolation, reactor trip, and safeguards systems startup and the undesireable plant transient which results.

Based on the above information, the existing Technical Specification setpoint is adequate and should not be changed. We believe that no further action is required and item II.E.4.2(5) is satisfied. Please contact us if you require further information concerning this issue.

L. O. Mayer

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Manaer of Nuclear Support Services

LOM/DMM/jh

cc J G Keppler
NRC Resident Inspector
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