

Table E
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

[illegible]

TLG Services, Inc.

Table E
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

Activity Index	Activity Description	Decon Unit	Removal Costs	Packaging Costs	Transport Costs	Off-Site Processing Costs	LARW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Un. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume			Isotopic Volumes			Hazard Potential	Graveyard	Utility and Construction Materials	
														Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	Class A Cu. Feet	Class B Cu. Feet				Class C Cu. Feet
Demolition of Remaining Site Buildings (Continued)																							
38-1.1.16	Site Structures and Foundations	-	2,487	-	-	-	-	-	373	2,861	-	-	2,861	-	-	-	-	-	-	-	-	-	27,661
38-1.1.17	Miscellaneous Structures	-	1,052	-	-	-	-	-	57	1,109	-	-	1,109	-	-	-	-	-	-	-	-	-	1,109
38-1.1.18	RAM Storage Building	-	69	-	-	-	-	-	39	208	-	-	208	-	-	-	-	-	-	-	-	-	3,100
38-1.1.19	Radioactive and Personnel Tunnel	-	29	-	-	-	-	-	4	34	-	-	34	-	-	-	-	-	-	-	-	-	1,081
38-1.1.20	Radioactive and Personnel Tunnel	-	1,672	-	-	-	-	-	281	2,153	-	-	2,153	-	-	-	-	-	-	-	-	-	3,366
38-1.1.21	Radioactive Drum Storage	-	81	-	-	-	-	-	42	321	-	-	321	-	-	-	-	-	-	-	-	-	2,136
38-1.1.22	Reactor Head Assembly Building	-	81	-	-	-	-	-	42	321	-	-	321	-	-	-	-	-	-	-	-	-	3,366
38-1.1.23	Security Additions	-	2,257	-	-	-	-	-	329	2,586	-	-	2,586	-	-	-	-	-	-	-	-	-	1,357
38-1.1.24	Security Additions	-	627	-	-	-	-	-	79	706	-	-	706	-	-	-	-	-	-	-	-	-	29,977
38-1.1.25	Sludge Pump Station & Lagoon	-	527	-	-	-	-	-	4	531	-	-	531	-	-	-	-	-	-	-	-	-	3,100
38-1.1.26	Steam Generator Replacement Holes	-	1,201	-	-	-	-	-	4	1,205	-	-	1,205	-	-	-	-	-	-	-	-	-	1,081
38-1.1.27	Turbine Building	-	3,660	-	-	-	-	-	167	3,827	-	-	3,827	-	-	-	-	-	-	-	-	-	3,366
38-1.1.28	Uranium Oxide Storage	-	1,092	-	-	-	-	-	237	1,329	-	-	1,329	-	-	-	-	-	-	-	-	-	2,136
38-1.1.29	Uranium Oxide Storage	-	1,092	-	-	-	-	-	237	1,329	-	-	1,329	-	-	-	-	-	-	-	-	-	2,136
38-1.1.30	Water Treatment Plant	-	682	-	-	-	-	-	99	781	-	-	781	-	-	-	-	-	-	-	-	-	1,357
38-1.1.31	Fuel Treatment	-	2,092	-	-	-	-	-	31	2,123	-	-	2,123	-	-	-	-	-	-	-	-	-	3,366
38-1.1	Totals	-	33,929	-	-	-	-	-	4,819	38,748	-	-	37,178	-	-	-	-	-	-	-	-	-	8,164
Site Cleanup Activities																							
38-1.2	Backfill Site	-	8,031	-	-	-	-	-	1,265	9,296	-	-	9,296	-	-	-	-	-	-	-	-	-	16,861
38-1.3	Grass and landscaping site	-	132	-	-	-	-	-	39	171	-	-	171	-	-	-	-	-	-	-	-	-	1,560
38-1.4	Grass and landscaping site	-	41,063	-	-	-	-	-	6,193	47,256	-	-	47,256	-	-	-	-	-	-	-	-	-	1,560
Period 38 Additional Costs																							
38-2.1	Construction of New Building	-	1,184	-	-	-	-	-	180	1,364	-	-	1,364	-	-	-	-	-	-	-	-	-	5,995
38-2.2	Miscellaneous Activities	-	3,250	-	-	-	-	-	364	3,614	-	-	3,614	-	-	-	-	-	-	-	-	-	10,950
38-2.3	Cooling Tower Discharge & Intake Pipe Flow Fill	-	9,778	-	-	-	-	-	748	10,526	-	-	10,526	-	-	-	-	-	-	-	-	-	5,995
38-2.4	Cooling Tower Demolition	-	1,668	-	-	-	-	-	614	2,282	-	-	2,282	-	-	-	-	-	-	-	-	-	9,568
38-2.5	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.6	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.7	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.8	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.9	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.10	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.11	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.12	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.13	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.14	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.15	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.16	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.17	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.18	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.19	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.20	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.21	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.22	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.23	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.24	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.25	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.26	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.27	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.28	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.29	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.30	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.31	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.32	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.33	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.34	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.35	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.36	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.37	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.38	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.39	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.40	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.41	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.42	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.43	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.44	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.45	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.46	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.47	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.48	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.49	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.50	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.51	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.52	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.53	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.54	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.55	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	21,019
38-2.56	Construction of New Building	-	1,668	-	-	-	-	-	711	2,379	-	-	2,379	-	-	-	-	-	-	-	-	-	

Table E
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

[illegible]

End Notes:
 n/a - indicates that this activity not charged as documenting expense
 - indicates that this activity performed by documenting staff
 0 - indicates that this value is less than 0.5 but is non-zero
 a cell containing " - " indicates a zero value

APPENDIX F

DETAILED COST ANALYSIS

SAFSTOR ALTERNATIVE DECOMMISSIONING COST ESTIMATE 40-YEAR OPERATING LIFE with DIRECT DISPOSAL OF LOW-LEVEL RADIOACTIVE WASTE

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

[illegible]

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

Activity Index	Activity Description	Person Cost	Removal Cost	Packaging Costs	Transport Costs	ORR/Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes			Burial/Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours																			
															Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet																						
PERIOD 1b - SAFSTOR Limited DECON Activities																																							
Period 1b Direct Decommissioning Activities																																							
Decommissioning of Site Buildings																																							
1b.1.1.1	Auxiliary	1,225	-	-	-	-	-	-	612	1,837	1,837	-	-	-	-	-	-	-	24,182	-																			
1b.1.1.2	Communication Center - Contaminated	121	-	-	-	-	-	-	311	432	432	-	-	-	-	-	-	-	12,537	-																			
1b.1.1.3	Iscon	14	-	-	-	-	-	-	353	367	367	-	-	-	-	-	-	-	276	-																			
1b.1.1.4	Iscon	766	-	-	-	-	-	-	9	771	771	-	-	-	-	-	-	-	14,341	-																			
1b.1.1.5	Hot Building - Shop	43	-	-	-	-	-	-	2	45	45	-	-	-	-	-	-	-	865	-																			
1b.1.1.6	RAH Storage Building	5	-	-	-	-	-	-	160	165	165	-	-	-	-	-	-	-	91	-																			
1b.1.1.7	Radioactive and Personnel Tunnel	300	-	-	-	-	-	-	17	317	317	-	-	-	-	-	-	-	8,884	-																			
1b.1.1.8	Iscon	31	-	-	-	-	-	-	136	167	167	-	-	-	-	-	-	-	614	-																			
1b.1.1.9	Iscon	31	-	-	-	-	-	-	136	167	167	-	-	-	-	-	-	-	614	-																			
1b.1.1.10	Reactor Head Assembly Building	3	-	-	-	-	-	-	18	21	21	-	-	-	-	-	-	-	10	-																			
1b.1.1	Totals	3,005	-	-	-	-	-	-	1,828	4,833	4,833	-	-	-	-	-	-	-	69,820	-																			
1b.1	Subtotal Period 1b Activity Costs	3,005	-	-	-	-	-	-	1,828	4,833	4,833	-	-	-	-	-	-	-	69,820	-																			
Period 1b Collocated Costs																																							
1b.3.1	Iscon equipment	803	-	-	-	-	-	-	134	1,026	1,026	-	-	-	-	-	-	-	-	-																			
1b.3.2	Iscon	172	-	-	-	-	-	-	250	1,209	1,209	-	-	-	-	-	-	-	65,106	-																			
1b.3.3	Small unit allowance	-	-	-	-	-	-	-	7	55	55	-	-	-	-	-	-	-	212	-																			
1b.3.4	Spent Fuel Transfer	-	-	-	-	-	-	-	729	729	729	-	-	-	-	-	-	-	-	-																			
1b.3	Totals	1,004	-	-	-	-	-	-	508	3,209	3,209	-	-	-	-	-	-	-	65,106	-																			
Subtotal Period 1b Collocated Costs																																							
1b.4.1	Iscon	1,133	-	-	-	-	-	-	283	1,417	1,417	-	-	-	-	-	-	-	-	-																			
1b.4.2	Iscon	-	-	-	-	-	-	-	48	527	527	-	-	-	-	-	-	-	-	-																			
1b.4.3	Priority taxes	-	-	-	-	-	-	-	470	470	470	-	-	-	-	-	-	-	-	-																			
1b.4.4	Health physics supplies	-	-	-	-	-	-	-	7	78	78	-	-	-	-	-	-	-	-	-																			
1b.4.5	Heavy equipment rental	-	-	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-																			
1b.4.6	Iscon	132	-	-	-	-	-	-	152	162	162	-	-	-	-	-	-	-	-	-																			
1b.4.7	Plant energy budget	-	-	-	-	-	-	-	11	67	67	-	-	-	-	-	-	-	-	-																			
1b.4.8	NRC Fees	-	-	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-																			
1b.4.9	Emergency Planning Fees	-	-	-	-	-	-	-	60	486	486	-	-	-	-	-	-	-	-	-																			
1b.4.10	Iscon	-	-	-	-	-	-	-	370	101	101	-	-	-	-	-	-	-	-	-																			
1b.4.11	ISPSI Operating Costs	-	-	-	-	-	-	-	38	413	413	-	-	-	-	-	-	-	14,708	-																			
1b.4.12	Corporate Allocations	-	-	-	-	-	-	-	30	230	230	-	-	-	-	-	-	-	-	-																			
1b.4.13	Security Staff Cost	-	-	-	-	-	-	-	4	28	28	-	-	-	-	-	-	-	-	-																			
1b.4.14	Iscon	-	-	-	-	-	-	-	2,312	2,659	2,659	-	-	-	-	-	-	-	-	-																			
1b.4	Totals	1,133	-	-	-	-	-	-	1,889	9,118	9,118	-	-	-	-	-	-	-	-	-																			
1b.0	Subtotal Period 1b Period-Dependent Costs	1,133	-	-	-	-	-	-	2,183	16,144	16,144	-	-	-	-	-	-	-	14,708	-																			
TOTAL PERIOD 1b COST																																							
1b.0	TOTAL PERIOD 1b COST	6,253	681	125	281	-	810	12,030	4,219	23,896	23,896	1,488	-	-	-	-	-	-	79,185	-																			
PERIOD 1c - Preparations for SAFSTOR Dormancy																																							
Period 1c Direct Decommissioning Activities																																							
1c.1.1	Iscon	-	-	-	-	-	-	-	67	67	67	-	-	-	-	-	-	-	-	-																			
1c.1.2	Iscon	-	-	-	-	-	-	-	67	67	67	-	-	-	-	-	-	-	-	-																			
1c.1.3	Iscon	-	-	-	-	-	-	-	67	67	67	-	-	-	-	-	-	-	-	-																			
1c.1.4	Iscon	-	-	-	-	-	-	-	67	67	67	-	-	-	-	-	-	-	-	-																			
1c.1	Totals	-	-	-	-	-	-	-	268	268	268	-	-	-	-	-	-	-	-	-																			
Period 1c Collocated Costs																																							
1c.2.1	Iscon	-	-	-	-	-	-	-	1,013	1,013	1,013	-	-	-	-	-	-	-	-	-																			
1c.2.2	Iscon	-	-	-	-	-	-	-	1,013	1,013	1,013	-	-	-	-	-	-	-	-	-																			
1c.2	Totals	-	-	-	-	-	-	-	2,026	2,026	2,026	-	-	-	-	-	-	-	-	-																			
1c.3.1	Iscon	187	-	-	-	-	-	-	382	1,415	1,415	-	-	-	-	-	-	-	-	-																			
1c.3.2	Iscon	-	-	-	-	-	-	-	382	1,415	1,415	-	-	-	-	-	-	-	-	-																			
1c.3	Totals	187	-	-	-	-	-	-	764	2,830	2,830	-	-	-	-	-	-	-	-	-																			
1c.0	TOTAL PERIOD 1c COST	187	-	-	-	-	-	-	2,790	5,114	5,114	-	-	-	-	-	-	-	14,708	-																			

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

Activity Index	Activity Description	Demolition Cost	Removal Cost	Packageing Cost	Transport Cost	Off-Site Processing Cost	LLRW Disposal Cost	Other Contingency	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	RRP Cu. Feet	Activity Proceeded Wt. Lbs.	Gravel Cu. Yds	Utility and Other Manhours
Period 2a - Period-Dependent Costs																					
2a-1	Property taxes	-	-	-	-	-	-	470	48	527	527	-	-	-	-	-	-	-	-	-	-
2a-2	Health physics supplies	-	208	-	-	-	-	71	71	279	279	-	-	-	-	-	-	-	-	-	-
2a-3	Health physics rental	-	132	-	-	-	-	50	50	182	182	-	-	-	-	-	-	-	-	-	-
2a-4	Health physics personnel	-	-	-	-	-	-	14	14	52	52	-	-	-	-	-	-	-	-	-	-
2a-5	Plant energy budget	-	-	-	-	-	-	14	14	52	52	-	-	-	-	-	-	-	-	-	-
2a-6	Plant energy personnel	-	-	-	-	-	-	14	14	52	52	-	-	-	-	-	-	-	-	-	-
2a-7	NRC Fees	-	-	-	-	-	-	153	153	480	480	-	-	-	-	-	-	-	-	-	-
2a-8	Emergency Planning Fees	-	-	-	-	-	-	375	375	480	480	-	-	-	-	-	-	-	-	-	-
2a-9	Emergency Planning Personnel	-	-	-	-	-	-	198	198	230	230	-	-	-	-	-	-	-	-	-	-
2a-10	ISFSI Operating Costs	-	-	-	-	-	-	35	35	413	413	-	-	-	-	-	-	-	-	-	-
2a-11	ISFSI Operating Personnel	-	-	-	-	-	-	26	26	229	229	-	-	-	-	-	-	-	-	-	-
2a-12	Corporate Allotments	-	-	-	-	-	-	2,312	2,312	2,650	2,650	-	-	-	-	-	-	-	-	-	-
2a-13	Utility Staff Cost	-	-	-	-	-	-	7,020	7,020	9,118	9,118	-	-	-	-	-	-	-	-	-	-
2a-14	Subtotal Period 2a Activity Costs	-	310	-	-	-	-	12,259	1,812	14,433	13,713	070	-	-	-	-	-	-	-	-	-
2a-15	Subtotal Period 2a Period-Dependent Costs	-	310	-	-	-	-	12,259	1,812	14,433	13,713	070	-	-	-	-	-	-	-	-	-
2a-16	TOTAL PERIOD 2a COST	187	825	121	304	-	533	24,578	4,168	30,706	29,208	1,498	-	-	-	-	-	-	-	-	-
2a-17	PERIOD 2a TOTALS	187	825	121	304	-	533	24,578	4,168	30,706	29,208	1,498	-	-	-	-	-	-	-	-	-
Period 2b - SAFSTOR Dismantling with Wet Spent Fuel Storage																					
2b-1	Quarterly Inspection	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-2	Quarterly Inspection Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-3	Health physics supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-4	Health physics rental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-5	Health physics personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-6	Plant energy budget	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-7	Plant energy personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-8	NRC Fees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-9	Emergency Planning Fees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-10	Emergency Planning Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-11	ISFSI Operating Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-12	ISFSI Operating Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-13	Corporate Allotments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-14	Utility Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-15	Subtotal Period 2b Activity Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-16	Subtotal Period 2b Period-Dependent Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-17	TOTAL PERIOD 2b COST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b-18	PERIOD 2b TOTALS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Period 2c - SAFSTOR Dismantling without Spent Fuel Storage																					
2c-1	Quarterly Inspection	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-2	Quarterly Inspection Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-3	Health physics supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-4	Health physics rental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-5	Health physics personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-6	Plant energy budget	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-7	Plant energy personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-8	NRC Fees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-9	Emergency Planning Fees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-10	Emergency Planning Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-11	ISFSI Operating Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-12	ISFSI Operating Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-13	Corporate Allotments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-14	Utility Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-15	Subtotal Period 2c Activity Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-16	Subtotal Period 2c Period-Dependent Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-17	TOTAL PERIOD 2c COST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2c-18	PERIOD 2c TOTALS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

[illegible]

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(Thousands of 2014 dollars)

Activity Index	Activity Description	Person Cost	Removal Cost	Packaging Costs	Transport Costs	GR-Size Processing Costs	LRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term.	Spent Fuel Management Costs	Site Restoration Costs	Pre-mixed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GRQC Cu. Feet	Isotail/Personnel Wt. Lbs.	Craft Manhours	Utility and Contractor Manhours
Detailed Work Procedures (continued)																					
38.1.1.15	Process instrumentation	-	-	-	-	-	-	-	19	145	148	-	-	-	-	-	-	-	-	-	1,000
38.1.1.16	Process piping	-	-	-	-	-	-	-	69	525	525	-	-	-	-	-	-	-	-	-	3,600
38.1.1.17	Process piping	-	-	-	-	-	-	-	151	174	67	-	-	87	-	-	-	-	-	-	1,200
38.1.1.18	Process piping	-	-	-	-	-	-	-	57	65	65	-	-	-	-	-	-	-	-	-	400
38.1.1.19	Process piping	-	-	-	-	-	-	-	23	174	174	-	-	-	-	-	-	-	-	-	1,200
38.1.1.20	Process piping	-	-	-	-	-	-	-	151	174	174	-	-	-	-	-	-	-	-	-	1,200
38.1.1.21	Process piping	-	-	-	-	-	-	-	23	174	174	-	-	-	-	-	-	-	-	-	1,200
38.1.1.22	Process piping	-	-	-	-	-	-	-	129	145	73	-	-	73	-	-	-	-	-	-	4,600
38.1.1.23	Process piping	-	-	-	-	-	-	-	30	226	-	-	-	226	-	-	-	-	-	-	1,000
38.1.1.24	Process piping	-	-	-	-	-	-	-	30	226	-	-	-	226	-	-	-	-	-	-	1,000
38.1.1.25	Process piping	-	-	-	-	-	-	-	344	356	356	-	-	40	-	-	-	-	-	-	1,600
38.1.1.26	Process piping	-	-	-	-	-	-	-	344	356	356	-	-	40	-	-	-	-	-	-	1,600
38.1.1.27	Process piping	-	-	-	-	-	-	-	4,066	610	4,675	3,769	997	997	-	-	-	-	-	-	2,700
38.1.1.28	Process piping	-	-	-	-	-	-	-	4,066	610	4,675	3,769	997	997	-	-	-	-	-	-	2,700
38.1.1.29	Process piping	-	-	-	-	-	-	-	2,824	847	3,671	3,671	-	-	-	-	-	-	-	-	7,800
38.1.1.30	Process piping	-	-	-	-	-	-	-	2,824	847	3,671	3,671	-	-	-	-	-	-	-	-	7,800
38.1.1.31	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.32	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.33	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.34	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.35	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.36	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.37	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.38	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.39	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.40	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.41	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.42	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.43	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.44	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.45	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.46	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.47	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.48	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.49	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.50	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.51	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.52	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.53	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.54	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.55	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.56	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.57	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.58	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.59	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.60	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.61	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.62	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.63	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.64	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.65	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.66	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.67	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.68	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.69	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.70	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.71	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.72	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.73	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.74	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.75	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.76	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.77	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.78	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.79	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.80	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.81	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.82	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.83	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.84	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.85	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.86	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.87	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.88	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.89	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.90	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.91	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.92	Process piping	-	-	-	-	-	-	-	1,060	102	1,242	-	-	-	-	-	-	-	-	-	-
38.1.1.93																					

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
 (thousands of 2014 dollars)

Activity Index	Activity Description	Process Count	Resource Count	Packaging Count	Transport Count	Off-Site Pending Count	LEW Disposal Count	Other Count	Total Contingency	Total	NRC		Site Restoration Count	Processed Volume Cu. Foot	Burial Volume			Integral/Processed Wt. Lbs.	Utility Contractors	Craft	Manhours
											Loc. Term. Count	Spent Fuel Management Count			Class A Cu. Foot	Class B Cu. Foot	Class C Cu. Foot				
Compliance Costs from Clean Building Demolition (continued)																					
4a.1.1.4	Holston Main Shop	-	-	-	-	-	-	-	0	1	1	-	-	-	-	-	-	10	-	-	
4a.1.1.4	Holston Main Shop	-	-	-	-	-	-	-	11	11	11	-	-	-	-	-	1	10	-	-	
4a.1.1.4	Holston Main Shop	-	-	-	-	-	-	-	250	1,961	1,961	-	-	-	-	-	1	1,168	-	-	
4a.1.1.4	Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	
Disposal of Plant Systems																					
4a.1.5.1	100 Aux-Bldg Non-System Specific - RCA	688	-	108	83	-	1,330	-	509	2,745	2,745	-	-	-	-	-	-	13,677	-	-	
4a.1.5.2	100 Auxiliary Bldg Non-System Specific	207	9	12	-	-	132	-	66	341	341	-	-	-	-	-	-	1,076	-	-	
4a.1.5.3	100 Auxiliary Bldg Non-System Specific	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,853	-	-	
4a.1.5.4	AB - Main Steam RCA	23	-	24	-	-	570	-	40	308	341	-	508	-	-	-	-	102,339	-	-	
4a.1.5.5	AC - Main Turbine	253	-	-	-	-	-	-	121	634	634	-	-	-	-	-	-	9,641	-	-	
4a.1.5.6	AD - Condensate	250	-	-	-	-	-	-	43	353	353	-	-	-	-	-	-	15,141	-	-	
4a.1.5.7	AE - Feedwater Heater	249	-	-	-	-	-	-	30	229	229	-	-	-	-	-	-	4,721	-	-	
4a.1.5.8	AF - Feedwater Heater Extraction	249	-	-	-	-	-	-	14	196	196	-	-	-	-	-	-	6,352	-	-	
4a.1.5.9	AG - Condensate Demineralizer	41	-	-	-	-	-	-	6	49	49	-	-	-	-	-	-	1,944	-	-	
4a.1.5.10	AH - Auxiliary Feedwater	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	822	-	-	
4a.1.5.11	AI - Condensate Heater	108	-	-	-	-	250	-	3	29	29	-	-	-	-	-	-	406	-	-	
4a.1.5.12	DM - Steam Generator Blowdown	372	71	46	-	-	725	-	288	1,802	1,802	-	-	-	-	-	-	2,164	-	-	
4a.1.5.13	BM - Steam Generator Blowdown - RCA	380	-	80	60	-	1,057	-	462	1,892	1,892	-	-	-	-	-	-	1,981	-	-	
4a.1.5.14	CA - Steam Seal	69	-	-	-	-	-	-	3	24	24	-	-	-	-	-	-	2,221	-	-	
4a.1.5.15	CB - Main Turbine Lube Oil	69	-	-	-	-	-	-	1	11	11	-	-	-	-	-	-	1,307	-	-	
4a.1.5.16	CC - Generator Hydrogen Seal & CO2	19	-	-	-	-	-	-	2	16	16	-	-	-	-	-	-	185	-	-	
4a.1.5.17	CD - Generator Hydrogen Seal & CO2	12	-	-	-	-	-	-	2	13	13	-	-	-	-	-	-	812	-	-	
4a.1.5.18	CE - Steam Generator Air Removal	31	-	-	-	-	-	-	6	30	30	-	-	-	-	-	-	297	-	-	
4a.1.5.19	CF - Steam Generator Oil	345	-	-	-	-	-	-	9	69	69	-	-	-	-	-	-	1,519	-	-	
4a.1.5.20	CG - Condensate Water	168	-	-	-	-	-	-	69	307	307	-	-	-	-	-	-	7,592	-	-	
4a.1.5.21	CH - Main Turbine Oil	61	-	-	-	-	-	-	8	69	69	-	-	-	-	-	-	1,390	-	-	
4a.1.5.22	CI - Main Turbine Oil	61	-	-	-	-	-	-	238	1,246	1,246	-	-	-	-	-	-	6,085	-	-	
4a.1.5.23	DA - Cooling Tower Makeup & Blowdown	95	-	92	67	-	1,822	-	181	940	1,040	-	-	-	-	-	-	170,188	-	-	
4a.1.5																					

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Transshipment Costs	Off-site Packaging Costs	LMW Disposal Costs	Other Costs	Total Contingency	Total	NRC		Spent Fuel Management Costs	Site Restoration Costs	Preprocessed		Isotopic		Utility Contractor Manhours
										Loc. Term. Costs	Vol. Lbs.			Class A Cu Feet	Class B Cu Feet	Class U Cu Feet	Class U Cu Feet	
PERIOD 4b - Site Decontamination																		
Period 4b Direct Decontamination Activities																		
sh.1.1 Remove spent fuel racks																		
Disposal of New Systems																		
4b.1.1	200 Reactor Hdg Non-Sysm Specific	81	7	0	-	33	-	45	232	3,814	202	-	-	378	35,015	1,679	1,054	
4b.1.2.1	200 Reactor Hdg Non-Sysm Specific RCA	697	68	23	-	375	-	1,434	1,975	18,755	-	-	-	2,255,673	10,654	2,255,673	10,654	
4b.1.2.2	300 Control Hdg Non-Sysm Specific RCA	1,176	30	53	-	375	-	2,599	1,653	11,173	-	1,603	-	3,471	191,280	3,471	25,070	
4b.1.2.3	300 Control Hdg Non-Sysm Specific RCA	1,184	45	30	-	561	-	2,599	1,173	1,173	-	-	-	2,392	161,497	161,497	856	
4b.1.2.4	600 Fuel Hdg Non-Sysm Specific RCA	435	-	-	-	22	-	22	212	138	138	-	-	15,929	600,481	22,591	22,591	
4b.1.2.5	700 Reactor Hdg Non-Sysm Specific RCA	1,131	180	138	-	245	-	877	1,131	1,131	-	-	-	16,083	66,210	3,278	3,278	
4b.1.2.6	700 Reactor Hdg Non-Sysm Specific RCA	1,164	19	16	-	226	-	197	600	600	-	-	-	1,605	66,210	3,278	3,278	
4b.1.2.7	AN - Demineralized Wtr Sng & Sfr RCA	43	-	-	-	2	-	23	176	176	176	-	-	227	16,147	16,147	763	
4b.1.2.8	AN - Demineralized Wtr Sng & Sfr RCA	89	6	3	-	66	-	25	131	131	-	-	-	1,784	1,784	1,784	1,784	
4b.1.2.9	AP - Condensate Storage & Transfer	308	62	46	-	716	-	569	1,400	1,400	-	102	-	3,897	138,253	3,897	17,779	
4b.1.2.10	AP - Condensate Storage & Transfer	308	184	129	-	2,883	-	774	4,300	4,300	-	-	-	8,470	8,470	8,470	17,779	
4b.1.2.11	IL - Reactor Aukup Water Treatment	121	-	-	-	525	-	213	1,107	1,107	-	-	-	2,534	143,824	2,534	6,534	
4b.1.2.12	IS - Intake & Water Treatment	252	173	130	-	2,040	-	622	3,358	3,358	-	139	-	8,470	8,470	8,470	17,779	
4b.1.2.13	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.14	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.15	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.16	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.17	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.18	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.19	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.20	EA - Service Water Treatment	45	18	14	-	219	-	22	166	166	-	166	-	8,470	8,470	8,470	17,779	
4b.1.2.21	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.22	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.23	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.24	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.25	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.26	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.27	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.28	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.29	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.30	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.31	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.32	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.33	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.34	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.35	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.36	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.37	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.38	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.39	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.40	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.41	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.42	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.43	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.44	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.45	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.46	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.47	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.48	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.49	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.50	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.51	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.52	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.53	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.54	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.55	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.56	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.57	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.58	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.59	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.60	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.61	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.62	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.63	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.64	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.65	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.66	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.67	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.68	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.69	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.70	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.71	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.72	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.73	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.74	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.75	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489	1,489	-	168	-	3,897	138,253	3,897	17,779	
4b.1.2.76	EF - Essential Service Water RCA	387	65	46	-	725	-	296	1,489									

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

Activity Index	Activity Description	Disposal Unit	Removal Unit	Packaging Costs	Transport Costs	GRSiz		LLRW		Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Prevented Volume Cu. Feet	Benefit Values			Horial/Pres. Manhours	Craft Manhours	Utility and Contractor Manhours
						Processing Costs	Disposal Costs	Disposal Costs	Disposal Costs								Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet			
Class of Plant Systems (continued)																						
4b.1.2.16	KD - Breaching Air	-	150	-	9	-	143	-	17	-	71	370	370	-	-	-	0.63	-	-	38,001	-	2,390
4b.1.2.17	KD - Breaching Air	-	20	-	-	-	-	-	4	-	36	-	-	-	-	-	-	-	-	516	-	499
4b.1.2.18	KD - Breaching Air	-	378	-	1	-	13	-	2	-	57	435	-	-	-	-	12	-	-	3,420	-	8,000
4b.1.2.19	KD - Fire Protection	-	403	-	49	-	782	-	21	-	311	1,625	-	-	-	-	3,189	-	-	211,299	-	7,265
4b.1.2.20	KD - Fire Protection	-	176	-	22	-	229	-	44	-	69	364	-	-	-	-	808	-	-	69,340	-	2,166
4b.1.2.21	KD - Fire Protection	-	25	-	1	-	14	-	1	-	20	-	-	-	-	-	-	-	-	3,837	-	1,937
4b.1.2.22	KD - Domestic Water	-	18	-	3	-	14	-	18	-	18	95	-	-	-	-	178	-	-	11,750	-	349
4b.1.2.23	KD - Domestic Water	-	26	-	4	-	154	-	12	-	40	238	-	-	-	-	632	-	-	41,743	-	1,235
4b.1.2.24	KD - Domestic Water	-	17	-	1	-	8	-	64	-	8	376	-	-	-	-	1,750	-	-	116,252	-	4,670
4b.1.2.25	KD - Domestic Water	-	327	-	43	-	409	-	170	-	470	833	-	-	-	-	-	-	-	6,772	-	1,972
4b.1.2.26	KD - Domestic Water	-	24	-	2	-	44	-	7	-	51	-	-	-	-	-	-	-	-	-	-	-
4b.1.2.27	KD - Domestic Water	-	68	-	224	-	224	-	87	-	482	-	-	-	-	-	-	-	-	60,583	-	1,854
4b.1.2.28	KD - Domestic Water	-	144	-	32	-	375	-	136	-	716	711	-	-	-	-	916	-	-	1,276	-	1,276
4b.1.2.29	KD - Domestic Water	-	13	-	23	-	140	-	13	-	12	336	-	-	-	-	1,634	-	-	109,435	-	1,634
4b.1.2.30	KD - Domestic Water	-	123	-	15	-	2,655	-	889	-	4,003	4,693	-	-	-	-	6,714	-	-	37,786	-	2,109
4b.1.2.31	KD - Domestic Water	-	71	-	13	-	126	-	60	-	265	493	-	-	-	-	7,117	-	-	655,670	-	25,325
4b.1.2.32	KD - Domestic Water	-	17	-	7	-	129	-	27	-	294	591	-	-	-	-	101	-	-	47,003	-	2,181
4b.1.2.33	KD - Domestic Water	-	15,418	-	2,129	-	24,520	-	39	-	53,471	48,490	-	-	-	-	-	-	-	32,516	-	1,814
4b.1.2	Totals	-	-	-	-	-	-	-	9,990	-	65,611	-	-	-	-	-	-	-	-	6,029,709	-	307,267
4b.1.3	Scuffblowing in support of decommissioning	-	2,196	-	38	-	399	-	33	-	3,312	3,312	-	-	-	-	1,631	-	-	107,748	-	60,451
Decommissioning of Site Buildings																						
4b.1.4.1	Roaster	-	1,116	-	619	-	2,547	-	1,708	-	7,759	7,759	-	-	-	-	-	-	-	2,439,296	-	48,817
4b.1.4.2	Roaster	-	581	-	65	-	478	-	480	-	1,808	1,808	-	-	-	-	20,220	-	-	16,990	-	16,990
4b.1.4.3	Roaster	-	633	-	62	-	536	-	674	-	3,732	3,732	-	-	-	-	3,618	-	-	2,902,909	-	48,817
4b.1.4.4	Roaster	-	16	-	1	-	3	-	10	-	27	-	-	-	-	-	-	-	-	307	-	-
4b.1.4.5	Roaster	-	6	-	0	-	0	-	1	-	0	-	-	-	-	-	-	-	-	178,660	-	27,609
4b.1.4.6	Roaster	-	10	-	1	-	10	-	27	-	37	-	-	-	-	-	2,698	-	-	18,000	-	18,000
4b.1.4.7	Roaster	-	6	-	0	-	3	-	10	-	27	-	-	-	-	-	-	-	-	18,000	-	18,000
4b.1.4.8	Roaster	-	309	-	101	-	32	-	299	-	18	18	-	-	-	-	29	-	-	2,632	-	186
4b.1.4.9	Roaster	-	35	-	10	-	1	-	35	-	103	103	-	-	-	-	1,600	-	-	120,075	-	7,820
4b.1.4.10	Roaster	-	211	-	1	-	18	-	20	-	13	13	-	-	-	-	162	-	-	12,480	-	614
4b.1.4.11	Roaster	-	3,449	-	2,696	-	3,899	-	105	-	316	316	-	-	-	-	-	-	-	3,865	-	-
4b.1.4	Totals	-	-	-	-	-	-	-	3,253	-	74,638	-	-	-	-	-	37,532	-	-	106,474	-	-
4b.1	Subtotal Period of Activity Costs	-	3,802	-	2,731	-	30,447	-	14,869	-	13,628	65,611	-	-	8,127	-	146,835	-	-	10,320,090	-	465,116
Period of Additional Costs																						
4b.1.5.1	License Termination Survey Planning	-	-	-	-	-	1,495	-	449	-	1,943	-	-	-	-	-	-	-	-	-	-	-
4b.1.5.2	Sanitary Treatment Leases	-	-	-	-	-	2,381	-	714	-	3,095	-	-	-	-	-	-	-	-	-	-	-
4b.1.5.3	Cooling Tower Abatement Panel Removal	-	6	-	119	-	290	-	195	-	697	667	-	-	-	-	4,008	-	-	392,140	-	48,748
4b.1.5.4	Operational Equipment	-	4,853	-	122	-	400	-	296	-	6,559	-	-	-	6,300	-	-	-	-	71,410	-	7,140
4b.1.5.5	Operational Equipment	-	-	-	-	-	1,093	-	296	-	6,559	-	-	-	-	-	-	-	-	392,140	-	48,748
4b.1.5.6	Subtotal Period of Additional Costs	-	113	-	895	-	708	-	410	-	2,738	2,738	-	-	-	-	11,714	-	-	592,750	-	73,952
4b.1.5	Totals	-	6,112	-	1,301	-	4,366	-	2,770	-	16,152	-	-	-	6,300	-	10,082	-	-	338,440	-	3,452
Period of Additional Costs																						
4b.1.6.1	Small and miscellaneous	-	21	-	65	-	195	-	40	-	224	-	-	-	-	-	214	-	-	12,831	-	42
4b.1.6.2	Small and miscellaneous	-	423	-	81	-	1,294	-	65	-	1,499	-	-	-	-	-	-	-	-	-	-	-
4b.1.6.3	Decommissioning Equipment, Disposition	-	-	-	-	-	410	-	317	-	1,410	-	-	-	-	-	8,290	-	-	319,378	-	88
4b.1.6.4	Subtotal Period of Additional Costs	-	13	-	146	-	1,369	-	484	-	3,014	-	-	-	-	-	8,504	-	-	362,212	-	130
Period of Period-Dependent Costs																						
4b.1.7.1	Decon supplies	-	1,247	-	-	-	-	-	312	-	1,559	-	-	-	-	-	-	-	-	-	-	-
4b.1.7.2	Property taxes	-	-	-	-	-	2,161	-	216	-	2,377	-	-	-	-	-	-	-	-	-	-	-
4b.1.7.3	Health physics supplies	-	3,816	-	-	-	69	-	69	-	722	-	-	-	-	-	-	-	-	-	-	-
4b.1.7.4	Heavy equipment rental	-	4,659	-	-	-	700	-	699	-	6,969	-	-	-	-	-	-	-	-	-	-	-
4b.1.7.5	Heavy equipment rental	-	-	-	-	-	336	-	102	-	600	-	-	-	-	-	0.038	-	-	-	-	-
4b.1.7.6	Plant energy budget	-	-	-	-	-	2,848	-	442	-	3,392	-	-	-	-	-	-	-	-	-	-	-
4b.1.7.7	NRC Fee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4b.1.7.8	Liquid Radioactive Processing Equipment/Services	-	-	-	-	-	910	-	141	-	1,051	-	-	-	-	-	-	-	-	-	-	-
4b.1.7	Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table F
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
40-Year Operating Life with Direct Disposal of Low-Level Radioactive Waste
(thousands of 2014 dollars)

Activity Index	Activity Description	Person Cost	Material Cost	Packaging Cost	Transport Cost	Off-Site Processing Cost	LLRW Disposal Cost	Other Contingency	Total Contingency	Total Cost	NRC Lic. Term. Cost	Spent Fuel Management Cost	Site Restoration Cost	Processed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	TPQ Cu. Feet	Material Wt. Lbs.	Grab Manhours	Off-Site Contractor Manhours
Period 1b Period-Dependent Costs (continued)																					
4b-4.10	Security Staff Cost	-	-	-	-	-	-	2,316	2,316	2,060	2,060	-	-	-	-	-	-	-	-	-	-
4b-4.11	DOO Staff Cost	-	-	-	-	-	-	4,717	4,717	5,415	5,415	-	-	-	-	-	-	-	-	-	-
4b-4.12	DOO Staff Cost	-	-	-	-	-	-	31,447	31,447	35,110	35,110	-	-	-	-	-	-	-	-	-	-
4b-4.13	Subtotal Period 1b Period-Dependent Costs	1,347	8,614	135	27	-	306	90,377	90,377	103,318	103,318	-	-	-	-	-	-	-	-	-	-
4b-5	TOTAL PERIOD 1b COST	5,062	34,383	3,657	3,700	-	34,383	95,153	95,153	108,287	108,287	-	11,467	-	178,060	-	-	-	11,708,708	590,312	1,072,261
PERIOD 1c License Termination																					
Period 1c Direct Decommissioning Activities																					
4c-1.1	ORR confirmatory survey	-	-	-	-	-	-	163	163	212	212	-	-	-	-	-	-	-	-	-	-
4c-1.2	ORR confirmatory survey	-	-	-	-	-	-	163	163	212	212	-	-	-	-	-	-	-	-	-	-
4c-1	Subtotal Period 1c Activity Costs	-	-	-	-	-	-	163	163	212	212	-	-	-	-	-	-	-	-	-	-
Period 1d Additional Costs																					
4c-2.1	Subtotal Period 1d Additional Costs	-	-	-	-	-	-	8,248	8,248	10,723	10,723	-	-	-	-	-	-	-	-	-	-
4c-2	Subtotal Period 1d Additional Costs	-	-	-	-	-	-	8,248	8,248	10,723	10,723	-	-	-	-	-	-	-	-	-	-
Period 1e Collocated Costs																					
4c-3.1	Subtotal Period 1e Collocated Costs	-	-	-	-	-	-	1,040	1,040	1,242	1,242	-	-	-	-	-	-	-	-	-	-
4c-3	Subtotal Period 1e Collocated Costs	-	-	-	-	-	-	1,040	1,040	1,242	1,242	-	-	-	-	-	-	-	-	-	-
Period 1f Period-Dependent Costs																					
4c-4.1	Health physics supplies	-	736	-	-	-	-	212	212	233	233	-	-	-	-	-	-	-	-	-	-
4c-4.2	Health physics supplies	-	-	-	-	-	-	184	184	930	930	-	-	-	-	-	-	-	-	-	-
4c-4.3	Disposal of DAW generated	-	-	-	-	-	-	254	254	292	292	-	-	-	-	-	-	-	-	-	-
4c-4.4	Plant energy budget	-	-	-	-	-	-	467	467	603	603	-	-	-	-	-	-	-	-	-	-
4c-4.5	Plant energy budget	-	-	-	-	-	-	766	766	832	832	-	-	-	-	-	-	-	-	-	-
4c-4.6	Generator Alternations	-	-	-	-	-	-	852	852	832	832	-	-	-	-	-	-	-	-	-	-
4c-4.7	Security Staff Cost	-	-	-	-	-	-	6,485	6,485	6,536	6,536	-	-	-	-	-	-	-	-	-	-
4c-4.8	DOO Staff Cost	-	-	-	-	-	-	6,427	6,427	7,391	7,391	-	-	-	-	-	-	-	-	-	-
4c-4.9	DOO Staff Cost	-	-	-	-	-	-	18	18	14,518	14,518	-	-	-	-	-	-	-	-	-	-
4c-4.10	Subtotal Period 1f Period-Dependent Costs	-	736	-	-	-	-	18	18	14,518	14,518	-	-	-	-	-	-	-	-	-	-
4c-4	Subtotal Period 1f Period-Dependent Costs	-	736	-	-	-	-	18	18	14,518	14,518	-	-	-	-	-	-	-	-	-	-
4c-0	TOTAL PERIOD 1f COST	-	736	-	-	-	-	18	18	14,518	14,518	-	-	-	-	-	-	-	-	-	-
4c-0	TOTAL PERIOD 1f COST	-	736	-	-	-	-	18	18	14,518	14,518	-	-	-	-	-	-	-	-	-	-
PERIOD 1g Site Restoration																					
4g-0	TOTAL PERIOD 1g COST	5,470	64,688	20,258	13,033	-	127,279	176,634	176,634	609,860	609,860	-	16,483	-	500,022	-	-	2,217	32,678,250	1,222,850	1,885,771
PERIOD 2a Site Restoration																					
Period 2a Direct Decommissioning Activities																					
Demolition of Remaining Site Buildings																					
5a-1.1	Demolition of Remaining Site Buildings	-	6,101	-	-	-	-	-	-	5,069	5,069	-	-	-	-	-	-	-	-	-	-
5a-1.2	Demolition of Remaining Site Buildings	-	4,114	-	-	-	-	-	-	4,823	4,823	-	-	-	-	-	-	-	-	-	-
5a-1.3	Demolition of Remaining Site Buildings	-	39	-	-	-	-	-	-	48	48	-	-	-	-	-	-	-	-	-	-
5a-1.4	Demolition of Remaining Site Buildings	-	1,095	-	-	-	-	-	-	1,853	1,853	-	-	-	-	-	-	-	-	-	-
5a-1.5	Demolition of Remaining Site Buildings	-	1,328	-	-	-	-	-	-	1,777	1,777	-	-	-	-	-	-	-	-	-	-
5a-1.6	Demolition of Remaining Site Buildings	-	40	-	-	-	-	-	-	1,018	1,018	-	-	-	-	-	-	-	-	-	-
5a-1.7	Demolition of Remaining Site Buildings	-	118	-	-	-	-	-	-	1,018	1,018	-	-	-	-	-	-	-	-	-	-
5a-1.8	Demolition of Remaining Site Buildings	-	499	-	-	-	-	-	-	352	352	-	-	-	-	-	-	-	-	-	-
5a-1.9	Demolition of Remaining Site Buildings	-	309	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.10	Demolition of Remaining Site Buildings	-	657	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.11	Demolition of Remaining Site Buildings	-	382	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.12	Demolition of Remaining Site Buildings	-	2,487	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.13	Demolition of Remaining Site Buildings	-	382	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.14	Demolition of Remaining Site Buildings	-	2,487	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.15	Demolition of Remaining Site Buildings	-	382	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.16	Demolition of Remaining Site Buildings	-	2,487	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.17	Demolition of Remaining Site Buildings	-	382	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.18	Demolition of Remaining Site Buildings	-	2,487	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.19	Demolition of Remaining Site Buildings	-	382	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.20	Demolition of Remaining Site Buildings	-	2,487	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.21	Demolition of Remaining Site Buildings	-	382	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.22	Demolition of Remaining Site Buildings	-	2,487	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.23	Demolition of Remaining Site Buildings	-	382	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-
5a-1.24	Demolition of Remaining Site Buildings	-	2,487	-	-	-	-	-	-	2,465	2,465	-	-	-	-	-	-	-	-	-	-

[illegible]

End Notes:

1. a/a - indicates that this activity not charged as decommencing expense.

2. - indicates that this activity performed by decommencing staff.

3. - indicates that this value is less than 0.5 but is non-zero.

4. containing " - " indicates a zero value

5. call containing " - " indicates a zero value

APPENDIX G

DETAILED COST ANALYSIS

DECON ALTERNATIVE DECOMMISSIONING COST ESTIMATE 60-YEAR OPERATING LIFE with LOW-LEVEL RADIOACTIVE WASTE PROCESSING

**TABLE G-1
DECON ALTERNATIVE
60-YEAR PLANT OPERATING LIFE with
LOW-LEVEL RADIOACTIVE WASTE OFF-SITE PROCESSING
TOTAL ANNUAL EXPENDITURES
(thousands, 2014 dollars)**

Year	Labor	Equipment & Materials	Energy	Burial	Other ^[1]	Total ^[2]
2044	13,836	1,655	396	8	1,612	17,507
2045	70,021	10,773	2,325	2,016	12,890	98,024
2046	79,218	29,003	2,437	33,861	24,285	168,804
2047	78,126	31,219	1,809	42,108	20,099	173,361
2048	69,172	14,561	1,450	10,079	8,664	103,926
2049	68,983	14,522	1,446	10,051	8,641	103,642
2050	49,657	8,492	956	8,271	6,289	73,664
2051	34,224	9,547	331	21	2,424	46,547
2052	32,080	29,448	193	0	3,320	65,042
2053	7,012	6,437	42	0	726	14,217
Total	502,328	155,657	11,386	106,415	88,948	864,734

^[1] Includes property taxes, insurance, fees, surveys, and GTCC disposal

^[2] Columns may not add due to rounding

**TABLE G-1a
DECON ALTERNATIVE
60-YEAR PLANT OPERATING LIFE with
LOW-LEVEL RADIOACTIVE WASTE OFF-SITE PROCESSING
LICENSE TERMINATION EXPENDITURES
(thousands, 2014 dollars)**

Year	Labor	Equipment & Materials	Energy	Burial	Other	Total
2044	13,276	379	396	8	1,066	15,125
2045	67,064	4,573	2,325	2,016	10,232	86,209
2046	75,013	22,852	2,437	33,861	22,036	156,197
2047	73,677	25,015	1,809	42,108	18,007	160,616
2048	63,256	7,458	1,450	10,079	6,315	88,559
2049	63,084	7,438	1,446	10,051	6,298	88,317
2050	47,911	6,396	956	8,271	5,595	69,129
2051	25,239	1,259	277	21	1,489	28,286
2052	151	0	0	0	0	151
2053	33	0	0	0	0	33
Total	428,704	75,369	11,096	106,415	71,038	692,622

**Callaway Energy Center
Decommissioning Cost Analysis**

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**TABLE G-1b
DECON ALTERNATIVE
60-YEAR PLANT OPERATING LIFE with
LOW-LEVEL RADIOACTIVE WASTE OFF-SITE PROCESSING
SPENT FUEL MANAGEMENT EXPENDITURES
(thousands, 2014 dollars)**

Year	Labor	Equipment & Materials	Energy	Burial	Other	Total
2044	425	1,276	0	0	546	2,248
2045	2,067	6,200	0	0	2,658	10,924
2046	2,029	6,086	0	0	2,228	10,342
2047	2,023	6,070	0	0	2,045	10,138
2048	2,112	6,335	0	0	2,050	10,497
2049	2,106	6,318	0	0	2,045	10,469
2050	623	1,869	0	0	605	3,098
2051	0	0	0	0	0	0
2052	0	0	0	0	0	0
2053	0	0	0	0	0	0
Total	11,385	34,155	0	0	12,176	57,716

**Callaway Energy Center
Decommissioning Cost Analysis**

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**TABLE G-1c
DECON ALTERNATIVE
60-YEAR PLANT OPERATING LIFE with
LOW-LEVEL RADIOACTIVE WASTE OFF-SITE PROCESSING
SITE RESTORATION EXPENDITURES
(thousands, 2014 dollars)**

Year	Labor	Equipment & Materials	Energy	Burial	Other	Total
2044	135	0	0	0	0	135
2045	890	0	0	0	0	890
2046	2,176	66	0	0	22	2,264
2047	2,425	134	0	0	47	2,607
2048	3,803	768	0	0	299	4,870
2049	3,793	766	0	0	298	4,857
2050	1,122	227	0	0	88	1,437
2051	8,986	8,287	54	0	934	18,262
2052	31,929	29,448	193	0	3,320	64,891
2053	6,979	6,437	42	0	726	14,184
Total	62,239	46,133	290	0	5,734	114,396

Table G-2
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
60-Year Operating Life with Low-Level Radioactive Waste Processing
(thousands of 2014 dollars)

Activity Index	Activity Description	Down Cost	Removal Cost	Packaging Cost	Transport Cost	Off-Site Processing Cost	LLRW Disposal Cost	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GRQC Processed Cu. Feet	Waste/Prepared Wt. Lbs.	Craft Materials	Utility and Construction Materials
PERIOD Ia - Shutdown through Transition																					
Period Ia Direct Decommissioning Activities																					
Ia.1.1	Prepare preliminary decommissioning cost	-	-	-	-	-	-	16.4	25	160	169	-	-	-	-	-	-	-	-	-	1,300
Ia.1.2	Notification of Cancellation of Operations	-	-	-	-	-	-	-	-	n/a	-	-	-	-	-	-	-	-	-	-	-
Ia.1.3	Remove and store source material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.4	Notification of Cancellation of Operations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.5	Decontaminate plant systems and process waste	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.6	Prepare and submit PSDAR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.7	Remove plant, dregs, & spurs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.8	Remove plant, dregs, & spurs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.9	Estimate hyp-product inventory	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.10	Est. product inventory	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.11	Detailed hyp-product inventory	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.12	Remove plant, dregs, & spurs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.13	Remove plant, dregs, & spurs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.14	Perform Site-Specific Cost Study	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.15	Prepare/submit License Termination Plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.16	Receive NRC approval of Termination Plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Activity Specifications																					
Ia.1.17.1	Plant & temporary facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.2	Plant systems	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.3	Plant systems	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.4	Roaster materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.5	Roaster vessel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.6	Biological shield	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.7	Roaster materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.8	Roaster materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.9	Main Turbine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.10	Main Condensers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.11	Steam generators & buildings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.12	Waste storage structures & buildings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17.13	Facility & air ductwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia.1.17	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planning & Site Preparations																					
Ia.1.18																					

TLG Services, Inc.

Table G-2
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
60-Year Operating Life with Low-Level Radioactive Waste Processing
(thousands of 2014 dollars)

Activity Index	Activity Description	Isman Cost	Removal Cost	Packaging Cost	Transport Cost	Off-Site Processing Cost	LLRW Disposal Cost	Other Costs	Total Configuration	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	OFFRU Cu. Feet	Material/Processed Wt., Lbs.	Craft Manhours	Utility and Construction Manhours
1a.0	TOTAL PERIOD 1a COST	-	1,029	12	3	-	31	73,253	10,904	85,293	73,010	10,938	665	-	-	010	-	-	12,180	20	772,467
PERIOD 1b - Decommissioning Preparations																					
Period 1b Direct Decommissioning Activities																					
Detailed Work Breakdown																					
1b.1.1.1	Plant systems	-	-	-	-	-	-	517	90	606	618	-	69	-	-	-	-	-	-	-	4,733
1b.1.1.2	NRSR Decommissioning Flush	-	-	-	-	-	-	125	47	172	165	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.3	Reactor internals	-	-	-	-	-	-	316	26	342	305	-	-	-	-	-	-	-	-	-	2,500
1b.1.1.4	Reactor building	-	-	-	-	-	-	170	25	196	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.5	CHD cooling assembly	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.6	CRD housings & ICI tubes	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.7	Incore instrumentation	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.8	Reactor building	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.9	Reactor building	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.10	Reactor building	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.11	Reactor building	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.12	Reactor building	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.13	Reactor building	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.14	Main Turbine	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.15	Main Turbine	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.16	Main Condensate	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1.17	Auxiliary building	-	-	-	-	-	-	120	19	145	145	-	-	-	-	-	-	-	-	-	1,000
1b.1.1	Total	-	-	-	-	-	-	4,102	629	4,731	3,914	-	907	-	-	-	-	-	-	-	38,243
1b.1.2	Decom primary loop	648	-	-	-	-	-	-	324	971	971	-	-	-	-	-	-	-	-	1,067	-
1b.1	Subtotal Period 1b Activity Costs	648	-	-	-	-	-	4,102	953	5,792	4,885	-	907	-	-	-	-	-	-	1,067	-
Period 1b Additional Costs																					
1b.2.1	Spent fuel pool isolation	-	-	-	-	-	-	10,813	1,022	12,434	12,434	-	-	-	-	-	-	-	-	-	-
1b.2.2	Spent fuel pool isolation	-	-	-	-	-	-	2,624	847	3,471	3,471	-	-	-	-	-	-	-	-	-	-
1b.2	Subtotal Period 1b Additional Costs	-	-	-	-	-	-	13,437	2,469	16,106	16,106	-	-	-	-	-	-	-	-	-	-
Period 1b Colateral Costs																					
1b.3.1	Decom equipment	803	-	-	-	-	-	-	134	1,026	1,026	-	-	-	-	-	-	-	-	-	-
1b.3.2	DOC staff relocation expenses	-	-	-	-	-	-	-	162	1,242	1,242	-	-	-	-	-	-	-	-	-	-
1b.3.3	Decom equipment	40	-	-	-	-	-	-	68	339	339	-	-	-	-	-	-	-	-	-	-
1b.3.4	Pressure decommissioning chemical flush waste	-	-	28	73	-	-	-	980	5,098	5,098	-	-	-	-	-	-	-	-	-	-
1b.3.5	Small tool allowance	-	-	78	260	-	-	-	165	1,265	1,265	-	-	-	-	-	-	-	-	-	-
1b.3.6	Spill testing equipment	-	1,100	-	-	-	-	-	226	1,725	1,725	-	-	-	-	-	-	-	-	-	-
1b.3.7	Spent Fuel Transfer	1,500	-	-	-	-	-	-	540	4,140	4,140	-	-	-	-	-	-	-	-	-	-
1b.3.8	Spent Fuel Transfer	-	-	-	-	-	-	-	2,262	14,837	10,657	-	-	-	-	-	-	-	-	-	-
1b.3	Subtotal Period 1b Colateral Costs	2,439	1,102	103	352	-	-	3,678	2,292	14,837	10,657	4,140	-	-	-	-	-	-	140,866	250	-
Period 1b Period-Dependent Costs																					
1b.4.1	Decom supplies	27	-	-	-	-	-	-	7	955	955	-	-	-	-	-	-	-	-	-	-
1b.4.2	Insulators	-	-	-	-	-	-	-	16	1,055	1,055	-	-	-	-	-	-	-	-	-	-
1b.4.3	Property taxes	-	281	-	-	-	-	-	70	351	351	-	-	-	-	-	-	-	-	-	-
1b.4.4	Health physics supplies	-	-	-	-	-	-	-	40	303	303	-	-	-	-	-	-	-	-	-	-
1b.4.5	Disposal of DAW generated	-	264	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.6	Plant energy budget	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.7	Plant energy budget	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.8	Spent Fuel Pool O&M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.11	Spent Fuel Pool O&M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.12	Corporate Allocations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.13	DOC Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.14	DOC Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4.15	Utility Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1b.4	Subtotal Period 1b Period-Dependent Costs	27	546	7	1	-	-	18	32,545	37,971	37,971	1,340	-	-	-	-	-	-	360	-	-
1b.0	TOTAL PERIOD 1b COST	3,114	1,647	111	354	-	-	3,897	64,765	10,628	74,405	6,480	907	-	-	-	-	-	7,197	12	-
PERIOD 1 TOTALS																					

Table G-2
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
60-Year Operating Life with Low-Level Radioactive Waste Processing
(thousands of 2014 dollars)

Activity Index	Activity Description	Demolition Cost	Removal Cost	Packaging Cost	Transportation Cost	Off-Site Processing Cost	LLRW Disposal Cost	Other Costs	Total Contingency	Total Cost	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	Waste/Processed Wt. Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 2a - Large Component Removal																				
Period 2a Direct Decommissioning Activities																				
2a.1.1.1	Nuclear Steam Supply System Removal	174	186	24	32	619	270	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266
2a.1.1.2	Reactor Coolant Pumps & Motors	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2a.1.1.3	Pressurizer Relief Tank	89	93	134	230	1,033	57	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262
2a.1.1.4	Pressurizer	47	55	621	168	1,158	409	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437
2a.1.1.5	Steam Generator	369	6,359	3,238	2,742	2,959	4,415	25,789	25,789	25,789	25,789	25,789	25,789	25,789	25,789	25,789	25,789	25,789	25,789	25,789
2a.1.1.6	Retired Steam Generator Units	148	83	245	65	2,566	2,749	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356
2a.1.1.7	CRDM/CRS Service Structure Removal	132	3,660	10,594	1,506	18,854	330	15,088	49,763	49,763	49,763	49,763	49,763	49,763	49,763	49,763	49,763	49,763	49,763	49,763
2a.1.1.8	Waste Vessel Internals	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2a.1.1.9	Waste Vessel GTRC Disposal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2a.1.1.10	Reactor Vessel	1,008	10,753	18,853	8,813	3,107	330	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361
2a.1.1	Totals	1,008	10,753	18,853	8,813	3,107	330	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361	12,361
2a.1.2	Removal of Major Equipment	485	587	51	51	608	412	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556
2a.1.2.1	Main Turbine/Generator	1,383	714	714	714	714	685	3,878	3,878	3,878	3,878	3,878	3,878	3,878	3,878	3,878	3,878	3,878	3,878	3,878
2a.1.3	Condensing Cooled from Clean Building Demolition	915	915	915	915	915	137	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
2a.1.3.1	Auxiliary	495	495	495	495	495	70	526	526	526	526	526	526	526	526	526	526	526	526	526
2a.1.3.2	Hot Machine Shop	91	91	91	91	91	15	111	111	111	111	111	111	111	111	111	111	111	111	111
2a.1.3.3	Refractory	227	227	227	227	227	34	261	261	261	261	261	261	261	261	261	261	261	261	261
2a.1.3.4	Refractory Building	1,705	1,705	1,705	1,705	1,705	256	1,961	1,961	1,961	1,961	1,961	1,961	1,961	1,961	1,961	1,961	1,961	1,961	1,961
2a.1.4	Totals	485	587	51	51	608	412	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556	2,556
2a.1.5	Disposal of Plant Systems	648	648	648	648	648	273	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
2a.1.5.1	100 Auxiliary Tank-System Specific	207	207	207	207	207	63	397	397	397	397	397	397	397	397	397	397	397	397	397
2a.1.5.2	AB - Main Steam	78	78	78	78	78	46	306	306	306	306	306	306	306	306	306	306	306	306	306
2a.1.5.3	AB - Main Steam RCA	263	263	263	263	263	39	302	302	302	302	302	302	302	302	302	302	302	302	302
2a.1.5.4	AD - Steam Turbine	290	290	290	290	290	43	333	333	333	333	333	333	333	333	333	333	333	333	333
2a.1.5.5	AE - Feedwater	247	247	247	247	247	37	229	229	229	229	229	229	229	229	229	229	229	229	229
2a.1.5.6	AF - Feedwater Heater Extraction	91	91	91	91	91	14	105	105	105	105	105	105	105	105	105	105	105	105	105
2a.1.5.7	AK - Condensate Demineralizer	29	29	29	29	29	3	46	46	46	46	46	46	46	46	46	46	46	46	46
2a.1.5.8	AL - Condensate & Feedwater Chem Addition	119	119	119	119	119	6	36	36	36	36	36	36	36	36	36	36	36	36	36
2a.1.5.9	AM - Steam Generator Blenders - RCA	372	372	372	372	372	5	375	375	375	375	375	375	375	375	375	375	375	375	375
2a.1.5.10	AN - Steam Generator Blenders - RCA	143	143	143	143	143	147	895	895	895	895	895	895	895	895	895	895	895	895	895
2a.1.5.11	AO - Steam Generator Blenders - RCA	60	60	60	60	60	3	24	24	24	24	24	24	24	24	24	24	24	24	24
2a.1.5.12	AP - Main Turbine Lube Oil	10	10	10	10	10	1	11	11	11	11	11	11	11	11	11	11	11	11	11
2a.1.5.13	CC - Generator Hydrogen Seal & CO2	14	14	14	14	14	2	16	16	16	16	16	16	16	16	16	16	16	16	16
2a.1.5.14	CE - Steam Generator Water	39	39	39	39	39	2	13	13	13	13	13	13	13	13	13	13	13	13	13
2a.1.5.15	CF - Lube Oil Storage Mix & Purification	31	31	31	31	31	5	36	36	36	36	36	36	36	36	36	36	36	36	36
2a.1.5.16	CG - Condenser Air Removal	60	60	60	60	60	9	69	69	69	69	69	69	69	69	69	69	69	69	69
2a.1.5.17	CH - Main Turbine Lube Oil	10	10	10	10	10	52	307	307	307	307	307	307	307	307	307	307	307	307	307
2a.1.5.18	CI - Condensate Water Control Oil	10	10	10	10	10	9	67	67	67	67	67	67	67	67	67	67	67	67	67
2a.1.5.19	DD - Cooling Tower Makeup & Blowdown	274	274	274	274	274	116	706	706	706	706	706	706	706	706	706	706	706	706	706
2a.1.5.20	DE - Cooling Water Chemical Control Sys	397	397	397	397	397	294	1,611	1,611	1,611	1,611	1,611	1,611	1,611	1,611	1,611	1,611	1,611	1,611	1,611
2a.1.5.21	DF - Cooling Water Chemical Control RCA	129	129	129	129	129	144	780	780	780	780	780	780	780	780	780	780	780	780	780
2a.1.5.22	EG - High Purity Water Control Injection	218	218	218	218	218	84	482	482	482	482	482	482	482	482	482	482	482	482	482
2a.1.5.23	EH - Accumulator Safety Injection	24	24	24	24	24	15	112	112	112	112	112	112	112	112	112	112	112	112	112
2a.1.5.24	FI - Auxiliary Steam	83	83	83	83	83	9	72	72	72	72	72	72	72	72	72	72	72	72	72
2a.1.5.25	FC - Auxiliary Turbine	63	63	63	63	63	1	187	187	187	187	187	187	187	187	187	187	187	187	187
2a.1.5.26	FD - Turbine Building HVAC Addition	17	17	17	17	17	25	301	301	301	301	301	301	301	301	301	301	301	301	301
2a.1.5.27	GE - Turbine Building HVAC	77	77	77	77	77	25	301	301	301	301	301	301	301	301	301	301	301	301	301
2a.1.5.28	GF - Containment Hydrogen Control	383	383	383	383	383	448	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891

Table G-2
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
90-Year Operating Life with Low-Level Radioactive Waste Processing
(thousands of 2014 dollars)

Activity Index	Activity Description	Down Cost	Removal Cost	Packaging Costs	Transport Costs	Off-site Processing Costs	LLW Disposal Costs	Other Contingency Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	1400C Cu. Feet	Isotail Wt. Lbs.	Personnel	Craft	Utility Contractor
Period 1a: Initial Decommissioning Activities																						
201	2a.1.6.30 HF - Secondary Liquid Waste	698	80	-	712	617	775	-	899	4,033	4,433	-	-	6,186	7,261	-	-	-	-	462,960	-	31,896
-	2a.1.6.31 JA - Auxiliary Oil & Transfer	32	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	690
-	2a.1.6.32 IS - Bulk Chemical Storage	91	10	24	539	-	-	-	108	773	773	-	-	4,418	-	-	-	-	-	281,800	-	1,825
-	2a.1.6.33 LS - Bulk Chemical Storage	170	-	-	-	-	-	-	27	596	-	-	296	2,356	-	-	-	-	-	91,629	-	4,965
-	2a.1.6.34 LE - Oil Waste RCA	742	3	-	8	189	-	-	89	657	627	-	-	-	-	-	-	-	-	-	-	15,495
1,084	2a.1.6.44 Turbine Bldg Non-System Specific	8,618	277	353	4,348	2,204	-	-	3,015	29,462	16,461	-	-	51,376	9,864	-	-	-	-	2,706,410	-	182,078
-	2a.1.6	1,698	27	-	7	114	27	-	427	2,200	2,200	-	-	3,501	109	-	-	-	-	62,671	-	36,741
2,182	2a.1.7 Subtotal Period 2a Activity Costs	29,478	29,632	8,198	10,183	53,104	660	-	37,391	153,839	169,887	-	3,951	146,354	84,736	993	383	2,217	13,821,010	482,925	-	10,619
Period 2a: Additional Costs																						
-	2a.2.1 Remedial Action Surveys	-	-	-	-	-	-	1,696	609	2,166	2,166	-	-	-	-	-	-	-	-	-	-	51,112
-	2a.2.2 Remedial Period 2a Additional Costs	-	-	-	-	-	-	1,696	609	2,166	-	-	-	-	-	-	-	-	-	-	-	34,112
Period 2b: Decommissioning Activities																						
197	2b.2.3.1 Process decommissioning water waste	136	324	-	623	-	623	-	309	1,609	1,609	-	-	-	1,286	-	-	-	-	76,900	247	-
-	2b.2.3.2 Process decommissioning chemical flush waste	-	39	146	-	329	-	-	61	610	363	-	39	-	410	-	-	-	-	43,711	77	-
-	2b.2.3.3 Spent Fuel Transfer	541	-	-	-	-	-	11,620	1,728	13,248	363	-	-	-	-	-	-	-	-	-	-	-
-	2b.2.3.5 On-site survey and release of 69.87 tons clean modular waste	-	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-
188	2b.2.3.6 Subtotal Period 2b Calibrated Costs	241	165	-	470	-	886	11,621	2,105	16,856	2,671	-	39	-	1,676	-	-	-	-	110,617	323	-
Period 2c: Period-Dependent Costs																						
89	2c.4.1 Decom asphalts	-	-	-	-	-	-	1,612	22	112	112	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.2 Insurance	-	-	-	-	-	-	154	154	1,622	1,622	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.3 Heavy equipment	-	-	-	-	-	-	489	48	605	865	-	61	-	-	-	-	-	-	-	-	-
-	2c.4.4 Heavy physics supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.5 Heavy equipment rental	-	-	-	-	-	-	-	719	3,652	3,652	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.6 Disposal of DAW generated	-	-	-	-	-	-	-	485	3,795	3,795	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.7 Decommissioning budget	-	-	-	-	-	-	-	392	3,006	3,006	-	-	-	6,016	-	-	-	-	120,328	186	-
-	2c.4.8 NRC Permit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.9 Emergency Planning Fund	-	-	-	-	-	-	2,614	392	3,006	3,006	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.10 Spent Fuel OLM	-	-	-	-	-	-	1,028	103	1,130	1,130	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.11 Decommissioning waste	-	-	-	-	-	-	1,298	165	1,463	1,463	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.12 Corporate Allocation	-	-	-	-	-	-	167	24	180	-	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.13 Security Staff Cost	-	-	-	-	-	-	1,641	164	1,805	1,805	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.14 NRC Staff Cost	-	-	-	-	-	-	19,248	19,248	19,248	19,248	-	-	-	-	-	-	-	-	-	-	-
-	2c.4.15 Decommissioning waste	-	-	-	-	-	-	3,770	3,770	42,297	42,297	-	-	-	-	-	-	-	-	-	-	-
89	2c.4	6,142	122	-	25	-	366	36,771	6,616	49,079	106,673	-	61	-	6,016	-	-	-	-	130,328	186	-
2,609	2c.9 TOTAL PERIOD 2c COST	35,961	29,819	9,492	10,963	54,264	102,873	64,948	291,811	271,197	106,603	4,941	16,603	146,364	92,418	993	383	2,217	14,060,960	496,657	-	1,161,020
Period 2b: Direct Decommissioning Activities																						
2b.2.3.1 Reactor Bldg Non-System Specific																						
-	2b.2.3.1.1 200 Reactor Bldg Non-System Specific RCA	80	4	7	18	309	45	-	38	264	264	-	-	269	186	-	-	-	20,284	1,769	-	-
-	2b.2.3.1.2 200 Reactor Bldg Non-System Specific Chn	170	3	8	179	-	-	-	72	1,429	1,429	-	-	4,768	-	-	-	-	182,612	10,426	-	-
-	2b.2.3.1.3 200 Reactor Bldg Non-System Specific Wt. Lbs.	1,301	-	-	-	-	-	-	299	1,628	1,628	-	1,023	2,105	-	-	-	-	88,819	3,413	-	-
-	2b.2.3.1.4 700 Reactor Bldg Non-System Specific RCA	181	10	10	60	121	-	-	481	2,719	2,719	-	-	12,684	-	-	-	-	616,163	21,816	-	-
-	2b.2.3.1.5 700 Reactor Bldg Non-System Specific Chn	182	11	10	60	121	-	-	481	2,719	2,719	-	-	12,684	-	-	-	-	616,163	21,816	-	-
-	2b.2.3.1.6 700 Reactor Bldg Non-System Specific Wt. Lbs.	153	-	-	-	-	-	-	53	170	471	-	176	706	497	-	-	-	61,467	3,653	-	-
-	2b.2.3.1.7 AP - Decommissioning Wt. Storage & Y-Cell	80	0	1	26	-	-	-	14	63	83	-	-	-	-	-	-	-	12,769	1,790	-	-
-	2b.2.3.1.8 AP - Decommissioning Storage & Transfer	343	36	32	152	-	465	-	13	102	102	-	102	-	-	-	-	-	182,942	7,074	-	-
-	2b.2.3.1.9 III - Reactor Control System	972	114	94	413	-	1,353	-	1,028	4,616	4,616	-	-	1,812	-	-	-	-	525,509	26,147	-	-
-	2b.2.3.1.10 III - Reactor Control System	129	22	20	161	-	394	-	16	874	874	-	-	1,299	-	-	-	-	133,962	4,136	-	-
-	2b.2.3.1.11 DE - Intake & Water Treatment	187	-	-	-	-	-	-	16	139	139	-	129	-	-	-	-	-	4,136	1,167	-	-
-	2b.2.3.1.12 DE - Intake & Water Treatment	252	18	46	997	-	-	-	22	1,533	1,533	-	129	-	-	-	-	-	4,136	1,167	-	-
-	2b.2.3.1.13 DE - Intake & Water Treatment	46	3	-	104	-	-	-	35	184	184	-	166	-	-	-	-	-	4,136	1,167	-	-
-	2b.2.3.1.14 DE - Intake & Water Treatment	46	3	-	104	-	-	-	35	184	184	-	166	-	-	-	-	-	4,136	1,167	-	-
-	2b.2.3.1.15 DE - Intake & Water Treatment	46	3	-	104	-	-	-	35	184	184	-	166	-	-	-	-	-	4,136	1,167	-	-
-	2b.2.3.1.16 DE - Intake & Water Treatment	46	3	-	104	-	-	-	35	184	184	-	166	-	-	-	-	-	4,136	1,167	-	-
-	2b.2.3.1.17 EII - Steam Cooling Water	334	-	-	-	-	-	-	60	385	385	-	68	-	-	-	-	-	66,693	6,914	-	-
-	2b.2.3.1.18 EII - Steam Cooling Water	334	-	-	-	-	-	-	60	385	385	-	68	-	-	-	-	-	66,693	6,914	-	-
-	2b.2.3.1.19 EII - Steam Cooling Water	334	-	-	-	-	-	-	60	385	385	-	68	-	-	-	-	-	66,693	6,914	-	-
-	2b.2.3.1.20 EII - Steam Cooling Water	334	-	-	-	-	-	-	60	385	385	-	68	-	-	-	-	-	66,693	6,914	-	-

TLG Services, Inc.

Table G-2
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
60-Year Operating Life with Low-Level Radioactive Waste Processing
(thousands of 2014 dollars)

Activity Index	Activity Description	Dispos. Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume		Burial Volumes		Burial/Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
														Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Cu. Feet			
Disposal of Plant Systems (continued)																				
26.1.1.20	EG - Component Cooling Water RCA	290		8	20	446			121	784	784		294	5,326				216,287	3,802	
26.1.1.21	QA - Plant Heating RCA	290							37	284									5,306	
26.1.1.22	QA - Plant Heating RCA	87		1	2	53			33	166	166			638				28,924	1,812	
26.1.1.23	QA - Plant Heating RCA	84							13	96			16						1,785	
26.1.1.24	QA - Plant Heating RCA	18		0		16			9	92			86	187				7,581	1,482	
26.1.1.25	QA - Plant Heating RCA	122		3	8	170			68	361	361		21	2,054				82,292	427	
26.1.1.26	QA - Plant Heating RCA	188		6	11	293	24		85	616	616		163	2,425	18			101,611	3,025	
26.1.1.27	QA - Plant Heating RCA	480		12	23	424			109	1,033	1,033		34	6,041	229			229,713	8,481	
26.1.1.28	QA - Plant Heating RCA	514		24	38	616	167		268	1,617	1,617		74	7,587	643			341,701	9,686	
26.1.1.29	QA - Plant Heating RCA	10		1	2	49			17	108	108			560				33,670	9,360	
26.1.1.30	QA - Plant Heating RCA	10		1	2	49			17	108	108			560				33,670	9,360	
26.1.1.31	QA - Plant Heating RCA	10		1	2	49			17	108	108			560				33,670	9,360	
26.1.1.32	QA - Plant Heating RCA	383		22	21	163	163		172	973	973		203	2,745				10,609	469	
26.1.1.33	QA - Plant Heating RCA	764		73	62	486	486		310	1,189	1,189		214	1,487				18,375	302	
26.1.1.34	QA - Plant Heating RCA	80		3	1	147	382		210	1,189	1,189		214	1,487				18,375	302	
26.1.1.35	QA - Plant Heating RCA	104		6	0	82	12		71	250	250		71	983				51,237	2,061	
26.1.1.36	QA - Plant Heating RCA	62							29	234	234		224	4,360				4,360	4,360	
26.1.1.37	QA - Plant Heating RCA	166				67			24	244	244		891	2,339				32,638	2,339	
26.1.1.38	QA - Plant Heating RCA	24		0	3	6			4	32	32		28	71				516	516	
26.1.1.39	QA - Plant Heating RCA	20		1	0	6			6	32	32		435					8,362	8,362	
26.1.1.40	QA - Plant Heating RCA	24							57	435	435							179,151	7,064	
26.1.1.41	QA - Plant Heating RCA	110		7	17	360			199	954	954		203	2,745				3,837	3,837	
26.1.1.42	QA - Plant Heating RCA	26		0	1	21			10	98	98			217				10,609	469	
26.1.1.43	QA - Plant Heating RCA	19		0	1	65	70		24	145	145			661	198			37,265	1,229	
26.1.1.44	QA - Plant Heating RCA	264		8		251			64	315	315							18,413	1,229	
26.1.1.45	QA - Plant Heating RCA	327		4	0	301			49	376	376			2,433				98,413	4,281	
26.1.1.46	QA - Plant Heating RCA	44							7	61	61							6749	1,812	
26.1.1.47	QA - Plant Heating RCA	166			6	106			43	253	253			1,273				51,004	1,273	
26.1.1.48	QA - Plant Heating RCA	144		3	8	179			64	398	398		68	2,369				1,278	1,278	
26.1.1.49	QA - Plant Heating RCA	123		5	6	121			84	376	376			684	211			2,084	2,084	
26.1.1.50	QA - Plant Heating RCA	123		5	6	121			797	4,224	4,224			3,729	5,724			539,890	20,320	
26.1.1.51	QA - Plant Heating RCA	148		8	1	315	1,289		707	4,224	4,224			681	340			42,764	2,774	
26.1.1.52	QA - Plant Heating RCA	38		6	4	35			38	390	390			423	144			29,439	1,020	
26.1.1.53	QA - Plant Heating RCA	177							27	34	34							3,016	3,016	
26.1.1.54	QA - Plant Heating RCA	177							4	33	33							60	60	
26.1.1.55	QA - Plant Heating RCA	1,624		697	697	8,213	5,091		6,783	37,995	32,808		5,127	98,179	20,912			5,303,061	321,744	
26.1.2	Scaffolding in support of decommissioning		1,097	34	8	143	33		534	2,760	2,760			1,541				78,538	40,936	
26.1.3	Decommissioning of Rifle Buildings																			
26.1.3.1	Isocenter	1,881		75	600	602	1,564		1,056	7,618	7,618			5,086				25,446	66,809	
26.1.3.2	Auxiliary	381		14	92	172	342		627	2,087	2,087			17	83			412,809	19,424	
26.1.3.3	Heat Exchanger Carrier - Contaminated	16		0	2	2	6		11	40	40							8,862	997	
26.1.3.4	Heat Exchanger Carrier - Contaminated	46		0	0	2	6		14	65	65							19,136	1,682	
26.1.3.5	RAM Storage Building	16		0	1	5	3		31	112	112			19	213			6,022	934	
26.1.3.6	Radioactive and Personnel Tunnel	6		0	1	2	6		272	1,060	1,060			844	296			26,243	1,092	
26.1.3.7	Radioactive and Personnel Tunnel	352		186	7	48	71		126	114	114			60	226			3,016	681	
26.1.3.8	Radioactive and Personnel Tunnel	19		13	6	14	14		39	114	114							4,358	4,358	
26.1.3.9	Radioactive and Personnel Tunnel	238		13	1	52	52		118	385	385							3,130,024	63,868	
26.1.3.10	Radioactive and Personnel Tunnel	2,649		98	746	753	1,973		2,682	11,417	11,417			8,909	32,013			8,571,427	481,528	
26.1.3.11	Radioactive and Personnel Tunnel	4,273		729	1,440	1,099	7,097		9,989	62,162	47,045		5,127	108,720	63,040					
26.2.1	Periodic 30s Additional Costs																			
26.2.2	Removal Action Surveys		6	33				2,386	718	3,119	3,113									
26.2.3	Sanitary Power Absorbent Pad Removal				122		260		850	6,300	6,047							392,140	429	
26.2.4	Operational Equipment		4,893	17	37	603			98	705	705							71,410	750	

Table G-2
Callaway Energy Center
DECON Alternative Decommissioning Cost Estimate
60-Year Operating Life with Low-Level Radioactive Waste Processing
(Thousands of 2014 dollars)

Activity Index	Activity Description	Demom Cost	Removal Cost	Packaging Cost	Transport Cost	CRS Site Processing Cost	LLRW Disposal Cost	Other Contingency Cost	Total Contingency Cost	Total Cost	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	Isotopes / Wt. Lbs.	Crab Manufacturers	Utility and Contractor Manhours
Period 26 Additional Costs (continued)																				
26.2.6	Isolated Reactor Closure Head	-	110	592	885	603	768	-	410	2,778	2,778	-	-	-	2,764	-	-	318,640	3,167	2,000
26.2	Subtotal Period 26 Additional Costs	-	6,012	692	1,140	603	1,048	2,884	2,146	13,662	7,173	-	0,330	11,710	7,173	-	-	1,023,430	124,067	2,000
Period 26 Collectors Costs																				
26.3.1	Process decommissioning water waste	169	-	111	296	-	495	-	292	1,223	1,325	-	-	-	1,110	-	-	68,898	217	-
26.3.2	Process decommissioning chemical flush waste	3	-	128	475	-	1,055	-	349	2,010	2,010	-	-	-	1,388	-	-	142,940	260	-
26.3.3	Small unit alternative	-	421	-	-	-	-	17,260	2,662	19,872	484	-	-	-	-	-	-	-	-	-
26.3.4	Spent Fuel Transfer	-	-	-	-	-	-	410	-	-	461	-	-	-	-	-	-	-	-	-
26.3	Subtotal Period 26 Collectors Costs	172	421	239	781	-	1,550	17,680	3,308	24,129	4,357	19,872	-	-	2,453	-	-	209,458	468	-
Period 26 Period-Dependent Costs																				
26.4.1	Decon supplies	1,213	-	-	-	-	-	-	303	1,516	1,516	-	-	-	-	-	-	-	-	-
26.4.2	Insurance	-	-	-	-	-	-	2,175	217	2,391	2,391	-	-	-	-	-	-	-	-	-
26.4.3	Inventory	-	-	-	-	-	-	68	68	726	726	-	-	-	-	-	-	-	-	-
26.4.4	Health physics supplies	-	3,878	-	-	-	-	-	989	4,847	4,847	-	-	-	-	-	-	-	-	-
26.4.5	Heavy equipment rental	-	4,096	-	-	-	-	-	102	682	682	-	-	-	-	-	-	-	-	-
26.4.6	Disposal of DAW generator	-	-	135	37	-	337	-	46	3,412	3,412	-	-	-	-	-	-	-	-	-
26.4.7	Plant emergency budget	-	-	-	-	-	-	1,477	148	1,625	1,625	-	-	-	6,607	-	-	130,346	217	-
26.4.8	NRC Fee	-	-	-	-	-	-	1,466	218	2,146	2,146	-	-	-	-	-	-	-	-	-
26.4.9	Emergency Planning Fund	-	-	-	-	-	-	71	34	259	259	-	-	-	-	-	-	-	-	-
26.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	2,088	290	2,148	2,148	-	-	-	-	-	-	-	-	-
26.4.11	Liquid Radioactive Processing Equipment/Services	-	-	-	-	-	-	1,469	290	2,148	2,148	-	-	-	-	-	-	-	-	-
26.4.12	ISFSI Operator Costs	-	-	-	-	-	-	3,699	37	3,736	3,736	-	-	-	-	-	-	-	-	-
26.4.13	Corporate Attention	-	-	-	-	-	-	34,988	27	40,145	40,145	-	-	-	-	-	-	-	-	-
26.4.14	Security Staff Cost	-	-	-	-	-	-	7,616	68	33,336	33,336	-	-	-	-	-	-	-	-	-
26.4.15	DOG Staff Cost	-	-	-	-	-	-	55,771	20,256	154,679	140,866	-	-	-	-	-	-	-	-	-
26.4.16	Utility Staff Cost	-	-	-	-	-	-	337	124,156	124,156	140,866	-	-	-	6,607	-	-	130,346	217	-
26.4	Subtotal Period 26 Period-Dependent Costs	1,213	8,074	135	37	9,712	10,033	144,711	35,709	244,493	208,331	24,095	11,407	130,430	60,652	-	-	819,741	680,270	1,012,310
26.0	TOTAL PERIOD 26 COST	6,658	33,521	1,765	3,374	9,712	10,033	144,711	35,709	244,493	208,331	24,095	11,407	130,430	60,652	-	-	819,741	680,270	1,012,310
PERIOD 26 - Decommissionation Following Wet Fuel Storage																				
Period 26 Direct Decommissionation Activities																				
26.1.1	Remove spent fuel rods	891	82	293	107	-	1,709	-	959	3,530	3,530	-	-	-	6,888	-	-	481,925	1,025	-
Disposal of Plant Systems																				
26.1.2.1	600 Fuel Bldg Non-Specific Systems RCA	-	306	5	12	258	-	-	119	710	710	-	-	-	3,200	-	-	120,974	660	-
26.1.2.2	600 Fuel Bldg Specific Systems RCA	-	48	3	2	14	29	-	22	119	119	-	-	-	170	-	-	1,487	954	-
26.1.2.3	EC - Fuel Pool Cooling & Charging	-	486	27	26	218	257	-	207	1,101	1,101	-	-	-	1,250	-	-	177,763	8,061	-
26.1.2.4	GA - Plant Fueling Fuel Building	-	250	9	16	312	38	-	124	78	48	-	-	-	60	-	-	161,470	4,873	-
26.1.2.5	GA - Fuel Building HVAC	-	119	2	5	104	38	-	46	278	278	-	-	-	3,729	-	-	161,471	4,873	-
26.1.2.6	RG-Fire Protection Fuel Building	-	-	-	-	-	-	-	-	-	-	-	-	-	50,829	-	-	2,116	-	-
26.1.2	Totals	-	1,168	46	63	919	344	-	528	3,058	3,058	-	-	-	10,391	-	-	619,374	22,102	-
Decommissionation of Site Buildings																				
26.1.3.1	Fuel Bldg	777	854	9	32	228	83	-	663	2,814	2,814	-	-	-	2,706	-	-	189,826	31,561	-
26.1.3.1	Fuel Bldg	777	854	9	32	228	83	-	663	2,814	2,814	-	-	-	2,706	-	-	189,826	31,561	-
26.1.3.1	Fuel Bldg	777	854	9	32	228	83	-	663	2,814	2,814	-	-	-	2,706	-	-	189,826	31,561	-
26.1.4	Scarfing in support of decommissioning	-	309	7	2	29	7	-	107	550	550	-	-	-	308	-	-	16,668	8,185	-
26.1	Subtotal Period 26 Activity Costs	1,608	2,494	355	293	1,174	2,143	-	2,305	10,180	10,180	-	-	-	14,001	-	-	1,216,713	64,772	-
Period 26 Additional Costs																				
26.2.1	License Termination Survey Planning	-	-	-	-	-	-	1,495	448	1,943	1,943	-	-	-	-	-	-	-	-	-
26.2.2	License Termination Survey	-	-	-	-	-	-	675	293	879	879	-	-	-	-	-	-	-	-	-
26.2	Subtotal Period 26 Additional Costs	-	-	-	-	-	-	2,171	661	2,822	2,822	-	-	-	-	-	-	-	-	-
Period 26 Collectors Costs																				
26.3.1	Process decommissioning water waste	160	-	69	154	-	287	-	141	712	712	-	-	-	-	-	-	70,805	117	-
26.3.2	Process decommissioning chemical flush waste	-	65	-	-	-	-	-	19	76	76	-	-	-	-	-	-	-	-	-
26.3.3	Small unit alternative	-	421	-	-	-	-	120	135	953	953	-	-	-	6,000	-	-	301,968	88	-
26.3	Subtotal Period 26 Collectors Costs	160	486	103	154	-	287	-	155	1,779	1,779	-	-	-	6,000	-	-	311,923	205	-
Period 26 Period-Dependent Costs																				
26.4.1	Decon supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.2	Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.3	Inventory	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.4	Health physics supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.5	Heavy equipment rental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.6	Disposal of DAW generator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.7	Plant emergency budget	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.8	NRC Fee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.9	Emergency Planning Fund	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.10	Spent Fuel Pool O&M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.11	Liquid Radioactive Processing Equipment/Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.12	ISFSI Operator Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.13	Corporate Attention	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.14	Security Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.15	DOG Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4.16	Utility Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.4	Subtotal Period 26 Period-Dependent Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.0	TOTAL PERIOD 26 COST	1,608	2,494	355	293	1,174	2,143	-	2,305	10,180	10,180	-	-	-	14,001	-	-	1,216,713	64,772	-
PERIOD 26 - Decommissionation Following Wet Fuel Storage																				
Period 26 Direct Decommissionation Activities																				
26.1.1	Remove spent fuel rods	891	82	293	107	-	1,709	-	959	3,530	3,530	-	-	-	6,888	-	-	481,925	1,025	-
Disposal of Plant Systems																				
26.1.2.1	600 Fuel Bldg Non-Specific Systems RCA	-	306	5	12	258	-	-	119	710	710	-	-	-	3,200	-	-	120,974	660	-
26.1.2.2	600 Fuel Bldg Specific Systems RCA	-	48	3	2	14	29	-	22	119	119	-	-	-	170	-	-	1,487	954	-
26.1.2.3	EC - Fuel Pool Cooling & Charging	-	486	27	26	218	257	-	207	1,101	1,101	-	-	-	1,250	-	-	177,763	8,061	-
26.1.2.4	GA - Plant Fueling Fuel Building	-	250	9	16	312	38	-	124	78	48	-	-	-	60	-	-	161,470	4,873	-
26.1.2.5	GA - Fuel Building HVAC	-	119	2	5	104	38	-	46	278	278	-	-	-	3,729	-	-	161,471	4,873	-
26.1.2.6	RG-Fire Protection Fuel Building	-	-	-	-	-	-	-	-	-	-	-	-	-	50,829	-	-	2,116	-	-
26.1.2	Totals	-	1,168	46	63	919	344	-	528	3,058	3,058	-	-	-	10,391	-	-	619,374	22,102	-
Decommissionation of Site Buildings																				
26.1.3.1	Fuel Bldg	777	854	9	32															