



Nebraska Public Power District

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NLS2024055

July 29, 2024

Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: Data from Metamic Coupon Sampling Program
Cooper Nuclear Station, Docket No. 50-298, Renewed License No. DPR-46

Reference: Letter from Stewart B. Minahan, Nebraska Public Power District, to U.S. Nuclear Regulatory Commission, dated April 17, 2007, "Response to Request for Additional Information Regarding License Amendment Request for Onsite Spent Fuel Expansion" (ML071240495)

The purpose of this letter is for the Nebraska Public Power District (NPPD) to provide to the Nuclear Regulatory Commission surveillance data from the Cooper Nuclear Station (CNS) Metamic coupon sampling program. The purpose of the sampling program is to characterize certain physical and chemical properties of the Metamic sample coupons in the CNS spent fuel storage pool (SFSP). Per the referenced letter, NPPD committed to remove a Metamic coupon from the SFSP for testing after 2, 4, 8, 12, 16, 20, 24, and 28 years, including performance of a neutron attenuation test after 4, 12, and 20 years. This letter pertains to the 16-year test.

Coupon 102-087C-2 was removed from the SFSP after sixteen years and the testing results are provided in the Enclosure. Inspection results indicated no bowing, pitting, or swelling. All measurements were within close tolerances of the pre-irradiation baseline data and all inspection acceptance criteria were met. The results indicate the Metamic coupon samples are not degrading within the SFSP environment, which indicates the SFSP Metamic fuel storage rack is not degrading.

There are no regulatory commitments made in this submittal. If you should have any questions regarding this submittal, please contact me at (402) 825-5416.

Sincerely,

Linda Dewhirst
Regulator Affairs and Compliance Manager

/dv

Enclosure: Testing Data for Metamic Sample Coupon 102-087C-2

cc: Regional Administrator w/enclosure
USNRC - Region IV

Cooper Project Manager w/enclosure
USNRC - NRR Plant Licensing Branch IV

Senior Resident Inspector w/enclosure
USNRC - CNS

NPG Distribution w/enclosure

CNS Records w/enclosure

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Enclosure

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Testing Data for Metamic Sample Coupon 102-087C-2

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Serial Number	Data Point	Baseline Data	February 2024 Data	Delta of Base to 2024 Data	Acceptance Criteria
102-087C-2	A	6.186	6.191	0.005	Good
	B	6.174	6.177	0.003	Good
	C	6.157	6.16	0.003	Good
	D	4.095	3.997	0.098	Good
	E	4.088	3.994	0.094	Good
Water Temp deg C	F	4.088	3.992	0.096	Good
22.3	G	0.08	0.082	0.002	Good
	H	0.08	0.082	0.002	Good
	K	0.08	0.082	0.002	Good
	L	0.08	0.081	0.001	Good
	M	0.08	0.082	0.002	Good
Water Density	Weight (D)	86.28	86.78	0.579508577	Good
0.9978	Weight (W)	54.18	54.29	0.203026947	Good
	Density	2.68	2.665		

Data for A through M is in inches. Weight is in grams. Delta of A through M is in inches. Delta for Weight is in % change.
AC for Weight is $\Delta \leq \pm 5\%$. AC for A through F is $\leq \pm 0.125"$. AC for G through M is $\leq \pm 0.07"$.