



Crystal River Nuclear Plant
15760 W. Power Line Street
Crystal River, FL 34428
Docket 50-302
Docket 72-1035
Operating License No. DPR-72

10 CFR 50.82
10 CFR 50.75

March 22, 2016
3F0316-02

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

Subject: Crystal River Unit 3 – Annual Decommissioning and Irradiated Fuel Management
Financial Status Report for 2015

- References:
1. NRC to CR-3 letter dated March 13, 2013, "Crystal River Unit 3 Nuclear Generating Plant Certification of Permanent Cessation of Operation and Permanent Removal of Fuel From the Reactor" (ADAMS Accession No. ML13058A380)
 2. CR-3 to NRC letter dated December 2, 2013, "Crystal River Unit 3 – Post-Shutdown Decommissioning Activities Report" (ADAMS Accession No. ML13340A009)
 3. NRC to CR-3 letter dated January 26, 2015, "Crystal River Unit 3 Nuclear Generating Plant – Exemptions from the Requirements of 10 CFR Part 50, Sections 50.82(a)(8)(i)(A) and 50.75(h)(2)" (ADAMS Accession No. ML14247A545)
 4. NRC to CR-3 letter dated March 11, 2015, "Crystal River Unit 3 Nuclear Generating Plant Post-Shutdown Decommissioning Activities Report" (ADAMS Accession No. ML14321A751)
 5. NRC to CR-3 letter dated October 30, 2015, "Crystal River Unit 3 Nuclear Generating Plant Issuance of Conforming Amendment No. DPR-72 from Eight Minority Co-Owners to Duke Energy Florida, Inc." (ADAMS Accession No. ML15191A179)

Dear Sir:

In accordance with 10 CFR 50.75(f)(1), 10 CFR 50.82(a)(8)(v), 10 CFR 50.82(a)(8)(vi), and 10 CFR 50.82(a)(8)(vii), Duke Energy Florida, LLC, previously known as Duke Energy Florida, Inc., (DEF) is submitting the annual status of decommissioning funding, status of funding for managing irradiated fuel, and the financial assurance status report for 2015. In Reference 1, the NRC acknowledged Crystal River Unit 3 Nuclear Generating Plant (CR-3) certification of permanent cessation of power operation and permanent removal of fuel from the reactor vessel. In Reference 2, DEF submitted its Post-Shutdown Decommissioning Activities Report (PSDAR) containing a site-specific Decommissioning Cost Estimate (DCE) pursuant to 10 CFR 50.82(a)(4)(i) and 10 CFR 50.82(a)(8)(iii). Accordingly, a status of decommissioning funding pursuant to 10 CFR 50.75(f)(1), a financial assurance status report pursuant to 10 CFR

50.82(a)(8)(v) and 10 CFR 50.82(a)(8)(vi), and a report on the status of the funding for managing irradiated fuel pursuant to 10 CFR 50.82(a)(8)(vii) are required to be submitted by March 31 of each year.

In Reference 3, the NRC provided its approval of the CR-3 exemption request to use the funds from the CR-3 Decommissioning Trust Funds for Irradiated Fuel Management and Site Restoration Costs. The financial assurance demonstration performed in this submittal has been prepared consistent with that exemption request. In Reference 4, the NRC found that the PSDAR contained the necessary information required by 10 CFR 50.82(a)(4)(i) and was consistent with the guidance of Regulatory Guide 1.185.

In Reference 5, the NRC approved a license transfer of the 6.52 percent combined ownership share in CR-3 held by eight minority co-owners to DEF. This leaves only DEF and Seminole Electric Cooperative, Inc. (SEC) as co-owners of CR-3.

The attachments to this letter contain the information required by the above regulations for DEF and SEC. Neither of the co-owners assumes any responsibility for the information contained in any other co-owner's report. The report contains the following required information:

- (1) The amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c), (While DEF is identifying this amount because it is specified in 10 CFR 50.75(f)(1), it does not appear applicable to a plant that has permanently ceased operation, has submitted a site specific cost estimate, and is engaged in decommissioning).
- (2) The amount of decommissioning funds accumulated to the end of the calendar year preceding the date of this report,
- (3) A schedule of annual amounts remaining to be collected,
- (4) 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,
- (5) Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v),
- (6) Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report,
- (7) Any material changes to trust agreements or financial assurance contracts,
- (8) The amount spent on decommissioning, both cumulative and over the previous calendar year,
- (9) The remaining balance of any decommissioning funds,
- (10) The amount provided by other financial assurance methods being relied upon,
- (11) An estimate of the costs to complete decommissioning, reflecting any difference between actual and estimated costs for work performed during the year,
- (12) The decommissioning criteria upon which the estimate is based,
- (13) If the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated are not greater than a 2 percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated costs to complete the decommissioning, the financial assurance status report must include additional financial assurance to cover the estimated cost of completion,
- (14) The amount of funds accumulated to cover the cost of managing the irradiated fuel,
- (15) The projected cost of managing irradiated fuel until title to the fuel and possession of the fuel is transferred to the Secretary of Energy, and

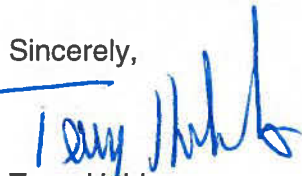
- (16) If the funds accumulated do not cover the projected cost (of irradiated fuel), a plan to obtain additional funds to cover the cost.

The adjustment factors for labor rates and energy costs used in Item (1) for the calculation in 10 CFR 50.75(c)(2) are determined using the December 2015 indices from the U.S. Department of Labor, Bureau of Labor Statistics. The adjustment factor for the cost of low-level waste burial charges used in Item (1) for the calculation in 10 CFR 50.75(c)(2) is determined using NUREG-1307, Revision 15, which is consistent with the intent of Regulatory Issue Summary 2014-12, "Decommissioning Fund Status Report Calculations - Update to Low-Level Waste Burial Charge Information."

There are no new regulatory commitments associated with this letter.

If you have any questions regarding this submittal, please contact Mr. Mark Van Sicklen, Licensing Lead, Nuclear Regulatory Affairs, at (352) 563-4795.

Sincerely,



Terry Hobbs
General Manager, Decommissioning

TDH/mvs

Attachments:

- Attachment 1 – Duke Energy Florida, Crystal River Unit 3 Funding Status Report
- Attachment 2 – Seminole Electric Cooperative, Crystal River Unit 3 Funding Status Report
- Attachment 3 – Crystal River Unit 3, Estimate of Costs to Complete Decommissioning and Financial Assurance Demonstration

xc: NMSS Project Manager
Regional Administrator, Region I

DUKE ENERGY FLORIDA, LLC

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

ATTACHMENT 1

**DUKE ENERGY FLORIDA,
CRYSTAL RIVER UNIT 3 FUNDING STATUS REPORT**

NRC Decommissioning Funding Status Report
Report Dated as of December 31, 2015
Duke Energy Florida
Crystal River Unit 3
98.3006% Ownership

Item #		Crystal River Unit 3	
10 CFR 50.75(f)(1) - Status of decommissioning funding			
1	1a. The amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c);	\$ 470,592,672	
	1b. The amount of decommissioning funds estimated to be required for remaining License Termination costs.	\$ 819,266,166 ¹	
2	The amount of decommissioning funds accumulated to the end of the calendar year preceding the date of the report;	\$ 747,127,179 ^{2,3}	
3	A schedule of the annual amounts remaining to be collected;	None	
4	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;	inflation qualified rate of return	2.8% ⁴ 5.10% ⁴
5	Any contracts upon which the licensee is relying pursuant to paragraph 10 CFR 50.75(e)(1)(v);	None	
6	Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and	None	
7	Any material changes to trust agreements.	After the close of business on December 31, 2015, State Street Bank and Trust Company was removed as the trustee and was replaced with The Bank of New York Mellon.	
10 CFR 50.82(a)(8)(v) - Financial assurance status report			
8	(A) The amount spent on decommissioning, both cumulative and over the previous calendar year,	\$ 40,845,355 ⁵ \$ 44,004,476 ⁶	- Previous calendar year - Cumulative
9	The remaining balance of any decommissioning funds, and	\$ 747,127,179 ^{2,3}	
10	The amount provided by other financial assurance methods being relied upon;	None	
11	(B) An estimate of the costs to complete decommissioning, reflecting any difference between actual and estimated costs for work performed during the year, and	See Attachment 3	
12	The decommissioning criteria upon which the estimate is based;	Unrestricted Release	
13	(C) Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and	None	
14	(D) Any material changes to trust agreements or financial assurance contracts.	See Line Item 7	
10 CFR 50.82(a)(8)(vi)			
15	If the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2 percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete the decommissioning, the financial assurance status report must include additional financial assurance to cover the estimated cost of completion.	As demonstrated in Attachment 3, funds accumulated cover estimated cost of completion.	
10 CFR 50.82(a)(8)(vii) - Report on the status of funding for managing irradiated fuel			
16	(A) The amount of funds accumulated to cover the cost of managing the irradiated fuel;	As demonstrated in Attachment 3, funds accumulated cover estimated cost of completion.	
17	(B) The projected cost of managing irradiated fuel until title to the fuel and possession of the fuel is transferred to the Secretary of Energy; and	See Attachment 3	
18	(C) If the funds accumulated do not cover the projected cost, a plan to obtain additional funds to cover the cost.	As demonstrated in Attachment 3, funds accumulated cover projected cost of managing irradiated fuel, with the noted exception of DEF's portion of ISFSI capital construction costs as described in the update to Irradiated Fuel Management Program pursuant to 10CFR50.54(bb) (ADAMS Accession No. ML13440A008).	

Attachment 1 Footnotes:

¹ DEF's ownership share of the total amount of License Termination costs (Column A) in Attachment 3.

² Amount is net of 2015 tax obligations.

³Represents (a) the full fund balance of DEF's qualified and non-qualified decommissioning funds, which, in accordance with the NRC exemption request approval (ADAMS Accession No. 14247A545), can also be used for Spent Fuel Management and Site Restoration costs, and (b) 100% of the funds held by the City of Tallahassee on behalf of DEF, which pursuant to NRC order (ADAMS Accession No. ML020670117) will only be used for NRC radiological decommissioning.

⁴ Represents values approved by the Florida Public Service Commission in Order No. PSC-14-0702-PAA-EI, issued December 22, 2014, which became effective and final pursuant to Order No. PSC-15-0067-CO-EI, issued on January 23, 2015.

⁵ Represents the amount actually disbursed from the fund in calendar year 2015 for License Termination costs, not the costs incurred in calendar year 2015. The Note applicable to Column A in Attachment 3 identifies the total amount of 2015 License Termination costs that have not been disbursed from the funds as of December 31, 2015.

⁶ Represents the cumulative amount actually disbursed from the fund as of December 31, 2015 for License Termination costs, not the cumulative costs incurred as of December 31, 2015. The Note applicable to Column A in Attachment 3 identifies the total amount of License Termination costs that have not been disbursed from the funds as of December 31, 2015.

DUKE ENERGY FLORIDA, LLC

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ATTACHMENT 2

**SEMINOLE ELECTRIC COOPERATIVE,
CRYSTAL RIVER UNIT 3 FUNDING STATUS REPORT**

NRC Decommissioning Funding Status Report
December 31, 2015
Seminole Electric Cooperative, Inc.
Crystal River Unit 3
1.6994% Ownership

Item #		Crystal River Unit 3	
	10 CFR 50.75(f)(1)		
1	1a. The amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c);	\$ 8,135,507	
	1b. The amount of decommissioning funds estimated to be required for remaining License Termination costs.	\$ 14,163,300 ¹	
2	The amount of decommissioning funds accumulated to the end of the calendar year preceding the date of the report;	\$ 14,214,894 ^{2,3}	
3	A schedule of the annual amounts remaining to be collected;	None	
4	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;	inflation 2.80% rate of return 4.71%	
5	Any contracts upon which the licensee is relying pursuant to paragraph 10 CFR 50.75(e)(1)(v);	None	
6	Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and	None	
7	Any material changes to trust agreements.	None	
	10 CFR 50.82(a)(8)(v)		
8	(A) The amount spent on decommissioning, both cumulative and over the previous calendar year.	\$ 0 ⁴ - Previous calendar year	
		\$ 0 ⁵ - Cumulative	
9	The remaining balance of any decommissioning funds, and	\$ 14,214,894 ^{2,3}	
10	The amount provided by other financial assurance methods being relied upon;	None	
11	(B) An estimate of the costs to complete decommissioning, reflecting any difference between actual and estimated costs for work performed during the year, and	See Attachment 3	
12	The decommissioning criteria upon which the estimate is based;	Unrestricted Release	
13	(C) Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and	None	
14	(D) Any material changes to trust agreements or financial assurance contracts.	None	
	10 CFR 50.82(a)(8)(vi)		
15	If the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2 percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete the decommissioning, the financial assurance status report must include additional financial assurance to cover the estimated cost of completion.	As demonstrated in Attachment 3, funds accumulated cover estimated cost of completion.	
	10 CFR 50.82(a)(8)(vii)		
16	(A) The amount of funds accumulated to cover the cost of managing the irradiated fuel;	As demonstrated in Attachment 3, funds accumulated cover estimated cost of completion.	
17	(B) The projected cost of managing irradiated fuel until title to the fuel and possession of the fuel is transferred to the Secretary of Energy; and	See Attachment 3	
18	(C) If the funds accumulated do not cover the projected cost, a plan to obtain additional funds to cover the cost.	As demonstrated in Attachment 3, funds accumulated cover projected cost of managing irradiated fuel, with the noted exception of DEF's portion of ISFSI capital construction costs as described in the update to Irradiated Fuel Management Program pursuant to 10CFR50.54(bb) (ADAMS Accession No. ML13440A008).	

Attachment 2 Footnotes:

¹ Seminole Electric Cooperative, Inc. ownership share of the total amount of License Termination costs (Column A) in Attachment 3.

² Amount is net of 2015 tax obligations.

³ Represents the full fund balance of the Seminole Electric Cooperative, Inc. trust fund, which, in accordance with the NRC exemption request approval (ADAMS Accession No. ML14247A545), can also be used for Spent Fuel Management and Site Restoration costs.

⁴ Represents the amount actually disbursed from the fund in calendar year 2015 for License Termination costs, not the costs incurred in calendar year 2015. The Note applicable to Column A in Attachment 3 identifies the total amount of 2015 License Termination costs that have not been disbursed from the funds as of December 31, 2015.

⁵ Represents the cumulative amount actually disbursed from the fund as of December 31, 2015 for License Termination costs, not the cumulative costs incurred as of December 31, 2015. The Note applicable to Column A in Attachment 3 identifies the total amount of License Termination costs that have not been disbursed from the funds as of December 31, 2015.

DUKE ENERGY FLORIDA, LLC

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ATTACHMENT 3

**CRYSTAL RIVER UNIT 3,
ESTIMATE OF COSTS TO COMPLETE DECOMMISSIONING AND
FINANCIAL ASSURANCE DEMONSTRATION**

Crystal River Unit 3
Attachment 3 - Financial Assurance Demonstration
December 31, 2015

	Column A	Column B	Column C	Column D	Column E	Column F
	Annual Expenses	Annual expenses	Annual expenses	Total Expenses	Projected Earnings	End-of-year Fund Balances
	License Termination Cost (in thousands)	Spent Fuel Cost (in thousands)	Site Restoration Cost (in thousands)	Total Cost (in thousands)	Annual Earnings on Decommissioning Trust Fund at 2% (in thousands)	All Owners Decommissioning Trust Fund Year-End Balance (in thousands)
2015						761,342
2016	114,723	47,687	0	162,410	13,603	612,535
2017	6,935	38,685	0	45,620	11,794	578,710
2018	6,935	36,482	0	43,417	11,140	546,433
2019	6,388	24,102	0	30,490	10,624	528,567
2020	5,535	4,694	0	10,229	10,429	528,767
2021	5,520	4,681	0	10,201	10,433	527,000
2022	5,520	4,681	0	10,201	10,438	527,237
2023	5,520	4,681	0	10,201	10,443	527,479
2024	5,535	4,694	0	10,229	10,447	527,698
2025	5,520	4,681	0	10,201	10,452	527,949
2026	5,520	4,681	0	10,201	10,457	528,206
2027	5,520	4,681	0	10,201	10,462	528,467
2028	5,535	4,694	0	10,229	10,467	528,705
2029	5,520	4,681	0	10,201	10,472	528,977
2030	5,520	4,681	0	10,201	10,478	529,254
2031	5,520	4,681	0	10,201	10,483	529,536
2032	5,535	4,694	0	10,229	10,488	529,796
2033	5,520	4,681	0	10,201	10,494	530,089
2034	5,520	4,681	0	10,201	10,500	530,388
2035	5,520	7,491	0	13,010	10,478	527,856
2036	5,535	6,801	0	12,336	10,434	525,953
2037	5,487	0	0	5,487	10,464	530,930
2038	5,487	0	0	5,487	10,564	536,007
2039	5,487	0	0	5,487	10,665	541,185
2040	5,501	0	0	5,501	10,769	546,452
2041	5,487	0	0	5,487	10,874	551,839
2042	5,487	0	0	5,487	10,982	557,334
2043	5,487	0	0	5,487	11,092	562,939
2044	5,501	0	0	5,501	11,204	568,641
2045	5,487	0	0	5,487	11,318	574,472
2046	5,487	0	0	5,487	11,435	580,420
2047	5,487	0	0	5,487	11,554	586,486
2048	5,501	0	0	5,501	11,675	592,659
2049	5,487	0	0	5,487	11,798	598,971
2050	5,487	0	0	5,487	11,925	605,408
2051	5,487	0	0	5,487	12,053	611,974
2052	5,501	0	0	5,501	12,184	618,657
2053	5,487	0	0	5,487	12,318	625,488
2054	5,487	0	0	5,487	12,455	632,456
2055	5,487	0	0	5,487	12,594	639,563
2056	5,501	0	0	5,501	12,736	646,798
2057	5,487	0	0	5,487	12,881	654,192
2058	5,487	0	0	5,487	13,029	661,734
2059	5,487	0	0	5,487	13,180	669,427
2060	5,501	0	0	5,501	13,334	677,259
2061	5,487	0	0	5,487	13,490	685,262
2062	5,487	0	0	5,487	13,650	693,425
2063	5,487	0	0	5,487	13,814	701,752
2064	5,501	0	0	5,501	13,980	710,231
2065	5,487	0	0	5,487	14,150	718,893
2066	5,487	0	0	5,487	14,323	727,729
2067	28,974	0	415	29,389	14,261	712,601
2068	65,842	0	1,343	67,185	13,580	658,996
2069	120,198	0	1,658	121,857	11,961	549,100
2070	91,374	0	1,015	92,389	10,058	466,769
2071	76,902	0	692	77,594	8,559	397,735
2072	51,495	0	270	51,765	7,437	353,406
2073	4,945	0	27,751	32,696	6,741	327,452
2074	95	0	20,272	20,366	6,345	313,431
Total ¹	\$833,429	\$231,513	\$53,416	\$1,118,359		

Footnotes next page

Attachment 3 Footnotes:

Column A - Annual Expenses - License Termination Cost - Reflects the License Termination cost portion of the Decommissioning Cost Estimate (DCE) escalated to 2015 dollars at the Consumer Price Index escalation rate of 1.7% for 2014 and 0.1% for 2015. The 2016 costs represent the sum of 2013, 2014, 2015 and 2016 costs from the DCE, less \$44,004,476 of License Termination costs disbursed from the funds through December 31, 2015. Outstanding License Termination costs of \$873,687 in 2013, \$10,169,763 in 2014 and \$2,275,748 in 2015 were not reimbursed as of December 31, 2015. Reimbursement of these outstanding costs is expected after December 31, 2015.

Column B - Annual Expenses - Spent Fuel Management Cost - Reflects the Spent Fuel Management cost portion of the Decommissioning Cost Estimate (DCE) escalated to 2015 dollars at the Consumer Price Index escalation rate of 1.7% for 2014 and 0.1% for 2015. The 2016 costs represent the sum of 2013, 2014, 2015 and 2016 costs from the DCE, less \$47,408,593 of Spent Fuel Management costs disbursed from the funds through December 31, 2015. Outstanding Spent Fuel Management costs of \$161,362 in 2013, \$2,731,745 in 2014 and \$29,087,811 in 2015 were not reimbursed as of December 31, 2015. Reimbursement of these outstanding costs is expected after December 31, 2015. Notwithstanding the acquisition in 2015 by DEF of the ownership interests of all but one co-owner, the 2015 through 2018 costs continue to include ISFSI capital construction costs for the ownership interests of all co-owners (8.2194%) as of the submittal date of the Update to Irradiated Fuel Management Program pursuant to 10 CFR 50.54(bb) (ADAMS Accession No. ML13340A008). DEF will continue to fund the ISFSI capital construction costs for its ownership interest (91.7806%) as of the submittal date of the Update to Irradiated Fuel Management Program pursuant to 10 CFR 50.54(bb) (ADAMS Accession No. ML13340A008) in accordance therewith. Current projected ISFSI capital construction costs are now estimated to be \$105M through 2018. Accordingly, the increased costs associated with the ownership interests of all co-owners (8.2194%) are included in the table above.

Column C - Annual Expenses - Site Restoration Cost - Reflects the Site Restoration cost portion of the Decommissioning Cost Estimate (DCE) escalated to 2015 dollars at the Consumer Price Index escalation rate of 1.7% for 2014 and 0.1% for 2015. Site Restoration costs of \$792,958, \$2,420,579 and \$2,492,765 were incurred in 2013, 2014 and 2015, respectively, for a total of \$5,706,302, of which \$4,107,522 has been reimbursed as of December 31, 2015. Reimbursement of the outstanding costs is expected after December 31, 2015. \$255,540 of the reimbursed amount was related to Site Restoration costs contemplated in the DCE for the year 2074 and was therefore deducted from the 2074 costs in the table above.

Column D - Annual Expenses - Total Cost - Reflects the sum of the License Termination, Spent Fuel Management and Site Restoration costs.

Column E - Projected Earnings - Reflects earnings on funds remaining in the trusts. Pursuant to 10 CFR 50.82(a)(8)(vi), a 2% real rate of return is used in this financial analysis. The earnings are calculated on the previous year's end-of-year fund balance (Column F) less 50% of the given year's annual expenses.

Column F - End-of-year Fund Balances - Reflects the end-of year fund balance of all funds after all projected earnings are added and projected expenditures are deducted. The 2015 end-of-year fund balance includes 100% of \$6,844,459 in funds held by the City of Tallahassee on behalf of Duke Energy Florida, which pursuant to NRC order (ADAMS Accession No. ML020670117) will only be used for NRC radiological decommissioning.

For the purposes of demonstrating financial assurance in accordance with 10 CFR 50.82(a)(8)(vi), the methodology and assumptions in this analysis are consistent with the March 28, 2014, Request for Exemption from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2) (ADAMS Accession No. ML14098A037), which was approved by NRC on January 26, 2015 (ADAMS Accession No. ML14247A545).

¹ Total may not add due to rounding.