

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

Activity Index	Activity Description	Deman Count	Removal Count	Packaging Costs	Transport Costs	Procurement Costs	Disposal Costs	Other Costs	Total Configurable	Total Costs	Lia. Term. Costs	Management Costs	Restoration Costs	Volume Cu. Feet	Class A		Class B		Class C	Class D	Class E	Class F	Class G	Class H	Class I	Class J	Class K	Class L	Class M	Class N	Class O	Class P	Class Q	Class R	Class S	Class T	Class U	Class V	Class W	Class X	Class Y	Class Z	Class AA	Class AB	Class AC	Class AD	Class AE	Class AF	Class AG	Class AH	Class AI	Class AJ	Class AK	Class AL	Class AM	Class AN	Class AO	Class AP	Class AQ	Class AR	Class AS	Class AT	Class AU	Class AV	Class AW	Class AX	Class AY	Class AZ	Class BA	Class BB	Class BC	Class BD	Class BE	Class BF	Class BG	Class BH	Class BI	Class BJ	Class BK	Class BL	Class BM	Class BN	Class BO	Class BP	Class BQ	Class BR	Class BS	Class BT	Class BU	Class BV	Class BW	Class BX	Class BY	Class BZ	Class CA	Class CB	Class CC	Class CD	Class CE	Class CF	Class CG	Class CH	Class CI	Class CJ	Class CK	Class CL	Class CM	Class CN	Class CO	Class CP	Class CQ	Class CR	Class CS	Class CT	Class CU	Class CV	Class CW	Class CX	Class CY	Class CZ	Class DA	Class DB	Class DC	Class DD	Class DE	Class DF	Class DG	Class DH	Class DI	Class DJ	Class DK	Class DL	Class DM	Class DN	Class DO	Class DP	Class DQ	Class DR	Class DS	Class DT	Class DU	Class DV	Class DW	Class DX	Class DY	Class DZ	Class EA	Class EB	Class EC	Class ED	Class EE	Class EF	Class EG	Class EH	Class EI	Class EJ	Class EK	Class EL	Class EM	Class EN	Class EO	Class EP	Class EQ	Class ER	Class ES	Class ET	Class EU	Class EV	Class EW	Class EX	Class EY	Class EZ	Class FA	Class FB	Class FC	Class FD	Class FE	Class FF	Class FG	Class FH	Class FI	Class FJ	Class FK	Class FL	Class FM	Class FN	Class FO	Class FP	Class FQ	Class FR	Class FS	Class FT	Class FU	Class FV	Class FW	Class FX	Class FY	Class FZ	Class GA	Class GB	Class GC	Class GD	Class GE	Class GF	Class GG	Class GH	Class GI	Class GJ	Class GK	Class GL	Class GM	Class GN	Class GO	Class GP	Class GQ	Class GR	Class GS	Class GT	Class GU	Class GV	Class GW	Class GX	Class GY	Class GZ	Class HA	Class HB	Class HC	Class HD	Class HE	Class HF	Class HG	Class HH	Class HI	Class HJ	Class HK	Class HL	Class HM	Class HN	Class HO	Class HP	Class HQ	Class HR	Class HS	Class HT	Class HU	Class HV	Class HW	Class HX	Class HY	Class HZ	Class IA	Class IB	Class IC	Class ID	Class IE	Class IF	Class IG	Class IH	Class II	Class IJ	Class IK	Class IL	Class IM	Class IN	Class IO	Class IP	Class IQ	Class IR	Class IS	Class IT	Class IU	Class IV	Class IW	Class IX	Class IY	Class IZ	Class JA	Class JB	Class JC	Class JD	Class JE	Class JF	Class JG	Class JH	Class JI	Class JJ	Class JK	Class JL	Class JM	Class JN	Class JO	Class JP	Class JQ	Class JR	Class JS	Class JT	Class JU	Class JV	Class JW	Class JX	Class JY	Class JZ	Class KA	Class KB	Class KC	Class KD	Class KE	Class KF	Class KG	Class KH	Class KI	Class KJ	Class KK	Class KL	Class KM	Class KN	Class KO	Class KP	Class KQ	Class KR	Class KS	Class KT	Class KU	Class KV	Class KW	Class KX	Class KY	Class KZ	Class LA	Class LB	Class LC	Class LD	Class LE	Class LF	Class LG	Class LH	Class LI	Class LJ	Class LK	Class LL	Class LM	Class LN	Class LO	Class LP	Class LQ	Class LR	Class LS	Class LT	Class LU	Class LV	Class LW	Class LX	Class LY	Class LZ	Class MA	Class MB	Class MC	Class MD	Class ME	Class MF	Class MG	Class MH	Class MI	Class MJ	Class MK	Class ML	Class MN	Class MO	Class MP	Class MQ	Class MR	Class MS	Class MT	Class MU	Class MV	Class MW	Class MX	Class MY	Class MZ	Class NA	Class NB	Class NC	Class ND	Class NE	Class NF	Class NG	Class NH	Class NI	Class NJ	Class NK	Class NL	Class NM	Class NO	Class NP	Class NQ	Class NR	Class NS	Class NT	Class NU	Class NV	Class NW	Class NX	Class NY	Class NZ	Class OA
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TLG Services, Inc.

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

Activity Index	Activity Description	Person Cost	Removal Cost	Packaging Cost	Transport Cost	Processing Cost	Disposal Cost	Other Cost	Total Contingency	Total Cost	Liv. Term. Cost	Management Cost	Restoration Cost	Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	Class D Cu. Feet	Processed Vol. Yr. 100	Cert. Manhours	Contractor Manhours	NB0
26.1.1.1	26.1.1.1.1 HP - Secondary Liquid Waste	383	108	56	31	218	341	-	445	1,901	1,901	-	-	3,600	1,411	-	-	-	197,879	10,660	-	-
26.1.1.2	26.1.1.2.1 JA - Auxiliary Oil & Transfer	701	32	80	72	617	775	-	890	4,023	4,023	-	-	6,186	3,383	-	-	-	460,086	31,496	-	-
26.1.1.3	26.1.1.3.1 JA - Auxiliary Oil & Transfer	-	91	10	24	639	-	-	0	38	38	-	-	-	-	-	-	-	-	-	-	-
26.1.1.4	26.1.1.4.1 LE - Oil Waste RCA	-	179	-	-	-	-	-	27	280	773	-	-	6,449	-	-	-	-	281,890	1,825	-	-
26.1.1.5	26.1.1.5.1 Turbine Hdg Non-System Specific	-	745	-	8	189	-	-	89	627	627	-	-	2,264	-	-	-	-	91,528	4,296	-	-
26.1.1.6	26.1.1.6.1 Turbine Hdg Non-System Specific	-	745	-	8	189	-	-	89	627	627	-	-	2,264	-	-	-	-	91,528	4,296	-	-
26.1.1.7	26.1.1.7.1 Total	1,084	8,643	277	323	4,348	2,294	-	1,111	20,862	16,461	-	-	61,876	9,066	-	-	-	2,706,410	182,076	-	-
26.1.1.8	26.1.1.8.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.9	26.1.1.9.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.10	26.1.1.10.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.11	26.1.1.11.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.12	26.1.1.12.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.13	26.1.1.13.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.14	26.1.1.14.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.15	26.1.1.15.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.16	26.1.1.16.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.17	26.1.1.17.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.18	26.1.1.18.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.19	26.1.1.19.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.20	26.1.1.20.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.21	26.1.1.21.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.22	26.1.1.22.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.23	26.1.1.23.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.24	26.1.1.24.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.25	26.1.1.25.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.26	26.1.1.26.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.27	26.1.1.27.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.28	26.1.1.28.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.29	26.1.1.29.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.30	26.1.1.30.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.31	26.1.1.31.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.32	26.1.1.32.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.33	26.1.1.33.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.34	26.1.1.34.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.35	26.1.1.35.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.36	26.1.1.36.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.37	26.1.1.37.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.38	26.1.1.38.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.39	26.1.1.39.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.40	26.1.1.40.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.41	26.1.1.41.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.42	26.1.1.42.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.43	26.1.1.43.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.44	26.1.1.44.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.45	26.1.1.45.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.46	26.1.1.46.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.47	26.1.1.47.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.48	26.1.1.48.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.49	26.1.1.49.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.50	26.1.1.50.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.51	26.1.1.51.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.52	26.1.1.52.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.53	26.1.1.53.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.54	26.1.1.54.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.55	26.1.1.55.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.56	26.1.1.56.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.57	26.1.1.57.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.58	26.1.1.58.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.59	26.1.1.59.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.60	26.1.1.60.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.61	26.1.1.61.1 Scaffolding in support of decommissioning	-	1,698	27	7	114	27	-	427	2,200	2,200	-	-	1,253	189	-	-	-	62,871	36,741	-	-
26.1.1.62																						

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(thousands of 2014 dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Prepackaging Costs	Transport Costs	Processing Costs	Disposal Costs	Other Costs	Total Contingency	Total Cost	Liab. Term. Cost	Management Costs	Restoration Costs	Volume Cu. Yds.	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	Class G Cu. Feet	Preprocessed Wt. Lbs.	Graft Manhours	Contractor Manhours
26.1.1.17	Removal of Plant Systems (see 26.1.1.18)	-	69	-	-	-	-	-	8	68	-	-	68	-	-	-	-	-	-	1,367	-
26.1.1.18	EF - Essential Services Water	-	354	-	-	-	-	-	13	365	-	-	365	-	-	-	-	-	-	7,241	-
26.1.1.19	EF - Essential Services Water RCA	-	290	-	-	446	-	-	13	294	-	-	294	-	-	-	-	-	216,257	3,862	-
26.1.1.20	GF - Component Cooling Water RCA	-	247	-	-	-	-	-	37	284	-	-	284	-	-	-	-	-	-	5,385	-
26.1.1.21	GA - Plant Heating RCA	-	89	-	-	-	-	-	13	102	-	-	102	-	-	-	-	-	-	1,712	-
26.1.1.22	GB - Central Chilled Water	-	84	-	-	53	-	-	33	136	-	-	136	-	-	-	-	-	25,924	1,863	-
26.1.1.23	GB - Central Chilled Water RCA	-	25	-	-	16	-	-	9	31	-	-	31	-	-	-	-	-	7,591	482	-
26.1.1.24	GB - Central Chilled Water RCA	-	18	-	-	170	-	-	3	186	-	-	186	-	-	-	-	-	8,527	482	-
26.1.1.25	GF - Air Handling Units Building HVAC	-	18	-	-	11	-	-	9	27	-	-	27	-	-	-	-	-	10,411	3,456	-
26.1.1.26	GF - Air Handling Units Building HVAC	-	168	-	-	203	-	-	55	323	-	-	323	-	-	-	-	-	226,713	8,491	-
26.1.1.27	GF - Air Handling Units Building HVAC	-	469	-	-	424	-	-	199	1,179	-	-	1,179	-	-	-	-	-	83,692	3,059	-
26.1.1.28	GF - Air Handling Units Building HVAC	-	29	-	-	11	-	-	4	34	-	-	34	-	-	-	-	-	226,713	8,491	-
26.1.1.29	GF - Air Handling Units Building HVAC	-	63	-	-	157	-	-	388	1,617	-	-	1,617	-	-	-	-	-	241,791	9,021	-
26.1.1.30	GF - Air Handling Units Building HVAC	-	39	-	-	49	-	-	22	140	-	-	140	-	-	-	-	-	23,670	750	-
26.1.1.31	GF - Air Handling Units Building HVAC	-	19	-	-	91	-	-	10	110	-	-	110	-	-	-	-	-	46,702	382	-
26.1.1.32	GF - Air Handling Units Building HVAC	-	129	-	-	163	-	-	67	408	-	-	408	-	-	-	-	-	156,377	2,937	-
26.1.1.33	GF - Air Handling Units Building HVAC	-	73	-	-	465	-	-	172	973	-	-	973	-	-	-	-	-	884,878	38,963	-
26.1.1.34	GF - Air Handling Units Building HVAC	-	889	-	-	35	-	-	219	1,199	-	-	1,199	-	-	-	-	-	884,878	38,963	-
26.1.1.35	GF - Air Handling Units Building HVAC	-	376	-	-	177	-	-	50	526	-	-	526	-	-	-	-	-	884,878	38,963	-
26.1.1.36	GF - Air Handling Units Building HVAC	-	104	-	-	82	-	-	9	191	-	-	191	-	-	-	-	-	884,878	38,963	-
26.1.1.37	GF - Air Handling Units Building HVAC	-	165	-	-	67	-	-	43	214	-	-	214	-	-	-	-	-	884,878	38,963	-
26.1.1.38	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.39	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.40	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.41	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.42	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.43	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.44	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.45	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.46	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.47	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.48	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.49	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.50	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.51	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.52	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.53	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.54	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.55	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.56	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.57	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.58	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.59	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.60	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.61	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.62	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.63	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.64	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.65	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.66	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.67	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.68	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.69	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.70	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.71	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.72	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.73	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.74	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.75	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.76	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.77	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.78	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.79	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.80	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.81	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.82	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.83	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.84	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.85	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.86	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.87	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.88	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.89	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.90	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.91	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.92	GF - Air Handling Units Building HVAC	-	34	-	-	67	-	-	4	101	-	-	101	-	-	-	-	-	884,878	38,963	-
26.1.1.93	GF - Air Handling Units Building																				

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

[illegible]

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

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Processing Costs	Disposal Costs	Other Costs	Total Contingency	Total Cost	Life-Term. Costs	Management Costs	Monitoring Costs	Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	FFG/Cu. Feet	Processed Wt. Lbs.	Craft Manhours	SNB Contractor Manhours
Period 2a: Cultural Costs																					
2a.3.1	Process decommissioning water waste	90	-	66	104	-	307	-	141	712	712	-	-	-	-	-	-	-	30,050	117	-
2a.3.2	Small tool allowance	-	-	-	-	-	-	-	10	75	-	-	-	-	-	-	-	-	-	-	-
2a.3.3	Small tool allowance	-	-	134	39	-	550	-	135	893	893	-	-	6,000	639	-	-	-	301,500	88	-
2a.3	Subtotal Period 2a Cultural Costs	90	66	193	143	550	359	-	256	1,779	1,779	-	-	6,000	1,139	-	-	-	341,025	295	-
Period 2b: Period-Dependent Costs																					
2b.4.1	Decon supplies	176	-	-	-	-	-	-	44	220	220	-	-	-	-	-	-	-	-	-	-
2b.4.2	Property taxes	-	-	-	-	-	-	-	613	613	-	-	-	-	-	-	-	-	-	-	-
2b.4.3	Health physics supplies	-	-	-	-	-	-	-	19	265	265	-	-	-	-	-	-	-	-	-	-
2b.4.4	Heavy equipment rental	-	602	-	-	-	-	-	159	2,055	2,055	-	-	-	-	-	-	-	-	-	-
2b.4.5	Heavy equipment rental	-	1,235	-	-	-	-	-	189	1,824	1,824	-	-	-	-	-	-	-	-	-	-
2b.4.6	Plant energy budget	-	-	-	9	-	-	-	32	188	188	-	-	-	-	-	-	-	-	-	-
2b.4.7	NRC Fees	-	-	-	-	-	-	-	447	67	614	-	-	-	-	-	-	-	-	-	-
2b.4.8	Liquid Radioactive Processing Equipment/Services	-	-	-	-	-	-	-	47	300	300	-	-	-	-	-	-	-	-	-	-
2b.4.9	Security Staff Cost	-	-	-	-	-	-	-	267	397	397	-	-	-	-	-	-	-	-	-	-
2b.4.10	Security Staff Cost	-	-	-	-	-	-	-	666	67	732	-	-	-	-	-	-	-	-	-	-
2b.4.11	DOC Staff Cost	-	-	-	-	-	-	-	1,337	1,637	1,637	-	-	-	-	-	-	-	-	-	-
2b.4.12	Utility Staff Cost	-	-	-	-	-	-	-	1,013	1,709	1,709	-	-	-	-	-	-	-	-	-	-
2b.4.13	Subtotal Period 2b Period-Dependent Costs	176	1,868	42	9	-	-	-	10,724	17,910	17,910	-	-	-	-	-	-	-	-	-	-
2b.4	TOTAL PERIOD 2a COST	1,875	4,547	590	404	1,730	2,644	33,070	6,526	41,483	41,483	-	-	30,001	12,637	-	-	-	1,599,439	78,864	256,623
PERIOD 2f - License Termination																					
2f.1.1	ORISE confirmatory survey	-	-	-	-	-	-	-	49	212	212	-	-	-	-	-	-	-	-	-	-
2f.1.2	Termination license	-	-	-	-	-	-	-	163	212	212	-	-	-	-	-	-	-	-	-	-
2f.1	Subtotal Period 2f Activity Costs	-	-	-	-	-	-	-	163	424	424	-	-	-	-	-	-	-	-	-	-
Period 2g: Additional Costs																					
2g.1	License Termination Survey	-	-	-	-	-	-	-	8,248	10,723	10,723	-	-	-	-	-	-	-	-	-	-
2g.2	Subtotal Period 2g Additional Costs	-	-	-	-	-	-	-	8,248	10,723	10,723	-	-	-	-	-	-	-	-	-	-
Period 2h: Cultural Costs																					
2h.3.1	DOC staff relocation expenses	-	-	-	-	-	-	-	1,080	1,242	1,242	-	-	-	-	-	-	-	-	-	-
2h.3	Subtotal Period 2h Cultural Costs	-	-	-	-	-	-	-	1,080	1,242	1,242	-	-	-	-	-	-	-	-	-	-
Period 2i: Period-Dependent Costs																					
2i.4.2	Property taxes	-	-	-	-	-	-	-	212	293	293	-	-	-	-	-	-	-	-	-	-
2i.4.3	Health physics supplies	-	-	-	-	-	-	-	184	920	920	-	-	-	-	-	-	-	-	-	-
2i.4.4	Heavy equipment rental	-	-	-	-	-	-	-	5	32	32	-	-	-	-	-	-	-	-	-	-
2i.4.5	Plant energy budget	-	-	-	-	-	-	-	38	292	292	-	-	-	-	-	-	-	-	-	-
2i.4.6	NRC Fees	-	-	-	-	-	-	-	76	822	822	-	-	-	-	-	-	-	-	-	-
2i.4.7	Corporate Allocations	-	-	-	-	-	-	-	109	836	836	-	-	-	-	-	-	-	-	-	-
2i.4.8	DOC Staff Cost	-	-	-	-	-	-	-	6,095	6,836	6,836	-	-	-	-	-	-	-	-	-	-
2i.4.9	Utility Staff Cost	-	-	-	-	-	-	-	2,298	17,670	17,670	-	-	-	-	-	-	-	-	-	-
2i.4.10	Subtotal Period 2i Period-Dependent Costs	-	-	-	-	-	-	-	18	24,009	24,009	-	-	-	-	-	-	-	-	-	-
2i.4	TOTAL PERIOD 2i COST	-	-	-	-	-	-	-	18	24,009	24,009	-	-	-	-	-	-	-	-	-	-
2i	TOTAL PERIOD 2f COST	10,002	74,785	23,182	13,272	22,435	66,969	376,612	99,655	686,864	650,768	20,698	15,498	256,787	176,020	9,633	293	2,217	26,065,980	1,255,701	3,194,103
PERIOD 3b - Site Restoration																					
Period 3b: Direct Decommissioning Activities																					
3b.1.1.1	Reactor	-	6,191	-	-	-	-	-	779	9,969	-	-	6,169	-	-	-	-	-	-	69,202	-
3b.1.1.2	Auxiliary	-	4,184	-	-	-	-	-	629	4,793	-	-	4,823	-	-	-	-	-	-	40,008	-
3b.1.1.3	Auxiliary boiler	-	1,355	-	-	-	-	-	6	45	-	-	1,834	-	-	-	-	-	-	619	-
3b.1.1.4	Circulating & Service Water Pumps/boilers	-	1,346	-	-	-	-	-	239	1,834	-	-	1,834	-	-	-	-	-	-	18,213	-
3b.1.1.5	Communication Corridor - Clean	-	60	-	-	-	-	-	49	377	-	-	377	-	-	-	-	-	-	4,218	-
3b.1.1.7	Communication Corridor - Contaminated	-	-	-	-	-	-	-	22	1,616	-	-	1,616	-	-	-	-	-	-	17,216	-
3b.1.1	Subtotal Period 3b Direct Decommissioning Activities	-	13,576	-	-	-	-	-	1,135	18,634	-	-	18,634	-	-	-	-	-	-	92,058	-

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

[illegible]

TLG Services, Inc.

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

Activity Index	Activity Description	Discom Cost	Removal Cost	Packaging Costs	Transport Costs	Processing Costs	Disposal Costs	Other Costs	Total Contingency	Total Costs	Lic. Term. Costs	Management Costs	Restoration Costs	Volume		Class A		Class B		Class C		GTCC		Processed Wt. Lbs.	Craft Manhours	S90 Contractor Estimate
														Cu. Feet	Cu. Feet	Cu. Feet	Cu. Feet	Cu. Feet	Cu. Feet	Cu. Feet	Cu. Feet	Cu. Feet	Cu. Feet			
TOTAL COST TO DECOMMISSION WITH CLASS C CONTINGENCY:																										
TOTAL NRC LICENSE TERMINATION COST IS \$2.75*, OR:																										
WASTE FUEL MANAGEMENT COST IS \$2.43*, OR:																										
NON-NUCLEAR DEMOLITION COST IS \$2.67*, OR:																										
TOTAL LOW-LEVEL RADIOACTIVE WASTE VOLUME BURIED (EXCLUDING GTCC)																										
TOTAL GREATER THAN CLASS C RADIOACTIVE WASTE VOLUME GENERATED																										
TOTAL SCRAP METAL REMOVED																										
TOTAL CRAFT LABOR REQUIREMENTS:																										
1,769,233 manhours																										

See Notes:
a - indicates that this activity cost charged as decommissioning expense
b - indicates that this activity performed by decommissioning staff
c - indicates that this value is less than \$5 but is not zero
d - indicates a zero value

***Callaway Energy Center
Decommissioning Cost Analysis***

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APPENDIX D

DETAILED COST ANALYSIS

**SAFSTOR ALTERNATIVE DECOMMISSIONING COST ESTIMATE
40-YEAR OPERATING LIFE with
LOW-LEVEL RADIOACTIVE WASTE PROCESSING**

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

Activity Index	Activity Description	Down Count	Removal Count	Packaging Count	Transport Count	Off-Site Processing Count	LLRW Disposal Count	Other Contingency	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Class A Uls. Feet	Class B Glass Uls. Feet	Class C Glass Uls. Feet	Off-Plant Cu. Feet	Burial/Processed Uls. Feet	Craft Materials	Utility and Construction Materials
PERIOD 1a - Shutdowns through Transitions																					
Period 1a Direct Decommissioning Activities																					
1a.1.1	SAFSTOR site characterization survey	-	-	-	-	-	-	380	114	494	494	-	-	-	-	-	-	-	-	-	-
1a.1.2	Prepare preliminary decommissioning cost estimate	-	-	-	-	-	-	164	25	189	189	-	-	-	-	-	-	-	-	-	1,350
1a.1.3	Notification of Commission of Operations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1a.1.4	Notification of source material handling	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1a.1.5	Notification of Permanent De-fueling	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1a.1.6	De-fuel plant systems & process waste	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1a.1.7	Prepare and submit PRDAR	-	-	-	-	-	-	252	38	290	290	-	-	-	-	-	-	-	-	-	-
1a.1.8	Review plant design & spec.	-	-	-	-	-	-	114	25	139	139	-	-	-	-	-	-	-	-	-	-
1a.1.9	Perform detailed rad survey	-	-	-	-	-	-	126	19	145	145	-	-	-	-	-	-	-	-	-	-
1a.1.10	Estimate by-product inventory	-	-	-	-	-	-	126	19	145	145	-	-	-	-	-	-	-	-	-	-
1a.1.11	Detailed by-product inventory	-	-	-	-	-	-	126	19	145	145	-	-	-	-	-	-	-	-	-	-
1a.1.12	Define major work sequence	-	-	-	-	-	-	126	19	145	145	-	-	-	-	-	-	-	-	-	-
1a.1.13	Perform SER and EA	-	-	-	-	-	-	391	60	451	451	-	-	-	-	-	-	-	-	-	-
1a.1.14	Perform Site-Specific Cost Study	-	-	-	-	-	-	580	95	675	675	-	-	-	-	-	-	-	-	-	-
Activity Specifications																					
1a.1.16.1	Prepare plant and facilities for SAFSTOR	-	-	-	-	-	-	620	93	713	713	-	-	-	-	-	-	-	-	-	-
1a.1.16.2	Plant systems	-	-	-	-	-	-	535	79	614	614	-	-	-	-	-	-	-	-	-	-
1a.1.16.3	Plant structures and buildings	-	-	-	-	-	-	393	59	452	452	-	-	-	-	-	-	-	-	-	-
1a.1.16.4	Waste management	-	-	-	-	-	-	252	38	290	290	-	-	-	-	-	-	-	-	-	-
1a.1.16.5	Facility and site dormancy	-	-	-	-	-	-	252	38	290	290	-	-	-	-	-	-	-	-	-	-
1a.1.16	Total	-	-	-	-	-	-	2,044	307	2,350	2,350	-	-	-	-	-	-	-	-	-	-
Detailed Work Procedures																					
1a.1.17.1	Plant systems	-	-	-	-	-	-	140	22	172	172	-	-	-	-	-	-	-	-	-	-
1a.1.17.2	Plant systems & demermy	-	-	-	-	-	-	161	25	174	174	-	-	-	-	-	-	-	-	-	-
1a.1.17	Total	-	-	-	-	-	-	301	46	346	346	-	-	-	-	-	-	-	-	-	-
1a.1.18	Process vacuum drying system	-	-	-	-	-	-	13	2	15	15	-	-	-	-	-	-	-	-	-	-
1a.1.19	Process vacuum drying system	-	-	-	-	-	-	13	2	15	15	-	-	-	-	-	-	-	-	-	-
1a.1.20	Decontamination systems	-	-	-	-	-	-	13	2	15	15	-	-	-	-	-	-	-	-	-	-
1a.1.21	Decontamination systems	-	-	-	-	-	-	13	2	15	15	-	-	-	-	-	-	-	-	-	-
1a.1.22	Decontamination systems	-	-	-	-	-	-	13	2	15	15	-	-	-	-	-	-	-	-	-	-
1a.1	Subtotal Period 1a Activity Costs	-	-	-	-	-	-	4,985	793	5,698	5,698	-	-	-	-	-	-	-	-	-	-
Period 1a Collateral Costs																					
1a.2.1	Spent Fuel Transfer	-	-	-	-	-	-	2,880	432	3,312	3,312	-	-	-	-	-	-	-	-	-	-
1a.2	Subtotal Period 1a Collateral Costs	-	-	-	-	-	-	2,880	432	3,312	3,312	-	-	-	-	-	-	-	-	-	-
Period 1a Period-Dependent Costs																					
1a.3.1	Insurance	-	-	-	-	-	-	1,902	190	2,092	2,092	-	-	-	-	-	-	-	-	-	-
1a.3.2	Health physics supplies	-	-	-	-	-	-	28	25	308	308	-	-	-	-	-	-	-	-	-	-
1a.3.3	Heavy equipment rental	-	-	-	-	-	-	28	25	308	308	-	-	-	-	-	-	-	-	-	-
1a.3.4	Disposal of DAW generated	-	-	-	-	-	-	28	25	308	308	-	-	-	-	-	-	-	-	-	-
1a.3.5	Disposal of DAW generated	-	-	-	-	-	-	28	25	308	308	-	-	-	-	-	-	-	-	-	-
1a.3.6	Disposal of DAW generated	-	-	-	-	-	-	28	25	308	308	-	-	-	-	-	-	-	-	-	-
1a.3.7	NRC Fee	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.8	Emergency Planning Fund	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.9	INPO Fee	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.10	INPO Fee	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.11	INPO Fee	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.12	Corporate Allocations	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.13	Security Staff Cost	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.14	Security Staff Cost	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.15	Security Staff Cost	-	-	-	-	-	-	1,977	252	1,028	1,028	-	-	-	-	-	-	-	-	-	-
1a.3.16	Subtotal Period 1a Period-Dependent Costs	-	-	-	-	-	-	1,020	12	1,032	1,032	-	-	-	-	-	-	-	-	-	-
1a.0	TOTAL PERIOD 1a COST	-	-	-	-	-	-	6,015	885	6,900	6,900	-	-	-	-	-	-	-	-	-	-

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

Activity Index	Activity Description	Off-Site Preparing Costs	Transport Costs	Packaging Costs	Removed Count	Decont. Count	ILRW Other Costs	Total Contingency	Total Count	Loc. Perm. Count	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu Feet	Burial Volume Class A Cu Feet	Burial Volume Class B Cu Feet	Class C Cu Feet	Grp Cu Feet	Hourly Personnel Wk. Lbr	Utility and Contractor Manhours
PERIOD 1b - NANTUX Limited/DECON Activities																			
Period 1b Direct Decontaminating Activities																			
Decontamination of Site Buildings																			
1.205	1b.1.1.1 Rancor	-	-	-	-	-	-	612	1,837	1,837	-	-	-	-	-	-	-	-	24,102
621	1b.1.1.2 Auxiliary	-	-	-	-	-	-	311	932	932	-	-	-	-	-	-	-	-	12,627
14	1b.1.1.3 Communication Corridor - Contaminated	-	-	-	-	-	-	7	21	21	-	-	-	-	-	-	-	-	270
766	1b.1.1.4 Hot Machine Shop	-	-	-	-	-	-	7	21	21	-	-	-	-	-	-	-	-	1,437
43	1b.1.1.5 Hot Machine Shop	-	-	-	-	-	-	9	26	26	-	-	-	-	-	-	-	-	865
5	1b.1.1.6 RAM Storage Building	-	-	-	-	-	-	2	6	6	-	-	-	-	-	-	-	-	91
300	1b.1.1.7 Radiactive and Personnel Tunnel	-	-	-	-	-	-	165	460	460	-	-	-	-	-	-	-	-	6,084
31	1b.1.1.8 Radiactive and Personnel Tunnel	-	-	-	-	-	-	17	51	51	-	-	-	-	-	-	-	-	614
3.055	1b.1.1.9 Rancor Dens Storage	-	-	-	-	-	-	1,828	4,863	4,863	-	-	-	-	-	-	-	-	60,828
3.055	1b.1.1.10 Rancor (Land Assembly Building)	-	-	-	-	-	-	1,828	4,863	4,863	-	-	-	-	-	-	-	-	60,828
3.055	1b.1.1.11 Totals	-	-	-	-	-	-	1,828	4,863	4,863	-	-	-	-	-	-	-	-	60,828
Period 1b Subtotal Period 1b Activity Costs																			
863	Period 1b Colateral Costs	-	-	-	-	-	-	134	1,020	1,020	-	-	-	-	-	-	-	-	212
172	1b.2.1 Decontamination equipment	-	-	-	-	-	-	259	1,209	1,209	-	-	-	-	-	-	-	-	50,100
48	1b.2.2 Decontamination equipment	-	-	-	-	-	-	56	105	105	-	-	-	-	-	-	-	-	212
1.064	1b.2.3 Spent Fuel Transfer	-	-	-	-	-	-	104	828	828	-	-	-	-	-	-	-	-	212
1.064	1b.2.4 Spent Fuel Transfer	-	-	-	-	-	-	104	828	828	-	-	-	-	-	-	-	-	212
Period 1b Subtotal Period 1b Colateral Costs																			
1.133	Period 1b Personal-Dependent Costs	-	-	-	-	-	-	263	1,417	1,417	-	-	-	-	-	-	-	-	212
1.133	1b.3.1 Decontamination equipment	-	-	-	-	-	-	479	827	827	-	-	-	-	-	-	-	-	212
1.133	1b.3.2 Decontamination equipment	-	-	-	-	-	-	7	78	78	-	-	-	-	-	-	-	-	212
1.133	1b.3.3 Decontamination equipment	-	-	-	-	-	-	7	78	78	-	-	-	-	-	-	-	-	212
1.133	1b.3.4 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.5 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.6 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.7 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.8 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.9 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.10 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.11 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-	-	-	-	212
1.133	1b.3.12 Heavy equipment supplies	-	-	-	-	-	-	100	602	602	-	-	-	-	-				

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

Activity Index	Activity Description	Demon Count	Removal Cost	Packaging Costs	Transport Costs	On-Site Processing Costs	ILRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Loc. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu Feet	Class A Cu Feet	Class B Cu Feet	Off-Cu Feet	Joural Processed Wt. Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1a - Period-Dependent Costs																				
Ic-4.1	Insurance	-	-	-	-	-	-	479	48	527	527	-	-	-	-	-	-	-	-	-
Ic-4.2	Property taxes	-	-	-	-	-	-	71	52	260	260	-	-	-	-	-	-	-	-	-
Ic-4.3	Health physics supplies	-	258	-	-	-	-	-	26	182	182	-	-	-	-	-	-	-	-	-
Ic-4.4	Plant energy budget	-	-	-	1	-	-	8	20	14	14	-	-	-	-	-	-	-	-	-
Ic-4.5	Disposal of DAW generated waste	-	132	-	-	-	-	-	62	48	-	-	-	-	-	-	-	-	-	-
Ic-4.6	Plant energy budget	-	-	-	-	-	-	423	35	191	191	-	-	-	-	-	-	-	-	-
Ic-4.7	NRC Fees	-	-	-	-	-	-	174	17	14	14	-	-	-	-	-	-	-	-	6
Ic-4.8	Emergency Planning Fees	-	-	-	-	-	-	375	38	413	413	-	-	-	-	-	-	-	-	-
Ic-4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	199	30	229	229	-	-	-	-	-	-	-	-	-
Ic-4.10	INFR Operating Costs	-	-	-	-	-	-	30	229	229	229	-	-	-	-	-	-	-	-	-
Ic-4.11	Supervisory Allocation	-	-	-	-	-	-	252	25	277	277	-	-	-	-	-	-	-	-	-
Ic-4.12	Security Staff Cost	-	-	-	-	-	-	2,312	347	2,659	2,659	-	-	-	-	-	-	-	-	-
Ic-4.13	Utility Staff Cost	-	-	-	-	-	-	1,189	1,189	9,118	9,118	-	-	-	-	-	-	-	-	-
Ic-4	SUBTOTAL PERIOD 1a COST	-	310	3	1	-	8	12,528	1,842	14,423	14,423	870	-	-	-	-	-	3,073	-	5
Ic-0	TOTAL PERIOD 1a COST	187	825	121	304	-	533	24,578	4,158	30,706	30,706	1,498	-	-	1,536	-	-	74,038	18,050	165,810
PERIOD 1 TOTALS																				
PERIOD 2a - SANSTON Dormancy with Wet Spent Fuel Storage																				
Period 2a Direct Decommissioning Activities																				
2a-1.1	Quarterly Inspection	-	-	-	-	-	-	-	a	a	a	-	-	-	-	-	-	-	-	-
2a-1.2	Environmental survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2a-1.3	Prepare reports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2a-1.4	Biannual ref replacement	-	-	-	-	-	-	320	48	268	268	-	-	-	-	-	-	-	-	-
2a-1.5	Maintenance supplies	-	-	-	-	-	-	556	139	695	695	-	-	-	-	-	-	-	-	-
2a-1	SUBTOTAL PERIOD 2a Activity Costs	-	-	-	-	-	-	876	187	1,063	1,063	-	-	-	-	-	-	-	-	-
Period 2a Cultural Costs																				
2a-3.1	Spent Fuel Transfer	-	-	-	-	-	-	10,800	1,620	12,420	-	-	-	-	-	-	-	-	-	-
2a-3	SUBTOTAL PERIOD 2a Cultural Costs	-	-	-	-	-	-	10,800	1,620	12,420	-	-	-	-	-	-	-	-	-	-
Period 2a Period-Dependent Costs																				
2a-4.1	Insurance	-	-	-	-	-	-	3,686	369	4,054	3,332	723	-	-	-	-	-	-	-	-
2a-4.2	Property taxes	-	-	-	-	-	-	1,119	112	1,231	1,231	-	-	-	-	-	-	-	-	-
2a-4.3	Health physics supplies	-	707	-	-	-	-	-	14	83	98	-	-	-	-	-	-	-	-	-
2a-4.4	Disposal of DAW generated waste	-	-	-	4	-	-	-	14	83	771	-	-	-	-	-	-	-	-	-
2a-4.5	Plant energy budget	-	-	-	-	-	-	1,341	291	1,631	1,631	-	-	-	-	-	-	-	-	30
2a-4.6	NRC Fees	-	-	-	-	-	-	1,167	116	1,273	1,273	-	-	-	-	-	-	-	-	-
2a-4.7	Emergency Planning Fees	-	-	-	-	-	-	1,273	116	1,373	1,373	-	-	-	-	-	-	-	-	-
2a-4.8	Spent Fuel Pool O&M	-	-	-	-	-	-	3,164	476	3,640	3,640	-	-	-	-	-	-	-	-	-
2a-4.9	INFR Operating Costs	-	-	-	-	-	-	382	57	439	439	-	-	-	-	-	-	-	-	-
2a-4.10	Supervisory Allocation	-	-	-	-	-	-	36,697	5,504	42,201	42,201	-	-	-	-	-	-	-	-	-
2a-4.11	Security Staff Cost	-	-	-	-	-	-	3,000	3,000	24,724	24,724	-	-	-	-	-	-	-	-	-
2a-4.12	Utility Staff Cost	-	-	-	-	-	-	76,392	11,138	87,530	87,530	-	-	-	-	-	-	-	-	-
2a-4	SUBTOTAL PERIOD 2a Period-Dependent Costs	-	707	10	4	-	47	87,667	12,934	101,468	21,045	80,423	-	-	920	-	-	18,406	30	1,310,619
2a-0	TOTAL PERIOD 2a COST	-	707	10	4	-	47	87,667	12,934	101,468	21,045	80,423	-	-	920	-	-	18,406	30	1,310,619
PERIOD 2a - SANSTON Dormancy without Spent Fuel Storage																				
Period 2a Direct Decommissioning Activities																				
Ic-1.1	Quarterly Inspection	-	-	-	-	-	-	-	a	a	a	-	-	-	-	-	-	-	-	-
Ic-1.2	Environmental survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-1.3	Prepare reports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-1.4	Biannual ref replacement	-	-	-	-	-	-	3,686	369	4,054	3,332	723	-	-	-	-	-	-	-	-
Ic-1.5	Maintenance supplies	-	-	-	-	-	-	556	139	695	695	-	-	-	-	-	-	-	-	-
Ic-1	SUBTOTAL PERIOD 2a Activity Costs	-	-	-	-	-	-	8,741	2,259	12,869	12,869	-	-	-	-	-	-	-	-	-
Period 2a Period-Dependent Costs																				
Ic-4.1	Insurance	-	-	-	-	-	-	36,772	3,677	40,450	40,450	-	-	-	-	-	-	-	-	-
Ic-4.2	Property taxes	-	-	-	-	-	-	13,586	1,359	14,944	14,944	-	-	-	-	-	-	-	-	-
Ic-4.3	Health physics supplies	-	-	-	-	-	-	-	1,103	5,516	5,516	-	-	-	-	-	-	-	-	-
Ic-4.4	Disposal of DAW generated waste	-	-	-	20	-	-	-	76	446	446	-	-	-	-	-	-	-	-	-
Ic-4.5	Plant energy budget	-	-	-	-	-	-	8,141	1,272	13,549	13,549	-	-	-	-	-	-	-	-	-
Ic-4.6	NRC Fees	-	-	-	-	-	-	12,317	1,252	13,549	13,549	-	-	-	-	-	-	-	-	-
Ic-4.7	Emergency Planning Fees	-	-	-	-	-	-	10,440	80,037	80,037	80,037	-	-	-	-	-	-	-	-	-
Ic-4.8	Spent Fuel Pool O&M	-	-	-	-	-	-	60,184	9,028	69,212	69,212	-	-	-	-	-	-	-	-	-
Ic-4.9	INFR Operating Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4.10	Supervisory Allocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4.11	Security Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4.12	Utility Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4	SUBTOTAL PERIOD 2a COST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-0	TOTAL PERIOD 2a COST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PERIOD 2a - SANSTON Dormancy without Spent Fuel Storage																				
Period 2a Direct Decommissioning Activities																				
Ic-1.1	Quarterly Inspection	-	-	-	-	-	-	-	a	a	a	-	-	-	-	-	-	-	-	-
Ic-1.2	Environmental survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-1.3	Prepare reports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-1.4	Biannual ref replacement	-	-	-	-	-	-	3,686	369	4,054	3,332	723	-	-	-	-	-	-	-	-
Ic-1.5	Maintenance supplies	-	-	-	-	-	-	556	139	695	695	-	-	-	-	-	-	-	-	-
Ic-1	SUBTOTAL PERIOD 2a Activity Costs	-	-	-	-	-	-	8,741	2,259	12,869	12,869	-	-	-	-	-	-	-	-	-
Period 2a Period-Dependent Costs																				
Ic-4.1	Insurance	-	-	-	-	-	-	36,772	3,677	40,450	40,450	-	-	-	-	-	-	-	-	-
Ic-4.2	Property taxes	-	-	-	-	-	-	13,586	1,359	14,944	14,944	-	-	-	-	-	-	-	-	-
Ic-4.3	Health physics supplies	-	-	-	-	-	-	-	1,103	5,516	5,516	-	-	-	-	-	-	-	-	-
Ic-4.4	Disposal of DAW generated waste	-	-	-	20	-	-	-	76	446	446	-	-	-	-	-	-	-	-	-
Ic-4.5	Plant energy budget	-	-	-	-	-	-	8,141	1,272	13,549	13,549	-	-	-	-	-	-	-	-	-
Ic-4.6	NRC Fees	-	-	-	-	-	-	12,317	1,252	13,549	13,549	-	-	-	-	-	-	-	-	-
Ic-4.7	Emergency Planning Fees	-	-	-	-	-	-	10,440	80,037	80,037	80,037	-	-	-	-	-	-	-	-	-
Ic-4.8	Spent Fuel Pool O&M	-	-	-	-	-	-	60,184	9,028	69,212	69,212	-	-	-	-	-	-	-	-	-
Ic-4.9	INFR Operating Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4.10	Supervisory Allocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4.11	Security Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4.12	Utility Staff Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-4	SUBTOTAL PERIOD 2a COST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-0	TOTAL PERIOD 2a COST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PERIOD 2a - SANSTON Dormancy without Spent Fuel Storage																				
Period 2a Direct Decommissioning Activities																				
Ic-1.1	Quarterly Inspection	-	-	-	-	-	-	-	a	a	a	-	-	-	-	-	-	-	-	-
Ic-1.2	Environmental survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-1.3	Prepare reports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ic-1.4	Biannual ref replacement	-	-	-	-	-	-	3,686	369	4,054	3,332	723	-	-	-	-	-	-	-	-
Ic-1.5	Maintenance supplies	-	-	-	-	-	-	556	139	695	695	-	-	-	-	-	-	-	-	-
Ic-1	SUBTOTAL PERIOD 2a Activity Costs	-	-	-	-	-	-	8,741	2,259	12,869	12,869	-	-	-	-	-	-	-	-	-
Period 2a Period-Dependent Costs																				
Ic-4.1	Insurance	-	-	-	-	-	-	36,772	3,677	40,450	40,450	-	-	-	-	-	-	-	-	-
Ic-4.2	Property taxes	-	-	-	-	-	-	13,586	1,359	14,944	14,944	-	-	-	-	-	-	-	-	-
Ic-4.3	Health physics supplies	-	-	-	-	-	-	-	1,103	5,516	5,516	-	-	-	-	-	-	-	-	-
Ic-4.4	Disposal of DAW generated waste	-	-	-	20	-	-	-	76	446	446	-	-	-	-	-	-	-	-	-
Ic-4.5	Plant energy budget	-	-	-	-	-	-	8,141	1,272	13,549	13,549	-	-	-	-	-	-	-	-	-
Ic-4.6	NRC Fees	-	-	-	-	-	-	12,317	1,252	13,549	13,549	-	-	-	-	-	-	-	-	-
Ic-4.7	Emergency Planning Fees	-	-	-	-	-	-	10,440	80,											

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

Activity Index	Activity Description	Demol Cost	Removal Cost	Packaging Cost	Transport Cost	Off-Site Processing Cost	LLRW Disposal Cost	Other Costs	Total Costing/Qty	Total Cost	NRC		Spent Fuel Management Costs	NRC Interim Storage Costs	Processed Volume Cu. Feet	Material Volumes			Material/Processed Wt. Lbs.	Contractor Manhours	Utility area Manhours
											Lic. Term.	Lat. Term.				Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet			
-	Subtotal Period 2a Period-Dependent Costs	-	4,413	100	20	-	250	200,948	28,135	233,516	253,616	-	-	-	-	4,342	-	-	98,844	161	2,405,129
-	TOTAL PERIOD 2a COST	-	4,413	100	20	-	250	211,228	28,404	316,415	316,415	-	-	-	-	4,342	-	-	98,844	161	2,405,129
PERIOD 3 TOTALS																					
PERIOD 3a - Reactivate Site Following SANSTON Dormancy																					
Period 3a Direct Decommissioning Activities																					
ba.1.1	Prepare preliminary decommissioning cost	-	-	-	-	-	-	15.4	25	189	189	-	-	-	-	-	-	-	-	-	1,200
ba.1.2	Review plant, logs & specs.	-	-	-	-	-	-	586	67	6	667	-	-	-	-	-	-	-	-	-	4,660
ba.1.3	Perform detailed rail survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000
ba.1.4	Perform detailed inventory	-	-	-	-	-	-	126	10	145	145	-	-	-	-	-	-	-	-	-	1,000
ba.1.5	Define major work sequence	-	-	-	-	-	-	141	25	189	189	-	-	-	-	-	-	-	-	-	1,000
ba.1.6	Perform EIR and EIA	-	-	-	-	-	-	34	50	460	460	-	-	-	-	-	-	-	-	-	7,600
ba.1.7	Cost Study	-	-	-	-	-	-	630	195	725	725	-	-	-	-	-	-	-	-	-	3,100
ba.1.8	Hydroabandon License Termination Plan	-	-	-	-	-	-	630	195	725	725	-	-	-	-	-	-	-	-	-	3,100
ba.1.9	Receive NRC approval of termination plan	-	-	-	-	-	-	510	77	594	594	-	-	-	-	-	-	-	-	-	4,000
Activity Specifications																					
Re-activate plant & temporary facilities																					
ba.1.1.1	Plant systems	-	-	-	-	-	-	629	139	1,059	952	-	-	-	107	-	-	-	-	-	7,370
ba.1.1.2	Plant systems	-	-	-	-	-	-	625	79	604	644	-	-	-	60	-	-	-	-	-	4,107
ba.1.1.3	Reactor vessel	-	-	-	-	-	-	895	134	1,030	1,030	-	-	-	-	-	-	-	-	-	5,500
ba.1.1.4	Biological shield	-	-	-	-	-	-	429	123	913	913	-	-	-	-	-	-	-	-	-	6,500
ba.1.1.5	Steam generators	-	-	-	-	-	-	359	59	452	452	-	-	-	-	-	-	-	-	-	600
ba.1.1.6	Main Turbine	-	-	-	-	-	-	292	30	232	116	-	-	-	116	-	-	-	-	-	3,130
ba.1.1.7	Main Condensers	-	-	-	-	-	-	60	8	58	58	-	-	-	58	-	-	-	-	-	400
ba.1.1.8	Main structures & buildings	-	-	-	-	-	-	303	59	452	225	-	-	-	225	-	-	-	-	-	400
ba.1.1.9	Water storage tanks	-	-	-	-	-	-	600	87	667	667	-	-	-	667	-	-	-	-	-	3,130
ba.1.1.10	Facility & site cleanup	-	-	-	-	-	-	13	17	131	65	-	-	-	65	-	-	-	-	-	100
ba.1.1.11	Total	-	-	-	-	-	-	6,010	735	6,768	6,077	-	-	-	601	-	-	-	-	-	39,777
Removal & Site Preparation																					
ba.1.1.2	Prepare dismantling sequence	-	-	-	-	-	-	323	45	318	348	-	-	-	-	-	-	-	-	-	2,400
ba.1.1.3	Plant prep. & temp. access	-	-	-	-	-	-	3,000	400	3,455	3,455	-	-	-	-	-	-	-	-	-	1,400
ba.1.1.4	Design & construct	-	-	-	-	-	-	177	25	203	203	-	-	-	-	-	-	-	-	-	1,400
ba.1.1.5	High Cont. Control	-	-	-	-	-	-	2,300	345	2,645	2,645	-	-	-	-	-	-	-	-	-	1,200
ba.1.1.6	Protect cables/dryers & condensors	-	-	-	-	-	-	25	178	178	178	-	-	-	-	-	-	-	-	-	1,200
ba.1.1.7	Subtotal Period 3a Activity Costs	-	-	-	-	-	-	14,487	2,170	16,257	16,257	-	-	-	691	-	-	-	-	-	72,703
Period 3a Period-Dependent Costs																					
ba.1.1	Insurance	-	-	-	-	-	-	392	39	429	429	-	-	-	-	-	-	-	-	-	-
ba.1.2	Property taxes	-	-	-	-	-	-	141	14	155	155	-	-	-	-	-	-	-	-	-	-
ba.1.3	Removal of physics supplies	-	-	-	-	-	-	-	65	273	273	-	-	-	-	-	-	-	-	-	-
ba.1.4	Removal of DAW personnel	-	-	-	-	-	-	-	40	303	303	-	-	-	-	-	-	-	-	-	-
ba.1.5	Plant energy budget	-	-	-	-	-	-	845	127	972	972	-	-	-	-	-	-	-	-	-	-
ba.1.6	Removal of DAW personnel	-	-	-	-	-	-	101	19	210	210	-	-	-	-	-	-	-	-	-	-
ba.1.7	Removal of DAW personnel	-	-	-	-	-	-	604	60	665	665	-	-	-	-	-	-	-	-	-	-
ba.1.8	Security Staff Cost	-	-	-	-	-	-	1,478	122	1,600	1,600	-	-	-	-	-	-	-	-	-	-
ba.1.9	Utility Staff Cost	-	-	-	-	-	-	3,866	1,478	5,344	5,344	-	-	-	-	-	-	-	-	-	-
ba.1.10	Subtotal Period 3a Period-Dependent Costs	-	-	-	-	-	-	13	1,977	15,431	15,431	-	-	-	-	-	-	-	-	-	-
ba.1.11	TOTAL PERIOD 3a COST	-	-	-	-	-	-	27,398	4,147	32,547	32,547	-	-	-	691	-	-	-	-	-	235,197
PERIOD 3b - Decommissioning Preparations																					
Period 3b Direct Decommissioning Activities																					
Periodic Work Programs																					
ba.1.1.1	Plant systems	-	-	-	-	-	-	597	90	690	618	-	-	-	69	-	-	-	-	-	4,733
ba.1.1.2	Reactor internals	-	-	-	-	-	-	315	25	345	345	-	-	-	-	-	-	-	-	-	2,600
ba.1.1.3	Reactor internals	-	-	-	-	-	-	170	25	195	49	-	-	-	147	-	-	-	-	-	1,500
ba.1.1.4	Reactor internals	-	-	-	-	-	-	128	19	145	145	-	-	-	-	-	-	-	-	-	1,000
ba.1.1.5	Reactor internals	-	-	-	-	-	-	128	19	145	145	-	-	-	-	-	-	-	-	-	1,000

TLG Services, Inc.

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

Activity Index	Activity Description	Design Unit	Removal Unit	Packaging Unit	Transport Unit	Processing Unit	OR-Site Processing Unit	LLRW Disposal Unit	Other Costs	Total Contingency	Total	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Proposed Volume Cu. Feet	Class A Cu. Feet	Class B Cu. Feet	Class G Cu. Feet	Material Increased Wt. Lbs.	Craft Hours	Utility and Construction Manhours
36.1.1.1	Decommissioning (continued)																				
36.1.1.2	Reactor vessel								126	19	145	145									1,000
36.1.1.3	Reactor vessel								458	69	526										3,000
36.1.1.4	Reactor vessel								174	23	197										1,500
36.1.1.5	Reactor vessel								57	9	65										400
36.1.1.6	Reactor vessel								181	23	204										1,000
36.1.1.7	Reactor vessel								589	87	676										1,000
36.1.1.8	Reactor vessel								197	30	226										1,000
36.1.1.9	Reactor vessel								197	30	226										1,000
36.1.1.10	Reactor vessel								197	30	226										1,000
36.1.1.11	Reactor vessel								197	30	226										1,000
36.1.1.12	Reactor vessel								197	30	226										1,000
36.1.1.13	Reactor vessel								197	30	226										1,000
36.1.1.14	Reactor vessel								197	30	226										1,000
36.1.1.15	Reactor vessel								197	30	226										1,000
36.1.1.16	Reactor vessel								197	30	226										1,000
36.1.1.17	Reactor vessel								197	30	226										1,000
36.1.1.18	Reactor vessel								197	30	226										1,000
36.1.1.19	Reactor vessel								197	30	226										1,000
36.1.1.20	Reactor vessel								197	30	226										1,000
36.1.1.21	Reactor vessel								197	30	226										1,000
36.1.1.22	Reactor vessel								197	30	226										1,000
36.1.1.23	Reactor vessel								197	30	226										1,000
36.1.1.24	Reactor vessel								197	30	226										1,000
36.1.1.25	Reactor vessel								197	30	226										1,000
36.1.1.26	Reactor vessel								197	30	226										1,000
36.1.1.27	Reactor vessel								197	30	226										1,000
36.1.1.28	Reactor vessel								197	30	226										1,000
36.1.1.29	Reactor vessel								197	30	226										1,000
36.1.1.30	Reactor vessel								197	30	226										1,000
36.1.1.31	Reactor vessel								197	30	226										1,000
36.1.1.32	Reactor vessel								197	30	226										1,000
36.1.1.33	Reactor vessel								197	30	226										1,000
36.1.1.34	Reactor vessel								197	30	226										1,000
36.1.1.35	Reactor vessel								197	30	226										1,000
36.1.1.36	Reactor vessel								197	30	226										1,000
36.1.1.37	Reactor vessel								197	30	226										1,000
36.1.1.38	Reactor vessel								197	30	226										1,000
36.1.1.39	Reactor vessel								197	30	226										1,000
36.1.1.40	Reactor vessel								197	30	226										1,000
36.1.1.41	Reactor vessel								197	30	226										1,000
36.1.1.42	Reactor vessel								197	30	226										1,000
36.1.1.43	Reactor vessel								197	30	226										1,000
36.1.1.44	Reactor vessel								197	30	226										1,000
36.1.1.45	Reactor vessel								197	30	226										1,000
36.1.1.46	Reactor vessel								197	30	226										1,000
36.1.1.47	Reactor vessel								197	30	226										1,000
36.1.1.48	Reactor vessel								197	30	226										1,000
36.1.1.49	Reactor vessel								197	30	226										1,000
36.1.1.50	Reactor vessel								197	30	226										1,000
36.1.1.51	Reactor vessel								197	30	226										1,000
36.1.1.52	Reactor vessel								197	30	226										1,000
36.1.1.53	Reactor vessel								197	30	226										1,000
36.1.1.54	Reactor vessel								197	30	226										1,000
36.1.1.55	Reactor vessel								197	30	226										1,000
36.1.1.56	Reactor vessel								197	30	226										1,000
36.1.1.57	Reactor vessel								197	30	226										1,000
36.1.1.58	Reactor vessel								197	30	226										1,000
36.1.1.59	Reactor vessel								197	30	226										1,000
36.1.1.60	Reactor vessel								197	30	226										1,000
36.1.1.61	Reactor vessel								197	30	226										1,000
36.1.1.62	Reactor vessel								197	30	226										1,000
36.1.1.63	Reactor vessel								197	30	226										1,000
36.1.1.64	Reactor vessel								197	30	226										1,000
36.1.1.65	Reactor vessel								197	30	226										1,000
36.1.1.66	Reactor vessel								197	30	226										1,000
36.1.1.67	Reactor vessel								197	30	226										1,000
36.1.1.68	Reactor vessel								197	30	226										1,000
36.1.1.69	Reactor vessel								197	30	226										1,000
36.1.1.70	Reactor vessel								197	30	226										1,000
36.1.1.71	Reactor vessel								197	30	226										1,000
36.1.1.72	Reactor vessel								197	30	226										1,000
36.1.1.73	Reactor vessel								197	30	226										1,000
36.1.1.74	Reactor vessel								197	30	226										1,000
36.1.1.75	Reactor vessel								197	30	226										1,000
36.1.1.76	Reactor vessel								197	30	226										1,000
36.1.1.77	Reactor vessel								197	30	226										1,000
36.1.1.78	Reactor vessel								197	30	226										1,000
36.1.1.79	Reactor vessel								197	30	226										1,000
36.1.1.80	Reactor vessel								197	30	226										1,000
36.1.1.81	Reactor vessel								197	30	226										1,000
36.1.1.82	Reactor vessel								197	30	226										1,000
36.1.1.83	Reactor vessel								197	30	226										1,000
36.1.1.84	Reactor vessel								197	30	226										1,000
36.1.1.85	Reactor vessel								197	30	226										1,000
36.1.1.86	Reactor vessel								197	30	226										1,000
36.1.1.87	Reactor vessel								197	30	226										1,000
36.1.1.88	Reactor vessel								197	30	226										1,000
36.1.1.89	Reactor vessel								197	30	226										1,000
36.1.1.90	Reactor vessel								197	30	226										1,000
36.1.1.91	Reactor vessel								197	30	226										1,000
36.1.1.92	Reactor vessel								197	30	226										1,000
36.1.1.93	Reactor vessel								197	30	226										1,000
36.1.1.94	Reactor vessel								197	30	226										1,000
36.1.1.95	Reactor vessel								197	30	226										1,000
36.1.1.96	Reactor vessel				</																

TLG Services, Inc.

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

Activity Index	Activity Description	Decom Count	Removal Count	Packaging Count	Transport Count	Off-Site Processing Count	LAW Disposal Count	Other Count	Total Count	NRC Lic. Term. Count	Spent Fuel Management Count	Site Restoration Count	Burial Volume			Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
													Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet			
44-1	Period 4a Period-Dependent Costs	76	-	-	-	-	-	1,570	19	94	-	-	-	-	-	-	-	
44-1.1	Insurance	-	-	-	-	-	-	1,570	19	94	-	-	-	-	-	-	-	
44-1.2	Property tax	-	-	-	-	-	-	366	29	385	-	-	-	-	-	-	-	
44-1.3	Health physics supplies	-	2,468	-	-	-	-	-	692	3,010	-	-	42	-	-	-	-	
44-1.4	Disposal of DAW generated	-	2,771	-	-	-	-	-	416	3,187	-	-	-	-	-	-	-	
44-1.5	Plant energy budget	-	-	100	30	-	-	-	2,525	2,525	-	-	-	-	-	-	-	
44-1.6	NRC Fees	-	-	-	-	-	-	2,195	329	915	-	-	-	-	-	-	-	
44-1.7	Professional Engineering Procurement Equipment/Services	-	-	-	-	-	-	832	83	915	-	-	-	-	-	-	-	
44-1.8	Corporate Allocations	-	-	-	-	-	-	83	656	636	-	-	-	-	-	-	-	
44-1.9	Security Staff Cost	-	-	-	-	-	-	1,411	1,411	1,411	-	-	-	-	-	-	-	
44-1.10	Security Staff Cost	-	-	-	-	-	-	1,411	1,411	1,411	-	-	-	-	-	-	-	
44-1.11	Security Staff Cost	-	-	-	-	-	-	2,767	2,842	31,788	-	-	-	-	-	-	-	
44-1.12	Utility Cost	-	-	-	-	-	-	27,184	4,664	31,170	-	-	-	-	-	-	-	
44-1.13	Subtotal Period 4a Period-Dependent Costs	76	5,180	100	30	-	-	29,430	9,233	70,238	-	-	-	-	-	-	-	
44-4	TOTAL PERIOD 4a COST	308	33,662	17,572	7,091	11,919	16,344	57,472	42,258	216,895	-	-	-	-	-	-	-	
PERIOD 4b - Site Decontamination																		
44-1.1	Period 4b Direct Decontamination Activities	753	82	293	397	-	1,709	-	870	3,814	-	-	-	-	-	-	-	
44-1.1.1	Remove spent fuel rods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2	Removal of Plant Systems	-	61	1	2	-	-	-	28	158	-	-	-	-	-	-	-	
44-1.1.2.1	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.2	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.3	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.4	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.5	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.6	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.7	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.8	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.9	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.10	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.11	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.12	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.13	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.14	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.15	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.16	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.17	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.18	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.19	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.20	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.21	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.22	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.23	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.24	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.25	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.26	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.27	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.28	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.29	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.30	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.31	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.32	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.33	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.34	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.35	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.36	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.37	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.38	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.39	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.40	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.41	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.42	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.43	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.44	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.45	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.46	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.47	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.48	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.49	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.50	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.51	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.52	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.53	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.54	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.55	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.56	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.57	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.58	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.59	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.60	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.61	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.62	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.63	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.64	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.65	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.66	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.67	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.68	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.69	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.70	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.71	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.72	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.73	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.74	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.75	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.76	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.77	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.78	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.79	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.80	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.81	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.82	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.83	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.84	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.85	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.86	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.87	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.88	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44-1.1.2.89	Removal of Non-System Specific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table D

TLG Services, Inc.

Table D
Callaway Energy Center
SAFSTOR Alternative Decommissioning Cost Estimate
10-Year Operating Life with Low-Level Radioactive Waste Processing
(thousands of 2014 dollars)

Activity Index	Activity Description	Down Unit	Removal Unit	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total	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	IFC/CU Cu. Feet	Hard / Wt. Lbs.	Co-60 Manhours	Utility and Vendor Materials
PERIOD 3b - Period-Dependent Costs (continued)																					
4b-4.1.0	Security Staff Cost	-	-	-	-	-	-	2,345	235	2,580	2,580	-	-	-	-	-	-	-	-	-	182,457
4b-4.1.1	DOC Staff Cost	-	-	-	-	-	-	3,769	769	4,538	4,538	-	-	-	-	-	-	-	-	-	327,296
4b-4.1.2	DOC Staff Cost	-	-	-	-	-	-	3,769	769	4,538	4,538	-	-	-	-	-	-	-	-	-	327,296
4b-4.1.3	Subtotal Period 3b Period-Dependent Costs	1,247	8,498	135	-	-	-	43,764	6,523	50,287	50,287	-	-	-	-	-	-	-	-	-	577,889
4b-4	Subtotal Period 3b Period-Dependent Costs	-	-	-	27	-	-	99,377	15,299	115,920	115,920	-	-	-	-	-	-	-	-	-	1,057,771
4b-0	TOTAL PERIOD 3b COST	6,892	34,365	1,793	2,892	12,839	7,472	99,153	39,297	187,676	176,419	-	11,467	187,119	69,942	-	-	-	10,773,730	586,701	1,072,251
PERIOD 4b - License Termination																					
Period 4b Direct Decommissioning Activities																					
4b-4.1.1	ORIS contingency survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4b-4.1.2	Subtotal Period 4b Activity Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4b-4	Subtotal Period 4b Activity Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Period 4b Additional Costs																					
4b-4.1	License Termination Survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4b-4.2	Subtotal Period 4b Additional Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4b-4.3	DOC staff relocation expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4b-4.4	Subtotal Period 4b Additional Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Period 4b Period-Dependent Costs																					
4b-4.1	Property taxes	-	706	-	-	-	-	212	21	233	233	-	-	-	-	-	-	-	-	-	-
4b-4.2	Health physics supplies	-	-	-	-	-	-	184	184	920	920	-	-	-	-	-	-	-	-	-	-
4b-4.3	Deposit of DAW generated	-	-	-	-	-	-	32	32	292	292	-	-	-	-	-	-	-	-	-	-
4b-4.4	NRC Fees	-	-	-	-	-	-	254	38	292	292	-	-	-	-	-	-	-	-	-	-
4b-4.5	Corporate Allocations	-	-	-	-	-	-	407	46	603	603	-	-	-	-	-	-	-	-	-	-
4b-4.6	Security Staff Cost	-	-	-	-	-	-	109	832	832	832	-	-	-	-	-	-	-	-	-	-
4b-4.7	DOC Staff Cost	-	-	-	-	-	-	227	109	832	832	-	-	-	-	-	-	-	-	-	-
4b-4.8	DOC Staff Cost	-	-	-	-	-	-	5,065	853	6,538	6,538	-	-	-	-	-	-	-	-	-	-
4b-4.9	Utility Staff Cost	-	796	-	-	-	-	6,437	954	7,291	7,291	-	-	-	-	-	-	-	-	-	-
4b-4.10	Subtotal Period 4b Period-Dependent Costs	-	-	-	1	-	18	41,018	2,386	17,576	17,576	-	-	-	-	-	-	-	-	-	-
4b-4	TOTAL PERIOD 4b COST	-	796	-	1	-	18	24,069	4,981	29,752	29,752	-	-	-	-	-	-	-	7,050	11	101,406
PERIOD 4b TOTALS																					
PERIOD 4b - Site Restoration																					
4b-0	Subtotal Period 4b Activity Costs	5,170	68,614	13,772	10,035	24,768	63,264	176,634	76,537	434,325	410,040	-	16,483	313,256	137,780	691	406	2,217	24,009,090	1,117,624	1,885,771
Period 5b Direct Decommissioning Activities																					
Period 5b																					

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

[illegible]

End Notes:

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

APPENDIX E

DETAILED COST ANALYSIS

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

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 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	Burial Volume (Class A)			Burial/Processed Wt., Lbs.	Craft Manhours	Utility and Construction Manhours																	
															Class A	Class B	Class C																				
Period 1b - Decommissioning Preparations																																					
Detailed Work Procedures																																					
1b.1.1	NSRS Decontamination	-	-	-	-	-	-	597	90	680	018	-	60	-	-	-	-	-	-	1,213																	
1b.1.2	Reactor Internals	-	-	-	-	-	-	120	19	146	-	-	-	-	-	-	-	-	-	1,000																	
1b.1.3	Reactor Internals	-	-	-	-	-	-	170	35	303	363	-	-	-	-	-	-	-	-	2,000																	
1b.1.4	Remainder buildings	-	-	-	-	-	-	135	19	154	145	-	147	-	-	-	-	-	-	1,000																	
1b.1.5	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.6	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.7	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.8	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.9	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.10	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.11	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.12	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.13	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.14	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.15	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.16	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.17	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.18	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.19	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.20	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.21	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.22	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.23	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.24	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.25	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.26	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.27	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.28	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.29	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.30	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.31	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.32	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.33	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.34	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.35	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.36	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.37	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.38	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.39	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.40	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.41	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.42	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.43	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.44	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.45	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.46	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.47	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.48	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.49	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.50	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.51	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.52	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.53	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.54	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.55	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.56	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.57	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.58	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.59	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.60	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.61	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.62	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.63	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.64	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.65	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.66	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.67	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.68	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.69	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.70	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.71	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.72	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.73	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.74	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.75	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.76	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.77	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.78	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.79	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.80	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.81	Reactor building	-	-	-	-	-	-	125	19	145	145	-	-	-	-	-	-	-	-	1,000																	
1b.1.82	Reactor building	-	-	-	-	-	-	125																													

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	Decont. Index	Removal Cost	Packaging Costs	Transporter Costs	Off-Site Preparing Costs	LLHW Disposal	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	TRU Cu. Feet	Material Wt., Lbs.	Material Wt., Kgs	Cross-Feed Manhours	Utility and Manhours
PERIOD 2a - Large Component Removal																						
Period 2a Direct Decontaminating Activities																						
	Nuclear Steam Supply System Removal																					
2a.1.1.1	Removal of Reactor Coolant Pump	174	160		54	32	519		270	1,295	1,305			1,257					145,300	6,895		
2a.1.1.2	Removal of Reactor Coolant Pump	29	25				1,033		177	282	1,352			325					35,205	1,008		
2a.1.1.3	Removal of Reactor Coolant Pump & Motor	89	15	124	229	168	1,033		469	2,437	2,437			3,386					810,140	4,188	160	
2a.1.1.4	Removal of Reactor Coolant Pump & Motor	47	5,359	621	2,833	2,833	1,125		469	28,243	28,243			62,478					285,734	2,634	1,875	
2a.1.1.5	Removal of Reactor Coolant Pump & Motor	369					1,125			19,663	19,663			62,478					3,340,205	10,860	3,900	
2a.1.1.6	Removal of Reactor Coolant Pump & Motor	148	83				1,118			15,068	15,068			3,881					86,025	4,295	5,000	
2a.1.1.7	Removal of Reactor Coolant Pump & Motor	192	3,660	19,694	1,656		18,654	330		15,068	15,068			3,881					329,968	21,560	1,284	
2a.1.1.8	Removal of Reactor Coolant Pump & Motor	110	6,391	2,412	1,159		19,749	330		12,261	12,261			19,749					961,214	31,660	1,204	
2a.1.1.10	Totals	1,098	15,753	10,633	8,923		67,920	656		33,884	33,882			103,110					1,016,410	118,016	10,613	
Removal of Major Equipment																						
2a.1.2	Main Turbine/Generator		496		460		19,458		3,519	19,483	18,483			64,409					3,022,745	9,888		
2a.1.3	Main Condensers		1,369	1,438	960		15,731		2,619	24,102	24,102			64,924					4,261,703	27,762		
Removal of Plant Systems																						
2a.1.4.1	Reactor		915						137	1,052	1,052			6,483					10,442	6,654		
2a.1.4.2	Auxiliary		466						137	585	585			631					16	16		
2a.1.4.3	Hot Machine Shop		1						15	111	111			1,108					1,108			
2a.1.4.4	Hot Machine Shop		227						34	281	281			1,108					1,108			
2a.1.4.5	Feed Building		1,765						286	1,861	1,861			19,612					19,612			
2a.1.4	Totals																					
Removal of Plant Systems																						
2a.1.5.1	100 Aux. High Non-System Specific RCA		686	108	83		1,296		829	2,745	2,745			6,483					301,115	13,677		
2a.1.5.2	100 Auxiliary High Non-System Specific RCA		113	12	9		1,012			366	366			631					11,078	2,201		
2a.1.5.3	100 Main Steam RCA		247	78	33		379		121	624	624			1,617					103,289	5,831		
2a.1.5.4	100 Main Turbine RCA		78	33	24		379		39	302	302			302					1,000	1,000		
2a.1.5.5	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.6	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.7	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.8	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.9	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.10	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.11	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.12	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.13	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.14	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.15	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.16	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.17	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.18	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.19	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.20	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.21	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.22	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.23	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.24	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.25	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.26	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.27	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.28	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.29	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.30	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.31	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.32	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.33	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.34	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.35	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.36	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.37	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.38	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.39	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.40	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.41	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.42	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.43	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.44	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.45	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.46	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.47	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.48	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.49	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.50	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.51	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.52	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.53	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.54	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.55	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.56	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.57	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.58	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.59	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.60	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.61	100 Main Turbine RCA		247	78	33		379		39	302	302			302					1,000	1,000		
2a.1.5.62	100 Main Turbine RCA		247	78	33																	

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	Decom Cost	Removal Cost	Packaging Cost	Transport Cost	Off-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. Foot	Class A Cu. Foot	Class B Cu. Foot	Class C Cu. Foot	(P)RCU Cu. Foot	Interim Processed Wt. Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
2a.1.5.0	HY - Secondary Liquid Waste	701	998	165	114	-	1,453	-	1,022	4,002	4,002	-	36	-	-	7,614	-	-	495,358	32,027	-
2a.1.5.1	HY - Solid Waste	-	-	-	-	-	-	-	5	36	-	-	-	-	-	-	-	-	-	600	-
2a.1.5.2	K3 - Bulk Chemical Storage	-	101	103	70	-	1,177	-	357	1,705	1,705	-	-	-	-	4,020	-	-	304,405	2,002	-
2a.1.5.4	LE - Only Waste	-	179	-	-	-	-	-	157	296	-	-	-	-	-	-	-	-	-	3,605	-
2a.1.5.43	LE - Only Waste RCA	-	257	-	25	-	397	-	155	862	862	-	-	-	-	1,023	-	-	107,381	3,729	-
2a.1.5.44	LE - Only Waste Specific	-	743	-	-	-	-	-	111	853	-	-	-	-	-	-	-	-	-	15,405	-
2a.1.5.44	LE - Only Waste Specific RCA	-	1,064	1,064	702	-	11,256	-	5,351	27,343	25,992	-	3,351	-	-	40,409	-	-	3,612,581	185,918	-
2a.1.5	Totals	-	1,698	24	17	-	255	-	471	2,376	2,376	-	-	-	-	1,007	-	-	71,859	38,741	-
2a.1.6	Scaffolding in support of decommissioning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2a.1	Subtotal Period 2a Activity Costs	2,182	29,478	24,099	11,062	-	97,343	660	48,063	213,717	209,756	-	3,351	-	-	310,745	963	-	21,006,400	408,487	10,613
Period 2a Additional Costs																					
2a.2.1	Remedial Action Surveys	-	-	-	-	-	-	1,666	600	2,166	2,166	-	-	-	-	-	-	-	-	34,112	-
2a.2	Subtotal Period 2a Additional Costs	-	-	-	-	-	-	1,666	600	2,166	2,166	-	-	-	-	-	-	-	-	34,112	-
Period 2b Cultural Costs																					
2b.2.1	Process decommissioning water waste	107	-	125	324	-	662	-	300	1,009	1,009	-	-	-	-	1,266	-	-	75,034	247	-
2b.2.1	Process decommissioning chemical flush waste	-	-	79	146	-	323	-	107	616	616	-	-	-	-	410	-	-	43,711	77	-
2b.2.3	Small tool allowance	-	311	-	-	-	-	-	51	462	353	-	30	-	-	-	-	-	-	-	-
2b.2.4	Spent Fuel Transfer	-	-	-	-	-	-	4,320	64	4,384	4,384	-	4,608	-	-	-	-	-	-	-	-
2b.2.5	On-site survey and release of 60.87 loss clean metallic waste	-	-	-	-	-	-	84	8	92	92	-	-	-	-	-	-	-	-	-	-
2b.2	Subtotal Period 2b Cultural Costs	198	311	185	470	-	855	4,404	1,115	7,676	2,571	-	4,608	-	-	1,676	-	-	119,644	324	-
Period 2b Period-Dependent Costs																					
2b.4.1	Decon supplies	819	-	-	-	-	-	-	22	112	112	-	-	-	-	-	-	-	-	-	-
2b.4.1	Decon supplies	-	-	-	-	-	-	1,512	151	1,663	1,663	-	-	-	-	-	-	-	-	-	-
2b.4.3	Property taxes	-	-	-	-	-	-	409	746	3,006	3,006	-	61	-	-	-	-	-	-	-	-
2b.4.4	Health physics supplies	-	2,848	-	-	-	-	-	495	3,795	3,795	-	-	-	-	-	-	-	-	-	-
2b.4.5	Heavy equipment rental	-	3,300	-	-	-	-	-	92	643	643	-	-	-	-	-	-	-	-	-	-
2b.4.6	Insurance of DAW personnel	-	-	-	-	-	-	-	305	3,006	3,006	-	-	-	-	-	-	-	-	-	-
2b.4.7	Phase out of DAW personnel	-	-	122	25	-	-	-	2,014	392	3,006	-	-	-	-	-	-	-	-	-	-
2b.4.8	NRC Fees	-	-	-	-	-	-	-	1,529	1,529	1,529	-	-	-	-	-	-	-	-	-	-
2b.4.9	Emergency Planning Fees	-	-	-	-	-	-	-	107	1,107	1,107	-	-	-	-	-	-	-	-	-	-
2b.4.10	Emergency Planning Fees	-	-	-	-	-	-	-	153	1,493	1,493	-	-	-	-	-	-	-	-	-	-
2b.4.11	IFPS Out of Area Costs	-	-	-	-	-	-	-	1,298	1,298	1,298	-	-	-	-	-	-	-	-	-	-
2b.4.12	Corporate Allocations	-	-	-	-	-	-	-	195	1,493	1,493	-	-	-	-	-	-	-	-	-	-
2b.4.13	Security Staff Cost	-	-	-	-	-	-	-	24	180	180	-	-	-	-	-	-	-	-	-	-
2b.4.14	IFPS Out of Area Costs	-	-	-	-	-	-	-	2,511	10,248	10,248	-	-	-	-	-	-	-	-	-	-
2b.4.15	IFPS Out of Area Costs	-	-	-	-	-	-	-	3,779	29,976	29,976	-	-	-	-	-	-	-	-	-	-
2b.4	Subtotal Period 2b Period-Dependent Costs	819	6,149	122	25	-	305	86,343	5,916	42,297	42,297	-	51	-	-	0.010	-	-	120,328	195	-
2b.4	Subtotal Period 2b Period-Dependent Costs	-	-	-	-	-	-	-	14,385	109,997	109,997	-	-	-	-	-	-	-	-	-	-
2b.4	Subtotal Period 2b Period-Dependent Costs	2,409	35,068	25,196	11,577	-	98,533	95,673	64,023	333,446	321,684	-	4,011	-	-	324,437	3893	-	21,345,370	438,100	1,101,620
2b.5	TOTAL PERIOD 2b COST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PERIOD 2b - Site Decontamination																					
Period 2b Direct Decommissioning Activities																					
Disposal of Plant Systems																					
2b.1.1.1	500 Reactor Hdg. Non-System Specific	-	90	7	6	-	93	-	47	242	242	-	-	-	-	276	-	-	26,010	1,705	-
2b.1.1.2	500 Reactor Hdg. Non-System Specific RCA	-	657	68	62	-	835	-	353	1,476	1,476	-	-	-	-	3,414	-	-	25,000	1,705	-
2b.1.1.3	500 Reactor Hdg. Non-System Specific Cn	-	176	20	21	-	375	-	144	748	748	-	-	-	-	1,532	-	-	101,250	3,471	-
2b.1.1.4	500 Reactor Hdg. Non-System Specific RCA	-	1,131	180	138	-	2,231	-	209	1,693	1,693	-	1,093	-	-	9,083	-	-	600,401	22,381	-
2b.1.1.5	700 Reactor Hdg. Non-System Specific	-	182	10	15	-	245	-	111	875	875	-	-	-	-	2,224	-	-	66,210	3,293	-
2b.1.1.6	700 Reactor Hdg. Non-System Specific RCA	-	163	6	8	-	216	-	23	176	176	-	176	-	-	227	-	-	16,617	753	-
2b.1.1.7	700 Reactor Hdg. Non-System Specific Cn	-	80	-	3	-	56	-	25	131	131	-	-	-	-	2,007	-	-	139,253	7,115	-
2b.1.1.8	700 Reactor Hdg. Non-System Specific RCA	-	40	-	-	-	716	-	277	1,442	1,442	-	102	-	-	8,476	-	-	657,520	28,382	-
2b.1.1.9	AP - Condensate Storage & Transfer	-	-	-	-	-	-	-	1,103	5,234	5,234	-	-	-	-	2,234	-	-	143,824	6,176	-
2b.1.1.10	AP - Condensate Storage & Transfer	-	-	-	-	-	-	-	229	1,143	1,143	-	-	-	-	8,406	-	-	664,570	2,517	-
2b.1.1.11	AP - Condensate Storage & Transfer	-	-	-	-	-	-	-	62	3,268	3,268	-	-	-	-	100	-	-	5,351	3,351	-
2b.1.1.12	AP - Condensate Storage & Transfer	-	-	-	-	-	-	-	22	160	160	-	-	-	-	806	-	-	69,103	878	-
2b.1.1.13	DE - Intake & Water Treatment	-	-	-	-	-	-	-	70	360	360	-	-	-	-	-	-	-	-	-	-
2b.1.1.14	DE - Intake & Water Treatment	-	-	-	-	-	-	-	0	68	68	-	-	-	-	-	-	-	-	-	-
2b.1.1.15	DE - Intake & Water Treatment	-	-	-	-	-	-	-	80	360	360	-	-	-	-	-	-	-	-	-	-
2b.1.1.16	EA - Service Water RCA	-	144	-	-	-	219	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b.1.1.17	EA - Service Water RCA	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2b.1.1.18	EP - Essential Service Water	-	353	-	-	-	-	-	80	360	360	-	-	-	-	-	-	-	-	-	-

TLG Service, 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 Costs	Removal Costs	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLAW Disposal Costs	Other Costs	Total Contingency	Total	NRC Lic. Form.		Site Restoration Costs	Processed Volumes		Used Volumes		Hazardous Wt. Lbs.	Co-64 Manufacture	Utility and Contractor Materials
											Costs	Costs		Cu. Feet	Cu. Feet	Class A Cu. Feet	Class B Cu. Feet			
PERIOD 25: Additional Costs (continued)																				
-	Period 25: Additional Costs (continued)	-	11.1	662	662	662	-	768	-	410	2,738	2,738	-	-	2,764	-	2,764	338,540	5,187	2,000
-	Subtotal Period 25: Additional Costs	-	5,012	662	1,201	-	2,131	2,864	-	2,335	14,226	7,807	6,330	-	10,082	-	10,082	1,025,959	121,867	2,000
PERIOD 26: Cultural Costs																				
101	Process decontaminating water waste	-	-	11.1	295	-	-	-	-	262	1,323	1,323	-	-	1,116	-	1,116	65,529	218	-
3	Process decontaminating chemical drain waste	-	423	128	475	-	1,955	-	-	348	2,010	2,010	-	-	1,338	-	1,338	142,519	260	-
-	Spent Fuel Transfer	-	-	-	-	-	-	6,180	-	872	7,464	484	-	-	-	-	-	-	-	-
-	Spent Fuel Transfer	-	-	-	-	-	-	-	-	7,462	-	7,462	-	-	-	-	-	-	-	-
-	Spent Fuel Transfer	-	-	-	-	-	-	-	-	41	451	451	-	-	-	-	-	-	-	-
172	Subtotal Period 26: Cultural Costs	-	423	295	761	-	1,955	6,890	-	1,688	11,729	4,258	7,452	-	2,453	-	2,453	299,470	488	-
PERIOD 26: Period-Dependent Costs																				
1213	Process decontaminating water waste	-	-	-	-	-	-	-	-	303	1,510	1,510	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	2,173	-	217	2,291	2,291	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	660	-	66	726	726	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	92	4,796	4,796	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	704	5,401	5,401	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	6,057	-	6,057	193,316	217	-
-	Process decontaminating water waste	-	-	-	-	-	-	2,397	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412	3,412	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	102	602	602	-	-	-	-	-	-	-	-
-	Process decontaminating water waste	-	-	-	-	-	-	-	-	148	3,412</									

TLG Services, Inc.