

CATEGORY 2

REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9706240005 DOC.DATE: 97/06/18 NOTARIZED: NO DOCKET #
FACIL:50-305 Kewaunee Nuclear Power Plant, Wisconsin Public Service 05000305
AUTH.NAME AUTHOR AFFILIATION
MARCHI,M.L. Wisconsin Public Service Corp.
RECIP.NAME RECIPIENT AFFILIATION
Rules & Directives Review Branch (Post 920323)

SUBJECT: Comment on NRC Bulletin 96-001, suppl 1, "Control Rod Insertion Problems." Info on European control rod insertion problems w/fuel designed & mfg by Framema should be included in suppl.

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Second distribution. FR # changed, per Betty Golden.

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DSO
M. Chatterton
T. Sporkala



WISCONSIN PUBLIC SERVICE CORPORATION

600 North Adams • P.O. Box 19002 • Green Bay, WI 54307-9002

W. Burton

27629
~~62FR 26729~~
May 20, 1997
NRC-97-63

9

June 18, 1997

Chief, Rules Review and Directives Branch
U.S. Nuclear Regulatory Commission
Mail Stop T-6D-69
Washington, DC 20555-0001

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Comments on "Proposed Generic Communication: Control Rod Insertion Problems"

- References:
- 1) Federal Register, Vol. 62, No. 97, "Proposed Generic Communication: Control Rod Insertion Problems," May 20, 1997, pp. 27629-27632
 - 2) EMF-97-007(P) and (NP), "SPC Guide Tube Compatibility with Westinghouse Reactor RCCA's," Siemens Power Corporation, January 1997

Reference 1 requested comments on the proposed NRC Bulletin 96-01, Supplement 1, "Control Rod Insertion Problems" by June 19, 1997.

Reference 2 is the Siemens Power Corporation response to the NRC on this issue and is applicable to the fuel design used at the Kewaunee Nuclear Power Plant.

Our specific comments are attached. If you have any questions, please contact Dave Wanner at (414) 433-1863 or Stan Wozniak at (414) 433-1338.

Sincerely,

M. L. Marchi
Manager - Nuclear Business Group

DJW

Attachment

cc: Ms. M.S. Chatterton, USNRC
Mr. E.Y. Wang, USNRC
US NRC, Region III
US NRC Senior Resident Inspector

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Attachment

WPSC Comments on Proposed NRC Bulletin 96-01, Supplement 1, "Control Rod Insertion Problems"

It appears the root cause of the problem addressed by the draft Supplement is the design of the fuel assembly.

The Kewaunee plant uses a fuel assembly designed and manufactured by Siemens Power Corporation. Kewaunee has not observed the problems addressed by the draft Supplement. Control rod drop testing and drag testing performed at Kewaunee has shown no degradation of either test's results as a function of burnup.

No degradation was expected for these tests. It has been demonstrated in Reference 2 that the Siemens Power Corporation material performance model and fuel design approach allow for the compressive loads experienced by the guide tubes throughout the design life of the fuel manufactured by Siemens Power Corporation.

The Siemens Power Corporation material performance model provides the "rigorous engineering analysis" mentioned in the draft Supplement. Therefore, we would expect that Kewaunee fuel manufactured by Siemens Power Corporation would be exempt from the testing proposed in the draft Supplement.

We agree with Siemens Power Corporation's comments on the draft Supplement. In particular:

1. The information on European control rod insertion problems with fuel designed and manufactured by Framatome should be included in the Supplement.
2. Since the thimble tube distortion appears to be a fuel design problem, not a high burnup problem, the words "at high burnup levels" should be removed from the draft Supplement. Any conclusion based on burnup being the cause of the problem should be confirmed and documented prior to stating burnup as a cause.
3. In the Discussion section, drag measurements are cited as evidence. It should be noted that this evidence is for a specific vendor. This information does not apply to the Siemens Power Corporation fuel design.
4. The staff does consider high compressive loads as being a cause for thimble tube distortion. High compressive loads result from an inadequate fuel assembly design. High burnup is not the cause of the thimble tube distortion.
5. A valid point is made in the Safety Assessment section, which states that the problem has only occurred in Zircaloy tubes, but that other materials may be susceptible. This conclusion is true because the problem is a result of inadequate design, not of inadequate materials used in the design.

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DS09
M. Chatterton
J. Spornaka



62FR 26729
May 20, 1997
NRC-97-63

WISCONSIN PUBLIC SERVICE CORPORATION

600 North Adams • P.O. Box 19002 • Green Bay, WI 54307-9002

W. Burton

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June 18, 1997

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M. L. Marchi

M. L. Marchi
Manager - Nuclear Business Group

IDA R-11A
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DJW

Attachment

cc: Ms. M.S. Chatterton, USNRC
Mr. E.Y. Wang, USNRC
US NRC, Region III
US NRC Senior Resident Inspector

9706240005 970618
PDR I&E
MISC PDR



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