MAR 0 1 1990

- NOTE TO: R. Jones L. Marsh W. Regan W. Lanning
- FROM: Richard J. Barrett, Chief, Risk Applications Branch, DREP, NRR
- SUBJECT: PEER REVIEW OF THE DKAFT ISLOCA REPORT "ASSESSMENT OF THE POTENTIAL FOR ISLOCA AT THE DAVIS-BESSE NUCLEAR POWER STATION," DATED TEBRUARY 16, 1990, BY INEL

We torwarded copies of the subject report to you on February 21, 1990 in preparation for the Idaho National Eng. Lab. (INEL) presentation on Monday of this week. The INEL presentation of the draft report has generated substantial amount of interest both at the staff and the management levels.

Please review the subject report and provide your comments to me by COB March 13, 1990.

Ciricinal signed by

Richard J. Barrett, Chief, Risk Applications Branch, DREP, NRK

cc: A. Thadari L. Phillips H. Abelson R. Li D. Smith J. Isom

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March 29, 1990 Intersystem LOCA Outside Containment Flant Audit Guidelines

I. Prevention

- For ISLOCA PIVS
 - 1. IST detects leakage or potential failure.
 - 2. Plant experience with PIV leaks and failures.
 - 3. PM and Post Maintenance Testing.
 - 4. CM, Failure Trending and Root Cause Analysis.
 - 5. Startup valve line-ups complete, correct.
 - 6. Readily identifiable, accessible.
 - 7. Power Lock-outs (PL), Interlocks (IL).
 - 8. <u>Procedures</u> for installing PL and IL at high pressure, startup & shutdown. Clear ?
 - 9. <u>Procedures</u> for bypassing or defeating IL, and powering a normally de-powered PIV. Clear ? Any instructions for restoration of PL or IL ?
- 10. Any precautions about overpressurizing low pressure systems ?
- 11. Test <u>procedures</u> that generate open signals to PIVs. Any precautions ?
- 12. Procedures for opening any PIVs during high pressure operation.
- 13. Plant experience with PL and IL.
- Potential for overpressure during startup and shutdown (e.g., premature lineup of isolation valves).
- 15. Factors affecting Operator Performance:
 - a. During Maintenance and Operating Evolutions: Lighting, Temperature, Humidity, Radiation level, etc.
 - b. During an ISLOCA event:
 - PIV accessibility, Ease of actions, Required tools, Communications, Methods of verification of correctness of actions, etc.
- Precautions for initiating <u>Temporary Procedures</u> or temporary changes to procedures.
- 17. ISLOCA-related training.
- Do people who have access to PIVs (e.g., plant operators and auxiliary operators) <u>appreciate the consequences</u> of subjecting low pressure systems to high pressures (higher than design pressures).
- 18. Overall team member's impression about prevention.

II. RECOVERY

- II.A ISOLATION
 - Likely <u>locations of an ISLOCA</u> (e.g., relief valves, pump seals, heat exchanger gasket, flanges, etc.).
 - At above locations, <u>possible damage to primary or support system</u> equipment ? (e.g., flooding, pump suction rupture leading to pump cavitaion, steam/jet impingment, environmental effects on accessibility for recovery).
 - 3. How are operators alerted to an ISLOCA at the likely locations ? (<u>Instrumentations</u>, e.g., pressure, temperature, flow, level, or ra indications or alarms, audible or visual observations, indirect indication or no indication).
 - Procedures and training for diagnosis and depressurization/isolati ISLOCAS.
 - 5. Overall team member's impression about isolation.
- II.B MITIGATION
- Short Term Mitigation:
 - 1. Do existing procedures and training assure sufficient core injection in case of an ISLOCA ?
 - 2. Procedures address injection flow diversion ?

Long Term Mitigation:

- Do existing procedures and training address long term core injection ? (Conserving RWST water, alternate water sources, alternate pumps.)
- 2. <u>Procedures</u> and training address use of reflux condensation method to retard water boil-off ?
- III. CONSEQUENCES
 - For likely locations, is break in a <u>large or small enclosure</u> ? (large enclosures retard releases to the environment)
 - Can the break location be <u>flooded</u> ? (by the break flow, by diverted safety injection, or by other sources)
 - 3. Do procedures or training have any guidance on minimizing fission product releases ?

- Performance of Audits

- * Discussions with The Licensee to Explain The Purpose of The Audit. * Bag Trip. * Prepatory Team Review * Plant Audit

- * Report Writing