

CATEGORY 1

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MARCHI, M.L. Wisconsin Public Service Corp.
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SUBJECT: Notifies of proposed merger w/Upper Peninsula Energy Corp,
pending shareholder & regulatory approvals & per 970710
merger agreement. Upper Peninsula Energy Corp will be merged
into WPS Resources Corp.

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from this new analysis. Therefore, at a 95-percent confidence level, there is a 95-percent probability that a fuel rod predicted by VIPRE-01 to have a DNB ratio (P/M) of 1.080 will avoid DNB. The HTP 95/95 safety limit of 1.14 previously derived by SPC (Reference 2) conservatively bounds the 1.080 limit obtained by WPSC; therefore, use of the HTP safety limit of 1.14 with VIPRE-01 is acceptable for all applicable Kewaunee non-loss-of-coolant-accident (non-LOCA) safety analyses.

3.0 CONCLUSION

The staff has reviewed the justification for the use of the HTP DNB correlation in the Kewaunee reload safety evaluation methods. Based on this review, we conclude that the application of the HTP correlation with a safety limit of 1.14 for Kewaunee DNB analysis using the VIPRE-01 code is acceptable for over the range of operating conditions given in Table 1 and for fuel design characteristics within the correlation data base range given in Table 2.

4.0 REFERENCES

- (1) Letter from Mark L. Marchi (WPSC) to NRC, "Justification for Use of High Thermal Performance Departure from Nucleate Boiling Correlation in the Kewaunee Reload Safety Evaluation Methods," NRC-97-96, September 4, 1997.
- (2) "HTP: Departure From Nucleate Boiling Correlation for High Thermal Performance Fuel," EMF-92-153(P)(A) and Supplement 1, Siemens Power Corporation, March 1994.
- (3) Letter from Mark L. Marchi (WPSC) to NRC, "Additional Information Regarding the Use of High Thermal Performance DNB Correlation in the Kewaunee Reload Methods," NRC-97-128, December 1, 1997.

Attachments: 1. Table 1
2. Table 2

Principal Contributor: L. Kopp

Date: December 30, 1997

TABLE 1RANGE OF OPERATING CONDITIONS

<u>Variable</u>	<u>Minimum Value</u>	<u>Maximum Value</u>
Pressure (psia)	1785	2425
Local Mass Flux (Mlb/hr/ft ²)	0.936	3.573
Inlet Enthalpy (Btu/lb)	382.3	649.9
Local Quality	-0.125	0.323

TABLE 2NOMINAL RANGE OF FUEL DESIGN PARAMETERS

<u>Parameter</u>	<u>Test Values</u>	<u>Kewaunee Value</u>
Fuel Rod Diameter (in.)	0.360-0.440	0.424
Fuel Rod Pitch (in.)	0.496-0.580	0.556
Axial Spacer Span (in.)	10.5-26.2	26.2
Axial Peaking Factor	1.268, 1.474	1.39 (max)
Heated Length (in.)	144	144



Public Service

NRC-97-131

Wisconsin Public Service Corporation
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1-920-433-5544 fax

December 15, 1997

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Proposed Merger Involving WPS Resources Corporation

This letter is to formally notify the Nuclear Regulatory Commission of a pending WPS Resources Corporation (WPSR) transaction with Upper Peninsula Energy Corporation (UPEN). Pending shareholder and regulatory approvals, and pursuant to a July 10, 1997 Merger Agreement, UPEN will be merged with and into WPSR. UPEN is a holding company whose operating utility subsidiary is Upper Peninsula Power Company (UPPCO). WPSR is a holding company whose operating utility subsidiary is Wisconsin Public Service Corporation (WPSC), a regulated electric and gas utility. WPSC with the Wisconsin Power and Light Company and the Madison Gas and Electric Company is a license holder for the Kewaunee Nuclear Power Plant. As further described, WPSC does not believe it is required by statute or regulation to notify or seek prior NRC approval for this transaction. Nonetheless, this letter is to formally inform and keep you apprised of this development.

Under the terms of the Merger Agreement and upon consummation of the merger, the separate corporate existence of UPEN will cease, and WPSR will be the surviving corporation. UPPCO will continue to exist as an operating utility and as a separate corporation, and will become a subsidiary of WPSR in WPSR's holding company structure. WPSR will continue to be the holding company for WPSC. After the transaction, WPSC will be unchanged in its corporate status and continue to be a license holder and the operator of the Kewaunee Plant. Control of the license and of operations at the Kewaunee Plant will similarly not be transferred. Thus, the power to control the license will not in any way be affected by the merger. The financial status, strength and obligations of WPSC, the licensee, will be unchanged. There will be no changes in the senior executive officers of WPSC or WPSR. One executive of UPEN will join the executive payroll of WPSC and be added to the Board of Directors of WPSR, but there are no material changes to WPSC's or WPSR's management structure or processes planned as a result of the merger. Therefore, WPSR believes it is not required under 42 U.S.C. § 2234 or 10CFR 50.80(a) to provide notification to the NRC or to seek NRC approval of the merger.

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December 15, 1997

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There are no present plans to merge the two operating utilities, but such a merger may be required to maintain the WPSR exemption from registration pursuant to Section 3(a)(1) of the Public Utility Holding Company Act of 1935. If WPSC and UPPCO are merged, WPSR does not believe that 42 U.S.C. § 2234 or 10CFR 50.80(a) would require NRC notification or approval. WPSC will continue to be held by the same holding company, WPSR. WPSC will continue to be a license holder, and WPSC personnel who are responsible for operating the plant would remain the same. There will be no financial effect on WPSC that would materially alter its ability to be responsible for operating the Kewaunee Plant. Additionally, any facility transfers are limited as WPSC is currently obligated to provide prior NRC notification of a transfer of facilities for the production, transmission or distribution of electric energy having a depreciated book value exceeding 1% of WPSC's consolidated net utility plant. In short, WPSC would not be materially affected in any manner. Operation and control of the Kewaunee Plant under WPSC's NRC license would not materially change. But, if such a merger of WPSC and UPPCO is pursued, we will provide the NRC with prior notice.

Should you have any questions about the structure of the transaction or our interpretation of the statutory and regulatory requirements, please contact me.

Sincerely,



M. L. Marchi
Manager - Nuclear Business Group

FL/RPP

cc - US NRC Region III
US NRC Senior Resident Inspector