



December 13, 2012

Attention: Document Control Desk  
Director, Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555-0001

Ladies and Gentlemen:

**OLD DOMINION ELECTRIC COOPERATIVE**  
**NORTH ANNA POWER STATION UNITS 1 AND 2**  
**LICENSE NOS. NPF-4,7**

**10 CFR 72.30 DECOMMISSIONING FUNDING PLAN**

Pursuant to Part 72.30(b) of Title 10 of the Code of Federal Regulation (CFR), Old Dominion Electric Cooperative (ODEC) submits the attached decommissioning funding plan (DFP) for the North Anna Power Station Independent Spent Fuel Storage Installation (ISFSI).

Please contact Karen Huddle at (804) 968-7151 if you have any questions or require additional information.

Sincerely,

Todd T. Brickhouse  
Vice President - Treasurer

Attachment: North Anna Power Station ISFSI DFP

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**Attachment 1:**

**Decommissioning Funding Plan for Independent Spent Fuel Storage Installation (ISFSI)  
North Anna Power Station (NAPS)  
License Nos. NPF-4,7**

**10 CFR 72.30 (b) effective December 17, 2012 states that:**

**Each holder of, or applicant for, a license under this part must submit for NRC review and approval a decommissioning funding plan that must contain:**

**1) Information on how reasonable assurance will be provided that funds will be available to decommission the ISFSI or MRS.**

Pursuant to 10 CFR § 50.75, the methods of 10 CFR § 50.75(b), 50.75(e) and 50.75(h) provide requisite financial assurance for decommissioning of the NAPS ISFSI. Pursuant to these requirements, ODEC provides financial assurance for its decommissioning responsibility of NAPS in the amount not less than ODEC's share<sup>1</sup> of the amount required by 10 C.F.R. § 50.75(b), using an external sinking fund permitted by 10 C.F.R. § 50.75(e), under trust agreements complying with 50.75(h). This funding assurance, coupled with the regular reporting required by 10 CFR § 50.75(f)(1) and 72.30(c), the annual adjustments required by 10 CFR 50.75(b)(2), and the further adjustments required by 10 CFR 50.75(f)(3) and (5) at or about five years prior to the projected end of reactor operations, provide reasonable assurance that funds will be available to decommission the ISFSI.

**2) A detailed cost estimate for decommissioning, in an amount reflecting:**

**(i) The cost of an independent contractor to perform all decommissioning activities;**

**(ii) An adequate contingency factor; and**

**(iii) The cost of meeting the §20.1402 of this chapter criteria for unrestricted use, provided that, if the applicant or licensee can demonstrate its ability to meet the provisions of §20.1403 of this chapter, the cost estimate may be based on meeting the §20.1403 criteria.**

- i. The site specific decommissioning cost estimate (DCE) for NAPS was most recently updated in 2009. The site specific DCE for NAPS includes the costs of decommissioning the NAPS ISFSI. ODEC has therefore used this existing study to provide the cost estimate for this report. This study, however, does not provide an allocation of undistributed costs specific to the radiological decommissioning of the ISFSI. As a result, ODEC has used judgment to provide this allocation. ODEC's share of the estimated costs to perform radiological decommissioning of the ISFSI at NAPS is \$168,000 2008 dollars as shown in Table 1 – North Anna. The cost estimates shown in Table 1 – North Anna reflect the cost of an Independent Contractor performing decommissioning work. Applying a 4.63% annual escalation rate to the 2008 dollars shown in Table 1 – North Anna, ODEC's share of the total costs to decommission the NAPS ISFSI is \$201,000 in 2012 dollars.

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<sup>1</sup> The North Anna Power Station is jointly owned by Virginia Electric and Power Company (88.4%) and Old Dominion Electric Cooperative (11.6%). However, Old Dominion Electric Cooperative is responsible for (10.74%) of the decommissioning obligation.

- ii. A contingency amount of 25%, in accordance with NUREG 1757 – Vol. 3, Rev. 1 (February 2012) for the total ISFSI DCE is included in the costs shown in Table 1 – North Anna.
- iii. The cost estimates in the DCE for NAPS are established based on remediating the NAPS ISFSI to a residual level consistent with 10 CFR 20.1402.

ISFSI Decommissioning Activity Description	Labor	Equipment	Disposal	Other	25% Contingency	Total 2008 \$	Total 2012 \$
<b>Distributed (Direct) Cost</b>							
Disposition of Single Purpose Canisters	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Clean Demolition of ISFSI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demolition of ISFSI Support Structures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Preparation and NRC Review of License Termination Plan	\$ 9	\$ -	\$ -	\$ 14	\$ -	\$ 23	\$ 28
Verification Survey of Horizontal Storage Modules	\$ 8	\$ 5	\$ -	\$ -	\$ -	\$ 13	\$ 16
Preparation of Final Report on Decommissioning and NRC Review	\$ 9	\$ -	\$ -	\$ 14	\$ -	\$ 23	\$ 28
<b>Total Distributed (Direct) Cost</b>	<b>\$ 26</b>	<b>\$ 5</b>	<b>\$ -</b>	<b>\$ 28</b>	<b>\$ -</b>	<b>\$ 59</b>	<b>\$ 71</b>
<b>Undistributed (Allocated) Cost - Prorated for the Distributed Activities duration to the total Pd 4 Duration</b>							
<b>Total Undistributed (Allocated) Cost</b>	<b>\$ 12</b>	<b>\$ 2</b>	<b>\$ -</b>	<b>\$ 61</b>	<b>\$ -</b>	<b>\$ 75</b>	<b>\$ 90</b>
<b>Total North Anna ISFSI Decommissioning Cost</b>	<b>\$ 38</b>	<b>\$ 7</b>	<b>\$ -</b>	<b>\$ 89</b>	<b>\$ -</b>	<b>\$ 134</b>	<b>\$ 161</b>
<b>25% Contingency Applied to Total North Anna ISFSI Decommissioning Cost Estimate</b>					<b>\$ 34</b>	<b>\$ 34</b>	<b>\$ 40</b>
<b>Total North Anna ISFSI Decommissioning Cost Estimate with Contingency</b>					<b>\$ -</b>	<b>\$ 168</b>	<b>\$ 201</b>
<b>Escalation Rate (2008\$ to 2012\$)</b>		<b>4.63%</b>	<small>Escalation Rate based on aggregate of indices per NUREG 1307 Rev 14</small>				
<b>Decommissioning Cost shown at</b>		<b>10.74%</b>	<small>ODEC Decommissioning Responsibility Percentage = 10.74%</small>				

**3) Identification of and justification for using the key assumptions contained in the DCE.**

The DCE for the NAPS ISFSI assumes:

- i. An ISFSI that is sized, when used in conjunction with the spent fuel pool, to accommodate the spent fuel generated over the life of the station.
- ii. Decommissioning will be performed by an Independent Contractor as required.
- iii. Storage canisters will be used to ship the contained spent fuel to DOE. Single Purpose canisters will be qualified for shipment or transported in licensed transportation overpacks to avoid the need for repackaging and to maintain occupational exposures as low as reasonably achievable.
- iv. A dry transfer facility will not be necessary.
- v. The ISFSI pad and support modules are assumed to be free of contamination and left in place.

**4) A description of the method of assuring funds for decommissioning from paragraph (e) of this section, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility.**

Financial assurance for the NAPS ISFSI is provided by the methods of 10 CFR § 50.75(b), 50.75(e) and 50.75(h), as permitted by 10 CFR § 72.30(e)(5) and as discussed above. The amount of financial assurance required by 10 CFR 50.75(b) is subject to annual adjustment in accordance with paragraph (2) of that section, and further adjustment is required by 10 CFR 50.75(f)(3) and (5) at or about five years prior to the projected end of reactor operations. ISFSI decommissioning cost estimates will be updated as necessary in the decommissioning funding plans required to be resubmitted every three years pursuant to 10 CFR § 72.30(c).

- 5) **The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination.**

Onsite subsurface material associated with ISFSI is assumed to have no residual radioactivity that will require remediation to meet the criteria for license termination. The spent fuel storage casks are sealed and contain no liquid.

- 6) **A certification that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning.**

ODEC hereby certifies that, as evidenced by ODEC's March 31, 2011, Biennial Decommissioning Funding Status Report, filed pursuant to 10 CFR 50.75(f)(1), financial assurance for decommissioning NAPS has been provided in an amount that meets or exceeds ODEC's share of the amount required by 10 CFR 50.75(b), which pursuant to 10 CFR 72.30(e)(5) provides the requisite financial assurance for ODEC's decommissioning percentage share of the ISFSI decommissioning cost.