

February 15, 2010

NG-10-0067 10 CFR 50.75 10 CFR 50.54

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

Duane Arnold Energy Center Docket 50-331 License No. DPR-49

Response to Supplemental Request for Additional Information to Support the Review of the Duane Arnold Energy Center Spent Fuel Management Program and Preliminary Decommissioning Cost Estimate

Reference: Request from NRC to NextEra Energy Duane Arnold, dated January 19, 2010, "ME1148 (DAEC) RAI No. 5 Supplement 1," (ML100220514)

By the Reference above NRC issued a Supplemental Request for Additional Information (RAI) related to the Irradiated Fuel Management Program, and the Preliminary Decommissioning Cost Estimate provided by NextEra Energy Duane Arnold. This supplemental RAI question is identified as RAI No. 5 Supplement 1. NextEra Energy's responses to the Staff's RAI are provided in the Enclosures to this letter.

Enclosure 5 of this letter contains a proprietary version of the "Settlement Agreement" with the United Stated Department of Energy. NextEra Energy requests this proprietary information be withheld from public disclosure in accordance with 10 CFR 2.390(a)(4). An affidavit supporting this request is provided in Enclosure 4. A redacted version of this proprietary document is included in Enclosure 6.



This letter makes the following new commitment:

In the event license renewal is not granted, Duane Arnold Energy Center (DAEC) joint owners commit to provide \$52 million initial funding for spent fuel management.

Should you have questions regarding NextEra Energy's responses to the Staff's RAI, please contact Licensing Manager, Steve Catron at (319) 851-7234.

Christopher R. Costanzo

Vice President, Duane Arnold Energy Center

NextEra Energy Duane Arnold, LLC

Enclosures (6)

cc: Administrator, Region III, USNRC Project Manager, DAEC, USNRC Resident Inspector, DAEC, USNRC

ENCLOSURE 1

Response to Supplemental Request for Additional Information RAI No. 5, Supplement 1 to Support the Review of the Duane Arnold Energy Center Spent Fuel Management Program and Preliminary Decommissioning Cost Estimate

RAI No. 5: Section 1.0 Executive Summary (NRC's November 9, 2009 letter)

In the submittal, FPL identified 4 possible decommissioning scenarios for DAEC, and provided the total cost for each option, including spent fuel costs and Greenfield costs. Later in the cost study, FPL identified its annual costs associated with each option. However, FPL did not provide an analysis using the decommissioning funds to demonstrate that adequate funds are available to address these options. FPL needs to provide the supporting analysis for each of the identified alternatives or, at a minimum, for the selected option based on the trust fund balance as of December 31, 2008. NextEra's Response to NRC's RAI No. 5 was inadequate.

Supplemental RAI Part 1 [January 19, 2009 e-mail]

In NextEra Energy's December 1, 2009 (NG-09-0860) response to NRC's RAI No. 5 (above), NextEra did not address the staff concerns. In their RAI response, NextEra refers to Table 1 and Table 2 as part of their response. For both Table 1 and Table 2, NextEra appears to be deducting more than the 3 percent for decommissioning planning. The regulation, 10 CFR 50.82(8)(i)(C)(ii), limits the withdrawal to 3 percent of the generic amount specified in 10 CFR 50.75 which would limit the amount to \$15.1 million based on December 31, 2008 formula amount of \$503.7 million, and \$15.2 million based on September 30, 2009 formula amount of \$507.3 million. The amount deducted: \$7.9 million in 2012, \$9.1 million in 2013, and part or all of \$42.6 million depending on what is deducted prior to February 21, 2014, exceeds the 3 percent allowed (\$17.0 to \$59.6 million). NextEra needs to revise its submittal to reflect the regulatory limit allowed for decommissioning planning.

NextEra Energy Response to Supplemental RAI Part 1:

A revised Decommissioning Cost Estimate Study for the Duane Arnold Energy Center (DAEC) is provided as Enclosure 3. It provides revised cost estimates for the decommissioning planning period (pre-shutdown) in order to comply with the 10 CFR 50.82(8)(ii) limitation. The following adjustments were made to the estimate.

1. The duration of the pre-shutdown planning period was reduced by ten months.

- 2. The following activities initially scheduled to be performed during the preshutdown planning period were delayed until after shutdown and are now included in the post-shutdown site modifications and preparation period:
 - a. Administrative Activities
 - b. Planning for asbestos abatement
 - c. Design of interim storage facility for Greater than Class A Waste
 - d. Planning and design of site characterization.
- 3. Security guard costs during the pre-shutdown planning period were eliminated. These costs are now assumed to be an operational expense.
- 4. The duration that the Decommissioning General Contractor (DGC) staff is on-site during the pre-shutdown planning period was reduced from twelve months to six months.
- 5. The size of the DAEC and DGC staffs during the pre-shutdown planning period were reduced commensurate with the reduction in activities performed in that period.
- 6. The duration of the post-shutdown site modifications and preparation period was increased by about three months to account for the additional activities required during this period.
- 7. The amount of Dry Active Waste generated during the post-shutdown site modifications and preparation period increased slightly due to the additional person-hours occurring in this period. Therefore, waste disposal costs increased slightly during this period.

Revisions to Tables 1 and 2 are provided in Enclosure 2. These revised tables demonstrate sufficient funding, based upon the September 30, 2009 and December 31, 2008 trust balances, respectively, taking into account the cost flow revisions necessary to meet the 3% limitation in 10 CFR 50.82(8)(ii) that are provided in the revised Decommissioning Cost Estimate Study in Enclosure 3. While the revised Tables 1 and 2 reflect almost \$56 million being spent by the end of 2014, the period of currently licensed operations would end on February 21, 2014. A significant majority of the \$56 million would be spent in 2014 following plant shutdown. Table 6-5 of the revised Decommissioning Cost Estimate Study shows the license termination costs for the selected decommissioning option, Scenario 2 (SAFSTOR and no license renewal). Period 1, "SAFSTOR Planning Prior to Shutdown" lasts from December 29, 2012 to February 21, 2014 with a total cost of \$12,571,000, which is less than 3 percent of the generic amount specified in 10 CFR 50.75.

As discussed in NextEra's December 1, 2009 response (Reference 1) and shown in the revised Table 2, when using the fund balance as of December 31, 2008, NextEra's 70% share would be projected to be under funded during the last two years of decommissioning, while the overall decommissioning obligation, including

that of the joint owners, is projected as fully funded. However, as discussed in Enclosure 1 of Reference 1, and shown in the revised Table 1, gains in the fund during 2009 eliminated the under funding that is projected for NextEra Energy's share based upon its year-end 2008 balance, such that both NextEra's share and the overall decommissioning obligation for DAEC are fully met.

On November 5, 2009, NextEra submitted a "Response to Requests for Additional Information" (Reference 2) related to the Biennial Decommissioning Funding Report that was submitted on March 27, 2009. In the November 5, 2009 submittal, NextEra relied upon the same SAFSTOR cash flow table provided in the original Decommissioning Cost Estimate Study that has now been revised to comply with the 3 percent regulatory limitation. NextEra intends for both submittals to consistently reflect the selection of the SAFSTOR option and comply with the 3 percent limitation. For this reason, the attached Table 1, which utilizes the balances as of September 30, 2009 is also intended to update the Table 1 from NextEra's November 5, 2009 biennial funding RAI response (Reference 2), which also utilized the September 30, 2009 balances.

Supplemental RAI Part 2:

In addition, the NRC's RAI requested that both the spent fuel and decommissioning costs be addressed as NextEra submittal was in response to the 10 CFR 50.75 and 10 CFR 50.54(bb) requirements. The NextEra's December 1, 2009 response only addressed decommissioning costs for the SAFSTOR option. Based on the current balances shown in both Table 1 and Table 2, DAEC does not have sufficient funds to address both the spent fuel management and decommissioning costs for either option. The remaining balances shown in Table 1 and Table 2 are significantly less than the \$274.0 million, in 2008 dollars, that DAEC has estimated for spent fuel expenditures. NextEra needs to show how the spent fuel management costs will be addressed.

NextEra Energy Answer to Supplemental RAI Part 2:

NextEra's February 19, 2009 Irradiated Fuel Management Plan (Reference 3) explained that NextEra's 70% share of the post-shutdown spent fuel management funding would be assured by the issuance of a new parent company guarantee in the event the operating license for DAEC is not renewed. Also in that submittal, Corn Belt Power Cooperative (Corn Belt) and Central Iowa Power Cooperative (CIPCO) stated their plans to use operating revenue and investments outside of funds designated for decommissioning to fund their respective portions of spent fuel management. The NRC's November 9, 2009 RAI did not question the adequacy of this spent fuel management funding plan. Based upon the NRC's prior preliminary approvals of a plan involving the future issuance of a parent guarantee for spent fuel management (Reference 5) and of a plan involving future contributions (Reference 6), NextEra considers its February 19, 2009 plan to be adequate for preliminary NRC approval.

However, since the submittal of the February 19, 2009 Irradiated Fuel Management Plan, NextEra has entered into a Settlement Agreement ("the Agreement") with the U.S. Department of Energy (DOE), under which the United States Government has agreed to reimburse FPL and NextEra for costs incurred attributable to its failure to meet its contractual obligations to dispose of spent fuel at DAEC and at other FPL and NextEra plants. A copy of the Agreement is included as Enclosure 5 (to be withheld from public disclosure under 10 CFR 2.390 as requested by the Affidavit provided in Enclosure 4. A redacted version of the Agreement is provided in Enclosure 6). The Agreement provides substantial further assurance of the funding for spent fuel management at DAEC and NextEra relies on the Agreement in its modification of the February 19, 2009 plan, as is discussed below.

The Settlement Agreement

The Agreement provides for reimbursement to NextEra of all "allowable costs." Allowable costs are "those costs incurred by NextEra for managing and storing [Spent Nuclear Fuel/High Level Waste] SNF/HLW which were foreseeable in the event of DOE's Delay, and that NextEra would not have incurred but for, and which are directly related to, DOE's Delay in performance of its acceptance obligations under the Contracts." Costs must also be "reasonable," meaning they do not exceed those that would be incurred by a prudent person or entity in the context of NextEra's line of business.

As part of the Agreement, DOE and NextEra reached agreement as to the total damages for DAEC due to DOE's breach of contract from 1998, when DOE's obligation began, through the end of 2007. NextEra received payment for this amount as part of the settlement.

The Agreement also provides a framework for obtaining future damages due to DOE's continuing failure to pick up spent fuel. Under the terms of the Agreement, NextEra will make regular filings with the DOE Contracting Officer on or around April 30 of each year identifying allowable costs expended during the preceding 12 months. While the Agreement provides a dispute resolution process, NextEra does not anticipate significant disputes during the period following the permanent cessation of operations. Any costs necessary to comply with NRC regulations for the safe storage of spent fuel onsite and therefore relevant for the purpose of the Irradiated Fuel Management Plan and 10 CFR 50.54(bb) would necessarily be reasonable costs under the Agreement, because a prudent entity in NextEra's line of business would incur costs necessary to comply with NRC regulations.

The Agreement provides significant benefits in providing spent fuel management funding assurance. While a Spent Fuel Management Plan can only provide estimates of potential spent fuel management costs, under the terms of the

¹ NextEra is the sole Plaintiff party to the Agreement with respect to DAEC. Under the terms of the DAEC joint ownership agreement, NextEra will pay ongoing expenses such as spent fuel management and bill CIPCO and Corn Belt in accordance with their ownership shares in DAEC. NextEra will be reimbursed directly through the Agreement and pass a pro rata share of funds recovered from DOE to CIPCO and Corn Belt in accordance with their ownership shares in DAEC.

Agreement, DOE is responsible for 100% of the actual and reasonable spent fuel management costs attributable to its failure to dispose of DAEC's spent fuel. Whether the cash flows provided in the Decommissioning Cost Estimate Study turn out to be significantly lower or higher than the actual amount incurred becomes irrelevant because DOE must pay the actually incurred spent fuel management cost rather than the cost estimated for the purpose of 10 CFR 50.54(bb).

Spent Fuel Management Funding Assurance

DAEC's spent fuel management funding obligations can be met in part by reliance upon the reimbursement proceeds from the Agreement, an obligation of the United States Government. Accordingly, NextEra is modifying its February 19, 2009 funding plan as described below.

As can be seen in Table 6-5 of the revised Decommissioning Cost Estimate Study and Appendix E "Annual Cash Flow Tables," the total cost of spent fuel management after the February 21, 2014 permanent cessation of operations is approximately \$273 million. (The Cost Estimate includes costs for 2013 that are excluded from this discussion because they would be incurred prior to the permanent cessation of operation.)

The Appendix E Cash Flow Table for Scenario 2 shows the greatest costs incurred in the first five years following shutdown, followed by additional years with a significantly reduced cost. For this reason, the plan to rely upon proceeds from the Agreement must also provide a mechanism to provide initial funding for the first several years following shutdown. Table 3 in Enclosure 2 of this submittal demonstrates a spent fuel management funding cash flow initially funded with \$52 million. Table 3 demonstrates that this amount is adequate to cover spent fuel management funding until sufficient reimbursement proceeds are provided by the federal government to cover future costs. Table 3 does not represent a commitment to the creation of a separate trust fund and, in turn, does not take credit for any rate of return. Instead, the purpose of the plan is to demonstrate that, with an initial commitment of \$52 million, the proceeds from the Agreement would be sufficient to fund ongoing spent fuel management.

In the event license renewal is not granted, all of the DAEC joint owners commit to provide the \$52 million initial funding necessary for spent fuel management. NextEra would obtain parental assurance for its 70% share (\$36.4 million) consistent with its February 19, 2009 plan (Reference 3).² Similarly, CIPCO and Corn Belt would provide their 20% (\$10.4 million) and 10% (\$5.2 million) ownership shares,

² NextEra's commitment to provide future parental assurances is similar to the plan provided by Dominion Energy Kewaunee, Inc. and approved by the NRC. <u>See</u> Safety Evaluation by the Office of Nuclear Reactor Regulation Related to the Irradiated Fuel Management Program and Preliminary Decommissioning Cost Estimate for Kewaunee Power Station, Docket No. 50-305, September 28, 2009 (Reference 5). The commitment of CIPCO and Corn Belt to provide a future contribution is similar to the plan provided by Entergy Nuclear Operations, Inc. and approved by the NRC. <u>See</u> Safety Evaluation by the Office of Nuclear Reactor Regulation Related to the Spent Fuel Management Program, Entergy Nuclear Operations, Inc., Vermont Yankee Nuclear Power Station, Docket No. 50-271, October 8, 2009 (Reference 6).

respectively, through operating revenue and investments outside of funds designated for decommissioning. CIPCO and Corn Belt are electric cooperatives and are able to recover their cost of service. Subsequent reimbursements from the federal government would be directed to future spent fuel management costs in an amount sufficient to ensure adequate funding.

Supplemental RAI Part 3:

The NextEra December 1, 2009 response to RAI No. 5 refers to a \$93 million dollar parent company guarantee (PCG) issued by [FPL Group Capital Inc.] on behalf of DAEC. The staff's review of FPL's annual report for 2008 did not locate any reference to the \$93 million PCG mentioned in the response to RAI. No. 5. Provide a citation to the page in the annual report that discusses the PCG, or verify that the annual report does not include such a discussion. If there is no discussion of the PCG in the annual report, explain why the discussion was not included. In addition, the DAEC License Condition 2, Appendix B, page 2 of the Duane Arnold License, as amended in Amendment 275 (ML093030113 dated November 13, 2009) references a PCG of \$75 million (in 2005 dollars). Explain the reference to the \$93.0 million PCG in the December 1, 2009, NextEra's RAI response compared to the November 13, 2009 Amendment 275 that identifies a PCG in the amount of \$75 million in 2005 dollars.

NextEra Energy Answer to Supplemental RAI Part 3:

The license condition to which the RAI refers states that upon the closing of the sale FPL Energy Duane Arnold, LLC (now NextEra Energy Duane Arnold, LLC) was required to obtain a \$75 million parent guarantee to provide additional decommissioning funding assurance. Further, the license condition requires the licensee to obtain appropriate adjustments to that guarantee in order to meet decommissioning obligations.

A \$75 million parent guarantee was provided at the time of the closing of the sale, as required by the license condition. However, in compliance with the license condition and with 10 CFR 50.75, the DAEC parent guarantee was increased to \$93 million in 2007. This was reported to the NRC in FPL Energy's June 28, 2007 Revised Decommissioning Funding Status Report (Reference 7). It is unnecessary to amend this license condition each time the parent guarantee must be increased, as the condition was historical in nature and already requires appropriate future adjustments.

The FPL Group 2008 Annual Report identifies the DAEC parent guarantee on page 66, but does not state its amount. The current amount is stated on page 38 of FPL Group's 3rd Quarter 2009 Form 10-Q, dated October 30, 2009.³

³ FPL Group's 2008 Annual Report is available at: http://www.fplgroup.com/reports/pdf/2008_annual.pdf. FPL Group's 3rd Quarter 2009 Form 10-Q is available at: http://www.investor.fplgroup.com/phoenix.zhtml?c=88486&p=irol-sec.

References:

- 1. Letter NG-09-0860 from C. Costanzo, NextEra Energy Duane Arnold, to NRC, "Response to Request for Additional Information to Support the Review of the Duane Arnold Energy Center Spent Fuel Management Program and Preliminary Decommissioning Cost Estimate," dated December 1, 2009. (ML093440059)
- Letter L-2009-256 from M. Nazar, Florida Power & Light Company, to NRC, "Response to Requests for Additional Information," dated November 5, 2009. (ML093130065)
- 3. Letter NG-09-0038 from R. Anderson, FPL Energy Duane Arnold, to NRC, "Irradiated Fuel Management Plan and Preliminary Decommissioning Cost Estimate for Duane Arnold Energy Center," dated February 19, 2009. (ML090550968)
- 4. Request from NRC to NextEra Energy Duane Arnold, "Request for Additional Information to Support the Review of the Duane Arnold Energy Center Spent Fuel Management Program and Preliminary Decommissioning Cost Estimate," dated November 9, 2009. (ML093140630)
- 5. Letter from NRC to D. Heacock, "Kewaunee Power Station Irradiated Fuel Management Program and Preliminary Decommissioning Cost Estimate," dated September 28, 2009. (ML092321079)
- 6. Letter from NRC to Vermont Yankee Site Vice President, "Vermont Yankee Nuclear Power Station Safety Evaluation RE: Update to Spent Fuel Management Program," dated October 8, 2009. (ML092740238)
- 7. Letter NG-07-0481 from G. Van Middlesworth, FPL Energy Duane Arnold, to NRC, "Revised Decommissioning Funding Status Report for the Duane Arnold Energy Center," dated June 28, 2007. (ML071860229)

ENCLOSURE 2

Tables 1, 2 and 3

Table 1 Duane Arnold Energy Center License Termination Funding Plan Scenario 2: 2014 Shutdown, SAFSTOR Alternative (Thousands of Dollars)

Basis Year 2008

Basis Year 2008
Fund Balance as of 9/30/09: (Thousands of Dollars)
Next Era 184,620 70% ownership
CIPCO 31,955 20% ownership
Com Belt 161,041 170st Fund Balance 232,709

0% 2% 4% 3% Annual Escalation Annual Earnings - Next Era Annual Earnings - CIPCO Annual Earnings - Corn Belt

Annual Earnings - Corn Belt 3%								
A	В	С	D	E	F	G	Н.,,,,	l
	50.75 License	Total Cost	Next Era Decommissioning Trust Fund Balance escalated at 2% minus 70%	at 4% minus 20%	Corn Belt Decommissioning Trust Fund Balance escalated at 3% minus 10% of	Total Decommisioning	CIPCO Decommissioning	Corn Belt Decommissioning
Year	Termination Cost	Escalated at 0%	of expenses + Contributions	of expenses + Contributions	expenses + Contributions	Trust Fund minus expenses	Trust Fund Contributions	Trust Fund Contributions
2009	- 0031	- 21 0 /6	184,620	32,485	16,604	233,709	500	500
2010	-	-	188,312	34,784	17,602	240,699	1,000	500
2011			192,079	37,176	18,880	248,135	1,000	750
2012	10,925	10,925	195,857 192,127	39,645 40,046	20,438 21,208	255,940	1,000 1,000	1,000 1,250
2013	44,630	44,630	164,728	33,721	18,881	253,381 217,331	1,000	1,500
2015	8,936	8,936	161,768	33,283	18,554	213,605	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,
2016	1,790	1,790	163,750	34,256	18,932	216,938		
2017	1,790	1,790	165,772	35,269	19,321	220,362		
2018 2019	1,790 13,330	1,790 13,330	167,835 161,860	36,321 35,108	19,722 18,980	223,877 215,949		
2020	3,795	3,795	162,441	35,754	19,170	217,365		
2021	3,795	3,795	163,033	36,425	19,366	218,824		
2022	3,795	3,795	163,637	37,123	19,567	220,327		
2023 2024	3,795 3,795	3,795 3,795	164,254 164,882	37,849 38,604	19,775 19,988	221,877 223,474		
2025	2,035	2,035	166,755	39,741	20,385	226,881		
2026	1,448	1,448	169,077	41,041	20,851	230,969		
2027	1,448	1,448	171,445	42,393	21,332	235,170	,	
2028	1,448	1,448	173,860	43,799	21,827	239,486		
2029	1,448	1,448 1,448	176,324 178,837	45,261 46,782	22,337 22,863	243,922 248,481		
2031	1,448	1,448	181,400	48,364	23,404	253,167		
2032	1,448	1,448	184,014	50,009	23,961	257,984		
2033	1,448	1,448	186,681	51,719	24,535	262,935		
2034	1,448 1,448	1,448 1,448	189,401 192,175	53,499 55,349	25,126 25,735	268,026 273,259		
2036	1,448	1,448	195,005	57,273	26,362	278,641		
2037	1,448	1,448	197,892	59,275	27,008	284,175		
2038	1,448	1,448	200,836	61,356	27,674	289,866		
2039	1,448	1,448	203,839	63,521	28,359	295,719		
2040 2041	1,448 1,448	1,448	206,902 210,027	65,772 68,113	29,065 29,793	301,740 307,932		
2042	1,448	1,448	213,214	70,548	30,541	314,303	1	
2043	1,448	1,448	216,464	73,081	31,313	320,858	1	
2044	1,448	1,448	219,780		32,108	327,602		
2045 2046	1,448 1,448	1,448 1,448	223,162 226,612	78,453 81,302	32,926 33,769	334,541 341,682		
2047	1,448	1,448	230,130	84,264	34,637	349,031		
2048	1,448	1,448	233,719	87,345	35,531	356,596		
2049	1,448	1,448	237,380	90,549	36,453	364,382		
2050	1,448	1,448	241,114	93,882	37,401	372,397	*	
2051 2052	1,448 1,448	1,448 1,448	244,923 248,808	97,347 100,952	38,379 39,385	380,649 389,144		
2053	1,448	1,448	252,770	104,700	40,422	397,892		
2054	1,620	1,620	256,692	108,564	41,473	406,728		
2055	2,305	2,305	260,212	112,446	42,486	415,144		
2056 2057	2,305 2,305	2,305 2,305	263,803 267,465	116,482 120,681	43,530 44,606	423,815 432,752		
2058	2,305	2,305	271,201	125,047	45,713	441,961		
2059	2,305	2,305	275,011	129,588	46,854	451,454		
2060	2,305	2,305	278,898	134,310	48,030	461,238		
2061 2062	2,305 2,305	2,305 2,305	282,863 286,906	139,222 144,330	49,240 50,487	471,324 481,723		
2062	2,305	2,305	286,906	144,330	51,771	481,723		
2064	2,305	2,305	295,238	155,166	53,093	503,498		
2065	2,305	2,305	299,529	160,912	54,456	514,897		
2066	8,156	8,156	299,811	165,717	55,274	520,802		
2067 2068	12,229 63,483	12,229 63,483	297,247 258.754	169,900 164,000	55,709 51,032	522,856 473,785		
2069	79,252	79,252	208,452	154,709	44,638	4/3,/85		
2070	96,018	96,018	145,409	141,694	36,375	323,478		
2071	81,018	81,018	91,604	131,158	29,365	252,127		
2072	47,704	47,704	60,044	126,864	25,475	212,382		
2073 Total	18,639 578,309	18,639 578,309	46,996	128,211	24,375	199,582		
, Juli	3/0,309	310,309					!	

Calculations:

Column D = (Column D (Previous year's fund balance)* (1+.02)) - (Column C* 0.70) (70% of current year's decommissioning expenditures)

Column E = (Column E(Previous year's fund balance)* (1+.04)) - (Column C* 0.20) (20% of current year's decommissioning expenditures) + Column H (current year's contributions)

Column F = (Column D + Column E(Previous year's fund balance)* (1+.03)) - (Column C* 0.10) (10% of current year's decommissioning expenditures) + Column I (current year's contributions)

Column G = Column D + Column E + Column F

Table 2 Duane Arnold Energy Center License Termination Funding Plan Scenario 2: 2014 Shutdown, SAFSTOR Alternative (Thousands of Dollars)

 Basis Year
 2008

 Fund Balance as of 12/31/08: (Thousands of Dollars)

 Next Era
 183,576
 70% ownership

 CIPCO
 26,112
 20% ownership

 Corn Belt
 13,386
 10% ownership

 Total Trust Fund Balance
 203,074
 10% ownership

Annual Escalation Annual Earnings - Next Era Annual Earnings - CIPCO Annual Earnings - Corn Belt

0% 2% 4% 3%

Α	В	с	Ď	· Е	F	G	н ′	
			Next Era	CIPCO	Corn Belt			
			Decommissioning	Decommissioning	Decommissioning			
			Trust Fund	Trust Fund	Trust Fund Balance			
		j	Balance escalated	Balance escalated	escalated at 3%	Total	CIPCO ·	Corn Belt
	50.75 License	Total Cost	at 2% minus 70%	at 4% minus 20%	minus 10% of	Decommisioning	Decommissioning	Decommissioning
V	Termination	Escalated	of expenses +	of expenses +	expenses +	Trust Fund minus	Trust Fund Contributions	Trust Fund Contributions
Year 2009	Cost	at 0%	Contributions 163,576	Contributions 26.612	Contributions 13,886	expenses 204,074	500	500
2010	-		166,848	28,676	14,803	210,327	1,000	50
2011	-	-	170,184	30,824	15,997	217,005	1,000	75
2012	90	90	173,525	33,038	17,468	224,031	1,000	1,00
2013	10,925	10,925	169,348	33,175	18,149	220,672	1,000	1,25
2014 2015	44,630 8,936	44,630	141,494	26,576 25,852	15,731 15,309	183,801 179,230	1,000	1,50
2016	1,790	8,936 1,790	138,069 139,577	26,528	15,589	181,694		
2017	1,790	1,790	141,116	27,231	15,878	184,225		*
2018	1,790	1,790	142,685	27,962	16,175	186,822		
2019	13,330	13,330	136,208	26,415	15,327	177,950		
2020	3,795	3,795	136,275	26,712	15,408	178,396		
2021	3,795	3,795	136,344	27,022	15,490	.178,857		
2022	3,795 3,795	3,795 3,795	136,415 136,487	27,344 27,678	15,576 15,663	179,334 179,829		
2023	3,795	3,795	136,560	28,027	15,754	180,340		
2025	2,035	2,035	137,867	28,741	16,023	182,630		
2026	1,448	1,448	139,610	29,601	16,359	185,570		
2027	1,448	1,448	141,389	30,495	16,705	188,589		
2028	1,448	1,448	143,203	31,425	17,061 17,428	191,690 194,874		
2030	1,448	1,448	145,053 146,941	32,393 33,399	17,428	198,146		
2031	1,448	1,448	148,866	34,445	18,196	201,507		
2032	1,448	1,448	150,830	35,533	18,597	204,960		
2033	1,448	1,448	152,833	36,665	19,010	208,508		
2034	1,448	1,448	154,876	37,842	19,435	212,153		
2035 2036	1,448 1,448	1,448	156,960 159,085	39,066 40,339	19,874 20,325	215,900 219,750		
2037	1,448	1,448	161,254	41,663	20,790	223,707		
2038	1,448	1,448	163,465	43,040	21,269	227,774		
2039	1,448	1,448	165,721	44,472	21,762	231,955		
2040	1,448	1,448	168,022	45,962	22,270	236,253		
2041	1,448	1,448	170,368	47,510	22,793	240,672		
2042 2043	1,448 1,448	1,448	172,762 175,204	49,121 50,796	23,332 23,888	245,216 249,888	•	
2043	1,448	1,448	177,694	52,539	24,459	. 254,692		
2045	1,448	1,448	180,235	54,351	25,048	259,634		
2046	1,448	1,448	182,826	56,235	25,655	264,716		
2047	1,448	1,448	185,469	58,195	26,280	269,943		
2048	1,448	1,448	188,164	60,233	26,924	275,321		
2049 2050	1,448 1,448	1,448	190,914 193,719	62,353 64,557	27,586 28,269	280,853 286,545		
2051	1,448	1,448	196,580	66,850	28,972	292,402		
2052	1,448	1,448	199,497	69,234	29,697	298,429		
2053	1,448	1,448	202,474	- 71,714	30,443	304,631		*
2054	1,620	1,620	205,389	74,259	31,194	310,842		
2055 2056	2,305 2,305	2,305 2,305	207,884 210,428	76,768 79,378	31,900 32,626	316,551 322,432		
2057	2,305	2,305	213,023	82,092	33,374	328,489		
2058	2,305	2,305	215,670	84,915	34,145	334,730		
2059	2,305	2,305	218,370	87,850	34,939	341,159	•	
2060	2,305	2,305	221,124	90,903	35,757	347,783		
2061	2,305	2,305	223,933	94,078	36,599	354,610		*
2062 2063	2,305 2,305	2,305	226,798 229,720	97,381 100,815	37,466 38,360	361,645 368,895	•	
2064	2,305	2,305	232,701	100,815	39,280	376,367		
2065	2,305	2,305	235,742	108,101	40,228	384,070		
2066	8,156	8,156	234,747	110,794	40,619	386,160		
2067	12,229	12,229	230,882	112,780	40,615	384,276		
2068	63,483	63,483	191,061	104,594	35,485	331,141		
2069 2070	79,252 96,018	79,252	139,406 74,982	92,928 77,441	28,624 19,881	260,958 172,304		
2070	96,018 81,018	96,018 81,018	74,982 19,769	64,335	12,376	96,480		
2072	47,704	47,704	(13,229)	57,368	7,977	52,116		
2073	18,639	18,639	(26,276)	55,935	6,352	36,011		
Total	578,309	578,309						

Calculations:

Column D = (Column D (Previous year's fund balance)* (1+.02)) - (Column C* 0.70) (70% of current year's decommissioning expenditures)

Column E = (Column E(Previous year's fund balance)* (1+.04)) - (Column C* 0.20) (20% of current year's decommissioning expenditures) + Column H (current year's contributions)

Column F = (Column D + Column E + Column F + Column

Table 3

Duane Arnold Energy Center Spent Fuel Management Funding Plan Scenario 2: 2014 Shutdown, SAFSTOR Alternative (Thousands of Dollars)

Basis Year:

2008

Annual Escalation:

0%

Year	50.54(bb) Spent Fuel Management Cost (2)	Total Cost Escalated at 0%	Prior Year Balance - Current Year Expense + DOE Reimbursement	Initial Funding Commitment	DOE Reimbursement
2013	1	-	-		
2014 (1)	22,299	22,299	29,701	52,000	
2015	25,939	25,939	3,762	32,530	
2016	25,939	25,939	122		22,299
2017	25,939	25,939	122		25,939
2018	25,939	25,939	122		25,939
2019	7,027	7,027	19.034		25,939
2020	3,949	3,949	41,024		25,939
2021	3,949	3,949	44,102		7,027
2022	3,949	3,949	44,102		3,949
2023	3,949	3,949	44,102		3,949
2024	3,949	3,949	44,102		3.949
2025	3,949	3,949	44,102		3,949
2026	3,949	3,949	44,102		3,949
2027	3,949	3,949	44,102		3,949
2028	3,949	3,949	44,102		3,949
2029	3,949	3,949	44,102		3,949
2030	3,949	3,949	44,102		3.949
2031	3,949	3,949	44,102		3,949
2032	3.949	3,949	44.102		3,949
2033	3,949	3,949	44,102		3,949
2034	3,949	3,949	44,102		3,949
2035	3,949	3,949	44,102		3,949
2036	3,949	3,949	44,102		3,949
2037	3,949	3,949	44,102		3,949
2038	3,949	3,949	44,102		3,949
2039	3,949	3,949	44,102		3,949
2040	3,949	3,949	44,102		. 3,949
2041	3,949	3,949	44,102		3,949
2042	3,949	3,949	44,102		3,949
2043	3,949	3,949	44,102		3,949
2044	3,949	3,949	44,102		3,949
2045	3,949	3,949	44,102		3,949
2046	3,949	3,949	44,102		3,949
2047	3,949	3,949	44,102		3,949
2048	3,949	3,949	44,102		3,949
2049	3,949	3,949	44,102		3,949
2050	3,949	3,949	44,102		3,949
2051	3,949	3,949	44,102		3,949
2052	3,949	3,949	44,102		3,949
2053	4,749	4,749	43,302		3,949
2054	4,644	4,644	42,607		3,949
2055		-	47,356		4,749
2056		, _	52,000		4,644
Total	272,792	272,792		52,000	272,792

⁽¹⁾ Assumes \$52 million initial contribution amount in 2014 to fund years prior to receiving DOE reimbursement.

⁽²⁾ Excludes costs occuring in 2013, which is during the period of licensed operations.