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**MAR 23 2007**

**Submitted pursuant  
to 10CFR50.75(f)(1)**

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Stop OP1-17  
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION  
DECOMMISSIONING REPORT OF  
FINANCIAL ASSURANCE  
PLA-6171**

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**Docket Nos. 50-387  
and 50-388**

In accordance with 10 CFR 50.75(f)(1), attached please find the PPL Susquehanna, LLC decommissioning report of financial assurance for our ninety percent interest in Susquehanna Unit 1 and Unit 2.

If you have any questions regarding our decommissioning report, please direct them to Mr. R. R. Sgarro, Manager - Nuclear Regulatory Affairs, at (610) 774-7552.

Sincerely,

B. T. McKinney

Attachment: Decommissioning Report

Copy: Regional Administrator – Region I  
Mr. A. J. Blamey, NRC Sr. Resident Inspector  
Mr. R. V. Guzman, NRC Project Manager  
Mr. R. Janati, DEP/BRP

A001

**NRC Decommissioning Funding Status Report  
December 31, 2006**

**PPL Susquehanna, LLC  
Susquehanna Steam Electric Station**

PPL Susquehanna, LLC hereby submits this Decommissioning Report in compliance with 10 CFR 50.75(f)(1) for its 90% share of Susquehanna Unit 1 and Unit 2.

PPL Susquehanna has analyzed its current funding levels and planned contributions for both Unit 1 and Unit 2 and concluded that these funding levels and planned contributions will be sufficient to pay for the decommissioning costs of each unit at the time permanent termination of operations is expected for each unit, when earnings and inflation is taken into account, if at that time PPL Susquehanna elects to pursue a SAFSTOR option.

The SAFSTOR decommissioning option was developed as part of a Susquehanna Site-Specific Decommissioning Cost Analysis and assumes site license termination 60 years after permanent cessation of operation of Unit 1. After final shutdown of Unit 1, the sequence of events leading to termination of the 10 CFR Part 50 license is assumed to be as follows:

- 1.5 year transition into decommissioning and preparation for safe storage
- 52 year period of dormancy
- 1.5 year period of site reactivation and preparation for decommissioning
- 5 year period of decontamination and dismantlement culminating in license termination.

These durations are rounded slightly and are for Unit 1. The Unit 2 durations are slightly less in some cases because of the later expected shutdown (about 20 months after Unit 1). However, license termination for both units still occurs 60 years after Unit 1 shutdown. The Susquehanna Site-Specific Decommissioning Cost Analysis is confidential and proprietary to PPL Susquehanna, but can be made available for inspection upon request.

**Information is submitted to provide  
Financial Assurance**

**Unit # 1**

**Unit #2**

1. The minimum amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75 (b) and (c).

At December 31, 2006

\$482,233,500

\$482,233,500

PPL Susquehanna LLC's calculation of the NRC minimum formula is reflected in Exhibit 1.

2. The Amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75 (b) and (c).

Market Value at Dec. 31, 2006	\$244,907,701	\$265,351,554
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3. See Exhibit 2 for a schedule of the annual amounts remaining to be collected.
4. The assumptions used regarding escalation in decommissioning cost, rates of earnings on decommissioning funds, and rates of other factors used in funding projections.

Estimated Inflation rate for decommissioning costs	4%	4%
Estimated Earnings rates on decommissioning funds	7.5%	7.5%
Rates of other factors used in funding projections	None	None

The Inflation and Earnings Rate are based on an order entered by the Pennsylvania Public Utility Commission (Pa. PUC) on September 27, 1995 at Docket No. R-00943271.

- |   |      |      |
|---|------|------|
| 5. Any power sale contracts upon which licensee is relying to provide financial assurance.    | None | None |
| 6. Modifications to licensee's method of providing financial assurance since previous report. | None | None |
| 7. Material changes to trust agreement.   | None | None |

**Calculation of Escalation Factors  
Used in Computation of Minimum Financial Assurance  
Amount for Decommissioning  
Susquehanna Steam Electric Station Units One And Two**

Boiling Water Reactor (BWR)  
Escalation Factor

$$\text{Formula - } 0.65(L) + 0.13(E) + 0.22(B)$$

$$\text{Escalation} = (.65 \times 2.210) + (.13 \times 2.206) + (.22 \times 10.206)$$

$$\text{Escalation} = (1.43650 + 0.28678 + 2.24532) = 3.969$$

(L) - Labor - (Bureau of Labor Statistics, Table 4, Compensation, Employment Cost Index, for total compensation, private industry workers, by bargaining status, region and area size)

Northeast region - September 2006 Index Number	288.4
January 1986 Index Number	130.5

$$L = \frac{288.4}{130.5} \text{ equals } 2.210$$

(E) - Energy - (Producer Price Index Commodities, Series ID: WPU0543 and WPU0573)

$$E = (.54P + .46F)$$

$$E = (.54 \times 1.578) + (.46 \times 2.944)$$

$$E = 0.85212 + 1.35424 = 2.206$$

P - Industrial Power, 500 kW demand - (Commodity 0543)

August 2006 Index Number	180.2
January 1986 Index Number	114.2 (1)

$$P = \frac{180.2}{114.2} \text{ equals } 1.578$$

F - Light fuel oils - (Commodity 0573)  
August 2006 Index Number 241.4  
January 1986 Index Number 82.0

$$F = \frac{241.4}{82.0} \text{ equals } 2.944$$

(B) Waste Burial

NUREG - 1307, Rev. 12, "NRC Report on Waste Burial Charges"  
Table 2.1  
South Carolina Factor 10.206

- (1) Represents the national base value of P at January 1986. The base value of P is no longer determined on a regional basis.

**PPL Susquehanna, LLC**  
**Computation of Minimum Financial Assurance Amount for**  
**Decommissioning Susquehanna Steam Electric Station**  
**Units One and Two**

	<u><b>Unit 1</b></u>	<u><b>Unit 2</b></u>
Base amount for BWR greater than 3,400 MWt = \$135 million The Power Level of Unit 1 and Unit 2 are = 3,489 MWt	\$135,000,000	\$135,000,000
Ownership percentage	90%	90%
Base amount per unit	121,500,000	121,500,000
Escalation Factor	3.969	3.969
Escalated Amount per Unit	\$482,233,500	\$482,233,500
Total Escalated Amount (Unit 1 + Unit 2)	\$964,467,000	

**PPL Nuclear Decommissioning Trust**  
**Expected Contributions**

	<u><b>Unit 1</b></u>	<u><b>Unit 2</b></u>	<u><b>Grand Total</b></u>
2007	\$6,070,664	\$8,998,475	\$15,069,139
2008	5,557,640	8,238,025	13,795,665
2009	5,441,813	8,066,330	13,508,143
2007-2009	\$17,070,117	\$25,302,830	\$42,372,947