



Nebraska Public Power District

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NLS2011066

July 14, 2011

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

Subject: Response to Nuclear Regulatory Commission Request for Additional Information
Re: 2011 Decommissioning Funding Status Report
Cooper Nuclear Station, Docket No. 50-298, DPR-46

- References:**
1. Letter from Lynnea E. Wilkins, U.S. Nuclear Regulatory Commission, to Brian J. O'Grady, Nebraska Public Power District, dated June 20, 2011, "Cooper Nuclear Station – Request for Additional Information Re: 2011 Decommissioning Funding Status Report"
 2. Letter from David Van Der Kamp, Nebraska Public Power District, to the U.S. Nuclear Regulatory Commission, dated March 29, 2011, "Decommissioning Funding"

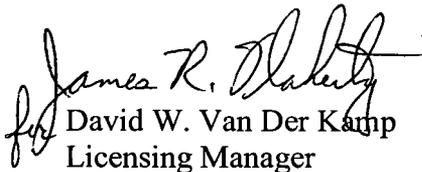
Dear Sir or Madam:

The purpose of this letter is for Nebraska Public Power District to submit a response to a request for additional information (RAI) from the Nuclear Regulatory Commission (NRC) (Reference 1). The RAI requested information is in support of the NRC's review of the 2011 Decommissioning Funding submittal for the Cooper Nuclear Station (CNS) (Reference 2).

Responses to the specific RAI questions are provided in the Attachment. No regulatory commitments are made in this submittal.

Should you have any questions or require additional information, please contact me at (402) 825-2904.

Sincerely,


David W. Van Der Kamp
Licensing Manager

COOPER NUCLEAR STATION

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NRR

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Attachment/Enclosure

cc: Regional Administrator w/ attachment and enclosure
USNRC - Region IV

Cooper Project Manager w/ attachment and enclosure
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/ attachment and enclosure
USNRC - CNS

NPG Distribution w/ attachment and enclosure

CNS Records w/ attachment and enclosure

Attachment

**Response to Nuclear Regulatory Commission Request for Additional Information
Re: 2011 Decommissioning Funding Status Report**

Cooper Nuclear Station, Docket No. 50-298, DPR-46

NRC Question 1: Minimum DFA calculation:

On March 29, 2011, NPPD reported, an amount of decommissioning funds estimated to be required under 10 CFR 50.75(b) and (c) that is greater than the amount calculated by the NRC staff. The formulas for the factors used by the NRC staff can be found using NUREG-1307, Revision 14, "Report on Waste Burial Charges, Changes in Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities" (ADAMS Accession No. ML103220151) (i.e., the calculations for the Labor and Energy Adjustment Factors can be found on pages 7 and 8).

According to 10 CFR 50.75(f)(1), the amount provided in the DFS report should be "the amount of decommissioning funds estimated to be required under 10 CFR 50.75(b) and (c)."

Please provide the labor, energy, and burial factors used in the calculation of the minimum requirement for decommissioning financial assurance and, if necessary, a corrected submittal for that part of the DFS report. If the factors used are greater than the factors for the appropriate waste vendor option in NUREG-1307, Revision 14, then NPPD should provide the basis for using the higher factors.

NPPD Response:

The escalation factors for Labor, Energy and Waste Burial in Nebraska Public Power District's (NPPD) March 2011, submittal were calculated in accordance with the sample calculations in NUREG-1307, Revision 14, using current Bureau of Labor Statistics data for Fourth Quarter, or December 2010, as appropriate, and as available at the time of filing.

Indices

Labor

U.S. Department of Labor - Bureau of Labor Statistics Employment Cost Index (ECI)
Total Compensation Private Industry (Midwest Region)
Labor Adjustment Factor = Base Adjustment Factor (2005 Base) x Fourth
Quarter, 2010 ECI/-100
Labor = 2.08 x 111.3/100 = 2.315

(Sample Labor Adjustment Factor was provided in NUREG-1307, Revision 14,
using Qtr 1, 2010 Factor)

Energy

U.S. Department of Labor - Bureau of Labor Statistics Producer Price Index
Industrial Electric Power
December, 2010 = 191.3(p) and January, 1986 = 114.2
Light Fuel Oils December, 2010 = 252.1(p) and January, 1986 = 82.0

At the time of filing the March report, only preliminary data were available for December 2010, Energy Factors.

Using the sample calculations in NUREG-1307, Revision 14, for guidance, and consistent with the application of the formula for BWRs published in Regulatory Guide 1.159, Revision 1, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors", (October 2003), results in:

$$\begin{aligned}\text{Energy} &= [(191.3/114.2) \times .54] + [(252.1/82.0) \times .46] \\ \text{Energy} &= 0.905 + 1.414 \\ \text{Energy} &= 2.319\end{aligned}$$

Waste Burial

NUREG-1307, Revision 14 (most current available data)
Generic LLW Disposal Site (Direct Disposal With Vendors) – BWR = 12.54

The escalation values for Labor, Energy and Waste Burial are then incorporated into the given formula for the Escalation Factor.

$$\begin{aligned}\text{Escalation Factor} &= (.65 \times \text{Labor} + .13 \times \text{Energy} + .22 \times \text{Waste Burial}) \\ &= .65(2.315) + .13(2.319) + .22(12.54) \\ &= 1.505 + .301 + 2.759 \\ &= 4.57\end{aligned}$$

NRC Question 2: Citation for real rate of return:

Within its DFS report, NPPD reported that its assumed annual real rate of return is 2.5 percent. This assumption was approved on June 13, 2008, through a Board of Directors Resolution. According to the licensee, the assumption for a 2.5 percent real rate of return is based on a:

*3 percent rate of escalation in decommissioning costs, and
5.5 percent rate of earnings on decommissioning funds post-tax.*

As stated in 10 CFR 50.75(f)(1):

the information in [the DFS] report must include [. . .] the assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections. . .

Please provide the citation (e.g., an Order by the rate-regulatory authority) by the regulatory entity that allows for the assumptions used regarding rates of escalation in decommissioning costs, rate of earnings on decommissioning funds and rates of other factors assumed within the DFS report.

NPPD Response:

A copy of NPPD Board Resolution No. 08-70, adopted on June 13, 2008, is the citation utilized for the assumptions used regarding rates of escalation in decommissioning costs and the rate of earnings on decommissioning funds (nominal rate of investment return) and is enclosed for your reference.

NRC Question 3: After-tax decommission funds as of December 31, 2010:

On March 29, 2011 NPPD reported the amount of decommissioning funds in the trust fund as of December 31, 2010, but did not indicate if this was an after-tax amount.

The provisions of 10 CFR 50.75(f)(1) and (2) require the licensee to report the amount of funds accumulated to the end of the calendar year preceding the report.

Please indicate if the amount of decommissioning funds identified within the DFS report is the after-tax amount of funds accumulated through December 31, 2010. If not, please provide the after-tax amount of decommissioning funds accumulated through December 31, 2010.

NPPD Response:

NPPD, as a public corporation and a political subdivision of the State of Nebraska, is not subject to either State or Federal taxes on the decommissioning trust fund for Cooper Nuclear Station.

NRC Question 4: Constant dollars:

Within its DFS report, NPPD included a table of its "Schedule of Future Annual Fund Earnings and Decommissioning Cost Escalation," where the values have been escalated by the District's assumptions of a 5.5 percent rate of earnings on decommissioning funds, and a 3 percent rate of escalation on the funding requirement beginning 2034. The licensee stated that:

[t]he above amounts reflect the anticipated annual contributions [. . .], and annual fund earnings that demonstrate full funding of the decommissioning trust by the end of the operating license [. . .], and taking into account a pro rata credit during the dismantlement period (recognizing both cash expenditures and earnings) over the first seven years after shutdown assuming immediate dismantlement decommissioning. . .

As stated within 10 CFR 50.75(e)(1)(ii):

[l]icensees certifying only to the formula amounts . . . can take a pro-rata credit during the dismantlement period (i.e., recognizing both cash expenditures and earnings the first 7 years after shutdown).

Please provide all figures included in the "Schedule of Future Annual Fund Earnings and Decommissioning Cost Escalation," table in constant 2010 dollars.

NPPD Response:

**Schedule of Future Annual Fund Earnings and Decommissioning Cost Escalation
(Constant 2010 dollars)**

Year	Beginning Balance	Funding Contribution	Funding Requirement* Year-Beginning	Fund Interest	Ending Balance	NRC Minimum
2011	\$470,029,189	-		\$25,851,605	\$495,880,795	\$574,906,000
2012	\$481,437,665	-		\$26,479,072	\$507,916,736	\$574,906,000
2013	\$493,123,045	-		\$27,121,767	\$520,244,812	\$574,906,000
2014	\$505,092,051	-		\$27,780,063	\$532,872,114	\$574,906,000
2015	\$517,351,567	-		\$28,454,336	\$545,805,903	\$574,906,000
2016	\$529,908,644	-		\$29,144,975	\$559,053,619	\$574,906,000
2017	\$542,770,504	-		\$29,852,378	\$572,622,882	\$574,906,000
2018	\$555,944,545	-		\$30,576,950	\$586,521,495	\$574,906,000
2019	\$569,438,345	-		\$31,319,109	\$600,757,454	\$574,906,000
2020	\$583,259,664	-		\$32,079,282	\$615,338,945	\$574,906,000
2021	\$597,416,452	-		\$32,857,905	\$630,274,357	\$574,906,000
2022	\$611,916,851	-		\$33,655,427	\$645,572,278	\$574,906,000
2023	\$626,769,202	-		\$34,472,306	\$661,241,508	\$574,906,000
2024	\$641,982,047	-		\$35,309,013	\$677,291,059	\$574,906,000
2025	\$657,564,135	-		\$36,166,027	\$693,730,163	\$574,906,000
2026	\$673,524,430	-		\$37,043,844	\$710,568,273	\$574,906,000
2027	\$689,872,110	-		\$37,942,966	\$727,815,076	\$574,906,000
2028	\$706,616,579	-		\$38,863,912	\$745,480,491	\$574,906,000
2029	\$723,767,467	-		\$39,807,211	\$763,574,677	\$574,906,000
2030	\$741,334,638	-		\$40,773,405	\$782,108,043	\$574,906,000
2031	\$759,328,197	-		\$41,763,051	\$801,091,248	\$574,906,000
2032	\$777,758,493	-		\$42,776,717	\$820,535,210	\$574,906,000
2033	\$796,636,127	-		\$43,814,987	\$840,451,114	\$574,906,000
2034	\$815,971,955	-	\$82,129,428	\$40,361,339	\$774,203,866	
2035	\$751,654,239	-	\$82,129,429	\$36,823,865	\$706,348,674	
2036	\$685,775,412	-	\$82,129,429	\$33,200,529	\$636,846,512	
2037	\$618,297,585	-	\$82,129,428	\$29,489,249	\$565,657,405	
2038	\$549,181,947	-	\$82,129,429	\$25,687,888	\$492,740,406	
2039	\$478,388,744	-	\$82,129,428	\$21,794,262	\$418,053,578	
2040	\$405,877,260	-	\$82,129,429	\$17,806,131	\$341,553,962	

*Reflects full funding of decommissioning costs, based on the NRC minimum, assuming immediate dismantlement over the 7 years following plant shutdown.

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Enclosure
Page 1 of 3

**Resolution of Nebraska Public Power District
No. 08-70**

Cooper Nuclear Station, Docket No. 50-298, DPR-46

RESOLUTION

OF

NEBRASKA PUBLIC POWER DISTRICT

No. 08-70

Adopted: June 13, 2008

WHEREAS, the District is required by Nuclear Regulatory Commission (NRC) Regulation (10 CFR 50.75) to provide sufficient funding for the dismantlement and disposal of radioactive structures and materials as necessary at the time of termination of the District's Operating License for Cooper Nuclear Station (CNS); and

WHEREAS, the District established an External Decommissioning Fund pursuant to Board Resolution No. 90-75 in May 1990 to provide assurance that funds will be available when needed for required decommissioning activities; and

WHEREAS, the District is committed to collecting sufficient funds to meet the minimum requirements of the NRC and to provide funding of other decommissioning-related costs including, but not limited to, provisions for restoration of the CNS site and provisions for interim storage of spent nuclear fuel; and

WHEREAS, the District has conducted periodic site specific studies of the costs of decommissioning CNS; and

WHEREAS, management has developed and has recommended a decommissioning funding plan for CNS to the Board of Directors that will provide funding for future decommissioning and other related costs; and

WHEREAS, the following assumptions were made in developing the decommissioning funding plan:

1. Decommissioning will commence in January 2014 upon termination of the existing Operating License, or at a later date (subject to NRC approval of a twenty-year renewal of the CNS Operating License) as determined by the Board of Directors; and
2. The SAFSTOR (safe storage with delayed dismantlement) methodology will be utilized to decommission CNS; and
3. An annual escalation rate for decommissioning costs of 3.0%; and
4. A nominal rate of investment return of 5.5% on monies in the decommissioning fund(s); and
5. A corresponding real rate of investment return of 2.5%; and
6. Fees of the External Decommissioning Fund trustee and investment managers will be paid for from the External Decommissioning Fund.

Resolution No. 08-70
Adopted: June 13, 2008
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NOW, THEREFORE, BE IT RESOLVED that the Board of Directors approves the decommissioning plan recommended by management and affirms that such funding plan assumptions are reasonable and appropriate for decommissioning funding planning for CNS through January 18, 2014, and beyond, as determined by the Board of Directors at a later date, and is in the best interests of NPPD and its ratepayers.

BE IT FURTHER RESOLVED that management is directed to periodically review and update the assumptions, costs and methods of funding decommissioning as a result of changing conditions (to include Operating License renewal) and requirements, and recommend appropriate changes in funding plans to the Board of Directors.

Correspondence Number: NLS2011066

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		