UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SEP 1 [illegible] 1983

NOTE TO: [redacted]
Prairie Island Nuclear Station

FROM: Paul Wu
Chemical Engineering Branch

Attached is our proposed subjects of discussion for the upcoming NRC-Licensee-Fuel Vendor Meeting on the Prairie Island Spent Fuel Assembly Failure Evaluation. Please advise the licensee that our main concern lies in any possible generic implication of this type of degradation, and we question the licensee and fuel vendor's conclusion on failure mechanism. At present times, however, no licensing actions are recommended.

Paul Wu
Chemical Engineering Branch

Attachment:
Subjects of Discussion

cc: W. J. Collins
D. Pickett
E. Bro[redacted]
W. Hazelton

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ATTACHMENT

PROPOSED SUBJECTS OF DISCUSSION FOR THE NRC-LICENSEE-FUEL VENDOR MEETING ON PRAIRIE ISLAND SPENT FUEL FAILURE

1. Background and history of the Failure Incident.

2. Materials and Fabrication History of the fuel assembly especially the Stainless Steel Sleeve and the zircaloy guide thimble.

   a. Fabrication Process
   b. Heat Treatment
   c. Welding process and post-weld heat treatment
   d. Quality Assurance
   e. Leak test etc.

3. Operating History particularly primary coolant chemistry records during the period while the degraded fuel assembly was inside the reactor.

4. Storage Condition including the spent fuel pool chemistry control history.

5. Failure Analysis.

   a. Description of the failure, including conditions just prior to equipment failure.
   b. Mode of Failure
   c. Cause(s) of Failure
   d. Test(s) to substantiate failure mode

6. Recommended corrective action(s) to prevent reoccurrence of the failure.

   a. Possible design changes eliminating the high residual stress area.

INTER-OFFICE COMMUNICATION

TO: Don DeFranco | OFFICE: NRC
FROM: Simon Fehr | OFFICE: NSP
SUBJECT: Dropped Fuel Element at PI | DATE: 12-6-82

MESSAGE:

I have enclosed the copy of a typical pin in a fuel element which attaches the top nozzle adapter plate to the fuel element. The newer (left) fuel elements now have only two retention lobes above the top grid with one below. I hope this was what you were looking for.

Simon

SIGNED

REPLY

DATE | SIGNED

PERSON RECEIVING COMMUNICATION - RETAIN THIS COPY FOR YOUR RECORD

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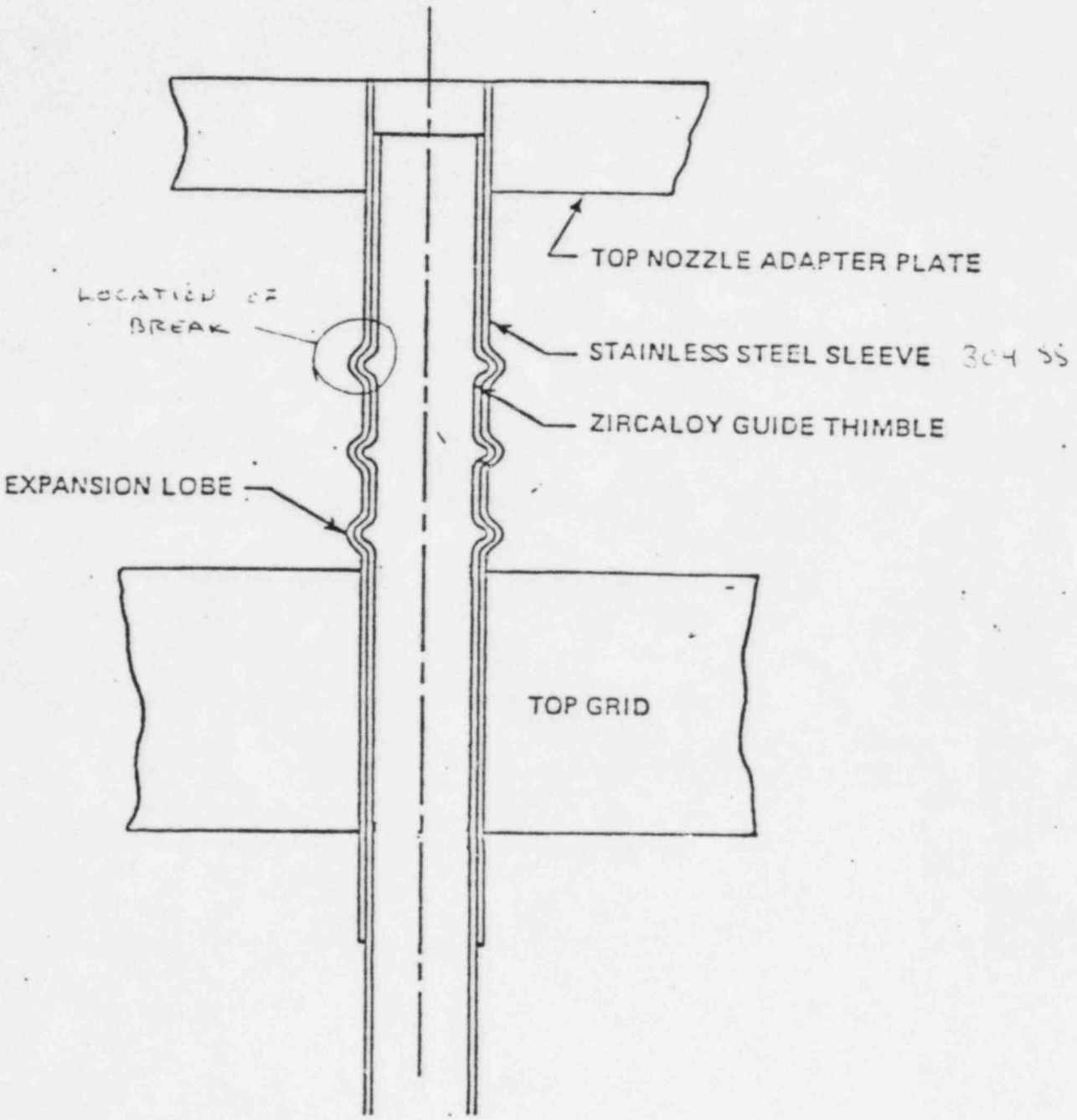

FIGURE 1
TOP GRID TO NOZZLE ATTACHMENT