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REACTOR FACILITIES BRANCH

**Stephen H. Howell**
*Vice President*

CONSUMERS POWER Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201

September 24, 1976
Howe-136-76

Dr Ernest Vogenau, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, DC 20555

MIDLAND PLANT SURVEILLANCE CAPSULE HOLDER PROBLEM -
DOCKETS NOS 50-329 AND 50-330 CONTROL NO. HO 1289 F3

The report attached to this letter was prepared by the Babcock and Wilcox Company to describe the status of the problem with their reactor vessel surveillance capsule holder tube hold down mechanism, which was reported to you on an interim basis in our letter of May 12, 1976. This letter is again an interim report submitted per 10 CFR 50.55(e) in that corrective action has been and is taking considerably more time than that which was anticipated in our May 12, 1976 letter. Therefore, either another interim report or a final report will be sent on March 31, 1977.

Stephen H. Howell
Vice President
Projects, Engineering & Construction

CC: Director, Office of Management
Information and Program Control,
NRC, Washington, DC

JGKeppler (2), NRC, Region III

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# REPORT ON REACTOR VESSEL SURVEILLANCE CAPSULE HOLDDOWN MECHANISM

This report has been written to provide information on the status of the reportable deficiency on the reactor vessel surveillance specimen holder tubes (SSHT's).

Current Status

Inspections of the SSHT's have been completed at all six affected operating B&W plants. These inspection results have been considered in developing the redesign of the SSHT for the 177 fuel assembly plant. Plants in operation have the SSHT's removed or are operating with a temporary repair until the next scheduled outage, at which time the SSHT's will be removed.

The redesigned SSHT and qualification program was presented by B&W to members of the NRC Staff in a meeting held on May 26, 1976. The presentations included a description of the operating experience with the original design, the new design, the design analysis performed, including consideration of flow-induced vibration, and the preoperational vibration test program to be implemented to verify the design adequacy. The preoperational vibration test program will be performed during the hot functional tests (HFT) at Davis-Besse Unit 1. As a result of this meeting, B&W was subsequently requested by the NRC to provide additional strain gage readings during the hot functional tests, and this was agreed to.

The redesigned SSHT's and qualification instrumentation have been installed at Davis-Besse Unit 1 and the HFT is scheduled to commence in October.

Topical Reports have been submitted to NRC describing the SSHT redesign and the qualification program. These are BAW-10051, Supplement 1, "Design of Reactor Internals and Incore Instrument Nozzles for Flow Induced Vibration - Structural Analysis of 177-FA Redesigned Surveillance Specimen Holder Tube and BAW-10038, Suppl. 1, "Prototype Vibration Measurement Program for Reactor Internals". In addition, a Topical Report will be prepared documenting the results of the qualification testing and this will be submitted to NRC following completion of the HFT and evaluation of the data.

Corrective Action

Midland 1&2 - The existing SSHT design at Midland will be removed from the reactor internals prior to installation and sufficient redesigned SSHT's will be installed, following qualification and NRC acceptance of the design, to allow meeting the requirements of 10 CFR 50, Appendix H. The schedule for this action is dependent on the results of the qualification tests and the review schedule for NRC acceptance of the redesign.