



December 18, 2008

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

Serial No. 08-0702  
NL&OS/TJS R1  
Docket No. 50-305  
License No. DPR-43

**DOMINION ENERGY KEWAUNEE, INC.**  
**KEWAUNEE POWER STATION**  
**REPORT PURSUANT TO 10 CFR 50.75(f)(3)**

The Kewaunee Power Station (KPS) operating license expires on December 21, 2013. Pursuant to 10 CFR 50.75(f)(3), Dominion Energy Kewaunee, Inc. (DEK) is required to submit a preliminary decommissioning cost estimate at or about five years prior to the current KPS license expiration (i.e., by December 21, 2008). Although a license renewal application has been submitted and accepted for review, this five-year requirement remains in effect.

An updated site-specific estimate of the cost to decommission KPS was recently prepared for DEK by EnergySolutions. The estimate refreshed the "DECON" scenario methodology from an earlier 2006 EnergySolutions study.

The EnergySolutions 2006 study included general assumptions concerning soil contamination / remediation (e.g., allowances made for costs to remediate typical percentages of soils in Protected Area, settling basins, drainage fields, etc.). This approach was also used for the 2008 refreshed study. A subsequent review of the KPS records required to be maintained by DEK per 10 CFR 50.75(g) confirmed that no major spills requiring soil remediation have occurred onsite to date. Therefore, the general assumptions concerning soil remediation in the 2008 refreshed study appear conservative and bounding. A copy of the 2008 EnergySolutions study is attached.

The EnergySolutions 2008 study contains three items that require clarification. First, the study conservatively assumed that DEK will obtain a specific license for the KPS Independent Spent Fuel Storage Installation (ISFSI). This assumption carries throughout the study (e.g., language referring to ISFSI license renewal). In fact, the KPS ISFSI will use the general license provision of Part 72. Second, the 2008 Study assumed Class B and C Low Level Radioactive Waste (LLRW) from decommissioning will be stored at the KPS ISFSI. This is a conservative assumption for the purposes of the cost study, but does not imply a determination that such storage will be required. Finally, also with respect to Class B and C LLRW, the 2008 study considers the anticipated operational B and C waste generated from the present until 2013 as part of decommissioning fund wastes. Although this conservatively addresses Class B and C waste in the cost study, DEK is addressing these wastes as operational rather than decommissioning costs.

The cost to perform the radiological portion of decommissioning KPS if the plant were to be permanently shut down upon expiration of its current operating license in 2013, is

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estimated at \$380.6 million (in 2008 dollars), based upon the updated site specific analysis.

The annual cash flow analysis for the radiological portion of the KPS decommissioning cost is shown in Table 1 below. This analysis assumes the "DECON" decommissioning methodology using the recently updated decommissioning cost study, applies a 2% real rate of return during the decommissioning period and reflects the DEK decommissioning trust fund balance as of 10/31/2008.

**Table 1 - Annual Cash Flow Calculations - Inputs**

Kewaunee - No License Renewal Decommissioning Annual Cash Flow Analysis - License Termination 10 CFR 50.75( c ) (in Thousands)			
	Dates	Amounts	Notes
Current Value of QF as of	10/31/2008	\$ 380,681,436	
Current Value of NQF as of	10/31/2008	\$ -	
Guaranty Amount	10/31/2008	\$ -	
Total Fund Balances as of	10/31/2008	\$ 380,681,436	
NRC Minimum as of	12/31/2007	\$ 327,497,734	
Calculation Start Year	2008		Prorated for 10/31/2008
Projected Decom Funds value at Calc date	10/31/2008	\$ 380,681,436	
Projected Decom Study costs 50.75(c) at Calc date	10/31/2008	\$ 380,575,241	License Termination Costs
Start of Decom Expenditures Year	2013	(12/21/2013)	(12/21/2013)

  

6.240%	Fund Growth Rate	(2008 - 2013) - "after-tax" growth rate for the Trust
3.233%	Cost Esc Rate	(2008 - 2013) - Site Spec Decom cost escalation rate
3.233%	Cost Esc Rate	(2013 - end of Decom) - Site Spec Decom cost escalation rate
5.233%	Fund Growth rate	(2014 - end of Decom) - "after-tax" Trust growth rate (assumes 2% Real Rate of Return)
6.240%	Discount Rate	(Based on Corporate Treasury or Corporate Modeling)

- Column 1: Reflects the beginning of each year, except for 2008, which reflects a partial year.
- Column 2: Reflects the beginning trust fund balance for each year
  - \$380.7 million starting balance as of 10/31/2008
- Column 3: Reflects annual earnings on funds in trust. A 6.24% fund growth rate is used for 2008 through 2013 and a 2% real rate of return (5.233% fund growth rate less the 3.223% cost escalation rate) is used for 2014 and after. 2008 earnings are pro-rated
- Column 4: Reflects the radiological portion of the EnergySolutions Revised Study annual cash flows in future dollars.
- Column 5: Reflects the end of year trust fund balance after earnings are added and expenditures are subtracted for that year.
- Column 6: Reflects the radiological portion of the EnergySolutions Revised Study annual cash flows in nominal 10/31/2008 dollars.

**Table 1 - Annual Cash Flow Calculations (continued)**

<b>KPS Annual Summary Cash Flow - 50.75(c) Radiological Portion</b>					
<b>(in future dollars)</b>					
<b>Year</b>	<b>Beg of Year Balance (Future \$)</b>	<b>Earnings (Future \$)</b>	<b>License Term Expenditures (Future \$)</b>	<b>End of Year Balance (Future \$)</b>	<b>License Term Expenditures (in 10/31/2008 \$)</b>
10/31/2008	\$ 380,681,436	\$ 3,959,879	\$ -	\$ 384,641,315	\$ -
01/01/2009	\$ 384,641,315	\$ 24,001,618	\$ -	\$ 408,642,933	\$ -
01/01/2010	\$ 408,642,933	\$ 25,499,319	\$ -	\$ 434,142,252	\$ -
01/01/2011	\$ 434,142,252	\$ 27,090,477	\$ -	\$ 461,232,728	\$ -
01/01/2012	\$ 461,232,728	\$ 28,780,922	\$ -	\$ 490,013,651	\$ -
<b>01/01/2013</b>	<b>\$ 490,013,651</b>	<b>\$ 30,518,420</b>	<b>\$ 1,872,814</b>	<b>\$ 518,659,257</b>	<b>\$ 1,597,395</b>
01/01/2014	\$ 518,659,257	\$ 27,138,853	\$ 64,139,088	\$ 481,659,022	\$ 52,993,679
01/01/2015	\$ 481,659,022	\$ 25,202,815	\$ 70,125,671	\$ 436,736,167	\$ 56,125,713
01/01/2016	\$ 436,736,167	\$ 22,852,226	\$ 108,578,530	\$ 351,009,863	\$ 84,180,665
01/01/2017	\$ 351,009,863	\$ 18,366,596	\$ 93,936,358	\$ 275,440,101	\$ 70,548,155
01/01/2018	\$ 275,440,101	\$ 14,412,407	\$ 61,099,448	\$ 228,753,061	\$ 44,450,104
01/01/2019	\$ 228,753,061	\$ 11,969,507	\$ 11,635,347	\$ 229,087,221	\$ 8,199,708
01/01/2020	\$ 229,087,221	\$ 11,986,992	\$ 13,333,973	\$ 227,740,241	\$ 9,102,531
01/01/2021	\$ 227,740,241	\$ 11,916,511	\$ 48,910,922	\$ 190,745,830	\$ 32,343,871
01/01/2022	\$ 190,745,830	\$ 9,980,778	\$ -	\$ 200,726,608	\$ -
01/01/2023	\$ 200,726,608	\$ 10,503,023	\$ -	\$ 211,229,631	\$ -
01/01/2024	\$ 211,229,631	\$ 11,052,593	\$ -	\$ 222,282,224	\$ -
01/01/2025	\$ 222,282,224	\$ 11,630,921	\$ 19,797,839	\$ 214,115,306	\$ 11,527,579
<b>01/01/2026</b>	<b>\$ 214,115,306</b>	<b>\$ 11,203,586</b>	<b>\$ 16,853,369</b>	<b>\$ 208,465,523</b>	<b>\$ 9,505,843</b>
Completion in 2026 of 50.75(c) radiological portion of decommissioning					
50.75(c) Cost Estimate (in 10/31/2008 \$)					\$ 380,575,241
50.75(c) Cost Estimate (in Future \$)			\$ 510,283,357		
Remaining funds at end of 50.75(c) (Discounted to 2008 \$)				\$ 74,496,726	

The analysis shown in Table 1 demonstrates that sufficient funding exists for the radiological portion of decommissioning. The analysis further shows that there is a potential \$208.5 million (in 2026 dollars) of available funds, after the radiological portion of decommissioning is satisfied.

The calculated NRC minimum is \$327.5 million in 12/31/2007 dollars as shown by Table 2 below.

**Table 2**

<b>KPS - NRC Minimum Calculation Worksheet</b>				
<b>No License Renewal - 12 21 2013</b>				
<b>(in whole dollars)</b>				
Based on				<b>NUREG-1307, REV 12</b>
Thermal Power Rating - MWt				<b>1,772</b>
PWR Formula				<b>\$(75 + 0.0088P)</b>
Base Cost (January 1986 Dollars)				<b>\$90,593,600</b>
Adjustment Factor (12/31/2007 Dollars)				<b>3.6150206372</b>
Adjusted Level (12/31/2007 Dollars)				<b>\$327,497,734</b>
<b>NRC Minimum as of 12/31/2007</b>				<b>\$327,497,734</b>
	<b>Factor L <sup>(1)</sup></b>	<b>Factor E <sup>(2)</sup></b>	<b>Factor B <sup>(3)</sup></b>	<b>Adjustment Factor</b>
Weighting	0.65	0.13	0.22	
2007	2.1667	2.2802	8.683	
Components	1.4083	0.2964	1.9103	3.6150206
<b>Region - Labor</b>	<b>1986 Ref</b>	<b>12/31/2007</b>	<b>2005/1986</b>	
Midwest	48.6	105.3	2.167	4.6944
	<b>1986 Ref</b>	<b>12/31/2007</b>	<b>2005/1986</b>	
Industrial Electric (Px)	114.2	180.0	1.576	58%
Light Fuel Oil (Fx)	82.0	266.7	3.252	42%
<b>Burial Adjustment Factor (PWR)</b>			<b>8.683</b>	<b>NUREG-1307 Rev12</b>
(1) Factor L: Labor escalation factor to current year, the source is Bureau of Labor Statistics Data, Employment Cost Index, Series ecu13302i (Midwest Region) through 12/2005. Starting 01/2006 - Table 6 - Midwest Region - East North Central.				
(2) Factor E: Energy escalation factor to current year, the source is a weighted calculation using Bureau of Labor Statistics Data, Producer Price Index-Commodities, series wpu0543 (industrial electric power) and wpu 0573 (light fuel oils)				
(3) Factor B: LLRW escalation factor for Non-Atlantic Compact, South Carolina, per NUREG-1307, Rev 12, Table 2.1 assuming the application of waste vendor services to reduce burial volumes				

As previously noted, a trust fund balance of \$380.7 (in 2008 dollars) is available for the radiological portion of decommissioning. The NRC minimum calculation when compared to the funds available for radiological decommissioning in the trust fund demonstrates that the NRC minimum is fully funded.

Please contact Mr. David A. Sommers at (804) 273-2823 if you have any questions or require additional information.

Sincerely,

  
J. Alan Price  
Vice President – Nuclear Engineering  
Dominion Energy Kewaunee, Inc.

Attachment - Decommissioning Cost Estimate Study Of The Kewaunee Nuclear  
Power Plant (EnergySolutions)

Commitments made in this letter: None

cc: U. S. Nuclear Regulatory Commission  
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**Attachment**

**DECOMMISSIONING COST ESTIMATE STUDY OF THE KEWAUNEE  
NUCLEAR POWER PLANT BY ENERGYSOLUTIONS**

**KEWAUNEE POWER STATION  
DOMINION ENERGY KEWAUNEE, INC.**