



WESTINGHOUSE ELECTRIC COMPANY LLC

2000 Day Hill Road
Windsor, CT 06095
USA

27 August, 2001
LTR-NRC-01-32

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2738

SUBJECT: SELECTED PAGE REVISIONS FOR TOPICAL REPORT CENPD-404-P, REV. 0
[ENCLOSURE 1-P AND 3-P CONTAIN WESTINGHOUSE PROPRIETARY CLASS 2 MATERIAL]

- References:
1. Letter, P. W. Richardson (CENP) to USNRC Document Control Desk, "Submittal of CENPD-404-P, Rev. 0 Regarding Implementation of ZIRLO™ Cladding Material in CENP Fuel Designs". LD-2001-005, January 22, 2001, LD-2001-0005
 2. Letter, P. W. Richardson (WEC) to USNRC Document Control Desk, "Assessment of Ft. Calhoun Fuel Rod Fretting History and Root Cause As It Relates to Implementation of ZIRLO™ Cladding Material in Fuel Designed By CE Nuclear Power", LD-2001-0028, May 3, 2001
 3. Letter, P. W. Richardson (WEC) to J. S. Cushing (NRC), "Response to Requests for Additional Information on Topical Report CENPD-404-P, Rev. 0", LD-2001-0045, Rev. 0, August 10, 2001
 4. Letter, P. W. Richardson (WEC) to J. S. Cushing (NRC), "Ductility of ZIRLO™ and Zircaloy-4 After High Temperature Oxidation in Steam", LD-2001-0046, Rev. 0, August 10, 2001

On January 22, 2001, topical report CENPD-404-P, Rev. 0, "Implementation of ZIRLO™ Cladding Material in CE Nuclear Power Fuel Designs", was submitted (Reference 1) for Nuclear Regulatory Commission (NRC) review and approval. Several additional submittals followed which provided additional information (References 2 to 4) in response to various NRC requests. During the course of the review, NRC staff requested that WEC reconsider the proprietary classification of selected material so that it would be possible for the NRC staff reviewers to prepare a complete and meaningful Safety Evaluation (SE) that could be placed in the public domain. WEC has reconsidered its original proprietary classification as requested and is providing herewith revised pages for the NRC's information and use. In addition, during the proprietary classification review WEC identified several editorial omission/typographical errors which are also being corrected at this time.

Enclosure 1-P provides selected topical report (i.e., CENPD-404-P, Rev. 0) page revisions. Enclosure 2 provides a page revision regarding Ft. Calhoun Fuel Rod Fretting History (Reference 2) for proprietary material content. Enclosure 3-P provides a page for RAI Response No. 11 (Reference 3) which has been revised to correct a typographical omission regarding the magnitude specification of an equation term. Since some of these pages continue to contain material that is proprietary, Enclosure 4 provides the non-proprietary versions of the affected pages.

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In addition to the revised pages discussed above, this letter also provides requested feedback regarding the SE Conditions the NRC plans to impose on CENPD-404-P, Rev. 0. In particular, the NRC asked WEC to review the SE for proprietary material content and for concurrence with the Conditions that would be imposed on the subsequent use of the topical report. Regarding proprietary material content, WEC identified no occurrences of the use of proprietary information not being corrected by the submission of the revised pages contained herewith. As for the proposed SE Conditions, WEC understands the NRC intent for the five (5) conditions to be imposed and accepts these conditions as a stipulation for use of CENPD-404-P, Rev. 0. The Conditions, as we understand them, are:

- 1) The predicted corrosion limit, as predicted by the best-estimate model will remain below 100 microns for all locations of the fuel.
- 2) All the conditions listed in the SERs for all the CENPD methodologies used for ZIRLO fuel analysis will continue to be met, except that the use of ZIRLO cladding in addition to Zircaloy-4 cladding is now approved.
- 3) All CENP methodologies will be used only within the range for which ZIRLO data was acceptable and for which the verifications discussed in CENPD-404-P and responses to RAIs were performed.
- 4) Until data is available demonstrating the performance of ZIRLO cladding in CENP plants, the fuel duty will be limited to the current maximum fuel duty for each CENP plant with some provision for adequate margin to account for variation in core design (e.g., cycle length, plant operations, etc.). Details of this condition will be addressed on a plant specific basis during the approval to use ZIRLO in a specific plant.
- 5) The burnup limit for this approval is 60 MWD/MTU.

WEC has determined that the information contained in Enclosures 1-P and 3-P is proprietary in nature. Consequently, it is requested that this information be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790 and that copies be appropriately safeguarded. The reasons for the classification of this information as proprietary remain the same as those delineated in the original affidavits provided with References 1 and 3. Enclosure 4 provides the non-proprietary versions of the affected pages.

If you have any questions regarding this matter, please do not hesitate to call Chuck Molnar of my staff at (860) 731-6286.

Very truly yours,
Westinghouse Electric Company LLC



Philip W. Richardson
Licensing Project Manager
Windsor Nuclear Licensing

Enclosure(s): As stated

xc: w/o Enclosures

J. S. Cushing (NRC)
M. S. Chatterton (NRC)
R. Caruso (NRC)