Low Level Waste Disposition – LLW Treatment/Management Data Input

Fuel Cycle Research & Development

Prepared for
U.S. Department of Energy
Used Nuclear Fuel
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August, 2012
Revision 0
FCRD-USED-2012-000185

REVISIONS

Revision Number	Date	Major Sections Affected	Description
0	August 2012		Initial issue

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ACRONYMS

BTP	Branch Technical Position
CFR	Code of Federal Regulations
EAS	Engineering Alternative Studies
FCRD	Fuel Cycle Research and Development
FOEAS	Follow-On Engineering Alternative Studies
GTCC	greater than Class C
GWd/MT	giga-watt days per metric ton
HAW	high activity waste
HEPA	high efficiency particulate air
HIC	high integrity container
LAW	low activity waste
LLW	low level waste
NRC	Nuclear Regulatory Commission
PA	performance assessment
TRU	transuranic
UFD	Used Fuel Disposition
WIPP	Waste Isolation Pilot Plant

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1.0 INTRODUCTION

This report was prepared by the Used Fuel Disposition (UFD) campaign of the Fuel Cycle Research and Development (FCRD) program. The Low Level Waste Disposition work package of the UFD campaign is tasked with evaluating disposal options for secondary waste generated by alternate fuel cycles. In support of this task, volume estimates of Class A, B and C low level waste (LLW) and greater than Class C (GTCC) LLW resulting from several alternate fuel cycles have been provided in the past.[1] These estimates did not provide the radionuclide content of the waste streams which is needed to support future generic performance assessment (PA) models for LLW disposal and trade studies being conducted by the Separations and Waste Forms and Fuel Cycle Options Campaigns to assess the technical and economic benefits of various secondary waste treatment alternatives.

Radionuclide inventory data is not available for secondary waste streams from the specific fuel cycles being considered since there is no historical basis of operations. Accordingly, spreadsheet models have been developed to estimate the radionuclide inventory contained in secondary waste generated by potential alternate fuel cycle processes, namely the Co-Extraction, New-Extraction and UREX+1b recycling processes. This report describes the results of an initial waste treatment scenario evaluated with the spreadsheet models. Additional scenarios are expected to be defined and evaluated in the future as work on the trade studies being conducted by the Separations and Waste Forms and Fuel Cycle Options Campaigns progresses.

This report is not intended to provide a detailed description of the radionuclide inventory spreadsheet models. A separate report provides a more detailed description of the spreadsheet models.[2]

2.0 DESCRIPTION OF THE INITIAL SCENARIO EVALUATED

The spreadsheet models incorporate many input parameters that can be varied to define a multitude of waste treatment scenarios to be evaluated. The general categories of parameters available for scenario development include the following:

- Waste Volume-to-Mass Conversion Factors
- Radionuclide Concentration Factors
- Radionuclide Concentration Environmental Factors
- Waste Classification Parameters
- Waste Blending Categories
- Waste Package Parameters
- Used Fuel Parameters
- Waste Treatment Parameters

The specific parameters used to define the initial scenario evaluated by the spreadsheet models is described in greater detail in the sections that follow.

2.1 Waste Volume-to-Mass Conversion Factors

Waste volume-to-mass conversion factors are used to convert the individual waste streams associated with the fuel cycle being evaluated from a volume basis (as identified in previous reports) to a mass basis. The conversion factors are based on generally accepted waste densities for common waste streams such as job control waste or derived from sources representative of the particular waste stream in question such as failed equipment. Although these factors can be changed, they are not normally adjusted to define a scenario to evaluate. A more thorough discussion on the methodology used to define the conversion factors is provided in Reference 2. The volume-to-mass conversion factors recommended in Reference 2 are not adjusted for the initial scenario described by this report.

2.2 Radionuclide Concentration Factors

Radionuclide concentration factors are used to calculate the radionuclide content for the various waste streams associated with the fuel cycle process being evaluated. The concentration factors are derived from other waste studies where available but also from historical waste classification calculations associated with the disposal of comparable waste streams from operating facilities. Although these factors can be changed, they are not normally adjusted to define a scenario to evaluate. A more thorough discussion on the methodology used to define the radionuclide concentration factors is provided in Reference 2. The radionuclide concentration factors recommended in Reference 2 are not adjusted for the initial scenario described by this report.

2.3 Radionuclide Concentration Environmental Factors

The radionuclide concentration factors (described in Section 2.2) generally represent the worst case concentration of radionuclides expected for a particular type of waste stream. The concentration of radionuclides in a waste stream is dependent, at least partially, on the level of contamination present in the areas of a facility in which the waste is generated. Not all areas of an operating facility will have the same levels of contamination present. Radionuclide concentration environmental factors are used to adjust (usually to lower levels) the radionuclide concentration factors for waste streams originating from different process areas. Environmental factors are applied to job control and maintenance waste streams as appropriate; however, environmental factors are not applied to operating waste streams since operating waste streams generally involve direct contact with process materials and are more likely to contain the higher levels of radionuclides. A more thorough discussion on the methodology used to define the radionuclide concentration environmental factors is provided in Reference 2. The following table defines the radionuclide concentration environmental factors used in the initial scenario described by this report.

Table 2.3-1
Environmental Factors

Process Function	Environmental Factor		Basis
	Job Control	Maintenance	
Fuel Receipt	0.001	0.001	Fuel Receipt does not handle radionuclides out of containment (i.e. cladding); therefore, the risk for contamination is very low. In addition, pool water is constantly cleaned to remove radionuclide contaminants.
Shearing/Dissolving	1	1	
Offgas	1	1	
UREX	1	1	
U/Tc Separation	1	1	
Tc Solidification	1	1	
U Solidification	1	1	
FPEX	1	1	
TRUEX	1	1	
Cs/Sr Solidification	1	1	
TALSPEAK	1	1	
U/TRU Solidification	1	1	
FP Solidification	1	1	
Acid Recovery	0.001	0.001	Although Acid Recovery receives feed that has been decontaminated typically by at least two evaporation steps each with a decontamination factor of at least 1,000 and an Environmental Factor on this order (i.e. $1x10^{-6}$) to reduce the radionuclide concentration would seem appropriate, the calculations for radionuclide concentration factors do not support this conclusion. Nevertheless, an Environmental Factor of 0.001 is recommended.
Solvent Recovery	0.001	0.001	Solvent Recovery receives feed that has been stripped of radionuclides. A process efficiency of 99.99% with a residual radionuclide content of .01% in the solvent streams is assumed. Although a value of 0.0001 could be appropriate, an Environmental Factor of 0.001 is recommended.
HAW	1	1	
LAW	0.1	0.1	Low Activity Waste receives feed with a low concentration of radionuclides relative to HAW but probably higher than that for Solvent Recovery.
Waste Handling	.01	.01	Waste Handling processes, handles and packages non-radioactive material contaminated with radionuclides from other sources. The materials handled in Waste Handling contain a low concentration of radionuclides. An environmental factor of 0.01 is recommended.

Table 2.3-1 (continued)
Environmental Factors

Process Function	Environmental Factor		Environmental Factor
	Job Control	Maintenance	
Analytical	0.1	0.1	The Analytical system handles and processes samples from the other process systems. Some samples will be processed undiluted whereas some will be processed after dilution. A typical dilution factor of 10 is assumed.
Water Treatment	.001	.001	Water Treatment receives feed that has been decontaminated by at least two evaporation steps with a decontamination factor of at least 1,000 each. Although an Environmental factor of $1x10^{-6}$ could be appropriate, a factor of 0.001 is recommended.
Balance of Plant (Low Contamination Areas)	.01	.01	Balance of Plant operations handle non-radioactive material contaminated with radionuclides from other sources. The materials handled in Balance of Plant operations contain a low concentration of radionuclides.
Balance of Plant (High Contamination Areas)	0.1	0.1	Balance of Plant operations handle non-radioactive material contaminated with radionuclides from other sources. The materials handled in Balance of Plant operations contain a low concentration of radionuclides. The Environmental Factor for Balance of Plant (High Contamination Areas) is considered to be somewhat higher than that for Balance of Plant (Low Contamination Areas).

2.4 Waste Classification Parameters

Waste classification parameters are used to determine the classification (i.e. Class A, Class B, Class C or GTCC) of the various waste streams associated with the fuel cycle process being evaluated. The classification parameters are derived from the guidance provided in 10 CFR 61, *Licensing Requirements for Land Disposal of Radioactive Waste*. These parameters are established by the Nuclear Regulatory Commission (NRC) and are used to classify radioactive waste from commercial nuclear industries. As such, they are not normally adjusted to define a scenario, although they could be adjusted to determine the effects of regulatory changes on waste classification.

2.5 Waste Blending Categories

The blending category is used to group waste streams for the purpose of blending and the subsequent reclassification of the blended waste streams. Blending categories are based on the guidance given in the NRC *Branch Technical Position on Concentration Averaging* (BTP).[3] The following blending categories are available from the BTP:

- Contaminated trash
- Absorbed liquids
- Solidified liquids
- Solidified ion exchange resins
- Dewatered ion exchange resins in HICs or liners
- Filter cartridges in HICs or liners
- Contaminated materials
- Encapsulated filter cartridges

Most all waste is regarded as "contaminated trash". Other blending categories used are solidified liquids and dewatered ion exchange resins in HICs or liners. Contaminated materials are treated as a special case in the spreadsheet models. Even though all waste is technically "contaminated material", failed equipment is specifically regarded as contaminated material as defined in the BTP. The term "contaminated equipment" is used as the blending category for failed equipment in the spreadsheet models in lieu of "contaminated material". Except for "contaminated equipment" (i.e. failed equipment) most waste classification determinations are based on overall or bulk waste volumes. Waste classifications for contaminated equipment are based on the full density volume of the waste stream (as specified in Table C of Reference 3). Note that a specific category for solidified solids is not included in the list above. Solidified solids are regarded as "contaminated trash" even after solidification.

2.6 Waste Package Parameters

Waste package parameters are used to determine the final volume of packaged waste for the various waste streams associated with the fuel cycle process being evaluated. Physical waste package parameters such as internal and external volume are derived from typical disposal packages used for secondary waste such as 55 gallon drums, various disposal boxes and high integrity containers (HICs). Other parameters such as packing efficiency are based on engineering judgment or other guidance (such as the NRC *Branch Technical Position on Concentration Averaging* which defines a minimum void space of 10%). Although the parameters defining the available waste packages can be changed, they are not normally adjusted to define a scenario to evaluate. A more thorough discussion on the waste disposal package parameters is provided in Reference 2. The waste package parameters recommended in Reference 2 are not adjusted for the initial scenario described by this report.

2.7 Used Fuel Parameters

The composition and distribution of radionuclides in the waste is dependent on the type of used fuel being processed, specifically its burnup characteristics and the amount of time it has been cooled since being discharged from the reactor. A variety of used fuels is used to define a radionuclide distribution for the various waste streams associated with the fuel cycle process being evaluated. Six different fuel types with different burnups and cooling times are available for selection to define a scenario to be evaluated as follows:

- 20 GWd/MT burnup cooled for 5 years
- 20 GWd/MT burnup cooled for 30 years
- 40 GWd/MT burnup cooled for 5 years
- 40 GWd/MT burnup cooled for 30 years
- 60 GWd/MT burnup cooled for 5 years
- 60 GWd/MT burnup cooled for 30 years

The initial scenario described by this report was evaluated for each of the six fuel types.

2.8 Waste Treatment Parameters

The waste treatment parameters are the core parameters for defining the scenarios to be evaluated, especially in regards to the trade studies being conducted by the Separations and Waste Forms and Fuel Cycle Options Campaigns. A variety of waste treatment processes are available as shown in Table 2.8-1. The parameters that define the relative volume and mass reductions (or increase) associated with the waste treatment processes can be adjusted. For the initial scenario described by this report, the values for these parameters as shown in Table 2.8-1 are used. A more thorough discussion on the development of and basis for these values is provided in Reference 2.

Table 2.8-1
Waste Treatment Parameters

Waste Treatment Method	Volume Adjustment [1]	Mass Adjustment [2]
Compaction	0.25	1
80% size reduction	0.2	1
75% size reduction	0.25	1
67% size reduction	0.33	1
60% size reduction	0.4	1
50% size reduction	0.5	1
40% size reduction	0.6	1
33% size reduction	0.67	1
30% size reduction	0.7	1
25% size reduction	0.75	1
20% size reduction	0.8	1
Absorption	2	Original Mass + (Treated Waste Volume x Density of Treatment Material) A value of 200 kg/m^3 is used for the density of the treatment material.
Cementation of liquids	1.5	3.3
Cementation of solids	2	Original Mass + ((Treated Waste Volume - Original Volume) x Density of Treatment Material) A value of 2,200 kg/m^3 is used for the density of the treatment material.
Solidification of Class B/C waste	2	Original Mass + ((Treated Waste Volume - Original Volume) x Density of Treatment Material) A value of 2,200 kg/m^3 is used for the density of the treatment material.
Encapsulation	2	Original Mass + ((Treated Waste Volume - Original Volume) x Density of Treatment Material) A value of 2,200 kg/m^3 is used for the density of the treatment material.
Thermal treatment of solids	0.0117	0.2
Thermal treatment of aqueous liquids	0.0059	0.013
Thermal treatment of organic liquids	0.0081	0.02
Thermal treatment of ion exchange resins	0.0072	0.02
None	1	1

Table 2.8-1 Notes:

1. The volume adjustment values are defined as the final treated waste volume divided by the original waste volume.
2. Unless otherwise specified, the mass adjustment values are defined as the final treated waste mass divided by the original waste mass.

The selection of specific waste treatment processes for the various waste streams associated with the fuel cycles being evaluated by this initial scenario is discussed further in Section 2.9.

2.9 Waste Stream Definition

Each waste stream in the spreadsheet model has several parameters available to define the waste stream. The parameters include the following:

- Waste stream title
- Waste generation source
- Waste category
- Hazardous classification
- Bulk waste volume
- Equipment failure rate (for failed equipment only)
- Blending category
- Waste treatment method
- Waste package type

The first six parameters are established based on the information contained in Reference 1 and are not typically adjusted or modified. The blending category is assigned based on the guidance discussed in Section 2.5.

The waste treatment method for the initial scenario described in this report is selected based on the following protocol:

Operational Waste

- Organic waste streams (wipes, packaging waste, etc.): Compaction. Operational waste classified as Class B or C as a result of compaction will be subsequently packaged in HICs.
- Small metallic operational waste streams (machining chips, product cans, used molds, etc.): None
- Fuel cask decontamination filters: No treatment but packaged in HICs
- Ion exchange resins: No treatment but packaged in HICs
- Filtered solids: Cementation of solids
- Fuel storage pool sludge: Cementation of solids

Job Control Waste

- Organic waste streams (gloves, shoe covers, plastic containment hut material, etc.): All job control waste will be compacted. Job control waste classified as Class B or C as a result of compaction will be subsequently packaged in HICs.

Maintenance Waste

- Organic maintenance waste (manipulator boots, glovebox gloves, mop heads, etc.): Compaction. Waste classified as Class B or C as a result of compaction will be subsequently packaged in HICs.
- Small metallic maintenance waste streams (shear blades, manipulator arms, etc.): None
- Glovebox filters: Compaction
- Large failed equipment of relative low density (process vessels, etc.): 80% size reduction
- Large failed equipment of relative medium density (vessel cooling coils, etc.): 50% size reduction
- Large failed equipment of relative high density (tube bundles, condensers, absorbers, etc.): None
- Small failed equipment (transfer pumps, centrifugal contactors, etc.): None
- Failed piping and valves: 20% size reduction
- Vessels with filter or absorption media (carbon beds, vessel vent filters, etc.): None
- Jumpers (piping and electrical): These waste streams have an inherent assumption that they are chopped into segments for disposal; therefore, no additional size reduction is assigned to these waste streams.
- Facility air filters (roughing, HEPA, etc.): Compaction
- Lamps (fluorescent, incandescent, etc.): Compaction
- Mixed waste (electronic equipment, batteries, leaded glovebox gloves, counterweights, etc.): None, except for leaded glovebox gloves which are compacted and lead counterweights which are encapsulated.

Class B or C Waste

- Class B or C waste other than job control waste or "job control-like" waste (e.g. wipes, packaging waste, manipulator boots, glovebox gloves, etc.): Solidification

Waste package types available for Class A, B and C waste include 55 gallon drums, disposal boxes (1.2 and 2.5 m^3) and HICs. Waste packages for GTCC waste are those typically allowed at the Waste Isolation Pilot Plant (WIPP) such as 55 gallon drums and standard waste boxes. Note that WIPP disposal packages are used for reference only in the absence of a commercial GTCC disposal facility. Class A, B or C or GTCC waste streams too large to fit in "standard" waste packages such as large pieces of failed equipment are designated for disposal in "engineered containers". Engineered containers do not have a defined size but are generally custom fabricated for the item being disposed.

The preferred waste packages for non-blended waste for the initial scenario described by this report are as follows:

- Class A waste: 2.5 m^3 disposal box
- Class B or C waste (including compacted Class B or C waste): HICs
- Solidified Class A, B or C solid waste: 55 gallon drums or 1.2 m^3 disposal box depending on size of waste item
- Solidified Class A, B or C liquid waste: 1.2 m^3 disposal box
- Solidified GTCC liquid waste: WIPP standard waste box
- GTCC waste: 55 gallon drum for smaller items or waste streams easily packed such as job control waste; standard waste box for larger items such as manipulator arms, filters, etc.
- Large Class A, B or C waste items too large to fit in "standard" waste packages: Engineered LLW containers
- Large GTCC waste items too large to fit in "standard" waste packages: Engineered GTCC containers
- Mixed waste: 55 gallon drums (or standard waste boxes for GTCC waste) unless too large to fit; then, engineered LLW containers or engineered GTCC containers

The preferred waste packages for blended waste for the initial scenario described by this report are as follows:

- Class A contaminated trash: 2.5 m^3 disposal box
- Class B or C contaminated trash: HICs
- GTCC contaminated trash: 55 gallon drum
- Class A, B or C contaminated equipment: engineered LLW container
- GTCC contaminated equipment: engineered GTCC container
- Class A, B or C solidified liquids: 1.2 m^3 disposal box
- Mixed Class A, B or C waste (other than contaminated equipment): 55 gallon drum
- Mixed GTCC waste (other than contaminated equipment): 55 gallon drum
- Mixed Class A, B or C contaminated equipment: mixed engineered LLW container
- Mixed GTCC contaminated equipment: mixed engineered GTCC container

Note that the selection of preferred packages for blended waste may not always be practical since many of the waste streams that comprise the blended waste stream are by themselves too large to fit in the preferred package; however, the use of a consistent package for blended waste minimizes the variability of the results.

3.0 RADIONUCLIDE INVENTORY RESULTS

The spreadsheet models for Co-Extraction, New-Extraction and UREX+1b were configured based on the parameters and protocol described in Section 2.0. Tables summarizing the results are provided in Appendices A through C. There are a total of 12 tables for each fuel cycle alternative. The 12 tables result from the 6 fuel types evaluated combined with two separate tables for mixed (hazardous and radioactive) waste streams and non-mixed (non-hazardous but radioactive) waste streams.

Each table provides the waste volume, waste mass and radionuclide content (in terms of Curies and mass) for both as generated waste and treated waste. Final packaged waste volume is also provided by waste package type. This information is provided for each waste classification category (i.e. Class A, B, C and GTCC) as well as the total based on the following 3 approaches to blending:

- None: Sum of the individual waste streams from each process function by waste classification
- Separate: Sum of the waste streams blended separately for operational, job control and maintenance waste streams for each process function
- Process Function: Sum of the waste streams blended across the entire process function

Tables 3.0-1 through 3.0-3 below compare the final packaged waste volumes and radionuclide concentrations for each fuel cycle alternative and fuel type to each other and to the estimates made previously that were based on the EAS/FOEAS data (see Reference 1). The packaged waste volumes and radionuclide concentrations based on summing the individual waste streams from each process function (identified as “None” above) are used since this approach is similar to the methodology used to produce the original EAS/FOEAS estimates (i.e. the EAS/FOEAS estimates did not consider blending of waste streams). The figures that follow the tables provide a graphical representation of the waste volumes contained in the tables.

Table 3.0-1
Comparison of Final Packaged Waste Volume for the Co-Extraction Process

Sceanrio	Parameter	Units [2]	Class A	Class B	Class C	Total Class A/B/C	GTCC	Mixed Class A	Mixed Class B	Mixed Class C	Total Class A/B/C	Mixed GTCC
EAS/FOEAS [1]	Waste Volume	m^3				7478.6	259.5				28.60	44.80
		% of Total				96.6	3.4				38.96	61.04
20 GWd burnup 5 years cooling	Waste Volume	m^3	5103.5	1701.9	989.6	7795.1	342.8	47.59	0.60	0.28	48.47	0.13
		% of Total	62.7	20.9	12.2	95.8	4.2	97.92	1.23	0.57	99.73	0.27
	Radionuclide Content	Curies	106.7	1463.7	40611.5	42181.9	13386.6	3.65	17.49	0.22	21.36	3.45
		% of Total	0.2	2.6	73.1	75.9	24.1	14.71	70.51	0.89	86.10	13.90
		$Curies/m^3$	0.0	0.9	41.0	5.4	39.0	0.08	29.14	0.79	0.44	26.40
20 GWd burnup 30 years cooling	Waste Volume	m^3	5145.4	1617.5	1008.0	7771.0	342.8	47.65	0.55	0.41	48.60	0.00
		% of Total	63.4	19.9	12.4	95.8	4.2	98.03	1.13	0.84	100.00	0.00
	Radionuclide Content	Curies	57.1	653.1	11239.7	11949.9	4615.0	1.02	4.84	1.23	7.09	0.00
		% of Total	0.3	3.9	67.9	72.1	27.9	14.37	68.22	17.41	100.00	0.00
		$Curies/m^3$	0.0	0.4	11.2	1.5	13.5	0.02	8.81	3.02	0.15	NA
40 GWd burnup 5 years cooling	Waste Volume	m^3	5077.6	1657.2	1107.4	7842.3	357.6	9.67	38.47	0.33	48.47	0.13
		% of Total	61.9	20.2	13.5	95.6	4.4	19.90	79.15	0.68	99.73	0.27
	Radionuclide Content	Curies	159.5	891.1	38769.8	39820.3	17391.0	0.26	19.79	0.26	20.31	3.65
		% of Total	0.3	1.6	67.8	69.6	30.4	1.10	82.59	1.10	84.78	15.22
		$Curies/m^3$	0.0	0.5	35.0	5.1	48.6	0.03	0.51	0.80	0.42	27.93
40 GWd burnup 30 years cooling	Waste Volume	m^3	5139.9	1589.5	1097.7	7827.2	357.6	47.59	0.55	0.33	48.47	0.13
		% of Total	62.8	19.4	13.4	95.6	4.4	97.92	1.13	0.68	99.73	0.27
	Radionuclide Content	Curies	81.3	428.2	12015.2	12524.7	6370.6	1.11	5.16	0.09	6.36	1.28
		% of Total	0.4	2.3	63.6	66.3	33.7	14.48	67.56	1.22	83.25	16.75
		$Curies/m^3$	0.0	0.3	10.9	1.6	17.8	0.02	9.40	0.28	0.13	9.80
60 GWd burnup 5 years cooling	Waste Volume	m^3	4143.3	1704.9	1432.2	7280.4	1016.7	9.67	38.41	0.38	48.47	0.13
		% of Total	49.9	20.6	17.3	87.7	12.3	19.90	79.04	0.79	99.73	0.27
	Radionuclide Content	Curies	69.2	868.8	36905.3	37843.3	19944.9	0.33	18.90	0.51	19.73	3.14
		% of Total	0.1	1.5	63.9	65.5	34.5	1.45	82.61	2.22	86.27	13.73
		$Curies/m^3$	0.0	0.5	25.8	5.2	19.6	0.03	0.49	1.32	0.41	24.04
60 GWd burnup 30 years cooling	Waste Volume	m^3	4926.3	1596.4	781.7	7304.4	804.3	47.59	0.49	0.38	48.47	0.13
		% of Total	60.8	19.7	9.6	90.1	9.9	97.92	1.02	0.79	99.73	0.27
	Radionuclide Content	Curies	80.2	429.4	11998.7	12508.3	7587.9	1.15	5.13	0.19	6.48	1.16
		% of Total	0.4	2.1	59.7	62.2	37.8	15.02	67.25	2.55	84.82	15.18
		$Curies/m^3$	0.0	0.3	15.4	1.7	9.4	0.02	10.39	0.51	0.13	8.87

1. EAS/FOEAS data is derived from FCRD-USED-2010-000033, Revision 2, June 2011, Appendix E
2. "% of Total" is the percent of the total of all waste (i.e. Class A, B and C plus GTCC).
3. Waste volumes are based on the sum of individual waste streams from each process function. The waste volumes shown do not reflect the results of blending waste streams.

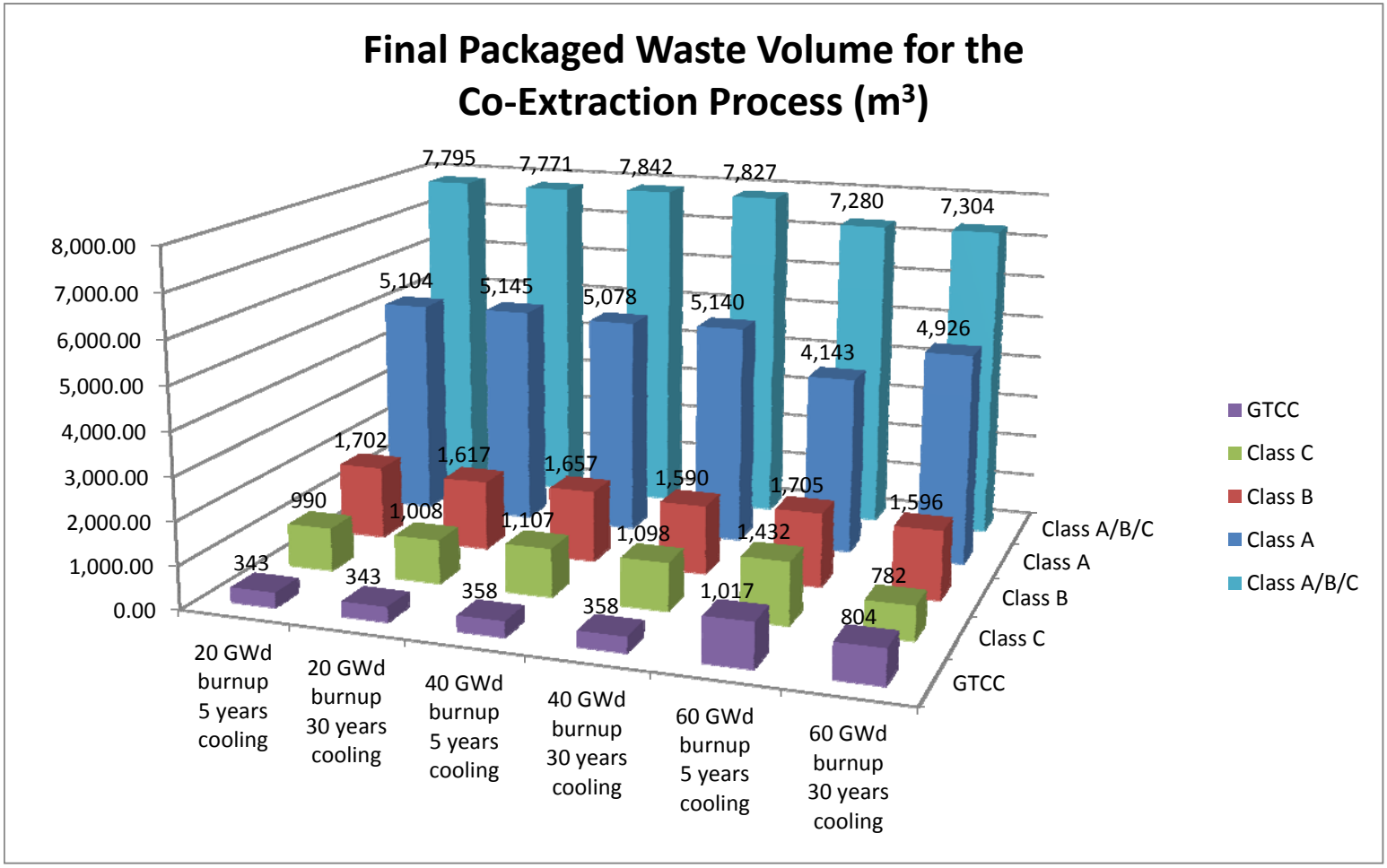

Figure 3.0-1
Final Packaged Waste Volume for the Co-Extraction Process (m^3)

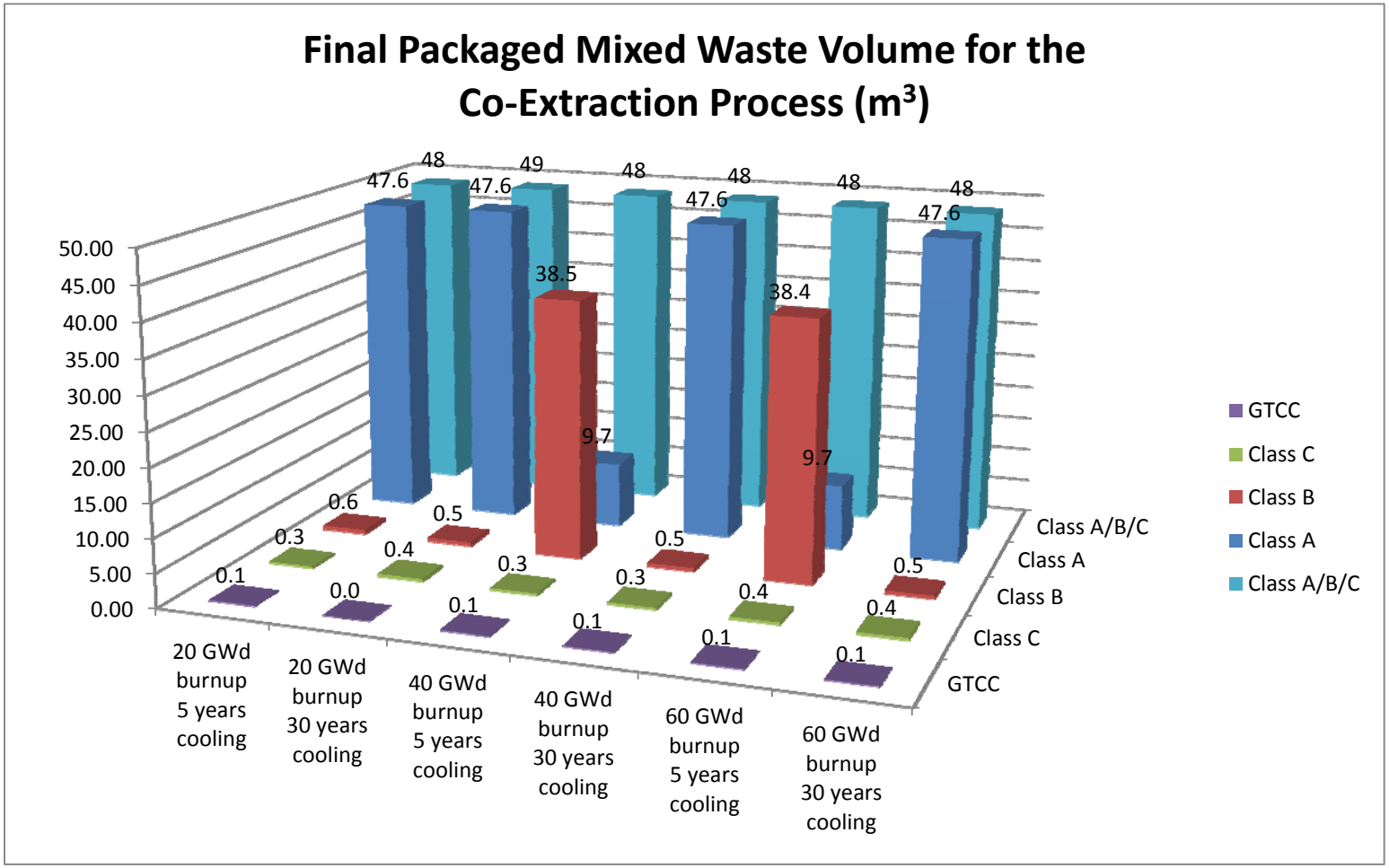

Figure 3.0-2
Final Packaged Mixed Waste Volume for the Co-Extraction Process (m^3)

Table 3.0-2
Comparison of Final Packaged Waste Volume for the New-Extraction Process

Sceanrio	Parameter	Units [2]	Class A	Class B	Class C	Total Class A/B/C	GTCC	Mixed Class A	Mixed Class B	Mixed Class C	Total Class A/B/C	Mixed GTCC
EAS/FOEAS [1]	Waste Volume	m^3				7590.3	476.2				29.80	44.80
		% of Total				94.1	5.9				39.95	60.05
20 GWd burnup 5 years cooling	Waste Volume	m^3	4999.1	1800.2	1018.2	7817.5	519.8	47.55	0.59	1.01	49.16	0.00
		% of Total	60.0	21.6	12.2	93.8	6.2	96.73	1.20	2.06	100.00	0.00
	Radionuclide Content	Curies	160.2	1492.2	41050.0	42702.3	72764.4	3.70	17.48	8.16	29.34	0.00
		% of Total	0.1	1.3	35.6	37.0	63.0	12.59	59.59	27.82	100.00	0.00
		$Curies/m^3$	0.0	0.8	40.3	5.5	140.0	0.08	29.53	8.04	0.60	NA
20 GWd burnup 30 years cooling	Waste Volume	m^3	5098.4	1652.5	1038.8	7789.7	532.8	47.59	0.55	0.88	49.03	0.13
		% of Total	61.3	19.9	12.5	93.6	6.4	96.82	1.12	1.80	99.73	0.27
	Radionuclide Content	Curies	78.1	660.5	11386.2	12124.8	28366.0	1.03	4.84	0.85	6.72	2.72
		% of Total	0.2	1.6	28.1	29.9	70.1	10.95	51.25	8.97	71.17	28.83
		$Curies/m^3$	0.0	0.4	11.0	1.6	53.2	0.02	8.81	0.96	0.14	20.85
40 GWd burnup 5 years cooling	Waste Volume	m^3	4799.2	1743.3	1273.7	7816.2	613.4	9.67	38.47	0.61	48.75	0.41
		% of Total	56.9	20.7	15.1	92.7	7.3	19.68	78.26	1.23	99.17	0.83
	Radionuclide Content	Curies	150.6	896.0	38970.9	40017.5	62940.5	0.31	19.79	0.78	20.88	7.81
		% of Total	0.2	0.9	37.9	38.9	61.1	1.07	68.98	2.72	72.77	27.23
		$Curies/m^3$	0.0	0.5	30.6	5.1	102.6	0.03	0.51	1.29	0.43	19.13
40 GWd burnup 30 years cooling	Waste Volume	m^3	4857.0	1658.0	784.1	7299.1	1000.0	47.55	0.59	0.61	48.75	0.41
		% of Total	58.5	20.0	9.5	88.0	12.1	96.73	1.20	1.23	99.17	0.83
	Radionuclide Content	Curies	88.9	430.2	11944.2	12463.3	33125.6	1.14	5.17	0.55	6.86	3.59
		% of Total	0.2	0.9	26.2	27.3	72.7	10.89	49.50	5.26	65.65	34.35
		$Curies/m^3$	0.0	0.3	15.2	1.7	33.1	0.02	8.73	0.91	0.14	8.78
60 GWd burnup 5 years cooling	Waste Volume	m^3	3584.0	1749.2	2013.3	7346.6	1249.3	9.40	38.41	0.38	48.20	0.96
		% of Total	41.7	20.4	23.4	85.5	14.5	19.11	78.14	0.78	98.04	1.96
	Radionuclide Content	Curies	59.3	878.5	37063.4	38001.1	82689.5	0.32	18.91	0.46	19.68	9.19
		% of Total	0.1	0.7	30.7	31.5	68.5	1.09	65.49	1.60	68.18	31.82
		$Curies/m^3$	0.0	0.5	18.4	5.2	66.2	0.03	0.49	1.20	0.41	9.53
60 GWd burnup 30 years cooling	Waste Volume	m^3	3697.2	1667.3	2037.7	7402.2	1172.7	47.27	0.54	0.94	48.75	0.41
		% of Total	43.1	19.4	23.8	86.3	13.7	96.17	1.09	1.91	99.17	0.83
	Radionuclide Content	Curies	46.1	432.7	12049.6	12528.5	35445.6	1.14	5.14	0.73	7.01	3.77
		% of Total	0.1	0.9	25.1	26.1	73.9	10.55	47.71	6.74	65.00	35.00
		$Curies/m^3$	0.0	0.3	5.9	1.7	30.2	0.02	9.58	0.77	0.14	9.24

1. EAS/FOEAS data is derived from FCRD-USED-2010-000033, Revision 2, June 2011, Appendix F
2. "% of Total" is the percent of the total of all waste (i.e. Class A, B and C plus GTCC).
3. Waste volumes are based on the sum of individual waste streams from each process function. The waste volumes shown do not reflect the results of blending waste streams.

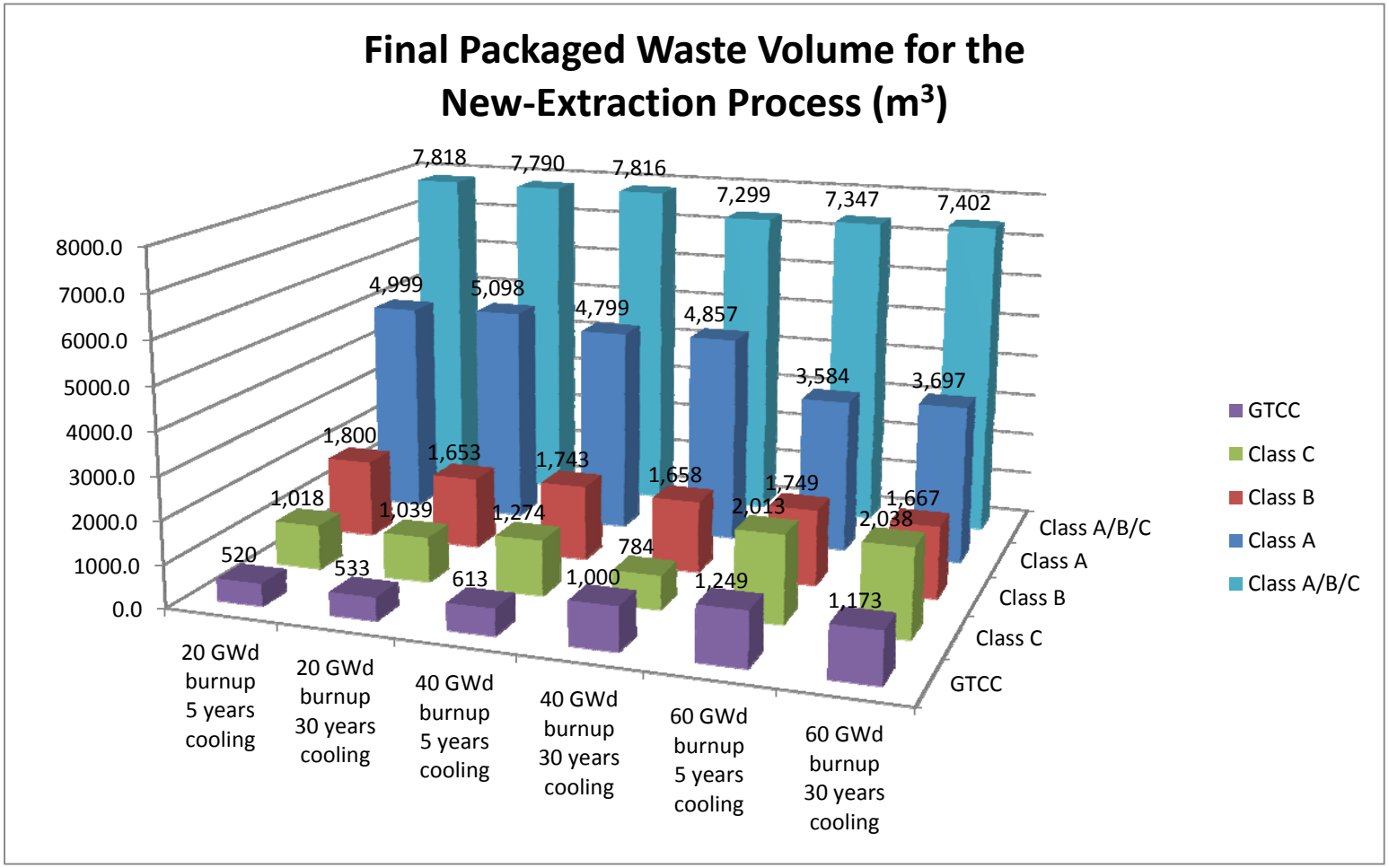

Figure 3.0-3
Final Packaged Waste Volume for the New-Extraction Process (m^3)

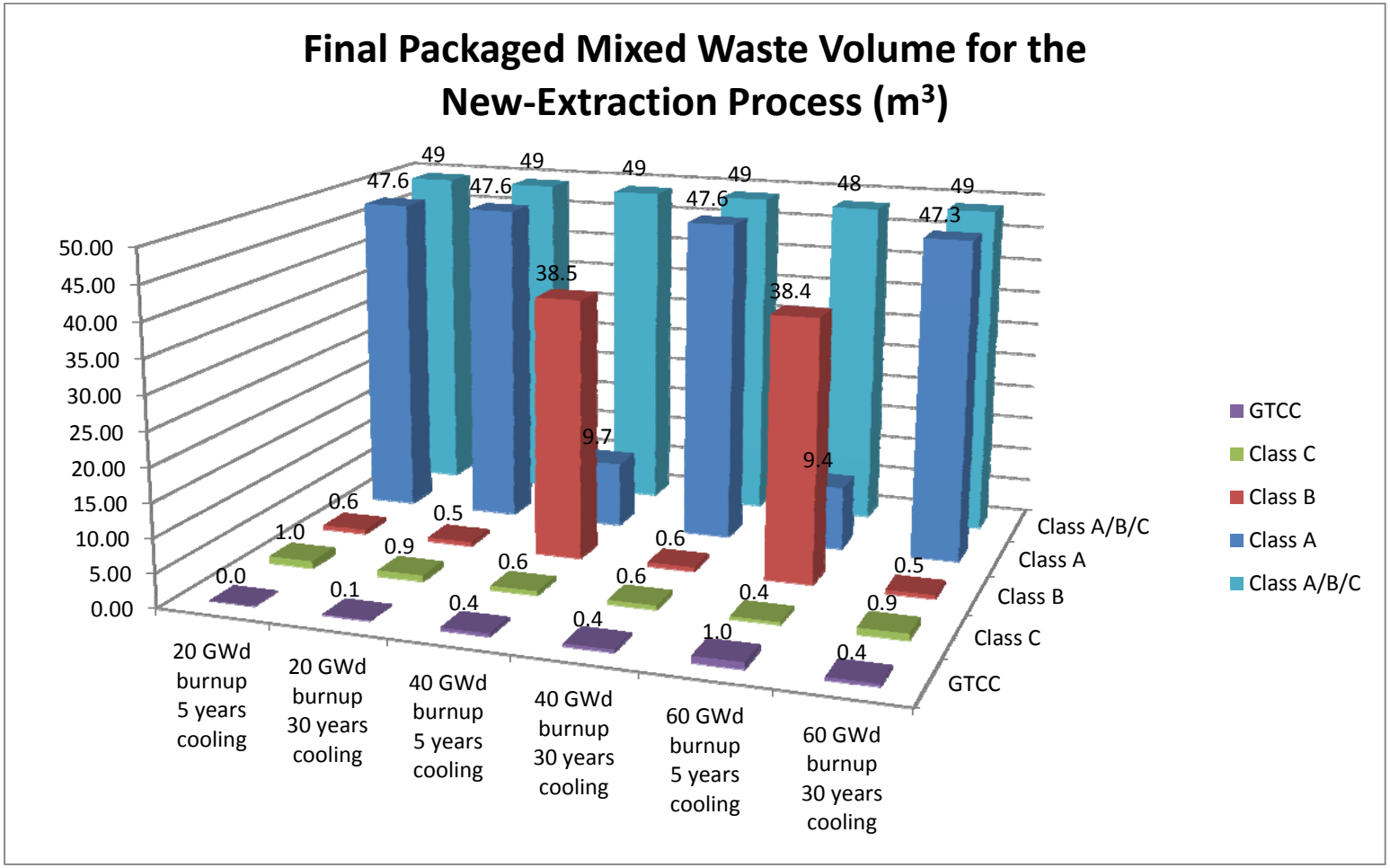

Figure 3.0-4
Final Packaged Mixed Waste Volume for the New-Extraction Process (m^3)

Table 3.0-3
Comparison of Final Packaged Waste Volume for the UREX+1b Process

Sceanrio	Parameter	Units [2]	Class A	Class B	Class C	Total Class A/B/C	GTCC	Mixed Class A	Mixed Class B	Mixed Class C	Total Class A/B/C	Mixed GTCC
EAS/FOEAS [1]	Waste Volume	m^3				7801.1	1166.0				32.20	76.90
		% of Total				87.0	13.0				29.51	70.49
20 GWd burnup 5 years cooling	Waste Volume	m^3	5311.2	1848.7	945.8	8105.8	617.9	53.00	23.67	0.90	77.57	0.00
		% of Total	60.9	21.2	10.8	92.9	7.1	68.32	30.52	1.16	100.00	0.00
	Radionuclide Content	Curies	1167.0	33243.7	77798.6	112209.3	97205.2	17.11	4.98	21.50	43.59	0.00
		% of Total	0.6	15.9	37.2	53.6	46.4	39.25	11.43	49.32	100.00	0.00
		$Curies/m^3$	0.2	18.0	82.3	13.8	157.3	0.32	0.21	23.92	0.56	NA
20 GWd burnup 30 years cooling	Waste Volume	m^3	5448.7	1666.0	961.1	8075.9	617.4	53.00	23.62	0.95	77.57	0.00
		% of Total	62.7	19.2	11.1	92.9	7.1	68.32	30.45	1.22	100.00	0.00
	Radionuclide Content	Curies	5212.7	1927.8	40453.5	47594.0	36939.6	3.29	2.55	10.74	16.58	0.00
		% of Total	6.2	2.3	47.9	56.3	43.7	19.87	15.40	64.74	100.00	0.00
		$Curies/m^3$	1.0	1.2	42.1	5.9	59.8	0.06	0.11	11.30	0.21	NA
40 GWd burnup 5 years cooling	Waste Volume	m^3	5055.2	1857.4	1198.6	8111.2	695.7	52.68	23.66	0.95	77.29	0.28
		% of Total	57.4	21.1	13.6	92.1	7.9	67.91	30.51	1.22	99.64	0.36
	Radionuclide Content	Curies	627.9	27849.8	79153.9	107631.5	99608.0	14.47	5.10	21.12	40.69	0.61
		% of Total	0.3	13.4	38.2	51.9	48.1	35.04	12.35	51.13	98.51	1.49
		$Curies/m^3$	0.1	15.0	66.0	13.3	143.2	0.27	0.22	22.24	0.53	2.21
40 GWd burnup 30 years cooling	Waste Volume	m^3	5243.7	1680.8	1143.9	8068.4	695.2	52.72	23.62	0.95	77.29	0.28
		% of Total	59.8	19.2	13.1	92.1	7.9	67.96	30.45	1.22	99.64	0.36
	Radionuclide Content	Curies	5448.7	1814.8	39445.9	46709.4	39449.5	3.50	2.52	10.34	16.36	0.20
		% of Total	6.3	2.1	45.8	54.2	45.8	21.16	15.21	62.43	98.80	1.20
		$Curies/m^3$	1.0	1.1	34.5	5.8	56.7	0.07	0.11	10.89	0.21	0.72
60 GWd burnup 5 years cooling	Waste Volume	m^3	3828.2	1878.8	2015.3	7722.2	1307.9	52.55	23.61	0.58	76.74	0.83
		% of Total	42.4	20.8	22.3	85.5	14.5	67.74	30.44	0.75	98.93	1.07
	Radionuclide Content	Curies	479.0	24807.8	79348.8	104635.6	100101.1	12.85	4.96	20.41	38.22	1.76
		% of Total	0.2	12.1	38.8	51.1	48.9	32.14	12.40	51.05	95.59	4.41
		$Curies/m^3$	0.1	13.2	39.4	13.5	76.5	0.24	0.21	35.21	0.50	2.12
60 GWd burnup 30 years cooling	Waste Volume	m^3	3996.8	1721.2	2010.9	7728.9	1265.1	52.59	23.57	0.86	77.01	0.56
		% of Total	44.4	19.1	22.4	85.9	14.1	67.80	30.38	1.11	99.28	0.72
	Radionuclide Content	Curies	5420.5	1811.4	38541.7	45773.7	40632.5	3.51	2.40	10.17	16.08	0.32
		% of Total	6.3	2.1	44.6	53.0	47.0	21.38	14.62	62.03	98.04	1.96
		$Curies/m^3$	1.4	1.1	19.2	5.9	32.1	0.07	0.10	11.86	0.21	0.58

1. EAS/FOEAS data is derived from FCRD-USED-2010-000033, Revision 2, June 2011, Appendix D
2. "% of Total" is the percent of the total of all waste (i.e. Class A, B and C plus GTCC).
3. Waste volumes are based on the sum of individual waste streams from each process function. The waste volumes shown do not reflect the results of blending waste streams.

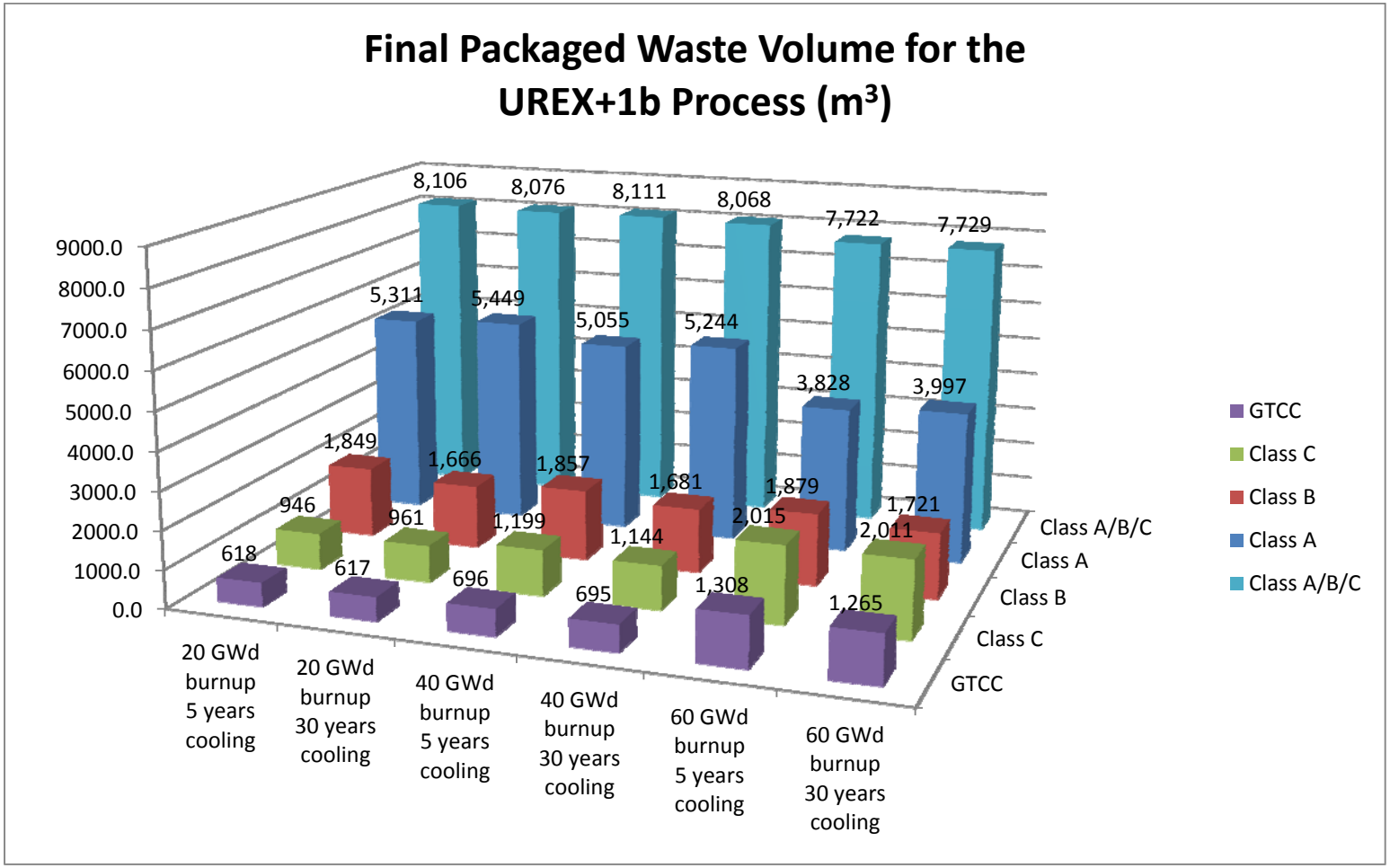

Figure 3.0-5
Final Packaged Waste Volume for the UREX+1b Process (m^3)

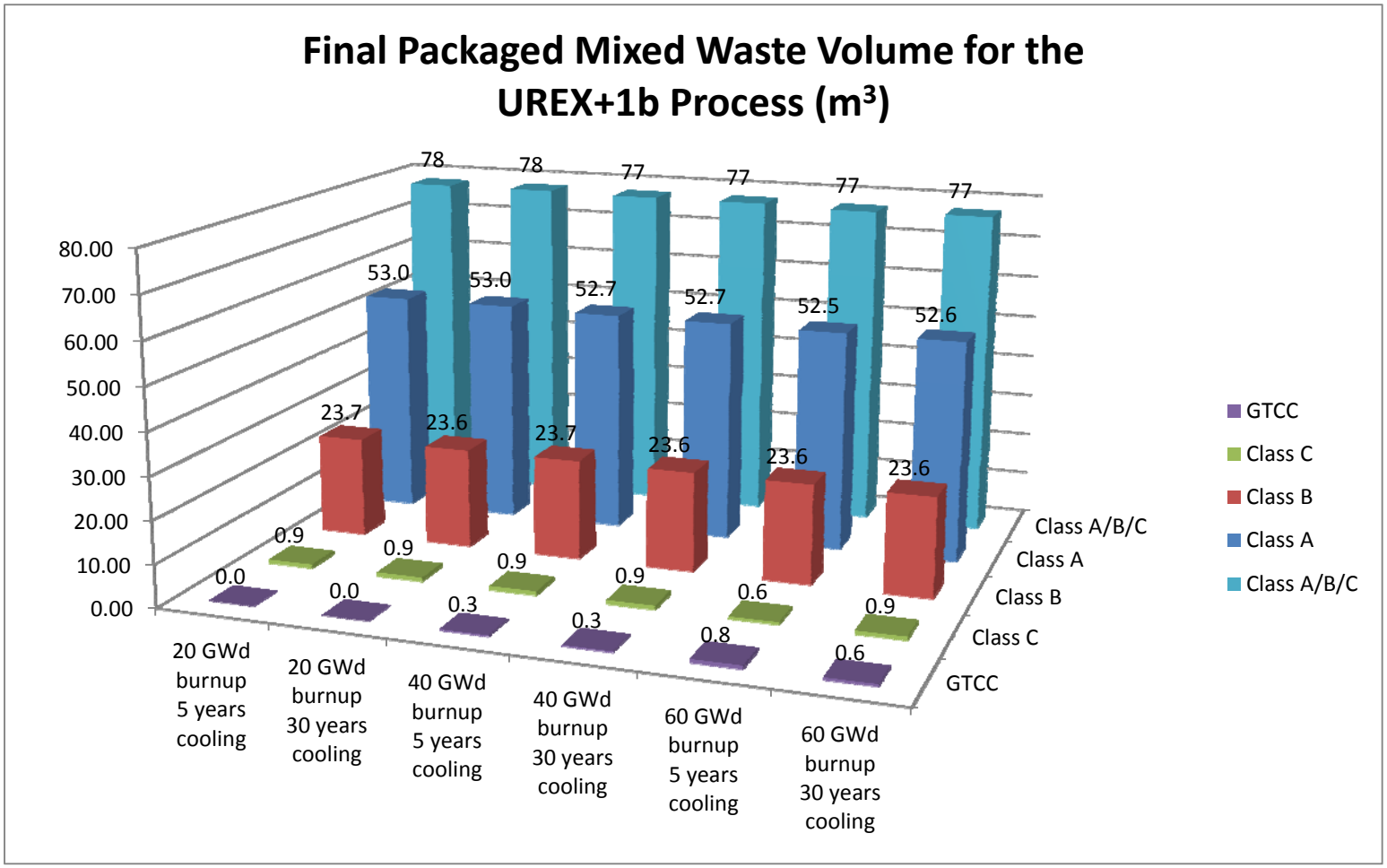

Figure 3.0-6
Final Packaged Mixed Waste Volume for the UREX+1b Process (m^3)

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4.0 REFERENCES

1. FCRD-USED-2010-000033, *Low Level Waste Disposition – Quantity and Inventory*, Revision 2, June 2011
2. FCRD-USED-2012-000186, *Low Level Waste Radionuclide Inventory*, Revision 0, August 2012
3. Nuclear Regulatory Commission, *Branch Technical Position on Concentration Averaging and Encapsulation*, Draft, Version A, Revision 8(2)

Note: FCRD-USED-2012-000186 was in draft form at the time this report was written. At that time it was expected that Revision 0 of FCRD-USED-2012-000186 would be issued in August 2012.

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Appendix A

Summary Data for Co-Extraction

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Overall Summary of Waste Stream Data for the Co-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,271.07	1,522.64	2,530.13	1,196.59	24,520.43	18,719.54	1,803.90	3,030.61	966.38	24,520.43	18,719.54	1,800.70	3,023.85	976.34	24,520.43
		% of Total	78.59	6.21	10.32	4.88		76.34	7.36	12.36	3.94		76.34	7.34	12.33	3.98	
	Waste Mass	kilograms	3,448,551.30	1,925,590.83	380,934.93	220,894.36	5,975,971.42	3,322,485.47	1,976,504.38	478,695.13	198,286.44	5,975,971.42	3,322,485.47	1,973,721.78	458,669.33	221,094.84	5,975,971.42
		% of Total	57.71	32.22	6.37	3.7		55.6	33.07	8.01	3.32		55.6	33.03	7.68	3.7	
	Radionuclide Content	Curies	172.96	33,898.91	8,110.94	13,386.56	55,569.37	136.88	34,137.80	9,186.20	12,108.50	55,569.37	136.88	34,134.06	9,181.17	12,117.27	55,569.37
		% of Total	0.31	61	14.6	24.09		0.25	61.43	16.53	21.79		0.25	61.43	16.52	21.81	
	Radionuclide Content	grams	3,240.81	417,040.28	2,942.28	16,602.16	439,825.54	3,567.65	417,371.90	6,665.32	12,220.68	439,825.54	3,567.65	417,359.01	6,675.92	12,222.96	439,825.54
		% of Total	0.74	94.82	0.67	3.77		0.81	94.89	1.52	2.78		0.81	94.89	1.52	2.78	
Treated	Waste Volume	m^3	4,976.31	1,640.68	810.48	328.86	7,756.33	4,763.99	1,689.45	997.37	305.52	7,756.33	4,744.07	1,673.75	1,013.07	325.44	7,756.33
		% of Total	64.16	21.15	10.45	4.24		61.42	21.78	12.86	3.94		61.16	21.58	13.06	4.2	
	Waste Volume Reduction	%	74.18	-7.75	67.97	72.52	68.37	74.55	6.34	67.09	68.38	68.37	74.66	7.05	66.50	66.67	68.37
	Waste Mass	kilograms	3,521,982.00	6,041,482.93	405,664.13	220,894.36	10,190,023.42	3,402,845.87	6,048,191.58	530,139.53	208,846.44	10,190,023.42	3,358,125.47	6,038,175.58	540,155.53	253,566.84	10,190,023.42
		% of Total	34.56	59.29	3.98	2.17		33.39	59.35	5.2	2.05		32.96	59.26	5.3	2.49	
	Radionuclide Content	Curies	107.60	1,463.71	40,611.51	13,386.56	55,569.37	145.64	1,369.95	41,945.28	12,108.50	55,569.37	136.88	1,295.18	42,020.05	12,117.27	55,569.37
		% of Total	0.19	2.63	73.08	24.09		0.26	2.47	75.48	21.79		0.25	2.33	75.62	21.81	
	Radionuclide Content	grams	3,236.44	414,159.53	5,827.40	16,602.16	439,825.54	3,569.93	414,461.35	9,573.59	12,220.68	439,825.54	3,567.65	414,442.16	9,592.78	12,222.96	439,825.54
		% of Total	0.74	94.16	1.32	3.77		0.81	94.23	2.18	2.78		0.81	94.23	2.18	2.78	
Packaged	Volume - LLW Drum	m^3	0.00	0.61	0.00		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	100	0	0											
	Volume - Standard LLW Box	m^3	4,769.75	0.00	0.00		4,769.75	5,145.92	0.00	0.00		5,145.92	5,145.92	0.00	0.00		5,145.92
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	271.21	88.75	367.16		727.12	125.27	183.06	172.54		480.87	125.27	183.06	172.54		480.87
		% of Total	37.3	12.21	50.5	0		26.05	38.07	35.88	0		26.05	38.07	35.88	0	
	Volume - High Integrity Container	m^3	0.00	81.96	622.47	0.00	704.42	0.00	36.14	1,231.93	0.00	1,268.07	0.00	13.17	1,254.90	0.00	1,268.07
		% of Total	0	11.63	88.37	0		0	2.85	97.15	0		0	1.04	98.96	0	
	Volume - Solidified LLW Box	m^3	62.57	1,530.61	0.00		1,593.18	20.33	1,530.61	0.00		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	3.93	96.07	0	0		1.31	98.69	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				253.01	253.01				224.42	224.42				246.55	246.55
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				2.76	2.76				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				87.07	87.07				115.05	115.05				115.05	115.05
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,103.53	1,701.93	989.63	342.84	8,137.93	5,291.51	1,749.80	1,404.47	339.47	8,785.26	5,271.18	1,726.84	1,427.44	361.60	8,787.07
		% of Total	62.71	20.91	12.16	4.21		60.23	19.92	15.99	3.86		59.99	19.65	16.24	4.12	
	Waste Volume Increase (relative to treated waste volume)	%	2.56	3.73	22.10	4.25	4.92	11.07	3.57	40.82	11.11	13.27	11.11	3.17	40.90	11.11	13.29
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.52	-11.78	60.89	71.35	66.81	71.73	3	53.66	64.87	64.17	71.84	4.1	52.79	62.96	64.16

Overall Summary of Mixed Waste Stream Data for the Co-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	74.98	0.40	0.25	0.06	75.70	74.98	0.40	0.25	0.06	75.70	74.98	0.40	0.25	0.06	75.70
		% of Total	99.05	0.53	0.33	0.08		99.05	0.53	0.33	0.08		99.05	0.53	0.33	0.08	
	Waste Mass	kilograms	24,221.87	1,930.70	190.50	723.20	27,066.27	24,221.87	1,930.70	190.50	723.20	27,066.27	24,221.87	1,930.70	190.50	723.20	27,066.27
		% of Total	89.49	7.13	0.7	2.67		89.49	7.13	0.7	2.67		89.49	7.13	0.7	2.67	
	Radionuclide Content	Curies	3.66	17.48	0.22	3.45	24.81	3.66	17.48	0.22	3.45	24.81	3.66	17.48	0.22	3.45	24.81
		% of Total	14.76	70.46	0.89	13.9		14.76	70.46	0.89	13.9		14.76	70.46	0.89	13.9	
	Radionuclide Content	grams	0.90	1.95	0.06	0.90	3.81	0.90	1.95	0.06	0.90	3.81	0.90	1.95	0.06	0.90	3.81
		% of Total	23.72	51.22	1.5	23.55		23.72	51.22	1.5	23.55		23.72	51.22	1.5	23.55	
Treated	Waste Volume	m^3	42.87	0.57	0.25	0.13	43.81	42.87	0.57	0.25	0.13	43.81	42.87	0.57	0.25	0.13	43.81
		% of Total	97.85	1.29	0.57	0.29		97.85	1.29	0.57	0.29		97.85	1.29	0.57	0.29	
	Waste Volume Reduction	%	42.83	-40.10	0.00	-100.00	42.13	42.83	-40.10	0.00	-100.00	42.13	42.83	-40.10	0.00	-100.00	42.13
	Waste Mass	kilograms	24,556.77	2,027.00	190.50	864.00	27,638.27	24,556.77	2,027.00	190.50	864.00	27,638.27	24,556.77	2,027.00	190.50	864.00	27,638.27
		% of Total	88.85	7.33	0.69	3.13		88.85	7.33	0.69	3.13		88.85	7.33	0.69	3.13	
	Radionuclide Content	Curies	3.65	17.49	0.22	3.45	24.81	3.65	17.49	0.22	3.45	24.81	3.65	17.49	0.22	3.45	24.81
		% of Total	14.71	70.51	0.89	13.9		14.71	70.51	0.89	13.9		14.71	70.51	0.89	13.9	
	Radionuclide Content	grams	0.83	2.02	0.06	0.90	3.81	0.83	2.02	0.06	0.90	3.81	0.83	2.02	0.06	0.90	3.81
		% of Total	21.8	53.14	1.5	23.55		21.8	53.14	1.5	23.55		21.8	53.14	1.5	23.55	
Packaged	Volume - Mixed LLW Drum	m^3	9.72	0.60	0.28		10.60	9.75	0.63	0.28		10.66	9.75	0.63	0.28		10.66
		% of Total	91.71	5.67	2.62	0		91.49	5.9	2.61	0		91.49	5.9	2.61	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.13	0.13				0.14	0.14				0.14	0.14
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.59	0.60	0.28	0.13	48.60	47.63	0.63	0.28	0.14	48.68	47.63	0.63	0.28	0.14	48.68
		% of Total	97.92	1.23	0.57	0.27		97.85	1.29	0.57	0.29		97.85	1.29	0.57	0.29	
	Waste Volume Increase (relative to treated waste volume)	%	11.03	6.05	11.11	2.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.53	-48.57	-11.11	-104.08	35.79	36.48	-55.67	-11.11	-122.22	35.7	36.48	-55.67	-11.11	-122.22	35.7

Overall Summary of Waste Stream Data for the Co-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,287.39	1,501.39	2,535.06	1,196.59	24,520.43	18,729.50	1,791.70	2,299.72	1,699.52	24,520.43	18,719.54	1,791.70	2,296.52	1,712.68	24,520.43
		% of Total	78.66	6.12	10.34	4.88		76.38	7.31	9.38	6.93		76.34	7.31	9.37	6.98	
	Waste Mass	kilograms	3,474,963.63	1,907,426.50	372,686.93	220,894.36	5,975,971.42	3,345,293.87	1,967,421.78	360,962.59	302,293.18	5,975,971.42	3,322,485.47	1,967,421.78	358,179.99	327,884.18	5,975,971.42
		% of Total	58.15	31.92	6.24	3.7		55.98	32.92	6.04	5.06		55.6	32.92	5.99	5.49	
	Radionuclide Content	Curies	57.02	9,641.69	2,251.53	4,614.98	16,565.22	50.50	9,681.41	2,252.45	4,580.86	16,565.22	47.55	9,681.41	2,251.11	4,585.15	16,565.22
		% of Total	0.34	58.2	13.59	27.86		0.3	58.44	13.6	27.65		0.29	58.44	13.59	27.68	
	Radionuclide Content	grams	3,243.89	416,989.66	2,989.82	16,602.16	439,825.54	3,569.93	417,337.09	2,603.92	16,314.60	439,825.54	3,567.65	417,337.09	2,591.04	16,329.76	439,825.54
		% of Total	0.74	94.81	0.68	3.77		0.81	94.89	0.59	3.71		0.81	94.89	0.59	3.71	
Treated	Waste Volume	m^3	5,016.17	1,577.14	824.19	328.86	7,746.37	4,754.03	1,822.65	660.07	509.62	7,746.37	4,744.07	1,822.65	657.24	522.41	7,746.37
		% of Total	64.76	20.36	10.64	4.25		61.37	23.53	8.52	6.58		61.24	23.53	8.48	6.74	
	Waste Volume Reduction	%	73.99	-5.05	67.49	72.52	68.41	74.62	-1.73	71.30	70.01	68.41	74.66	-1.73	71.38	69.50	68.41
	Waste Mass	kilograms	3,527,034.03	5,999,958.50	420,224.53	220,894.36	10,168,111.42	3,380,933.87	6,112,701.78	361,622.59	312,853.18	10,168,111.42	3,358,125.47	6,112,701.78	358,179.99	339,104.18	10,168,111.42
		% of Total	34.69	59.01	4.13	2.17		33.25	60.12	3.56	3.08		33.03	60.12	3.52	3.33	
	Radionuclide Content	Curies	57.38	653.11	11,239.75	4,614.98	16,565.22	50.50	9,681.41	2,252.45	4,580.86	16,565.22	47.55	9,681.41	2,251.11	4,585.15	16,565.22
		% of Total	0.35	3.94	67.85	27.86		0.3	58.44	13.6	27.65		0.29	58.44	13.59	27.68	
	Radionuclide Content	grams	3,244.17	414,101.98	5,877.23	16,602.16	439,825.54	3,569.93	417,337.09	2,603.92	16,314.60	439,825.54	3,567.65	417,337.09	2,591.04	16,329.76	439,825.54
		% of Total	0.74	94.15	1.34	3.77		0.81	94.89	0.59	3.71		0.81	94.89	0.59	3.71	
Packaged	Volume - LLW Drum	m^3	0.00	0.61	0.00		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	100	0	0											
	Volume - Standard LLW Box	m^3	4,827.75	0.00	0.00		4,827.75	5,156.98	0.00	0.00		5,156.98	5,145.92	0.00	0.00		5,145.92
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	275.45	79.27	372.40		727.12	125.27	183.06	138.26		446.59	125.27	183.06	138.26		446.59
		% of Total	37.88	10.9	51.22	0		28.05	40.99	30.96	0		28.05	40.99	30.96	0	
	Volume - High Integrity Container	m^3	0.00	6.99	635.63	0.00	642.62	0.00	231.00	783.61	0.00	1,014.61	0.00	231.00	779.47	0.00	1,010.48
		% of Total	0	1.09	98.91	0		0	22.77	77.23	0		0	22.86	77.14	0	
	Volume - Solidified LLW Box	m^3	42.24	1,530.61	0.00		1,572.86	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.69	97.31	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				253.01	253.01				416.92	416.92				431.12	431.12
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				2.76	2.76				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				87.07	87.07				149.33	149.33				149.33	149.33
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,145.45	1,617.48	1,008.03	342.84	8,113.80	5,282.25	1,944.67	921.87	566.25	8,715.04	5,271.18	1,944.67	917.74	580.45	8,714.05
		% of Total	63.42	19.93	12.42	4.23		60.61	22.31	10.58	6.5		60.49	22.32	10.53	6.66	
	Waste Volume Increase (relative to treated waste volume)	%	2.58	2.56	22.30	4.25	4.74	11.11	6.69	39.66	11.11	12.50	11.11	6.69	39.63	11.11	12.49
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.32	-7.73	60.24	71.35	66.91	71.8	-8.54	59.91	66.68	64.46	71.84	-8.54	60.04	66.11	64.46

Overall Summary of Mixed Waste Stream Data for the Co-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	75.00	0.38	0.31	0.00	75.70	75.00	0.38	0.31	0.00	75.70	75.00	0.38	0.31	0.00	75.70
		% of Total	99.08	0.51	0.41	0		99.08	0.51	0.41	0		99.08	0.51	0.41	0	
	Waste Mass	kilograms	24,459.17	1,693.40	913.70	0.00	27,066.27	24,459.17	1,693.40	913.70	0.00	27,066.27	24,459.17	1,693.40	913.70	0.00	27,066.27
		% of Total	90.37	6.26	3.38	0		90.37	6.26	3.38	0		90.37	6.26	3.38	0	
	Radionuclide Content	Curies	1.02	4.84	1.23	0.00	7.09	1.02	4.84	1.23	0.00	7.09	1.02	4.84	1.23	0.00	7.09
		% of Total	14.37	68.22	17.41	0		14.37	68.22	17.41	0		14.37	68.22	17.41	0	
	Radionuclide Content	grams	0.93	1.92	0.95	0.00	3.81	0.93	1.92	0.95	0.00	3.81	0.93	1.92	0.95	0.00	3.81
		% of Total	24.5	50.45	25.05	0		24.5	50.45	25.05	0		24.5	50.45	25.05	0	
Treated	Waste Volume	m^3	42.92	0.52	0.38	0.00	43.81	42.92	0.52	0.38	0.00	43.81	42.92	0.52	0.38	0.00	43.81
		% of Total	97.96	1.18	0.86	0		97.96	1.18	0.86	0		97.96	1.18	0.86	0	
	Waste Volume Reduction	%	42.78	-34.73	-20.38		42.13	42.78	-34.73	-20.38		42.13	42.78	-34.73	-20.38		42.13
	Waste Mass	kilograms	24,597.77	1,986.00	1,054.50	0.00	27,638.27	24,597.77	1,986.00	1,054.50	0.00	27,638.27	24,597.77	1,986.00	1,054.50	0.00	27,638.27
		% of Total	89	7.19	3.82	0		89	7.19	3.82	0		89	7.19	3.82	0	
	Radionuclide Content	Curies	1.02	4.84	1.23	0.00	7.09	1.02	4.84	1.23	0.00	7.09	1.02	4.84	1.23	0.00	7.09
		% of Total	14.37	68.22	17.41	0		14.37	68.22	17.41	0		14.37	68.22	17.41	0	
	Radionuclide Content	grams	0.93	1.92	0.95	0.00	3.81	0.93	1.92	0.95	0.00	3.81	0.93	1.92	0.95	0.00	3.81
		% of Total	24.5	50.45	25.05	0		24.5	50.45	25.05	0		24.5	50.45	25.05	0	
Packaged	Volume - Mixed LLW Drum	m^3	9.77	0.55	0.41		10.73	9.81	0.57	0.28		10.66	9.81	0.57	0.28		10.66
		% of Total	91.07	5.12	3.81	0		92.01	5.38	2.61	0		92.01	5.38	2.61	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.65	0.55	0.41	0.00	48.60	47.68	0.57	0.28	0.00	48.54	47.68	0.57	0.28	0.00	48.54
		% of Total	98.03	1.13	0.84	0		98.25	1.18	0.57	0		98.25	1.18	0.57	0	
	Waste Volume Increase (relative to treated waste volume)	%	11.02	6.44	8.04		10.94	11.11	11.11	-26.51		10.79	11.11	11.11	-26.51		10.79
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.47	-43.4	-30.06		35.79	36.42	-49.7	11.54		35.88	36.42	-49.7	11.54		35.88

Overall Summary of Waste Stream Data for the Co-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,217.36	1,490.08	2,555.57	1,257.42	24,520.43	18,719.54	1,712.05	2,327.11	1,761.74	24,520.43	18,719.54	1,712.05	2,313.95	1,774.90	24,520.43
		% of Total	78.37	6.08	10.42	5.13		76.34	6.98	9.49	7.18		76.34	6.98	9.44	7.24	
	Waste Mass	kilograms	3,436,416.23	1,880,236.66	429,996.51	229,322.02	5,975,971.42	3,322,485.47	1,932,495.44	387,793.75	333,196.76	5,975,971.42	3,322,485.47	1,932,495.44	362,202.75	358,787.76	5,975,971.42
		% of Total	57.5	31.46	7.2	3.84		55.6	32.34	6.49	5.58		55.6	32.34	6.06	6	
	Radionuclide Content	Curies	222.50	31,395.43	8,203.93	17,391.03	57,212.88	234.21	31,867.72	7,637.12	17,473.83	57,212.88	234.21	31,867.72	7,621.25	17,489.70	57,212.88
		% of Total	0.39	54.87	14.34	30.4		0.41	55.7	13.35	30.54		0.41	55.7	13.32	30.57	
	Radionuclide Content	grams	3,239.11	416,916.65	2,970.17	16,699.60	439,825.54	3,567.65	417,246.15	2,206.56	16,805.18	439,825.54	3,567.65	417,246.15	2,191.39	16,820.34	439,825.54
		% of Total	0.74	94.79	0.68	3.8		0.81	94.87	0.5	3.82		0.81	94.87	0.5	3.82	
Treated	Waste Volume	m^3	4,952.14	1,603.07	854.17	342.16	7,751.53	4,763.99	1,597.97	845.67	543.90	7,751.53	4,744.07	1,585.10	855.72	566.65	7,751.53
		% of Total	63.89	20.68	11.02	4.41		61.46	20.61	10.91	7.02		61.2	20.45	11.04	7.31	
	Waste Volume Reduction	%	74.23	-7.58	66.58	72.79	68.39	74.55	6.66	63.66	69.13	68.39	74.66	7.42	63.02	68.07	68.39
	Waste Mass	kilograms	3,498,901.78	5,995,263.51	455,976.11	229,322.02	10,179,463.42	3,402,845.87	6,003,522.64	439,898.15	333,196.76	10,179,463.42	3,358,125.47	5,996,949.24	443,028.95	381,359.76	10,179,463.42
		% of Total	34.37	58.9	4.48	2.25		33.43	58.98	4.32	3.27		32.99	58.91	4.35	3.75	
	Radionuclide Content	Curies	161.02	891.08	38,769.76	17,391.03	57,212.88	243.49	1,050.49	38,445.07	17,473.83	57,212.88	234.21	983.68	38,505.28	17,489.70	57,212.88
		% of Total	0.28	1.56	67.76	30.4		0.43	1.84	67.2	30.54		0.41	1.72	67.3	30.57	
	Radionuclide Content	grams	3,234.31	414,036.05	5,855.57	16,699.60	439,825.54	3,569.93	414,335.61	5,114.82	16,805.18	439,825.54	3,567.65	414,329.30	5,108.25	16,820.34	439,825.54
		% of Total	0.74	94.14	1.33	3.8		0.81	94.2	1.16	3.82		0.81	94.2	1.16	3.82	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	4,768.65	0.00	0.00		4,768.65	5,145.92	0.00	0.00		5,145.92	5,145.92	0.00	0.00		5,145.92
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	256.21	56.74	196.16		509.11	125.27	94.55	183.35		403.17	125.27	94.55	183.35		403.17
		% of Total	50.33	11.15	38.53	0		31.07	23.45	45.48	0		31.07	23.45	45.48	0	
	Volume - High Integrity Container	m^3	0.00	69.86	910.66	0.00	980.52	0.00	18.84	995.77	0.00	1,014.61	0.00	0.00	1,010.48	0.00	1,010.48
		% of Total	0	7.13	92.87	0		0	1.86	98.14	0		0	0	100	0	
	Volume - Solidified LLW Box	m^3	52.78	1,530.61	0.00		1,583.39	20.33	1,530.61	0.00		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	3.33	96.67	0	0		1.31	98.69	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				253.32	253.32				411.58	411.58				436.86	436.86
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				2.76	2.76				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				101.51	101.51				192.75	192.75				192.75	192.75
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,077.64	1,657.22	1,107.43	357.59	8,199.87	5,291.51	1,644.00	1,179.12	604.33	8,718.97	5,271.18	1,625.17	1,193.82	629.61	8,719.78
		% of Total	61.92	20.21	13.51	4.36		60.69	18.86	13.52	6.93		60.45	18.64	13.69	7.22	
	Waste Volume Increase (relative to treated waste volume)	%	2.53	3.38	29.65	4.51	5.78	11.07	2.88	39.43	11.11	12.48	11.11	2.53	39.51	11.11	12.49
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.58	-11.22	56.67	71.56	66.56	71.73	3.97	49.33	65.7	64.44	71.84	5.07	48.41	64.53	64.44

Overall Summary of Mixed Waste Stream Data for the Co-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	9.44	65.74	0.45	0.06	75.70	9.44	65.74	0.45	0.06	75.70	9.44	65.74	0.45	0.06	75.70
		% of Total	12.47	86.85	0.59	0.08		12.47	86.85	0.59	0.08		12.47	86.85	0.59	0.08	
	Waste Mass	kilograms	8,809.50	17,302.07	231.50	723.20	27,066.27	8,809.50	17,302.07	231.50	723.20	27,066.27	8,809.50	17,302.07	231.50	723.20	27,066.27
		% of Total	32.55	63.92	0.86	2.67		32.55	63.92	0.86	2.67		32.55	63.92	0.86	2.67	
	Radionuclide Content	Curies	0.26	19.79	0.26	3.65	23.96	0.26	19.79	0.26	3.65	23.96	0.26	19.79	0.26	3.65	23.96
		% of Total	1.1	82.59	1.1	15.22		1.1	82.59	1.1	15.22		1.1	82.59	1.1	15.22	
	Radionuclide Content	grams	0.49	2.26	0.16	0.90	3.81	0.49	2.26	0.16	0.90	3.81	0.49	2.26	0.16	0.90	3.81
		% of Total	12.96	59.3	4.19	23.55		12.96	59.3	4.19	23.55		12.96	59.3	4.19	23.55	
Treated	Waste Volume	m^3	8.73	34.65	0.30	0.13	43.81	8.73	34.65	0.30	0.13	43.81	8.73	34.65	0.30	0.13	43.81
		% of Total	19.94	79.09	0.68	0.29		19.94	79.09	0.68	0.29		19.94	79.09	0.68	0.29	
	Waste Volume Reduction	%	7.50	47.30	33.33	-100.00	42.13	7.50	47.30	33.33	-100.00	42.13	7.50	47.30	33.33	-100.00	42.13
	Waste Mass	kilograms	8,901.90	17,640.87	231.50	864.00	27,638.27	8,901.90	17,640.87	231.50	864.00	27,638.27	8,901.90	17,640.87	231.50	864.00	27,638.27
		% of Total	32.21	63.83	0.84	3.13		32.21	63.83	0.84	3.13		32.21	63.83	0.84	3.13	
	Radionuclide Content	Curies	0.26	19.79	0.26	3.65	23.96	0.26	19.79	0.26	3.65	23.96	0.26	19.79	0.26	3.65	23.96
		% of Total	1.1	82.59	1.1	15.22		1.1	82.59	1.1	15.22		1.1	82.59	1.1	15.22	
	Radionuclide Content	grams	0.49	2.26	0.16	0.90	3.81	0.49	2.26	0.16	0.90	3.81	0.49	2.26	0.16	0.90	3.81
		% of Total	12.96	59.3	4.19	23.55		12.96	59.3	4.19	23.55		12.96	59.3	4.19	23.55	
Packaged	Volume - Mixed LLW Drum	m^3	9.67	0.59	0.33		10.60	9.70	0.62	0.33		10.66	9.70	0.62	0.33		10.66
		% of Total	91.31	5.59	3.1	0		91.06	5.82	3.13	0		91.06	5.82	3.13	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88
		% of Total	0	100	0	0		0	100	0	0		0	100	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.13	0.13				0.14	0.14				0.14	0.14
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	9.67	38.47	0.33	0.13	48.60	9.70	38.50	0.33	0.14	48.68	9.70	38.50	0.33	0.14	48.68
		% of Total	19.9	79.15	0.68	0.27		19.94	79.09	0.68	0.29		19.94	79.09	0.68	0.29	
	Waste Volume Increase (relative to treated waste volume)	%	10.76	11.03	9.60	2.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	-2.46	41.49	26.93	-104.08	35.79	-2.78	41.44	25.93	-122.22	35.7	-2.78	41.44	25.93	-122.22	35.7

Overall Summary of Waste Stream Data for the Co-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,271.53	1,444.62	2,546.85	1,257.42	24,520.43	18,719.54	1,712.05	2,327.11	1,761.74	24,520.43	18,719.54	1,712.05	2,313.95	1,774.90	24,520.43
		% of Total	78.59	5.89	10.39	5.13		76.34	6.98	9.49	7.18		76.34	6.98	9.44	7.24	
	Waste Mass	kilograms	3,448,576.24	1,879,779.54	418,293.63	229,322.02	5,975,971.42	3,322,485.47	1,932,495.44	387,793.75	333,196.76	5,975,971.42	3,322,485.47	1,932,495.44	362,202.75	358,787.76	5,975,971.42
		% of Total	57.71	31.46	7	3.84		55.6	32.34	6.49	5.58		55.6	32.34	6.06	6	
	Radionuclide Content	Curies	78.66	9,954.67	2,491.98	6,370.60	18,895.91	87.93	9,987.82	2,418.32	6,401.85	18,895.91	87.93	9,987.82	2,412.54	6,407.62	18,895.91
		% of Total	0.42	52.68	13.19	33.71		0.47	52.86	12.8	33.88		0.47	52.86	12.77	33.91	
	Radionuclide Content	grams	3,240.83	416,937.75	2,947.35	16,699.60	439,825.54	3,567.65	417,246.15	2,206.56	16,805.18	439,825.54	3,567.65	417,246.15	2,191.39	16,820.34	439,825.54
		% of Total	0.74	94.8	0.67	3.8		0.81	94.87	0.5	3.82		0.81	94.87	0.5	3.82	
Treated	Waste Volume	m^3	5,012.02	1,551.91	845.45	342.16	7,751.53	4,763.99	1,743.00	700.64	543.90	7,751.53	4,744.07	1,743.00	697.82	566.65	7,751.53
		% of Total	64.66	20.02	10.91	4.41		61.46	22.49	9.04	7.02		61.2	22.49	9	7.31	
	Waste Volume Reduction	%	73.99	-7.43	66.80	72.79	68.39	74.55	-1.81	69.89	69.13	68.39	74.66	-1.81	69.84	68.07	68.39
	Waste Mass	kilograms	3,534,216.64	5,971,651.54	444,273.23	229,322.02	10,179,463.42	3,402,845.87	6,077,775.44	365,645.35	333,196.76	10,179,463.42	3,358,125.47	6,077,775.44	362,202.75	381,359.76	10,179,463.42
		% of Total	34.72	58.66	4.36	2.25		33.43	59.71	3.59	3.27		32.99	59.71	3.56	3.75	
	Radionuclide Content	Curies	81.92	428.18	12,015.21	6,370.60	18,895.91	91.18	9,987.82	2,415.06	6,401.85	18,895.91	87.93	9,987.82	2,412.54	6,407.62	18,895.91
		% of Total	0.43	2.27	63.59	33.71		0.48	52.86	12.78	33.88		0.47	52.86	12.77	33.91	
	Radionuclide Content	grams	3,243.11	414,050.07	5,832.75	16,699.60	439,825.54	3,569.93	417,246.15	2,204.28	16,805.18	439,825.54	3,567.65	417,246.15	2,191.39	16,820.34	439,825.54
		% of Total	0.74	94.14	1.33	3.8		0.81	94.87	0.5	3.82		0.81	94.87	0.5	3.82	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	4,816.41	0.00	0.00		4,816.41	5,145.92	0.00	0.00		5,145.92	5,145.92	0.00	0.00		5,145.92
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	270.74	51.90	186.47		509.11	125.27	94.55	183.35		403.17	125.27	94.55	183.35		403.17
		% of Total	53.18	10.19	36.63	0		31.07	23.45	45.48	0		31.07	23.45	45.48	0	
	Volume - High Integrity Container	m^3	0.00	6.99	910.66	0.00	917.64	0.00	231.00	783.61	0.00	1,014.61	0.00	231.00	779.47	0.00	1,010.48
		% of Total	0	0.76	99.24	0		0	22.77	77.23	0		0	22.86	77.14	0	
	Volume - Solidified LLW Box	m^3	52.78	1,530.61	0.00		1,583.39	20.33	1,530.61	0.00		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	3.33	96.67	0	0		1.31	98.69	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				253.32	253.32				411.58	411.58				436.86	436.86
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				2.76	2.76				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				101.51	101.51				192.75	192.75				192.75	192.75
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,139.92	1,589.50	1,097.74	357.59	8,184.75	5,291.51	1,856.17	966.95	604.33	8,718.97	5,271.18	1,856.17	962.82	629.61	8,719.78
		% of Total	62.8	19.42	13.41	4.37		60.69	21.29	11.09	6.93		60.45	21.29	11.04	7.22	
	Waste Volume Increase (relative to treated waste volume)	%	2.55	2.42	29.84	4.51	5.59	11.07	6.49	38.01	11.11	12.48	11.11	6.49	37.98	11.11	12.49
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.33	-10.03	56.9	71.56	66.62	71.73	-8.42	58.45	65.7	64.44	71.84	-8.42	58.39	64.53	64.44

Overall Summary of Mixed Waste Stream Data for the Co-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	74.78	0.40	0.45	0.06	75.70	74.78	0.40	0.45	0.06	75.70	74.78	0.40	0.45	0.06	75.70
		% of Total	98.79	0.53	0.59	0.08		98.79	0.53	0.59	0.08		98.79	0.53	0.59	0.08	
	Waste Mass	kilograms	24,180.87	1,930.70	231.50	723.20	27,066.27	24,180.87	1,930.70	231.50	723.20	27,066.27	24,180.87	1,930.70	231.50	723.20	27,066.27
		% of Total	89.34	7.13	0.86	2.67		89.34	7.13	0.86	2.67		89.34	7.13	0.86	2.67	
	Radionuclide Content	Curies	1.10	5.17	0.09	1.28	7.64	1.10	5.17	0.09	1.28	7.64	1.10	5.17	0.09	1.28	7.64
		% of Total	14.43	67.6	1.22	16.75		14.43	67.6	1.22	16.75		14.43	67.6	1.22	16.75	
	Radionuclide Content	grams	0.80	1.95	0.16	0.90	3.81	0.80	1.95	0.16	0.90	3.81	0.80	1.95	0.16	0.90	3.81
		% of Total	21.03	51.22	4.19	23.55		21.03	51.22	4.19	23.55		21.03	51.22	4.19	23.55	
Treated	Waste Volume	m^3	42.87	0.52	0.30	0.13	43.81	42.87	0.52	0.30	0.13	43.81	42.87	0.52	0.30	0.13	43.81
		% of Total	97.85	1.18	0.68	0.29		97.85	1.18	0.68	0.29		97.85	1.18	0.68	0.29	
	Waste Volume Reduction	%	42.68	-27.72	33.33	-100.00	42.13	42.68	-27.72	33.33	-100.00	42.13	42.68	-27.72	33.33	-100.00	42.13
	Waste Mass	kilograms	24,556.77	1,986.00	231.50	864.00	27,638.27	24,556.77	1,986.00	231.50	864.00	27,638.27	24,556.77	1,986.00	231.50	864.00	27,638.27
		% of Total	88.85	7.19	0.84	3.13		88.85	7.19	0.84	3.13		88.85	7.19	0.84	3.13	
	Radionuclide Content	Curies	1.11	5.16	0.09	1.28	7.64	1.11	5.16	0.09	1.28	7.64	1.11	5.16	0.09	1.28	7.64
		% of Total	14.48	67.56	1.22	16.75		14.48	67.56	1.22	16.75		14.48	67.56	1.22	16.75	
	Radionuclide Content	grams	0.83	1.92	0.16	0.90	3.81	0.83	1.92	0.16	0.90	3.81	0.83	1.92	0.16	0.90	3.81
		% of Total	21.8	50.45	4.19	23.55		21.8	50.45	4.19	23.55		21.8	50.45	4.19	23.55	
Packaged	Volume - Mixed LLW Drum	m^3	9.72	0.55	0.33		10.60	9.75	0.57	0.33		10.66	9.75	0.57	0.33		10.66
		% of Total	91.71	5.18	3.1	0		91.49	5.38	3.13	0		91.49	5.38	3.13	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.13	0.13				0.14	0.14				0.14	0.14
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.59	0.55	0.33	0.13	48.60	47.63	0.57	0.33	0.14	48.68	47.63	0.57	0.33	0.14	48.68
		% of Total	97.92	1.13	0.68	0.27		97.85	1.18	0.68	0.29		97.85	1.18	0.68	0.29	
	Waste Volume Increase (relative to treated waste volume)	%	11.03	6.44	9.60	2.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.36	-35.94	26.93	-104.08	35.79	36.31	-41.91	25.93	-122.22	35.7	36.31	-41.91	25.93	-122.22	35.7

Overall Summary of Waste Stream Data for the Co-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	15,837.07	1,532.75	3,636.54	3,514.08	24,520.43	11,805.44	1,712.05	7,175.39	3,827.56	24,520.43	11,805.44	1,712.05	7,162.23	3,840.72	24,520.43
		% of Total	64.59	6.25	14.83	14.33		48.15	6.98	29.26	15.61		48.15	6.98	29.21	15.66	
	Waste Mass	kilograms	2,993,729.83	1,888,907.68	548,380.27	544,953.64	5,975,971.42	2,437,480.67	1,932,495.44	1,002,616.64	603,378.67	5,975,971.42	2,437,480.67	1,932,495.44	977,025.64	628,969.67	5,975,971.42
		% of Total	50.1	31.61	9.18	9.12		40.79	32.34	16.78	10.1		40.79	32.34	16.35	10.52	
	Radionuclide Content	Curies	140.12	30,276.81	7,428.57	19,944.95	57,790.45	96.72	30,729.48	7,179.38	19,784.87	57,790.45	96.72	30,729.48	7,162.34	19,801.91	57,790.45
		% of Total	0.24	52.39	12.85	34.51		0.17	53.17	12.42	34.24		0.17	53.17	12.39	34.27	
	Radionuclide Content	grams	2,982.84	416,911.66	1,363.13	18,567.90	439,825.54	3,075.27	417,246.15	1,367.63	18,136.48	439,825.54	3,075.27	417,246.15	1,352.47	18,151.64	439,825.54
		% of Total	0.68	94.79	0.31	4.22		0.7	94.87	0.31	4.12		0.7	94.87	0.31	4.13	
Treated	Waste Volume	m^3	4,041.84	1,645.74	1,087.45	976.51	7,751.53	3,015.54	1,597.97	2,070.31	1,067.71	7,751.53	3,015.54	1,585.10	2,060.44	1,090.45	7,751.53
		% of Total	52.14	21.23	14.03	12.6		38.9	20.61	26.71	13.77		38.9	20.45	26.58	14.07	
	Waste Volume Reduction	%	74.48	-7.37	70.10	72.21	68.39	74.46	6.66	71.15	72.10	68.39	74.46	7.42	71.23	71.61	68.39
	Waste Mass	kilograms	3,002,949.23	6,012,480.28	619,080.27	544,953.64	10,179,463.42	2,473,120.67	6,003,522.64	1,099,441.44	603,378.67	10,179,463.42	2,473,120.67	5,996,949.24	1,057,851.84	651,541.67	10,179,463.42
		% of Total	29.5	59.06	6.08	5.35		24.3	58.98	10.8	5.93		24.3	58.91	10.39	6.4	
	Radionuclide Content	Curies	71.40	868.82	36,905.28	19,944.95	57,790.45	96.72	1,019.35	36,889.52	19,784.87	57,790.45	96.72	954.94	36,936.88	19,801.91	57,790.45
		% of Total	0.12	1.5	63.86	34.51		0.17	1.76	63.83	34.24		0.17	1.65	63.92	34.27	
	Radionuclide Content	grams	2,975.34	414,031.48	4,250.81	18,567.90	439,825.54	3,075.27	414,335.61	4,278.18	18,136.48	439,825.54	3,075.27	414,329.30	4,269.32	18,151.64	439,825.54
		% of Total	0.68	94.14	0.97	4.22		0.7	94.2	0.97	4.12		0.7	94.2	0.97	4.13	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	3,921.02	0.00	0.00		3,921.02	3,225.33	0.00	0.00		3,225.33	3,225.33	0.00	0.00		3,225.33
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	189.87	102.96	111.22		404.05	125.27	94.55	183.35		403.17	125.27	94.55	183.35		403.17
		% of Total	46.99	25.48	27.53	0		31.07	23.45	45.48	0		31.07	23.45	45.48	0	
	Volume - High Integrity Container	m^3	0.00	71.31	1,300.04	12.00	1,383.34	0.00	18.84	2,758.23	12.00	2,789.07	0.00	0.00	2,772.94	12.00	2,784.93
		% of Total	0	5.15	93.98	0.87		0	0.68	98.89	0.43		0	0	99.57	0.43	
	Volume - Solidified LLW Box	m^3	32.45	1,530.61	20.33		1,583.39	0.00	1,530.61	20.33		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.05	96.67	1.28	0		0	98.69	1.31	0		0	100	0	0	
	Volume - GTCC Drum	m^3				804.31	804.31				984.48	984.48				1,009.75	1,009.75
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				8.49	8.49				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				191.87	191.87				192.75	192.75				192.75	192.75
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	4,143.35	1,704.88	1,432.20	1,016.66	8,297.09	3,350.60	1,644.00	2,961.91	1,189.23	9,145.74	3,350.60	1,625.17	2,956.28	1,214.50	9,146.55
		% of Total	49.94	20.55	17.26	12.25		36.64	17.98	32.39	13		36.63	17.77	32.32	13.28	
	Waste Volume Increase (relative to treated waste volume)	%	2.51	3.59	31.70	4.11	7.04	11.11	2.88	43.07	11.38	17.99	11.11	2.53	43.48	11.38	18.00
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.84	-11.23	60.62	71.07	66.16	71.62	3.97	58.72	68.93	62.7	71.62	5.07	58.72	68.38	62.7

Overall Summary of Mixed Waste Stream Data for the Co-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	9.44	65.72	0.48	0.06	75.70	9.44	65.72	0.48	0.06	75.70	9.44	65.72	0.48	0.06	75.70
		% of Total	12.47	86.81	0.63	0.08		12.47	86.81	0.63	0.08		12.47	86.81	0.63	0.08	
	Waste Mass	kilograms	8,809.50	16,996.97	536.60	723.20	27,066.27	8,809.50	16,996.97	536.60	723.20	27,066.27	8,809.50	16,996.97	536.60	723.20	27,066.27
		% of Total	32.55	62.8	1.98	2.67		32.55	62.8	1.98	2.67		32.55	62.8	1.98	2.67	
	Radionuclide Content	Curies	0.33	18.90	0.51	3.14	22.87	0.33	18.90	0.51	3.14	22.87	0.33	18.90	0.51	3.14	22.87
		% of Total	1.45	82.61	2.22	13.73		1.45	82.61	2.22	13.73		1.45	82.61	2.22	13.73	
	Radionuclide Content	grams	0.49	1.88	0.54	0.90	3.81	0.49	1.88	0.54	0.90	3.81	0.49	1.88	0.54	0.90	3.81
		% of Total	12.96	49.36	14.13	23.55		12.96	49.36	14.13	23.55		12.96	49.36	14.13	23.55	
Treated	Waste Volume	m^3	8.73	34.59	0.35	0.13	43.81	8.73	34.59	0.35	0.13	43.81	8.73	34.59	0.35	0.13	43.81
		% of Total	19.94	78.96	0.81	0.29		19.94	78.96	0.81	0.29		19.94	78.96	0.81	0.29	
	Waste Volume Reduction	%	7.50	47.36	25.79	-100.00	42.13	7.50	47.36	25.79	-100.00	42.13	7.50	47.36	25.79	-100.00	42.13
	Waste Mass	kilograms	8,901.90	17,276.37	596.00	864.00	27,638.27	8,901.90	17,276.37	596.00	864.00	27,638.27	8,901.90	17,276.37	596.00	864.00	27,638.27
		% of Total	32.21	62.51	2.16	3.13		32.21	62.51	2.16	3.13		32.21	62.51	2.16	3.13	
	Radionuclide Content	Curies	0.33	18.90	0.51	3.14	22.87	0.33	18.90	0.51	3.14	22.87	0.33	18.90	0.51	3.14	22.87
		% of Total	1.45	82.61	2.22	13.73		1.45	82.61	2.22	13.73		1.45	82.61	2.22	13.73	
	Radionuclide Content	grams	0.49	1.88	0.54	0.90	3.81	0.49	1.88	0.54	0.90	3.81	0.49	1.88	0.54	0.90	3.81
		% of Total	12.96	49.36	14.13	23.55		12.96	49.36	14.13	23.55		12.96	49.36	14.13	23.55	
Packaged	Volume - Mixed LLW Drum	m^3	9.67	0.54	0.38		10.60	9.70	0.56	0.39		10.66	9.70	0.56	0.39		10.66
		% of Total	91.31	5.07	3.62	0		91.06	5.25	3.69	0		91.06	5.25	3.69	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88
		% of Total	0	100	0	0		0	100	0	0		0	100	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.13	0.13				0.14	0.14				0.14	0.14
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	9.67	38.41	0.38	0.13	48.60	9.70	38.44	0.39	0.14	48.68	9.70	38.44	0.39	0.14	48.68
		% of Total	19.9	79.04	0.79	0.27		19.94	78.96	0.81	0.29		19.94	78.96	0.81	0.29	
	Waste Volume Increase (relative to treated waste volume)	%	10.76	11.04	8.45	2.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	-2.46	41.55	19.52	-104.08	35.79	-2.78	41.51	17.54	-122.22	35.7	-2.78	41.51	17.54	-122.22	35.7

Overall Summary of Waste Stream Data for the Co-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	18,519.46	1,488.52	1,560.03	2,952.42	24,520.43	18,719.54	1,712.05	2,318.91	1,769.94	24,520.43	18,719.54	1,712.05	2,305.75	1,783.10	24,520.43
		% of Total	75.53	6.07	6.36	12.04		76.34	6.98	9.46	7.22		76.34	6.98	9.4	7.27	
	Waste Mass	kilograms	3,347,379.68	1,882,972.61	293,874.21	451,744.92	5,975,971.42	3,322,485.47	1,932,495.44	381,664.25	339,326.26	5,975,971.42	3,322,485.47	1,932,495.44	356,073.25	364,917.26	5,975,971.42
		% of Total	56.01	31.51	4.92	7.56		55.6	32.34	6.39	5.68		55.6	32.34	5.96	6.11	
	Radionuclide Content	Curies	81.01	10,040.22	2,387.86	7,587.88	20,096.98	124.04	10,070.48	2,510.75	7,391.71	20,096.98	124.04	10,070.48	2,504.23	7,398.23	20,096.98
		% of Total	0.4	49.96	11.88	37.76		0.62	50.11	12.49	36.78		0.62	50.11	12.46	36.81	
	Radionuclide Content	grams	3,185.37	416,933.45	1,665.07	18,041.64	439,825.54	3,567.65	417,246.15	2,160.96	16,850.78	439,825.54	3,567.65	417,246.15	2,145.79	16,865.95	439,825.54
		% of Total	0.72	94.8	0.38	4.1		0.81	94.87	0.49	3.83		0.81	94.87	0.49	3.83	
Treated	Waste Volume	m^3	4,803.87	1,558.10	613.91	775.66	7,751.53	4,744.07	1,743.00	712.36	552.10	7,751.53	4,744.07	1,743.00	689.62	574.85	7,751.53
		% of Total	61.97	20.1	7.92	10.01		61.2	22.49	9.19	7.12		61.2	22.49	8.9	7.42	
	Waste Volume Reduction	%	74.06	-4.67	60.65	73.73	68.39	74.66	-1.81	69.28	68.81	68.39	74.66	-1.81	70.09	67.76	68.39
	Waste Mass	kilograms	3,388,299.68	5,974,844.61	364,574.21	451,744.92	10,179,463.42	3,358,125.47	6,077,775.44	404,236.25	339,326.26	10,179,463.42	3,358,125.47	6,077,775.44	356,073.25	387,489.26	10,179,463.42
		% of Total	33.29	58.7	3.58	4.44		32.99	59.71	3.97	3.33		32.99	59.71	3.5	3.81	
	Radionuclide Content	Curies	81.01	429.39	11,998.69	7,587.88	20,096.98	124.04	10,070.48	2,510.75	7,391.71	20,096.98	124.04	10,070.48	2,504.23	7,398.23	20,096.98
		% of Total	0.4	2.14	59.7	37.76		0.62	50.11	12.49	36.78		0.62	50.11	12.46	36.81	
	Radionuclide Content	grams	3,185.37	414,045.77	4,552.75	18,041.64	439,825.54	3,567.65	417,246.15	2,160.96	16,850.78	439,825.54	3,567.65	417,246.15	2,145.79	16,865.95	439,825.54
		% of Total	0.72	94.14	1.04	4.1		0.81	94.87	0.49	3.83		0.81	94.87	0.49	3.83	
Packaged	Volume - LLW Drum	m^3	4.52	0.00	0.61		5.13	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	88.06	0	11.94	0											
	Volume - Standard LLW Box	m^3	4,633.17	0.00	0.00		4,633.17	5,145.92	0.00	0.00		5,145.92	5,145.92	0.00	0.00		5,145.92
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	256.21	58.77	179.43		494.41	125.27	94.55	183.35		403.17	125.27	94.55	183.35		403.17
		% of Total	51.82	11.89	36.29	0		31.07	23.45	45.48	0		31.07	23.45	45.48	0	
	Volume - High Integrity Container	m^3	0.00	6.99	581.28	12.00	600.26	0.00	231.00	771.61	12.00	1,014.61	0.00	231.00	767.48	12.00	1,010.48
		% of Total	0	1.16	96.84	2		0	22.77	76.05	1.18		0	22.86	75.95	1.19	
	Volume - Solidified LLW Box	m^3	32.45	1,530.61	20.33		1,583.39	0.00	1,530.61	20.33		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.05	96.67	1.28	0		0	98.69	1.31	0		0	100	0	0	
	Volume - GTCC Drum	m^3				682.40	682.40				411.58	411.58				436.86	436.86
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				8.43	8.43				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				101.51	101.51				192.75	192.75				192.75	192.75
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	4,926.34	1,596.37	781.65	804.33	8,108.70	5,271.18	1,856.17	975.28	616.33	8,718.97	5,271.18	1,856.17	950.83	641.60	8,719.78
		% of Total	60.75	19.69	9.64	9.92		60.46	21.29	11.19	7.07		60.45	21.29	10.9	7.36	
	Waste Volume Increase (relative to treated waste volume)	%	2.55	2.46	27.32	3.70	4.61	11.11	6.49	36.91	11.63	12.48	11.11	6.49	37.88	11.61	12.49
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.4	-7.25	49.9	72.76	66.93	71.84	-8.42	57.94	65.18	64.44	71.84	-8.42	58.76	64.02	64.44

Overall Summary of Mixed Waste Stream Data for the Co-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years																	
			Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
Basis	Parameter	Units	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	74.78	0.38	0.48	0.06	75.70	74.78	0.38	0.48	0.06	75.70	74.78	0.38	0.48	0.06	75.70
		% of Total	98.79	0.5	0.63	0.08		98.79	0.5	0.63	0.08		98.79	0.5	0.63	0.08	
	Waste Mass	kilograms	24,180.87	1,625.60	536.60	723.20	27,066.27	24,180.87	1,625.60	536.60	723.20	27,066.27	24,180.87	1,625.60	536.60	723.20	27,066.27
		% of Total	89.34	6.01	1.98	2.67		89.34	6.01	1.98	2.67		89.34	6.01	1.98	2.67	
	Radionuclide Content	Curies	1.14	5.14	0.19	1.16	7.63	1.14	5.14	0.19	1.16	7.63	1.14	5.14	0.19	1.16	7.63
		% of Total	14.96	67.31	2.55	15.18		14.96	67.31	2.55	15.18		14.96	67.31	2.55	15.18	
	Radionuclide Content	grams	0.80	1.57	0.54	0.90	3.81	0.80	1.57	0.54	0.90	3.81	0.80	1.57	0.54	0.90	3.81
		% of Total	21.03	41.28	14.13	23.55		21.03	41.28	14.13	23.55		21.03	41.28	14.13	23.55	
Treated	Waste Volume	m^3	42.87	0.46	0.35	0.13	43.81	42.87	0.46	0.35	0.13	43.81	42.87	0.46	0.35	0.13	43.81
		% of Total	97.85	1.05	0.81	0.29		97.85	1.05	0.81	0.29		97.85	1.05	0.81	0.29	
	Waste Volume Reduction	%	42.68	-22.55	25.79	-100.00	42.13	42.68	-22.55	25.79	-100.00	42.13	42.68	-22.55	25.79	-100.00	42.13
	Waste Mass	kilograms	24,556.77	1,621.50	596.00	864.00	27,638.27	24,556.77	1,621.50	596.00	864.00	27,638.27	24,556.77	1,621.50	596.00	864.00	27,638.27
		% of Total	88.85	5.87	2.16	3.13		88.85	5.87	2.16	3.13		88.85	5.87	2.16	3.13	
	Radionuclide Content	Curies	1.15	5.13	0.19	1.16	7.63	1.15	5.13	0.19	1.16	7.63	1.15	5.13	0.19	1.16	7.63
		% of Total	15.02	67.25	2.55	15.18		15.02	67.25	2.55	15.18		15.02	67.25	2.55	15.18	
	Radionuclide Content	grams	0.83	1.54	0.54	0.90	3.81	0.83	1.54	0.54	0.90	3.81	0.83	1.54	0.54	0.90	3.81
		% of Total	21.8	40.51	14.13	23.55		21.8	40.51	14.13	23.55		21.8	40.51	14.13	23.55	
Packaged	Volume - Mixed LLW Drum	m^3	9.72	0.49	0.38		10.60	9.75	0.51	0.39		10.66	9.75	0.51	0.39		10.66
		% of Total	91.71	4.66	3.62	0		91.49	4.82	3.69	0		91.49	4.82	3.69	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.13	0.13				0.14	0.14				0.14	0.14
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.59	0.49	0.38	0.13	48.60	47.63	0.51	0.39	0.14	48.68	47.63	0.51	0.39	0.14	48.68
		% of Total	97.92	1.02	0.79	0.27		97.85	1.05	0.81	0.29		97.85	1.05	0.81	0.29	
	Waste Volume Increase (relative to treated waste volume)	%	11.03	6.95	8.45	2.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.36	-31.06	19.52	-104.08	35.79	36.31	-36.16	17.54	-122.22	35.7	36.31	-36.16	17.54	-122.22	35.7

Appendix B

Summary Data for New-Extraction

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Overall Summary of Waste Stream Data for the New-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,117.95	1,683.07	2,595.83	1,646.68	25,043.52	18,650.93	1,802.81	3,100.31	1,489.47	25,043.52	18,650.93	1,789.65	3,103.51	1,499.43	25,043.52
		% of Total	76.34	6.72	10.37	6.58		74.47	7.2	12.38	5.95		74.47	7.15	12.39	5.99	
	Waste Mass	kilograms	3,419,127.62	1,974,454.48	370,746.55	321,756.13	6,086,084.78	3,308,520.43	1,978,351.48	490,813.07	308,399.81	6,086,084.78	3,308,520.43	1,952,760.48	493,595.67	331,208.21	6,086,084.78
		% of Total	56.18	32.44	6.09	5.29		54.36	32.51	8.06	5.07		54.36	32.09	8.11	5.44	
	Radionuclide Content	Curies	238.13	33,922.81	8,541.41	72,764.39	115,466.74	242.27	34,146.44	9,502.97	71,575.05	115,466.74	242.27	34,127.51	9,506.71	71,590.24	115,466.74
		% of Total	0.21	29.38	7.4	63.02		0.21	29.57	8.23	61.99		0.21	29.56	8.23	62	
	Radionuclide Content	grams	2,783.03	417,493.72	2,943.33	19,904.31	443,124.38	3,056.59	417,794.30	6,753.97	15,519.52	443,124.38	3,056.59	417,779.14	6,766.86	15,521.80	443,124.38
		% of Total	0.63	94.22	0.66	4.49		0.69	94.28	1.52	3.5		0.69	94.28	1.53	3.5	
Treated	Waste Volume	m^3	4,880.18	1,730.33	831.02	494.64	7,936.16	4,716.85	1,652.73	1,077.02	489.56	7,936.16	4,716.85	1,621.31	1,088.52	509.48	7,936.16
		% of Total	61.49	21.8	10.47	6.23		59.43	20.83	13.57	6.17		59.43	20.43	13.72	6.42	
	Waste Volume Reduction	%	74.47	-2.81	67.99	69.96	68.31	74.71	8.32	65.26	67.13	68.31	74.71	9.41	64.93	66.02	68.31
	Waste Mass	kilograms	3,438,098.32	6,116,718.18	418,284.15	321,756.13	10,294,856.78	3,344,160.43	6,066,670.68	565,065.87	318,959.81	10,294,856.78	3,344,160.43	6,017,214.28	569,801.87	363,680.21	10,294,856.78
		% of Total	33.4	59.42	4.06	3.13		32.48	58.93	5.49	3.1		32.48	58.45	5.53	3.53	
	Radionuclide Content	Curies	160.16	1,492.23	41,049.96	72,764.39	115,466.74	242.27	1,378.60	42,270.82	71,575.05	115,466.74	242.27	1,288.63	42,345.59	71,590.24	115,466.74
		% of Total	0.14	1.29	35.55	63.02		0.21	1.19	36.61	61.99		0.21	1.12	36.67	62	
	Radionuclide Content	grams	2,418.17	414,971.18	5,830.73	19,904.31	443,124.38	3,056.59	414,883.76	9,664.52	15,519.52	443,124.38	3,056.59	414,862.28	9,683.71	15,521.80	443,124.38
		% of Total	0.55	93.65	1.32	4.49		0.69	93.63	2.18	3.5		0.69	93.62	2.19	3.5	
Packaged	Volume - LLW Drum	m^3	84.23	0.61	0.00		84.85	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	99.28	0.72	0	0											
	Volume - Standard LLW Box	m^3	4,680.18	0.00	0.00		4,680.18	5,145.92	0.00	0.00		5,145.92	5,145.92	0.00	0.00		5,145.92
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	192.44	163.92	364.87		721.23	95.03	124.79	261.05		480.87	95.03	124.79	261.05		480.87
		% of Total	26.68	22.73	50.59	0		19.76	25.95	54.29	0		19.76	25.95	54.29	0	
	Volume - High Integrity Container	m^3	0.00	84.74	653.33	0.00	738.08	0.00	29.99	1,231.93	0.00	1,261.92	0.00	13.17	1,248.76	0.00	1,261.92
		% of Total	0	11.48	88.52	0		0	2.38	97.62	0		0	1.04	98.96	0	
	Volume - Solidified LLW Box	m^3	42.24	1,550.94	0.00		1,593.18	0.00	1,550.94	0.00		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.65	97.35	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				334.23	334.23				333.14	333.14				355.27	355.27
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				2.76	2.76				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				182.83	182.83				210.81	210.81				210.81	210.81
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	4,999.10	1,800.22	1,018.20	519.83	8,337.34	5,240.95	1,705.72	1,492.98	543.95	8,983.60	5,240.95	1,668.57	1,509.80	566.09	8,985.40
		% of Total	59.96	21.59	12.21	6.23		58.34	18.99	16.62	6.05		58.33	18.57	16.8	6.3	
	Waste Volume Increase (relative to treated waste volume)	%	2.44	4.04	22.52	5.09	5.06	11.11	3.21	38.62	11.11	13.20	11.11	2.91	38.70	11.11	13.22
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.85	-6.96	60.78	68.43	66.71	71.9	5.39	51.84	63.48	64.13	71.9	6.77	51.35	62.25	64.12

Overall Summary of Mixed Waste Stream Data for the New-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	74.78	0.40	0.95	0.06	76.20	74.78	0.40	0.95	0.06	76.20	74.78	0.40	0.95	0.06	76.20
		% of Total	98.14	0.53	1.25	0.08		98.14	0.53	1.25	0.08		98.14	0.53	1.25	0.08	
	Waste Mass	kilograms	24,180.87	1,930.70	612.50	723.20	27,447.27	24,180.87	1,930.70	612.50	723.20	27,447.27	24,180.87	1,930.70	612.50	723.20	27,447.27
		% of Total	88.1	7.03	2.23	2.63		88.1	7.03	2.23	2.63		88.1	7.03	2.23	2.63	
	Radionuclide Content	Curies	3.70	17.48	2.19	5.97	29.34	3.70	17.48	2.19	5.97	29.34	3.70	17.48	2.19	5.97	29.34
		% of Total	12.59	59.59	7.46	20.36		12.59	59.59	7.46	20.36		12.59	59.59	7.46	20.36	
	Radionuclide Content	grams	0.80	1.95	0.27	0.90	3.92	0.80	1.95	0.27	0.90	3.92	0.80	1.95	0.27	0.90	3.92
		% of Total	20.42	49.73	6.99	22.87		20.42	49.73	6.99	22.87		20.42	49.73	6.99	22.87	
Treated	Waste Volume	m^3	42.82	0.56	0.93	0.00	44.31	42.82	0.56	0.93	0.00	44.31	42.82	0.56	0.93	0.00	44.31
		% of Total	96.65	1.26	2.09	0		96.65	1.26	2.09	0		96.65	1.26	2.09	0	
	Waste Volume Reduction	%	42.73	-38.12	2.32	100.00	41.85	42.73	-38.12	2.32	100.00	41.85	42.73	-38.12	2.32	100.00	41.85
	Waste Mass	kilograms	24,273.27	2,269.50	1,476.50	0.00	28,019.27	24,273.27	2,269.50	1,476.50	0.00	28,019.27	24,273.27	2,269.50	1,476.50	0.00	28,019.27
		% of Total	86.63	8.1	5.27	0		86.63	8.1	5.27	0		86.63	8.1	5.27	0	
	Radionuclide Content	Curies	3.70	17.48	8.16	0.00	29.34	3.70	17.48	8.16	0.00	29.34	3.70	17.48	8.16	0.00	29.34
		% of Total	12.59	59.59	27.82	0		12.59	59.59	27.82	0		12.59	59.59	27.82	0	
	Radionuclide Content	grams	0.80	1.95	1.17	0.00	3.92	0.80	1.95	1.17	0.00	3.92	0.80	1.95	1.17	0.00	3.92
		% of Total	20.42	49.73	29.85	0		20.42	49.73	29.85	0		20.42	49.73	29.85	0	
Packaged	Volume - Mixed LLW Drum	m^3	9.67	0.59	1.01		11.28	9.70	0.62	1.03		11.36	9.70	0.62	1.03		11.36
		% of Total	85.75	5.25	9	0		85.46	5.46	9.08	0		85.46	5.46	9.08	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.55	0.59	1.01	0.00	49.16	47.58	0.62	1.03	0.00	49.23	47.58	0.62	1.03	0.00	49.23
		% of Total	96.73	1.2	2.06	0		96.65	1.26	2.09	0		96.65	1.26	2.09	0	
	Waste Volume Increase (relative to treated waste volume)	%	11.04	6.10	9.37		10.94	11.11	11.11	11.11		11.11	11.11	11.11	11.11		11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.41	-46.55	-6.84	100	35.49	36.37	-53.47	-8.54	100	35.39	36.37	-53.47	-8.54	100	35.39

Overall Summary of Waste Stream Data for the New-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,168.64	1,561.45	2,608.46	1,704.98	25,043.52	18,719.54	1,712.05	2,389.33	2,222.61	25,043.52	18,719.54	1,712.05	2,376.17	2,235.77	25,043.52
		% of Total	76.54	6.23	10.42	6.81		74.75	6.84	9.54	8.87		74.75	6.84	9.49	8.93	
	Waste Mass	kilograms	3,434,246.08	1,911,972.46	410,837.48	329,028.77	6,086,084.78	3,322,485.47	1,932,495.44	418,697.33	412,406.55	6,086,084.78	3,322,485.47	1,932,495.44	393,106.33	437,997.55	6,086,084.78
		% of Total	56.43	31.42	6.75	5.41		54.59	31.75	6.88	6.78		54.59	31.75	6.46	7.2	
	Radionuclide Content	Curies	78.53	9,640.89	2,405.38	28,366.01	40,490.81	86.99	9,679.06	2,384.15	28,340.62	40,490.81	86.99	9,679.06	2,375.89	28,348.88	40,490.81
		% of Total	0.19	23.81	5.94	70.06		0.21	23.9	5.89	69.99		0.21	23.9	5.87	70.01	
	Radionuclide Content	grams	2,784.14	417,429.91	2,927.92	19,982.42	443,124.38	3,567.65	417,246.15	2,697.14	19,613.45	443,124.38	3,567.65	417,246.15	2,681.97	19,628.61	443,124.38
		% of Total	0.63	94.2	0.66	4.51		0.81	94.16	0.61	4.43		0.81	94.16	0.61	4.43	
Treated	Waste Volume	m^3	4,973.08	1,610.03	846.75	506.30	7,936.16	4,744.07	1,758.72	739.72	693.66	7,936.16	4,744.07	1,738.80	736.90	716.40	7,936.16
		% of Total	62.66	20.29	10.67	6.38		59.78	22.16	9.32	8.74		59.78	21.91	9.29	9.03	
	Waste Volume Reduction	%	74.06	-3.11	67.54	70.30	68.31	74.66	-2.73	69.04	68.79	68.31	74.66	-1.56	68.99	67.96	68.31
	Waste Mass	kilograms	3,477,556.63	6,052,704.71	435,566.68	329,028.77	10,294,856.78	3,358,125.47	6,117,215.84	396,548.93	422,966.55	10,294,856.78	3,358,125.47	6,072,495.44	393,106.33	471,129.55	10,294,856.78
		% of Total	33.78	58.79	4.23	3.2		32.62	59.42	3.85	4.11		32.62	58.99	3.82	4.58	
	Radionuclide Content	Curies	78.13	660.48	11,386.19	28,366.01	40,490.81	86.99	9,685.98	2,377.22	28,340.62	40,490.81	86.99	9,679.06	2,375.89	28,348.88	40,490.81
		% of Total	0.19	1.63	28.12	70.06		0.21	23.92	5.87	69.99		0.21	23.9	5.87	70.01	
	Radionuclide Content	grams	2,426.60	414,902.32	5,813.04	19,982.42	443,124.38	3,567.65	417,248.44	2,694.86	19,613.45	443,124.38	3,567.65	417,246.15	2,681.97	19,628.61	443,124.38
		% of Total	0.55	93.63	1.31	4.51		0.81	94.16	0.61	4.43		0.81	94.16	0.61	4.43	
Packaged	Volume - LLW Drum	m^3	84.23	0.61	0.00		84.85	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	99.28	0.72	0	0											
	Volume - Standard LLW Box	m^3	4,726.99	0.00	0.00		4,726.99	5,145.92	0.00	0.00		5,145.92	5,145.92	0.00	0.00		5,145.92
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	243.66	92.26	372.35		708.27	125.27	94.55	226.77		446.59	125.27	94.55	226.77		446.59
		% of Total	34.4	13.03	52.57	0		28.05	21.17	50.78	0		28.05	21.17	50.78	0	
	Volume - High Integrity Container	m^3	1.24	8.70	666.50	0.00	676.44	0.00	224.86	783.61	0.00	1,008.46	0.00	224.86	779.47	0.00	1,004.33
		% of Total	0.18	1.29	98.53	0		0	22.3	77.7	0		0	22.39	77.61	0	
	Volume - Solidified LLW Box	m^3	42.24	1,550.94	0.00		1,593.18	0.00	1,550.94	0.00		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.65	97.35	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				334.23	334.23				525.64	525.64				550.91	550.91
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				2.76	2.76				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				195.78	195.78				245.09	245.09				245.09	245.09
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,098.38	1,652.51	1,038.85	532.78	8,322.52	5,271.18	1,870.35	1,010.37	770.73	8,922.64	5,271.18	1,850.02	1,006.24	796.00	8,923.45
		% of Total	61.26	19.86	12.48	6.4		59.08	20.96	11.32	8.64		59.07	20.73	11.28	8.92	
	Waste Volume Increase (relative to treated waste volume)	%	2.52	2.64	22.69	5.23	4.87	11.11	6.35	36.59	11.11	12.43	11.11	6.40	36.55	11.11	12.44
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.4	-5.83	60.17	68.75	66.77	71.84	-9.25	57.71	65.32	64.37	71.84	-8.06	57.65	64.4	64.37

Overall Summary of Mixed Waste Stream Data for the New-Extraction Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	74.78	0.40	0.95	0.06	76.20	74.78	0.40	0.95	0.06	76.20	74.78	0.40	0.95	0.06	76.20
		% of Total	98.14	0.53	1.25	0.08		98.14	0.53	1.25	0.08		98.14	0.53	1.25	0.08	
	Waste Mass	kilograms	24,180.87	1,930.70	612.50	723.20	27,447.27	24,180.87	1,930.70	612.50	723.20	27,447.27	24,180.87	1,930.70	612.50	723.20	27,447.27
		% of Total	88.1	7.03	2.23	2.63		88.1	7.03	2.23	2.63		88.1	7.03	2.23	2.63	
	Radionuclide Content	Curies	1.03	4.84	0.85	2.72	9.44	1.03	4.84	0.85	2.72	9.44	1.03	4.84	0.85	2.72	9.44
		% of Total	10.91	51.29	8.97	28.83		10.91	51.29	8.97	28.83		10.91	51.29	8.97	28.83	
	Radionuclide Content	grams	0.80	1.95	0.27	0.90	3.92	0.80	1.95	0.27	0.90	3.92	0.80	1.95	0.27	0.90	3.92
		% of Total	20.42	49.73	6.99	22.87		20.42	49.73	6.99	22.87		20.42	49.73	6.99	22.87	
Treated	Waste Volume	m^3	42.87	0.52	0.80	0.13	44.31	42.87	0.52	0.80	0.13	44.31	42.87	0.52	0.80	0.13	44.31
		% of Total	96.74	1.16	1.81	0.29		96.74	1.16	1.81	0.29		96.74	1.16	1.81	0.29	
	Waste Volume Reduction	%	42.68	-27.72	15.79	-100.00	41.85	42.68	-27.72	15.79	-100.00	41.85	42.68	-27.72	15.79	-100.00	41.85
	Waste Mass	kilograms	24,556.77	1,986.00	612.50	864.00	28,019.27	24,556.77	1,986.00	612.50	864.00	28,019.27	24,556.77	1,986.00	612.50	864.00	28,019.27
		% of Total	87.64	7.09	2.19	3.08		87.64	7.09	2.19	3.08		87.64	7.09	2.19	3.08	
	Radionuclide Content	Curies	1.03	4.84	0.85	2.72	9.44	1.03	4.84	0.85	2.72	9.44	1.03	4.84	0.85	2.72	9.44
		% of Total	10.95	51.25	8.97	28.83		10.95	51.25	8.97	28.83		10.95	51.25	8.97	28.83	
	Radionuclide Content	grams	0.83	1.92	0.27	0.90	3.92	0.83	1.92	0.27	0.90	3.92	0.83	1.92	0.27	0.90	3.92
		% of Total	21.17	48.98	6.99	22.87		21.17	48.98	6.99	22.87		21.17	48.98	6.99	22.87	
Packaged	Volume - Mixed LLW Drum	m^3	9.72	0.55	0.88		11.15	9.75	0.57	0.89		11.21	9.75	0.57	0.89		11.21
		% of Total	87.14	4.93	7.93	0		86.96	5.11	7.93	0		86.96	5.11	7.93	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.13	0.13				0.14	0.14				0.14	0.14
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.59	0.55	0.88	0.13	49.16	47.63	0.57	0.89	0.14	49.23	47.63	0.57	0.89	0.14	49.23
		% of Total	96.82	1.12	1.8	0.27		96.74	1.16	1.81	0.29		96.74	1.16	1.81	0.29	
	Waste Volume Increase (relative to treated waste volume)	%	11.03	6.44	10.54	2.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.36	-35.94	6.91	-104.08	35.49	36.31	-41.91	6.43	-122.22	35.39	36.31	-41.91	6.43	-122.22	35.39

Overall Summary of Waste Stream Data for the New-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	18,472.66	1,612.47	3,034.03	1,924.35	25,043.52	17,868.80	1,843.68	2,864.31	2,466.73	25,043.52	17,868.80	1,843.68	2,851.15	2,479.89	25,043.52
		% of Total	73.76	6.44	12.12	7.68		71.35	7.36	11.44	9.85		71.35	7.36	11.38	9.9	
	Waste Mass	kilograms	3,323,004.70	1,909,217.09	491,744.53	362,118.47	6,086,084.78	3,204,649.69	1,958,286.42	456,555.35	466,593.32	6,086,084.78	3,204,649.69	1,958,286.42	430,964.35	492,184.32	6,086,084.78
		% of Total	54.6	31.37	8.08	5.95		52.66	32.18	7.5	7.67		52.66	32.18	7.08	8.09	
	Radionuclide Content	Curies	225.41	31,396.30	8,395.83	62,940.53	102,958.07	273.29	31,876.35	7,824.50	62,983.94	102,958.07	273.29	31,876.35	7,800.40	63,008.04	102,958.07
		% of Total	0.22	30.49	8.15	61.13		0.27	30.96	7.6	61.17		0.27	30.96	7.58	61.2	
	Radionuclide Content	grams	2,334.69	417,770.56	2,863.85	20,155.29	443,124.38	3,009.73	417,757.58	2,136.82	20,220.25	443,124.38	3,009.73	417,757.58	2,121.66	20,235.42	443,124.38
		% of Total	0.53	94.28	0.65	4.55		0.68	94.28	0.48	4.56		0.68	94.28	0.48	4.57	
Treated	Waste Volume	m^3	4,687.00	1,680.25	981.67	582.44	7,931.36	4,512.45	1,645.62	999.89	773.41	7,931.36	4,512.45	1,636.94	985.82	796.15	7,931.36
		% of Total	59.09	21.18	12.38	7.34		56.89	20.75	12.61	9.75		56.89	20.64	12.43	10.04	
	Waste Volume Reduction	%	74.63	-4.20	67.64	69.73	68.33	74.75	10.74	65.09	68.65	68.33	74.75	11.21	65.42	67.90	68.33
	Waste Mass	kilograms	3,335,259.45	6,024,474.34	562,444.53	362,118.47	10,284,296.78	3,240,289.69	6,024,033.62	553,380.15	466,593.32	10,284,296.78	3,240,289.69	6,022,740.22	506,510.55	514,756.32	10,284,296.78
		% of Total	32.43	58.58	5.47	3.52		31.51	58.58	5.38	4.54		31.51	58.56	4.93	5.01	
	Radionuclide Content	Curies	150.64	895.97	38,970.93	62,940.53	102,958.07	273.29	1,059.12	38,641.73	62,983.94	102,958.07	273.29	992.31	38,684.44	63,008.04	102,958.07
		% of Total	0.15	0.87	37.85	61.13		0.27	1.03	37.53	61.17		0.27	0.96	37.57	61.2	
	Radionuclide Content	grams	2,327.23	414,890.33	5,751.53	20,155.29	443,124.38	3,009.73	414,847.04	5,047.37	20,220.25	443,124.38	3,009.73	414,840.73	5,038.51	20,235.42	443,124.38
		% of Total	0.53	93.63	1.3	4.55		0.68	93.62	1.14	4.56		0.68	93.62	1.14	4.57	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	4,608.70	0.00	0.00		4,608.70	4,946.17	0.00	0.00		4,946.17	4,946.17	0.00	0.00		4,946.17
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	158.01	141.08	185.58		484.67	67.66	152.16	183.35		403.17	67.66	152.16	183.35		403.17
		% of Total	32.6	29.11	38.29	0		16.78	37.74	45.48	0		16.78	37.74	45.48	0	
	Volume - High Integrity Container	m^3	0.00	71.58	1,067.21	0.00	1,138.79	0.00	12.69	1,192.25	0.00	1,204.94	0.00	0.00	1,200.81	0.00	1,200.81
		% of Total	0	6.29	93.71	0		0	1.05	98.95	0		0	0	100	0	
	Volume - Solidified LLW Box	m^3	32.45	1,530.61	20.33		1,583.39	0.00	1,530.61	20.33		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.05	96.67	1.28	0		0	98.69	1.31	0		0	100	0	0	
	Volume - GTCC Drum	m^3				382.53	382.53				570.83	570.83				596.11	596.11
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				8.43	8.43				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				222.47	222.47				288.51	288.51				288.51	288.51
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	4,799.17	1,743.27	1,273.73	613.42	8,429.59	5,013.83	1,695.46	1,395.92	859.34	8,964.56	5,013.83	1,682.77	1,384.15	884.62	8,965.37
		% of Total	56.93	20.68	15.11	7.28		55.93	18.91	15.57	9.59		55.92	18.77	15.44	9.87	
	Waste Volume Increase (relative to treated waste volume)	%	2.39	3.75	29.75	5.32	6.28	11.11	3.03	39.61	11.11	13.03	11.11	2.80	40.41	11.11	13.04
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	74.02	-8.11	58.02	68.12	66.34	71.94	8.04	51.26	65.16	64.2	71.94	8.73	51.45	64.33	64.2

Overall Summary of Mixed Waste Stream Data for the New-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	9.44	65.74	0.70	0.31	76.20	9.44	65.74	0.70	0.31	76.20	9.44	65.74	0.70	0.31	76.20
		% of Total	12.39	86.28	0.92	0.41		12.39	86.28	0.92	0.41		12.39	86.28	0.92	0.41	
	Waste Mass	kilograms	8,809.50	17,302.07	422.00	913.70	27,447.27	8,809.50	17,302.07	422.00	913.70	27,447.27	8,809.50	17,302.07	422.00	913.70	27,447.27
		% of Total	32.1	63.04	1.54	3.33		32.1	63.04	1.54	3.33		32.1	63.04	1.54	3.33	
	Radionuclide Content	Curies	0.31	19.79	0.78	7.81	28.69	0.31	19.79	0.78	7.81	28.69	0.31	19.79	0.78	7.81	28.69
		% of Total	1.07	68.98	2.72	27.23		1.07	68.98	2.72	27.23		1.07	68.98	2.72	27.23	
	Radionuclide Content	grams	0.49	2.26	0.22	0.95	3.92	0.49	2.26	0.22	0.95	3.92	0.49	2.26	0.22	0.95	3.92
		% of Total	12.58	57.57	5.53	24.32		12.58	57.57	5.53	24.32		12.58	57.57	5.53	24.32	
Treated	Waste Volume	m^3	8.73	34.65	0.55	0.38	44.31	8.73	34.65	0.55	0.38	44.31	8.73	34.65	0.55	0.38	44.31
		% of Total	19.71	78.19	1.24	0.85		19.71	78.19	1.24	0.85		19.71	78.19	1.24	0.85	
	Waste Volume Reduction	%	7.50	47.30	21.43	-20.38	41.85	7.50	47.30	21.43	-20.38	41.85	7.50	47.30	21.43	-20.38	41.85
	Waste Mass	kilograms	8,901.90	17,640.87	422.00	1,054.50	28,019.27	8,901.90	17,640.87	422.00	1,054.50	28,019.27	8,901.90	17,640.87	422.00	1,054.50	28,019.27
		% of Total	31.77	62.96	1.51	3.76		31.77	62.96	1.51	3.76		31.77	62.96	1.51	3.76	
	Radionuclide Content	Curies	0.31	19.79	0.78	7.81	28.69	0.31	19.79	0.78	7.81	28.69	0.31	19.79	0.78	7.81	28.69
		% of Total	1.07	68.98	2.72	27.23		1.07	68.98	2.72	27.23		1.07	68.98	2.72	27.23	
	Radionuclide Content	grams	0.49	2.26	0.22	0.95	3.92	0.49	2.26	0.22	0.95	3.92	0.49	2.26	0.22	0.95	3.92
		% of Total	12.58	57.57	5.53	24.32		12.58	57.57	5.53	24.32		12.58	57.57	5.53	24.32	
Packaged	Volume - Mixed LLW Drum	m^3	9.67	0.59	0.61		10.87	9.70	0.62	0.61		10.94	9.70	0.62	0.61		10.94
		% of Total	88.98	5.45	5.58	0		88.74	5.67	5.59	0		88.74	5.67	5.59	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88
		% of Total	0	100	0	0		0	100	0	0		0	100	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.41	0.41				0.42	0.42				0.42	0.42
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	9.67	38.47	0.61	0.41	49.16	9.70	38.50	0.61	0.42	49.23	9.70	38.50	0.61	0.42	49.23
		% of Total	19.68	78.26	1.23	0.83		19.71	78.19	1.24	0.85		19.71	78.19	1.24	0.85	
	Waste Volume Increase (relative to treated waste volume)	%	10.76	11.03	10.29	8.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	-2.46	41.49	13.35	-30.06	35.49	-2.78	41.44	12.7	-33.76	35.39	-2.78	41.44	12.7	-33.76	35.39

Overall Summary of Waste Stream Data for the New-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	18,421.57	1,585.99	1,596.41	3,439.55	25,043.52	17,931.83	1,780.65	2,789.31	2,541.73	25,043.52	17,931.83	1,780.65	2,776.15	2,554.89	25,043.52
		% of Total	73.56	6.33	6.37	13.73		71.6	7.11	11.14	10.15		71.6	7.11	11.09	10.2	
	Waste Mass	kilograms	3,328,090.01	1,904,179.61	297,344.10	556,471.07	6,086,084.78	3,216,475.63	1,946,460.48	436,775.37	486,373.30	6,086,084.78	3,216,475.63	1,946,460.48	411,184.37	511,964.30	6,086,084.78
		% of Total	54.68	31.29	4.89	9.14		52.85	31.98	7.18	7.99		52.85	31.98	6.76	8.41	
	Radionuclide Content	Curies	90.26	9,955.33	2,417.69	33,125.60	45,588.88	128.86	9,993.50	2,542.62	32,923.91	45,588.88	128.86	9,993.50	2,531.94	32,934.58	45,588.88
		% of Total	0.2	21.84	5.3	72.66		0.28	21.92	5.58	72.22		0.28	21.92	5.55	72.24	
	Radionuclide Content	grams	2,686.30	417,434.77	1,679.97	21,323.35	443,124.38	3,010.10	417,757.21	2,057.44	20,299.63	443,124.38	3,010.10	417,757.21	2,042.28	20,314.79	443,124.38
		% of Total	0.61	94.2	0.38	4.81		0.68	94.28	0.46	4.58		0.68	94.28	0.46	4.58	
Treated	Waste Volume	m^3	4,741.12	1,613.27	615.73	961.24	7,931.36	4,537.08	1,766.01	826.92	801.35	7,931.36	4,537.08	1,766.01	804.18	824.09	7,931.36
		% of Total	59.78	20.34	7.76	12.12		57.2	22.27	10.43	10.1		57.2	22.27	10.14	10.39	
	Waste Volume Reduction	%	74.26	-1.72	61.43	72.05	68.33	74.70	0.82	70.35	68.47	68.33	74.70	0.82	71.03	67.74	68.33
	Waste Mass	kilograms	3,360,250.16	5,999,531.46	368,044.10	556,471.07	10,284,296.78	3,252,115.63	6,086,460.48	459,347.37	486,373.30	10,284,296.78	3,252,115.63	6,086,460.48	411,184.37	534,536.30	10,284,296.78
		% of Total	32.67	58.34	3.58	5.41		31.62	59.18	4.47	4.73		31.62	59.18	4	5.2	
	Radionuclide Content	Curies	88.87	430.23	11,944.18	33,125.60	45,588.88	128.86	9,993.50	2,542.62	32,923.91	45,588.88	128.86	9,993.50	2,531.94	32,934.58	45,588.88
		% of Total	0.19	0.94	26.2	72.66		0.28	21.92	5.58	72.22		0.28	21.92	5.55	72.24	
	Radionuclide Content	grams	2,328.49	414,904.90	4,567.65	21,323.35	443,124.38	3,010.10	417,757.21	2,057.44	20,299.63	443,124.38	3,010.10	417,757.21	2,042.28	20,314.79	443,124.38
		% of Total	0.53	93.63	1.03	4.81		0.68	94.28	0.46	4.58		0.68	94.28	0.46	4.58	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	4,634.44	0.00	0.00		4,634.44	4,946.17	0.00	0.00		4,946.17	4,946.17	0.00	0.00		4,946.17
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	190.13	118.66	175.89		484.67	95.03	124.79	152.30		372.13	95.03	124.79	152.30		372.13
		% of Total	39.23	24.48	36.29	0		25.54	33.54	40.93	0		25.54	33.54	40.93	0	
	Volume - High Integrity Container	m^3	0.00	8.70	587.27	0.00	595.96	0.00	224.86	980.08	0.00	1,204.94	0.00	224.86	975.95	0.00	1,200.81
		% of Total	0	1.46	98.54	0		0	18.66	81.34	0		0	18.73	81.27	0	
	Volume - Solidified LLW Box	m^3	32.45	1,530.61	20.33		1,583.39	0.00	1,530.61	20.33		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.05	96.67	1.28	0		0	98.69	1.31	0		0	100	0	0	
	Volume - GTCC Drum	m^3				769.06	769.06				570.83	570.83				596.11	596.11
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				8.43	8.43				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				222.47	222.47				319.56	319.56				319.56	319.56
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	4,857.02	1,657.97	784.09	999.95	8,299.03	5,041.20	1,880.26	1,152.71	890.39	8,964.56	5,041.20	1,880.26	1,128.25	915.66	8,965.37
		% of Total	58.53	19.98	9.45	12.05		56.23	20.97	12.86	9.93		56.23	20.97	12.58	10.21	
	Waste Volume Increase (relative to treated waste volume)	%	2.44	2.77	27.34	4.03	4.64	11.11	6.47	39.40	11.11	13.03	11.11	6.47	40.30	11.11	13.04
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.63	-4.54	50.88	70.93	66.86	71.89	-5.59	58.67	64.97	64.2	71.89	-5.59	59.36	64.16	64.2

Overall Summary of Mixed Waste Stream Data for the New-Extraction Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	74.78	0.40	0.70	0.31	76.20	74.78	0.40	0.70	0.31	76.20	74.78	0.40	0.70	0.31	76.20
		% of Total	98.14	0.53	0.92	0.41		98.14	0.53	0.92	0.41		98.14	0.53	0.92	0.41	
	Waste Mass	kilograms	24,180.87	1,930.70	422.00	913.70	27,447.27	24,180.87	1,930.70	422.00	913.70	27,447.27	24,180.87	1,930.70	422.00	913.70	27,447.27
		% of Total	88.1	7.03	1.54	3.33		88.1	7.03	1.54	3.33		88.1	7.03	1.54	3.33	
	Radionuclide Content	Curies	1.14	5.17	0.55	3.59	10.44	1.14	5.17	0.55	3.59	10.44	1.14	5.17	0.55	3.59	10.44
		% of Total	10.89	49.5	5.26	34.35		10.89	49.5	5.26	34.35		10.89	49.5	5.26	34.35	
	Radionuclide Content	grams	0.80	1.95	0.22	0.95	3.92	0.80	1.95	0.22	0.95	3.92	0.80	1.95	0.22	0.95	3.92
		% of Total	20.42	49.73	5.53	24.32		20.42	49.73	5.53	24.32		20.42	49.73	5.53	24.32	
Treated	Waste Volume	m^3	42.82	0.56	0.55	0.38	44.31	42.82	0.56	0.55	0.38	44.31	42.82	0.56	0.55	0.38	44.31
		% of Total	96.65	1.26	1.24	0.85		96.65	1.26	1.24	0.85		96.65	1.26	1.24	0.85	
	Waste Volume Reduction	%	42.73	-38.12	21.43	-20.38	41.85	42.73	-38.12	21.43	-20.38	41.85	42.73	-38.12	21.43	-20.38	41.85
	Waste Mass	kilograms	24,273.27	2,269.50	422.00	1,054.50	28,019.27	24,273.27	2,269.50	422.00	1,054.50	28,019.27	24,273.27	2,269.50	422.00	1,054.50	28,019.27
		% of Total	86.63	8.1	1.51	3.76		86.63	8.1	1.51	3.76		86.63	8.1	1.51	3.76	
	Radionuclide Content	Curies	1.14	5.17	0.55	3.59	10.44	1.14	5.17	0.55	3.59	10.44	1.14	5.17	0.55	3.59	10.44
		% of Total	10.89	49.5	5.26	34.35		10.89	49.5	5.26	34.35		10.89	49.5	5.26	34.35	
	Radionuclide Content	grams	0.80	1.95	0.22	0.95	3.92	0.80	1.95	0.22	0.95	3.92	0.80	1.95	0.22	0.95	3.92
		% of Total	20.42	49.73	5.53	24.32		20.42	49.73	5.53	24.32		20.42	49.73	5.53	24.32	
Packaged	Volume - Mixed LLW Drum	m^3	9.67	0.59	0.61		10.87	9.70	0.62	0.61		10.94	9.70	0.62	0.61		10.94
		% of Total	88.98	5.45	5.58	0		88.74	5.67	5.59	0		88.74	5.67	5.59	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.41	0.41				0.42	0.42				0.42	0.42
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.55	0.59	0.61	0.41	49.16	47.58	0.62	0.61	0.42	49.23	47.58	0.62	0.61	0.42	49.23
		% of Total	96.73	1.2	1.23	0.83		96.65	1.26	1.24	0.85		96.65	1.26	1.24	0.85	
	Waste Volume Increase (relative to treated waste volume)	%	11.04	6.10	10.29	8.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.41	-46.55	13.35	-30.06	35.49	36.37	-53.47	12.7	-33.76	35.39	36.37	-53.47	12.7	-33.76	35.39

Overall Summary of Waste Stream Data for the New-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	13,754.72	1,616.55	5,497.22	4,175.03	25,043.52	8,637.20	1,725.56	10,255.11	4,425.65	25,043.52	10,286.50	1,725.56	8,592.65	4,438.81	25,043.52
		% of Total	54.92	6.45	21.95	16.67		34.49	6.89	40.95	17.67		41.07	6.89	34.31	17.72	
	Waste Mass	kilograms	2,834,945.21	1,923,710.52	651,726.53	675,702.53	6,086,084.78	2,023,004.89	1,903,146.14	1,426,661.74	733,272.01	6,086,084.78	2,234,089.79	1,903,146.14	1,189,985.84	758,863.01	6,086,084.78
		% of Total	46.58	31.61	10.71	11.1		33.24	31.27	23.44	12.05		36.71	31.27	19.55	12.47	
	Radionuclide Content	Curies	131.78	30,282.66	7,586.65	82,689.53	120,690.62	69.12	30,719.30	7,433.65	82,468.55	120,690.62	119.34	30,719.30	7,356.42	82,495.56	120,690.62
		% of Total	0.11	25.09	6.29	68.51		0.06	25.45	6.16	68.33		0.1	25.45	6.1	68.35	
	Radionuclide Content	grams	2,072.94	417,768.64	1,404.48	21,878.32	443,124.38	2,436.09	417,744.16	1,429.43	21,514.70	443,124.38	2,511.76	417,744.16	1,338.60	21,529.87	443,124.38
		% of Total	0.47	94.28	0.32	4.94		0.55	94.27	0.32	4.86		0.57	94.27	0.3	4.86	
Treated	Waste Volume	m^3	3,497.26	1,685.40	1,552.08	1,196.63	7,931.36	2,204.55	1,563.12	2,884.02	1,279.68	7,931.36	2,614.47	1,554.44	2,460.02	1,302.42	7,931.36
		% of Total	44.09	21.25	19.57	15.09		27.8	19.71	36.36	16.13		32.96	19.6	31.02	16.42	
	Waste Volume Reduction	%	74.57	-4.26	71.77	71.34	68.33	74.48	9.41	71.88	71.08	68.33	74.58	9.92	71.37	70.66	68.33
	Waste Mass	kilograms	2,838,654.21	6,047,513.52	722,426.53	675,702.53	10,284,296.78	2,058,644.89	5,968,893.34	1,523,486.54	733,272.01	10,284,296.78	2,269,729.79	5,967,599.94	1,265,532.04	781,435.01	10,284,296.78
		% of Total	27.6	58.8	7.02	6.57		20.02	58.04	14.81	7.13		22.07	58.03	12.31	7.6	
	Radionuclide Content	Curies	59.27	878.46	37,063.36	82,689.53	120,690.62	69.12	1,009.17	37,143.79	82,468.55	120,690.62	119.34	944.76	37,130.96	82,495.56	120,690.62
		% of Total	0.05	0.73	30.71	68.51		0.06	0.84	30.78	68.33		0.1	0.78	30.77	68.35	
	Radionuclide Content	grams	2,065.07	414,888.83	4,292.16	21,878.32	443,124.38	2,436.09	414,833.61	4,339.98	21,514.70	443,124.38	2,511.76	414,827.30	4,255.46	21,529.87	443,124.38
		% of Total	0.47	93.63	0.97	4.94		0.55	93.62	0.98	4.86		0.57	93.61	0.96	4.86	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	3,407.17	0.00	12.00		3,419.17	2,381.83	0.00	0.00		2,381.83	2,837.31	0.00	0.00		2,837.31
		% of Total	99.65	0	0.35	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	144.41	145.61	235.31		525.34	67.66	60.49	155.47		283.62	67.66	60.49	155.47		283.62
		% of Total	27.49	27.72	44.79	0		23.86	21.33	54.82	0		23.86	21.33	54.82	0	
	Volume - High Integrity Container	m^3	0.00	73.02	1,745.02	12.00	1,830.04	0.00	12.69	3,868.84	12.00	3,893.53	0.00	0.00	3,277.70	12.00	3,289.69
		% of Total	0	3.99	95.35	0.66		0	0.33	99.37	0.31		0	0	99.64	0.36	
	Volume - Solidified LLW Box	m^3	32.45	1,530.61	20.33		1,583.39	0.00	1,530.61	20.33		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.05	96.67	1.28	0		0	98.69	1.31	0		0	100	0	0	
	Volume - GTCC Drum	m^3				938.78	938.78				1,093.20	1,093.20				1,118.47	1,118.47
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				8.49	8.49				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				290.03	290.03				319.56	319.56				319.56	319.56
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	3,584.04	1,749.25	2,013.27	1,249.29	8,595.84	2,449.50	1,603.79	4,044.64	1,424.75	9,522.68	2,904.97	1,591.10	3,433.16	1,450.02	9,379.26
		% of Total	41.7	20.35	23.42	14.53		25.72	16.84	42.47	14.96		30.97	16.96	36.6	15.46	
	Waste Volume Increase (relative to treated waste volume)	%	2.48	3.79	29.71	4.40	8.38	11.11	2.60	40.24	11.34	20.06	11.11	2.36	39.56	11.33	18.26
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.94	-8.21	63.38	70.08	65.68	71.64	7.06	60.56	67.81	61.98	71.76	7.79	60.05	67.33	62.55

Overall Summary of Mixed Waste Stream Data for the New-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	9.19	65.72	0.48	0.81	76.20	9.19	65.72	0.48	0.81	76.20	9.19	65.72	0.48	0.81	76.20
		% of Total	12.06	86.24	0.63	1.07		12.06	86.24	0.63	1.07		12.06	86.24	0.63	1.07	
	Waste Mass	kilograms	8,619.00	16,996.97	536.60	1,294.70	27,447.27	8,619.00	16,996.97	536.60	1,294.70	27,447.27	8,619.00	16,996.97	536.60	1,294.70	27,447.27
		% of Total	31.4	61.93	1.96	4.72		31.4	61.93	1.96	4.72		31.4	61.93	1.96	4.72	
	Radionuclide Content	Curies	0.32	18.91	0.46	9.19	28.87	0.32	18.91	0.46	9.19	28.87	0.32	18.91	0.46	9.19	28.87
		% of Total	1.09	65.49	1.6	31.82		1.09	65.49	1.6	31.82		1.09	65.49	1.6	31.82	
	Radionuclide Content	grams	0.44	1.88	0.54	1.07	3.92	0.44	1.88	0.54	1.07	3.92	0.44	1.88	0.54	1.07	3.92
		% of Total	11.12	47.92	13.72	27.24		11.12	47.92	13.72	27.24		11.12	47.92	13.72	27.24	
Treated	Waste Volume	m^3	8.48	34.59	0.35	0.88	44.31	8.48	34.59	0.35	0.88	44.31	8.48	34.59	0.35	0.88	44.31
		% of Total	19.15	78.07	0.8	1.98		19.15	78.07	0.8	1.98		19.15	78.07	0.8	1.98	
	Waste Volume Reduction	%	7.70	47.36	25.79	-7.86	41.85	7.70	47.36	25.79	-7.86	41.85	7.70	47.36	25.79	-7.86	41.85
	Waste Mass	kilograms	8,711.40	17,276.37	596.00	1,435.50	28,019.27	8,711.40	17,276.37	596.00	1,435.50	28,019.27	8,711.40	17,276.37	596.00	1,435.50	28,019.27
		% of Total	31.09	61.66	2.13	5.12		31.09	61.66	2.13	5.12		31.09	61.66	2.13	5.12	
	Radionuclide Content	Curies	0.32	18.91	0.46	9.19	28.87	0.32	18.91	0.46	9.19	28.87	0.32	18.91	0.46	9.19	28.87
		% of Total	1.09	65.49	1.6	31.82		1.09	65.49	1.6	31.82		1.09	65.49	1.6	31.82	
	Radionuclide Content	grams	0.44	1.88	0.54	1.07	3.92	0.44	1.88	0.54	1.07	3.92	0.44	1.88	0.54	1.07	3.92
		% of Total	11.12	47.92	13.72	27.24		11.12	47.92	13.72	27.24		11.12	47.92	13.72	27.24	
Packaged	Volume - Mixed LLW Drum	m^3	9.40	0.54	0.38		10.32	9.43	0.56	0.39		10.38	9.43	0.56	0.39		10.38
		% of Total	91.07	5.2	3.72	0		90.82	5.39	3.79	0		90.82	5.39	3.79	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88	0.00	37.88	0.00		37.88
		% of Total	0	100	0	0		0	100	0	0		0	100	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.96	0.96				0.98	0.98				0.98	0.98
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	9.40	38.41	0.38	0.96	49.16	9.43	38.44	0.39	0.98	49.23	9.43	38.44	0.39	0.98	49.23
		% of Total	19.11	78.14	0.78	1.96		19.15	78.07	0.8	1.98		19.15	78.07	0.8	1.98	
	Waste Volume Increase (relative to treated waste volume)	%	10.75	11.04	8.45	9.79	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	-2.22	41.55	19.52	-18.42	35.49	-2.55	41.51	17.54	-19.85	35.39	-2.55	41.51	17.54	-19.85	35.39

Overall Summary of Waste Stream Data for the New-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	13,924.96	1,595.27	5,575.41	3,947.87	25,043.52	10,019.80	1,725.56	8,872.51	4,425.65	25,043.52	11,673.80	1,725.56	7,205.35	4,438.81	25,043.52
		% of Total	55.6	6.37	22.26	15.76		40.01	6.89	35.43	17.67		46.61	6.89	28.77	17.72	
	Waste Mass	kilograms	2,878,670.71	1,909,817.17	657,756.84	639,840.06	6,086,084.78	2,199,977.69	1,903,146.14	1,249,688.94	733,272.01	6,086,084.78	2,411,689.69	1,903,146.14	1,012,385.94	758,863.01	6,086,084.78
		% of Total	47.3	31.38	10.81	10.51		36.15	31.27	20.53	12.05		39.63	31.27	16.63	12.47	
	Radionuclide Content	Curies	47.61	10,042.08	2,438.78	35,445.61	47,974.08	39.79	10,066.31	2,459.74	35,408.24	47,974.08	60.08	10,066.31	2,427.24	35,420.44	47,974.08
		% of Total	0.1	20.93	5.08	73.88		0.08	20.98	5.13	73.81		0.13	20.98	5.06	73.83	
	Radionuclide Content	grams	2,436.86	417,432.94	1,440.74	21,813.84	443,124.38	2,488.11	417,744.16	1,377.41	21,514.70	443,124.38	2,563.85	417,744.16	1,286.52	21,529.87	443,124.38
		% of Total	0.55	94.2	0.33	4.92		0.56	94.27	0.31	4.86		0.58	94.27	0.29	4.86	
Treated	Waste Volume	m^3	3,605.87	1,621.65	1,580.33	1,123.51	7,931.36	2,550.20	1,708.14	2,393.34	1,279.68	7,931.36	2,963.70	1,708.14	1,957.10	1,302.42	7,931.36
		% of Total	45.46	20.45	19.93	14.17		32.15	21.54	30.18	16.13		37.37	21.54	24.68	16.42	
	Waste Volume Reduction	%	74.10	-1.65	71.66	71.54	68.33	74.55	1.01	73.03	71.08	68.33	74.61	1.01	72.84	70.66	68.33
	Waste Mass	kilograms	2,910,830.86	6,005,169.02	728,456.84	639,840.06	10,284,296.78	2,235,617.69	6,043,146.14	1,272,260.94	733,272.01	10,284,296.78	2,447,329.69	6,043,146.14	1,012,385.94	781,435.01	10,284,296.78
		% of Total	28.3	58.39	7.08	6.22		21.74	58.76	12.37	7.13		23.8	58.76	9.84	7.6	
	Radionuclide Content	Curies	46.12	432.74	12,049.61	35,445.61	47,974.08	39.79	10,066.31	2,459.74	35,408.24	47,974.08	60.08	10,066.31	2,427.24	35,420.44	47,974.08
		% of Total	0.1	0.9	25.12	73.88		0.08	20.98	5.13	73.81		0.13	20.98	5.06	73.83	
	Radionuclide Content	grams	2,079.05	414,903.07	4,328.42	21,813.84	443,124.38	2,488.11	417,744.16	1,377.41	21,514.70	443,124.38	2,563.85	417,744.16	1,286.52	21,529.87	443,124.38
		% of Total	0.47	93.63	0.98	4.92		0.56	94.27	0.31	4.86		0.58	94.27	0.29	4.86	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	3,491.43	0.00	12.00		3,503.43	2,765.89	0.00	0.00		2,765.89	3,225.33	0.00	0.00		3,225.33
		% of Total	99.66	0	0.34	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	173.35	127.97	246.16		547.48	67.66	60.49	243.97		372.13	67.66	60.49	243.97		372.13
		% of Total	31.66	23.37	44.96	0		18.18	16.26	65.56	0		18.18	16.26	65.56	0	
	Volume - High Integrity Container	m^3	0.00	8.70	1,758.59	12.00	1,779.29	0.00	224.86	3,151.00	12.00	3,387.86	0.00	224.86	2,541.93	12.00	2,778.79
		% of Total	0	0.49	98.84	0.67		0	6.64	93.01	0.35		0	8.09	91.48	0.43	
	Volume - Solidified LLW Box	m^3	32.45	1,530.61	20.33		1,583.39	0.00	1,530.61	20.33		1,550.94	0.00	1,530.61	0.00		1,530.61
		% of Total	2.05	96.67	1.28	0		0	98.69	1.31	0		0	100	0	0	
	Volume - GTCC Drum	m^3				886.76	886.76				1,093.20	1,093.20				1,118.47	1,118.47
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				8.43	8.43				0.00	0.00				0.00	0.00
		% of Total	0	0	0	100											
	Volume - Engineered GTCC Container	m^3				265.49	265.49				319.56	319.56				319.56	319.56
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	3,697.23	1,667.28	2,037.69	1,172.68	8,574.88	2,833.55	1,815.96	3,415.30	1,424.75	9,489.56	3,293.00	1,815.96	2,785.91	1,450.02	9,344.89
		% of Total	43.12	19.44	23.76	13.68		29.86	19.14	35.99	15.01		35.24	19.43	29.81	15.52	
	Waste Volume Increase (relative to treated waste volume)	%	2.53	2.81	28.94	4.38	8.11	11.11	6.31	42.70	11.34	19.65	11.11	6.31	42.35	11.33	17.82
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.45	-4.51	63.45	70.3	65.76	71.72	-5.24	61.51	67.81	62.11	71.79	-5.24	61.34	67.33	62.69

Overall Summary of Mixed Waste Stream Data for the New-Extraction Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	74.53	0.38	0.98	0.31	76.20	74.53	0.38	0.98	0.31	76.20	74.53	0.38	0.98	0.31	76.20
		% of Total	97.81	0.49	1.28	0.41		97.81	0.49	1.28	0.41		97.81	0.49	1.28	0.41	
	Waste Mass	kilograms	23,990.37	1,625.60	917.60	913.70	27,447.27	23,990.37	1,625.60	917.60	913.70	27,447.27	23,990.37	1,625.60	917.60	913.70	27,447.27
		% of Total	87.41	5.92	3.34	3.33		87.41	5.92	3.34	3.33		87.41	5.92	3.34	3.33	
	Radionuclide Content	Curies	1.14	5.14	0.73	3.77	10.78	1.14	5.14	0.73	3.77	10.78	1.14	5.14	0.73	3.77	10.78
		% of Total	10.55	47.71	6.74	35		10.55	47.71	6.74	35		10.55	47.71	6.74	35	
	Radionuclide Content	grams	0.74	1.57	0.65	0.95	3.92	0.74	1.57	0.65	0.95	3.92	0.74	1.57	0.65	0.95	3.92
		% of Total	18.96	40.08	16.63	24.32		18.96	40.08	16.63	24.32		18.96	40.08	16.63	24.32	
Treated	Waste Volume	m^3	42.57	0.50	0.85	0.38	44.31	42.57	0.50	0.85	0.38	44.31	42.57	0.50	0.85	0.38	44.31
		% of Total	96.08	1.14	1.93	0.85		96.08	1.14	1.93	0.85		96.08	1.14	1.93	0.85	
	Waste Volume Reduction	%	42.88	-33.69	12.59	-20.38	41.85	42.88	-33.69	12.59	-20.38	41.85	42.88	-33.69	12.59	-20.38	41.85
	Waste Mass	kilograms	24,082.77	1,905.00	977.00	1,054.50	28,019.27	24,082.77	1,905.00	977.00	1,054.50	28,019.27	24,082.77	1,905.00	977.00	1,054.50	28,019.27
		% of Total	85.95	6.8	3.49	3.76		85.95	6.8	3.49	3.76		85.95	6.8	3.49	3.76	
	Radionuclide Content	Curies	1.14	5.14	0.73	3.77	10.78	1.14	5.14	0.73	3.77	10.78	1.14	5.14	0.73	3.77	10.78
		% of Total	10.55	47.71	6.74	35		10.55	47.71	6.74	35		10.55	47.71	6.74	35	
	Radionuclide Content	grams	0.74	1.57	0.65	0.95	3.92	0.74	1.57	0.65	0.95	3.92	0.74	1.57	0.65	0.95	3.92
		% of Total	18.96	40.08	16.63	24.32		18.96	40.08	16.63	24.32		18.96	40.08	16.63	24.32	
Packaged	Volume - Mixed LLW Drum	m^3	9.40	0.54	0.94		10.87	9.43	0.56	0.95		10.94	9.43	0.56	0.95		10.94
		% of Total	86.42	4.94	8.64	0		86.2	5.12	8.68	0		86.2	5.12	8.68	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88	37.88	0.00	0.00		37.88
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.41	0.41				0.42	0.42				0.42	0.42
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	47.27	0.54	0.94	0.41	49.16	47.30	0.56	0.95	0.42	49.23	47.30	0.56	0.95	0.42	49.23
		% of Total	96.17	1.09	1.91	0.83		96.08	1.14	1.93	0.85		96.08	1.14	1.93	0.85	
	Waste Volume Increase (relative to treated waste volume)	%	11.04	6.54	10.01	8.04	10.94	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	36.57	-42.43	3.84	-30.06	35.49	36.53	-48.54	2.88	-33.76	35.39	36.53	-48.54	2.88	-33.76	35.39

Appendix C

Summary Data for UREX+1b

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Overall Summary of Waste Stream Data for the UREX+1b Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	20,191.36	1,444.50	2,676.98	1,915.43	26,228.28	19,692.55	1,346.47	3,828.18	1,361.07	26,228.28	19,682.61	1,339.87	3,844.74	1,361.06	26,228.28
		% of Total	76.98	5.51	10.21	7.3		75.08	5.13	14.6	5.19		75.04	5.11	14.66	5.19	
	Waste Mass	kilograms	3,769,245.12	1,900,338.21	386,055.82	376,797.68	6,432,436.84	3,622,188.76	1,919,589.30	575,192.52	315,466.26	6,432,436.84	3,599,611.36	1,916,365.30	601,224.92	315,235.26	6,432,436.84
		% of Total	58.6	29.54	6	5.86		56.31	29.84	8.94	4.9		55.96	29.79	9.35	4.9	
	Radionuclide Content	Curies	27,376.42	7,463.28	77,369.61	97,205.15	209,414.46	27,247.43	7,603.86	77,948.41	96,614.76	209,414.46	27,270.05	7,351.49	78,200.92	96,592.01	209,414.46
		% of Total	13.07	3.56	36.95	46.42		13.01	3.63	37.22	46.14		13.02	3.51	37.34	46.12	
	Radionuclide Content	grams	8,561.55	415,667.53	4,024.25	22,296.54	450,549.87	8,802.87	416,017.30	10,164.75	15,564.95	450,549.87	8,858.34	415,998.69	10,185.63	15,507.20	450,549.87
		% of Total	1.9	92.26	0.89	4.95		1.95	92.34	2.26	3.45		1.97	92.33	2.26	3.44	
Treated	Waste Volume	m^3	5,175.88	1,755.38	760.40	585.81	8,277.48	4,861.17	1,847.41	1,081.48	487.43	8,277.48	4,996.25	1,694.51	1,099.31	487.41	8,277.48
		% of Total	62.53	21.21	9.19	7.08		58.73	22.32	13.07	5.89		60.36	20.47	13.28	5.89	
	Waste Volume Reduction	%	74.37	-21.52	71.59	69.42	68.44	75.31	-37.20	71.75	64.19	68.44	74.62	-26.47	71.41	64.19	68.44
	Waste Mass	kilograms	3,753,405.17	6,096,112.46	387,701.52	376,797.68	10,614,016.84	3,583,575.96	6,139,782.10	575,192.52	315,466.26	10,614,016.84	3,635,251.36	6,056,365.30	607,164.92	315,235.26	10,614,016.84
		% of Total	35.36	57.43	3.65	3.55		33.76	57.85	5.42	2.97		34.25	57.06	5.72	2.97	
	Radionuclide Content	Curies	1,167.04	33,243.67	77,798.60	97,205.15	209,414.46	830.83	34,020.46	77,948.41	96,614.76	209,414.46	27,270.05	7,351.49	78,200.92	96,592.01	209,414.46
		% of Total	0.56	15.87	37.15	46.42		0.4	16.25	37.22	46.14		13.02	3.51	37.34	46.12	
	Radionuclide Content	grams	5,316.18	418,903.03	4,034.12	22,296.54	450,549.87	5,892.33	418,927.85	10,164.75	15,564.95	450,549.87	8,858.34	415,998.69	10,185.63	15,507.20	450,549.87
		% of Total	1.18	92.98	0.9	4.95		1.31	92.98	2.26	3.45		1.97	92.33	2.26	3.44	
Packaged	Volume - LLW Drum	m^3	0.00	0.61	0.00		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	100	0	0											
	Volume - Standard LLW Box	m^3	4,991.83	0.00	0.00		4,991.83	3,578.76	0.00	0.00		3,578.76	3,728.85	0.00	0.00		3,728.85
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	286.96	116.51	288.02		691.49	101.70	206.12	202.91		510.73	101.70	206.12	202.91		510.73
		% of Total	41.5	16.85	41.65	0		19.91	40.36	39.73	0		19.91	40.36	39.73	0	
	Volume - High Integrity Container	m^3	0.00	196.06	657.80	0.00	853.86	2,265.76	236.85	1,314.99	0.00	3,817.61	2,265.76	13.17	1,341.08	0.00	3,620.01
		% of Total	0	22.96	77.04	0		59.35	6.2	34.45	0		62.59	0.36	37.05	0	
	Volume - Solidified LLW Box	m^3	32.45	1,535.51	0.00		1,567.96	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.07	97.93	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				371.15	371.15				267.97	267.97				267.97	267.97
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				0.02	0.02				0.02	0.02				0.00	0.00
		% of Total	0	0	0	100		0	0	0	100						
	Volume - Engineered GTCC Container	m^3				246.75	246.75				273.60	273.60				273.60	273.60
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,311.25	1,848.69	945.82	617.91	8,723.66	5,946.23	1,973.58	1,517.91	541.59	9,979.30	6,096.32	1,749.90	1,544.00	541.57	9,931.78
		% of Total	60.88	21.19	10.84	7.08		59.59	19.78	15.21	5.43		61.38	17.62	15.55	5.45	
	Waste Volume Increase (relative to treated waste volume)	%	2.62	5.32	24.38	5.48	5.39	22.32	6.83	40.35	11.11	20.56	22.02	3.27	40.45	11.11	19.99
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.7	-27.98	64.67	67.74	66.74	69.8	-46.57	60.35	60.21	61.95	69.03	-30.6	59.84	60.21	62.13

Overall Summary of Waste Stream Data for the UREX+1b Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years																	
			Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
Basis	Parameter	Units	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	20,191.36	1,444.50	2,676.98	1,915.43	26,228.28	19,692.55	1,346.47	3,828.18	1,361.07	26,228.28	19,682.61	1,339.87	3,844.74	1,361.06	26,228.28
		% of Total	76.98	5.51	10.21	7.3		75.08	5.13	14.6	5.19		75.04	5.11	14.66	5.19	
	Waste Mass	kilograms	3,749,791.33	1,900,338.21	386,055.82	376,797.68	6,412,983.04	3,604,422.36	1,919,589.30	573,505.13	315,466.26	6,412,983.04	3,581,844.96	1,916,365.30	599,537.53	315,235.26	6,412,983.04
		% of Total	58.47	29.63	6.02	5.88		56.21	29.93	8.94	4.92		55.85	29.88	9.35	4.92	
	Radionuclide Content	Curies	27,375.19	7,463.28	77,369.61	97,205.15	209,413.23	27,246.19	7,603.86	77,948.41	96,614.76	209,413.23	27,268.81	7,351.49	78,200.92	96,592.01	209,413.23
		% of Total	13.07	3.56	36.95	46.42		13.01	3.63	37.22	46.14		13.02	3.51	37.34	46.13	
	Radionuclide Content	grams	8,556.22	415,667.53	4,024.25	22,296.54	450,544.54	8,797.54	416,017.30	10,164.74	15,564.95	450,544.54	8,853.01	415,998.69	10,185.63	15,507.20	450,544.54
		% of Total	1.9	92.26	0.89	4.95		1.95	92.34	2.26	3.45		1.96	92.33	2.26	3.44	
Treated	Waste Volume	m^3	5,175.88	1,755.38	760.40	585.81	8,277.48	4,861.17	1,847.41	1,081.48	487.43	8,277.48	4,996.25	1,694.51	1,099.31	487.41	8,277.48
		% of Total	62.53	21.21	9.19	7.08		58.73	22.32	13.07	5.89		60.36	20.47	13.28	5.89	
	Waste Volume Reduction	%	74.37	-21.52	71.59	69.42	68.44	75.31	-37.20	71.75	64.19	68.44	74.62	-26.47	71.41	64.19	68.44
	Waste Mass	kilograms	3,733,951.38	6,096,112.46	387,701.52	376,797.68	10,594,563.04	3,565,809.56	6,139,782.10	573,505.13	315,466.26	10,594,563.04	3,617,484.96	6,056,365.30	605,477.53	315,235.26	10,594,563.04
		% of Total	35.24	57.54	3.66	3.56		33.66	57.95	5.41	2.98		34.14	57.16	5.71	2.98	
	Radionuclide Content	Curies	1,165.80	33,243.67	77,798.60	97,205.15	209,413.23	829.59	34,020.46	77,948.41	96,614.76	209,413.23	27,268.81	7,351.49	78,200.92	96,592.01	209,413.23
		% of Total	0.56	15.87	37.15	46.42		0.4	16.25	37.22	46.14		13.02	3.51	37.34	46.13	
	Radionuclide Content	grams	5,310.85	418,903.03	4,034.12	22,296.54	450,544.54	5,887.00	418,927.85	10,164.74	15,564.95	450,544.54	8,853.01	415,998.69	10,185.63	15,507.20	450,544.54
		% of Total	1.18	92.98	0.9	4.95		1.31	92.98	2.26	3.45		1.96	92.33	2.26	3.44	
Packaged	Volume - LLW Drum	m^3	0.00	0.61	0.00		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	100	0	0											
	Volume - Standard LLW Box	m^3	4,991.83	0.00	0.00		4,991.83	3,578.76	0.00	0.00		3,578.76	3,728.85	0.00	0.00		3,728.85
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	286.96	116.51	288.02		691.49	101.70	206.12	202.91		510.73	101.70	206.12	202.91		510.73
		% of Total	41.5	16.85	41.65	0		19.91	40.36	39.73	0		19.91	40.36	39.73	0	
	Volume - High Integrity Container	m^3	0.00	196.06	657.80	0.00	853.86	2,265.76	236.85	1,314.99	0.00	3,817.61	2,265.76	13.17	1,341.08	0.00	3,620.01
		% of Total	0	22.96	77.04	0		59.35	6.2	34.45	0		62.59	0.36	37.05	0	
	Volume - Solidified LLW Box	m^3	32.45	1,535.51	0.00		1,567.96	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.07	97.93	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				371.15	371.15				267.97	267.97				267.97	267.97
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				0.02	0.02				0.02	0.02				0.00	0.00
		% of Total	0	0	0	100		0	0	0	100						
	Volume - Engineered GTCC Container	m^3				246.75	246.75				273.60	273.60				273.60	273.60
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,311.25	1,848.69	945.82	617.91	8,723.66	5,946.23	1,973.58	1,517.91	541.59	9,979.30	6,096.32	1,749.90	1,544.00	541.57	9,931.78
		% of Total	60.88	21.19	10.84	7.08		59.59	19.78	15.21	5.43		61.38	17.62	15.55	5.45	
	Waste Volume Increase (relative to treated waste volume)	%	2.62	5.32	24.38	5.48	5.39	22.32	6.83	40.35	11.11	20.56	22.02	3.27	40.45	11.11	19.99
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.7	-27.98	64.67	67.74	66.74	69.8	-46.57	60.35	60.21	61.95	69.03	-30.6	59.84	60.21	62.13

Overall Summary of Waste Stream Data for the UREX+1b Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	20,267.88	1,352.09	2,695.15	1,913.15	26,228.28	19,817.70	1,611.63	2,311.49	2,487.46	26,228.28	19,807.75	1,611.63	2,691.95	2,116.94	26,228.28
		% of Total	77.27	5.16	10.28	7.29		75.56	6.14	8.81	9.48		75.52	6.14	10.26	8.07	
	Waste Mass	kilograms	3,787,250.24	1,867,245.06	402,005.70	375,935.84	6,432,436.84	3,644,290.29	1,939,925.16	368,612.81	479,608.58	6,432,436.84	3,621,712.89	1,939,925.16	436,472.21	434,326.58	6,432,436.84
		% of Total	58.88	29.03	6.25	5.84		56.65	30.16	5.73	7.46		56.3	30.16	6.79	6.75	
	Radionuclide Content	Curies	5,212.78	1,935.64	40,445.56	36,939.58	84,533.55	5,129.16	41,280.21	232.90	37,891.27	84,533.55	5,129.30	41,280.21	265.50	37,858.54	84,533.55
		% of Total	6.17	2.29	47.85	43.7		6.07	48.83	0.28	44.82		6.07	48.83	0.31	44.79	
	Radionuclide Content	grams	8,602.26	415,576.71	4,099.16	22,271.75	450,549.87	9,782.49	416,751.33	2,050.53	21,965.53	450,549.87	9,837.95	416,751.33	3,787.27	20,173.32	450,549.87
		% of Total	1.91	92.24	0.91	4.94		2.17	92.5	0.46	4.88		2.18	92.5	0.84	4.48	
Treated	Waste Volume	m^3	5,307.28	1,612.88	771.96	585.35	8,277.48	5,049.18	1,647.57	790.68	790.05	8,277.48	5,039.23	1,642.52	896.29	699.44	8,277.48
		% of Total	64.12	19.49	9.33	7.07		61	19.9	9.55	9.54		60.88	19.84	10.83	8.45	
	Waste Volume Reduction	%	73.81	-19.29	71.36	69.40	68.44	74.52	-2.23	65.79	68.24	68.44	74.56	-1.92	66.70	66.96	68.44
	Waste Mass	kilograms	3,819,640.79	6,016,376.01	402,064.20	375,935.84	10,614,016.84	3,679,930.29	6,033,685.16	420,792.81	479,608.58	10,614,016.84	3,657,352.89	6,027,963.76	493,713.61	434,986.58	10,614,016.84
		% of Total	35.99	56.68	3.79	3.54		34.67	56.85	3.96	4.52		34.46	56.79	4.65	4.1	
	Radionuclide Content	Curies	5,212.69	1,927.82	40,453.46	36,939.58	84,533.55	5,129.16	1,885.34	39,627.77	37,891.27	84,533.55	5,129.30	1,756.40	39,789.31	37,858.54	84,533.55
		% of Total	6.17	2.28	47.85	43.7		6.07	2.23	46.88	44.82		6.07	2.08	47.07	44.79	
	Radionuclide Content	grams	8,244.82	415,933.80	4,099.51	22,271.75	450,549.87	9,782.49	415,002.88	3,798.98	21,965.53	450,549.87	9,837.95	414,997.16	5,541.44	20,173.32	450,549.87
		% of Total	1.83	92.32	0.91	4.94		2.17	92.11	0.84	4.88		2.18	92.11	1.23	4.48	
Packaged	Volume - LLW Drum	m^3	0.00	0.61	0.00		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	100	0	0											
	Volume - Standard LLW Box	m^3	5,087.75	0.00	0.00		5,087.75	5,460.73	0.00	0.00		5,460.73	5,449.68	0.00	0.00		5,449.68
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	328.52	69.32	294.16		692.00	149.47	158.35	162.97		470.79	149.47	158.35	162.97		470.79
		% of Total	47.47	10.02	42.51	0		31.75	33.64	34.62	0		31.75	33.64	34.62	0	
	Volume - High Integrity Container	m^3	0.00	60.59	666.97	0.00	727.56	0.00	7.39	942.16	0.00	949.54	0.00	0.00	1,096.66	0.00	1,096.66
		% of Total	0	8.33	91.67	0		0	0.78	99.22	0		0	0	100	0	
	Volume - Solidified LLW Box	m^3	32.45	1,535.51	0.00		1,567.96	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.07	97.93	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				371.15	371.15				564.28	564.28				463.61	463.61
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				0.02	0.02				0.02	0.02				0.00	0.00
		% of Total	0	0	0	100		0	0	0	100						
	Volume - Engineered GTCC Container	m^3				246.24	246.24				313.54	313.54				313.54	313.54
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,448.72	1,666.03	961.13	617.40	8,693.29	5,610.20	1,696.35	1,105.12	877.84	9,289.51	5,599.15	1,688.97	1,259.63	777.15	9,324.90
		% of Total	62.68	19.16	11.06	7.1		60.39	18.26	11.9	9.45		60.05	18.11	13.51	8.33	
	Waste Volume Increase (relative to treated waste volume)	%	2.66	3.30	24.51	5.48	5.02	11.11	2.96	39.77	11.11	12.23	11.11	2.83	40.54	11.11	12.65
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.12	-23.22	64.34	67.73	66.86	71.69	-5.26	52.19	64.71	64.58	71.73	-4.8	53.21	63.29	64.45

Overall Summary of Mixed Waste Stream Data for the UREX+1b Process Based on 20 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	79.52	21.24	0.98	0.00	101.74	79.52	21.24	0.98	0.00	101.74	79.52	21.24	0.98	0.00	101.74
		% of Total	78.16	20.87	0.97	0		78.16	20.87	0.97	0		78.16	20.87	0.97	0	
	Waste Mass	kilograms	27,781.57	3,217.20	974.10	0.00	31,972.87	27,781.57	3,217.20	974.10	0.00	31,972.87	27,781.57	3,217.20	974.10	0.00	31,972.87
		% of Total	86.89	10.06	3.05	0		86.89	10.06	3.05	0		86.89	10.06	3.05	0	
	Radionuclide Content	Curies	3.29	2.55	10.74	0.00	16.58	3.29	2.55	10.74	0.00	16.58	3.29	2.55	10.74	0.00	16.58
		% of Total	19.87	15.4	64.74	0		19.87	15.4	64.74	0		19.87	15.4	64.74	0	
	Radionuclide Content	grams	3.45	0.49	0.72	0.00	4.67	3.45	0.49	0.72	0.00	4.67	3.45	0.49	0.72	0.00	4.67
		% of Total	74.02	10.5	15.48	0		74.02	10.5	15.48	0		74.02	10.5	15.48	0	
Treated	Waste Volume	m^3	47.76	21.26	0.86	0.00	69.88	47.76	21.26	0.86	0.00	69.88	47.76	21.26	0.86	0.00	69.88
		% of Total	68.34	30.43	1.24	0		68.34	30.43	1.24	0		68.34	30.43	1.24	0	
	Waste Volume Reduction	%	39.95	-0.13	12.02		31.31	39.95	-0.13	12.02		31.31	39.95	-0.13	12.02		31.31
	Waste Mass	kilograms	28,294.17	3,276.60	1,044.50	0.00	32,615.27	28,294.17	3,276.60	1,044.50	0.00	32,615.27	28,294.17	3,276.60	1,044.50	0.00	32,615.27
		% of Total	86.75	10.05	3.2	0		86.75	10.05	3.2	0		86.75	10.05	3.2	0	
	Radionuclide Content	Curies	3.29	2.55	10.74	0.00	16.58	3.29	2.55	10.74	0.00	16.58	3.29	2.55	10.74	0.00	16.58
		% of Total	19.87	15.4	64.74	0		19.87	15.4	64.74	0		19.87	15.4	64.74	0	
	Radionuclide Content	grams	3.45	0.49	0.72	0.00	4.67	3.45	0.49	0.72	0.00	4.67	3.45	0.49	0.72	0.00	4.67
		% of Total	74.02	10.5	15.48	0		74.02	10.5	15.48	0		74.02	10.5	15.48	0	
Packaged	Volume - Mixed LLW Drum	m^3	11.18	0.33	0.95		12.46	11.24	0.34	0.96		12.54	11.24	0.34	0.96		12.54
		% of Total	89.7	2.67	7.62	0		89.65	2.69	7.66	0		89.65	2.69	7.66	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11
		% of Total	64.23	35.77	0	0		64.23	35.77	0	0		64.23	35.77	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	53.00	23.62	0.95	0.00	77.57	53.06	23.63	0.96	0.00	77.65	53.06	23.63	0.96	0.00	77.65
		% of Total	68.32	30.45	1.22	0		68.34	30.43	1.24	0		68.34	30.43	1.24	0	
	Waste Volume Increase (relative to treated waste volume)	%	10.98	11.09	9.91		11.00	11.11	11.11	11.11		11.11	11.11	11.11	11.11		11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	33.36	-11.23	3.29		23.76	33.27	-11.25	2.24		23.68	33.27	-11.25	2.24		23.68

Overall Summary of Waste Stream Data for the UREX+1b Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,350.90	1,457.24	3,279.13	2,141.01	26,228.28	18,973.45	1,334.27	3,113.97	2,806.58	26,228.28	18,963.51	1,330.87	3,097.57	2,836.32	26,228.28
		% of Total	73.78	5.56	12.5	8.16		72.34	5.09	11.87	10.7		72.3	5.07	11.81	10.81	
	Waste Mass	kilograms	3,640,334.67	1,882,685.16	498,305.03	411,111.98	6,432,436.84	3,530,143.96	1,910,506.70	438,210.85	553,575.34	6,432,436.84	3,507,566.56	1,910,065.30	432,131.25	582,673.74	6,432,436.84
		% of Total	56.59	29.27	7.75	6.39		54.88	29.7	6.81	8.61		54.53	29.69	6.72	9.06	
	Radionuclide Content	Curies	22,666.17	6,244.69	78,720.69	99,607.96	207,239.51	23,019.15	6,347.32	77,290.97	100,582.07	207,239.51	23,038.45	6,096.24	77,533.21	100,571.61	207,239.51
		% of Total	10.94	3.01	37.99	48.06		11.11	3.06	37.3	48.53		11.12	2.94	37.41	48.53	
	Radionuclide Content	grams	6,943.25	415,980.27	5,144.38	22,481.97	450,549.87	8,756.38	415,982.49	3,159.29	22,651.71	450,549.87	8,811.85	415,976.77	3,128.59	22,632.66	450,549.87
		% of Total	1.54	92.33	1.14	4.99		1.94	92.33	0.7	5.03		1.96	92.33	0.69	5.02	
Treated	Waste Volume	m^3	4,929.35	1,765.89	922.34	659.90	8,277.48	4,681.39	1,835.58	857.96	902.55	8,277.48	4,816.47	1,685.51	852.43	923.07	8,277.48
		% of Total	59.55	21.33	11.14	7.97		56.56	22.18	10.36	10.9		58.19	20.36	10.3	11.15	
	Waste Volume Reduction	%	74.53	-21.18	71.87	69.18	68.44	75.33	-37.57	72.45	67.84	68.44	74.60	-26.65	72.48	67.46	68.44
	Waste Mass	kilograms	3,627,928.92	6,074,365.21	500,610.73	411,111.98	10,614,016.84	3,491,531.16	6,130,039.50	438,870.85	553,575.34	10,614,016.84	3,543,206.56	6,050,065.30	437,411.25	583,333.74	10,614,016.84
		% of Total	34.18	57.23	4.72	3.87		32.9	57.75	4.13	5.22		33.38	57	4.12	5.5	
	Radionuclide Content	Curies	627.86	27,849.80	79,153.89	99,607.96	207,239.51	806.45	28,560.02	77,290.97	100,582.07	207,239.51	23,038.45	6,096.24	77,533.21	100,571.61	207,239.51
		% of Total	0.3	13.44	38.19	48.06		0.39	13.78	37.3	48.53		11.12	2.94	37.41	48.53	
	Radionuclide Content	grams	4,050.04	418,863.61	5,154.26	22,481.97	450,549.87	5,845.84	418,893.04	3,159.29	22,651.71	450,549.87	8,811.85	415,976.77	3,128.59	22,632.66	450,549.87
		% of Total	0.9	92.97	1.14	4.99		1.3	92.97	0.7	5.03		1.96	92.33	0.69	5.02	
Packaged	Volume - LLW Drum	m^3	95.51	0.00	0.61		96.12	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	99.36	0	0.64	0											
	Volume - Standard LLW Box	m^3	4,694.95	0.00	0.00		4,694.95	5,099.84	0.00	0.00		5,099.84	5,249.93	0.00	0.00		5,249.93
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	232.32	137.93	181.93		552.18	101.70	206.12	88.50		396.32	101.70	206.12	88.50		396.32
		% of Total	42.07	24.98	32.95	0		25.66	52.01	22.33	0		25.66	52.01	22.33	0	
	Volume - High Integrity Container	m^3	0.00	184.00	1,016.02	0.00	1,200.02	0.00	219.55	1,138.63	0.00	1,358.19	0.00	0.00	1,130.55	0.00	1,130.55
		% of Total	0	15.33	84.67	0		0	16.17	83.83	0		0	0	100	0	
	Volume - Solidified LLW Box	m^3	32.45	1,535.51	0.00		1,567.96	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.07	97.93	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				422.24	422.24				614.81	614.81				637.62	637.62
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				0.02	0.02				0.02	0.02				0.00	0.00
		% of Total	0	0	0	100		0	0	0	100						
	Volume - Engineered GTCC Container	m^3				273.43	273.43				388.01	388.01				388.01	388.01
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,055.22	1,857.44	1,198.56	695.69	8,806.92	5,201.55	1,956.28	1,227.13	1,002.83	9,387.80	5,351.63	1,736.73	1,219.05	1,025.63	9,333.05
		% of Total	57.4	21.09	13.61	7.9		55.41	20.84	13.07	10.68		57.34	18.61	13.06	10.99	
	Waste Volume Increase (relative to treated waste volume)	%	2.55	5.18	29.95	5.42	6.40	11.11	6.58	43.03	11.11	13.41	11.11	3.04	43.01	11.11	12.75
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.88	-27.46	63.45	67.51	66.42	72.59	-46.62	60.59	64.27	64.21	71.78	-30.5	60.64	63.84	64.42

Overall Summary of Mixed Waste Stream Data for the UREX+1b Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	79.25	21.26	0.98	0.25	101.74	79.25	21.26	0.98	0.25	101.74	79.25	21.26	0.98	0.25	101.74
		% of Total	77.9	20.89	0.97	0.25		77.9	20.89	0.97	0.25		77.9	20.89	0.97	0.25	
	Waste Mass	kilograms	27,353.77	3,454.50	974.10	190.50	31,972.87	27,353.77	3,454.50	974.10	190.50	31,972.87	27,353.77	3,454.50	974.10	190.50	31,972.87
		% of Total	85.55	10.8	3.05	0.6		85.55	10.8	3.05	0.6		85.55	10.8	3.05	0.6	
	Radionuclide Content	Curies	14.47	5.10	21.12	0.61	41.30	14.47	5.10	21.12	0.61	41.30	14.47	5.10	21.12	0.61	41.30
		% of Total	35.04	12.35	51.13	1.49		35.04	12.35	51.13	1.49		35.04	12.35	51.13	1.49	
	Radionuclide Content	grams	3.37	0.52	0.72	0.06	4.67	3.37	0.52	0.72	0.06	4.67	3.37	0.52	0.72	0.06	4.67
		% of Total	72.17	11.13	15.48	1.22		72.17	11.13	15.48	1.22		72.17	11.13	15.48	1.22	
Treated	Waste Volume	m^3	47.46	21.31	0.86	0.25	69.88	47.46	21.31	0.86	0.25	69.88	47.46	21.31	0.86	0.25	69.88
		% of Total	67.92	30.49	1.24	0.36		67.92	30.49	1.24	0.36		67.92	30.49	1.24	0.36	
	Waste Volume Reduction	%	40.11	-0.23	12.02	0.00	31.31	40.11	-0.23	12.02	0.00	31.31	40.11	-0.23	12.02	0.00	31.31
	Waste Mass	kilograms	27,820.17	3,560.10	1,044.50	190.50	32,615.27	27,820.17	3,560.10	1,044.50	190.50	32,615.27	27,820.17	3,560.10	1,044.50	190.50	32,615.27
		% of Total	85.3	10.92	3.2	0.58		85.3	10.92	3.2	0.58		85.3	10.92	3.2	0.58	
	Radionuclide Content	Curies	14.47	5.10	21.12	0.61	41.30	14.47	5.10	21.12	0.61	41.30	14.47	5.10	21.12	0.61	41.30
		% of Total	35.04	12.35	51.13	1.49		35.04	12.35	51.13	1.49		35.04	12.35	51.13	1.49	
	Radionuclide Content	grams	3.37	0.52	0.72	0.06	4.67	3.37	0.52	0.72	0.06	4.67	3.37	0.52	0.72	0.06	4.67
		% of Total	72.17	11.13	15.48	1.22		72.17	11.13	15.48	1.22		72.17	11.13	15.48	1.22	
Packaged	Volume - Mixed LLW Drum	m^3	10.85	0.38	0.95		12.18	10.92	0.38	0.96		12.26	10.92	0.38	0.96		12.26
		% of Total	89.12	3.08	7.8	0		89.03	3.14	7.83	0		89.03	3.14	7.83	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11
		% of Total	64.23	35.77	0	0		64.23	35.77	0	0		64.23	35.77	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.28	0.28				0.28	0.28				0.28	0.28
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	52.68	23.66	0.95	0.28	77.57	52.74	23.67	0.96	0.28	77.65	52.74	23.67	0.96	0.28	77.65
		% of Total	67.91	30.51	1.22	0.36		67.92	30.49	1.24	0.36		67.92	30.49	1.24	0.36	
	Waste Volume Increase (relative to treated waste volume)	%	10.98	11.07	9.91	11.11	11.00	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	33.53	-11.32	3.29	-11.11	23.76	33.46	-11.36	2.24	-11.11	23.68	33.46	-11.36	2.24	-11.11	23.68

Overall Summary of Waste Stream Data for the UREX+1b Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	19,555.62	1,402.92	3,131.01	2,138.73	26,228.28	18,973.45	1,736.77	2,711.47	2,806.58	26,228.28	18,963.51	1,736.77	2,691.67	2,836.32	26,228.28
		% of Total	74.56	5.35	11.94	8.15		72.34	6.62	10.34	10.7		72.3	6.62	10.26	10.81	
	Waste Mass	kilograms	3,680,217.52	1,862,053.51	479,915.67	410,250.14	6,432,436.84	3,530,143.96	1,962,026.70	386,690.85	553,575.34	6,432,436.84	3,507,566.56	1,962,026.70	380,169.85	582,673.74	6,432,436.84
		% of Total	57.21	28.95	7.46	6.38		54.88	30.5	6.01	8.61		54.53	30.5	5.91	9.06	
	Radionuclide Content	Curies	5,448.88	1,822.31	39,438.16	39,449.53	86,158.89	5,450.83	40,030.65	213.78	40,463.64	86,158.89	5,450.97	40,030.65	210.47	40,466.80	86,158.89
		% of Total	6.32	2.12	45.77	45.79		6.33	46.46	0.25	46.96		6.33	46.46	0.24	46.97	
	Radionuclide Content	grams	8,459.53	415,619.06	4,014.11	22,457.17	450,549.87	8,756.38	417,730.94	1,410.84	22,651.71	450,549.87	8,811.85	417,730.94	1,374.42	22,632.66	450,549.87
		% of Total	1.88	92.25	0.89	4.98		1.94	92.72	0.31	5.03		1.96	92.72	0.31	5.02	
Treated	Waste Volume	m^3	5,109.82	1,626.12	882.09	659.44	8,277.48	4,826.42	1,690.56	857.96	902.55	8,277.48	4,816.47	1,685.51	852.43	923.07	8,277.48
		% of Total	61.73	19.65	10.66	7.97		58.31	20.42	10.36	10.9		58.19	20.36	10.3	11.15	
	Waste Volume Reduction	%	73.87	-15.91	71.83	69.17	68.44	74.56	2.66	68.36	67.84	68.44	74.60	2.95	68.33	67.46	68.44
	Waste Mass	kilograms	3,712,608.07	6,010,524.46	480,634.17	410,250.14	10,614,016.84	3,565,783.96	6,055,786.70	438,870.85	553,575.34	10,614,016.84	3,543,206.56	6,050,065.30	437,411.25	583,333.74	10,614,016.84
		% of Total	34.98	56.63	4.53	3.87		33.6	57.05	4.13	5.22		33.38	57	4.12	5.5	
	Radionuclide Content	Curies	5,448.71	1,814.79	39,445.85	39,449.53	86,158.89	5,450.83	1,719.41	38,525.01	40,463.64	86,158.89	5,450.97	1,594.01	38,647.11	40,466.80	86,158.89
		% of Total	6.32	2.11	45.78	45.79		6.33	2	44.71	46.96		6.33	1.85	44.86	46.97	
	Radionuclide Content	grams	8,102.09	415,976.15	4,014.46	22,457.17	450,549.87	8,756.38	415,982.49	3,159.29	22,651.71	450,549.87	8,811.85	415,976.77	3,128.59	22,632.66	450,549.87
		% of Total	1.8	92.33	0.89	4.98		1.94	92.33	0.7	5.03		1.96	92.33	0.69	5.02	
Packaged	Volume - LLW Drum	m^3	95.51	0.00	0.61		96.12	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	99.36	0	0.64	0											
	Volume - Standard LLW Box	m^3	4,830.20	0.00	0.00		4,830.20	5,260.98	0.00	0.00		5,260.98	5,249.93	0.00	0.00		5,249.93
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	285.56	84.69	181.93		552.18	101.70	206.12	88.50		396.32	101.70	206.12	88.50		396.32
		% of Total	51.72	15.34	32.95	0		25.66	52.01	22.33	0		25.66	52.01	22.33	0	
	Volume - High Integrity Container	m^3	0.00	60.59	961.34	0.00	1,021.93	0.00	7.39	1,138.63	0.00	1,146.02	0.00	0.00	1,130.55	0.00	1,130.55
		% of Total	0	5.93	94.07	0		0	0.64	99.36	0		0	0	100	0	
	Volume - Solidified LLW Box	m^3	32.45	1,535.51	0.00		1,567.96	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.07	97.93	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				422.24	422.24				614.81	614.81				637.62	637.62
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				0.02	0.02				0.02	0.02				0.00	0.00
		% of Total	0	0	0	100		0	0	0	100						
	Volume - Engineered GTCC Container	m^3				272.92	272.92				388.01	388.01				388.01	388.01
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	5,243.72	1,680.79	1,143.88	695.18	8,763.58	5,362.69	1,744.12	1,227.13	1,002.83	9,336.77	5,351.63	1,736.73	1,219.05	1,025.63	9,333.05
		% of Total	59.84	19.18	13.05	7.93		57.44	18.68	13.14	10.74		57.34	18.61	13.06	10.99	
	Waste Volume Increase (relative to treated waste volume)	%	2.62	3.36	29.68	5.42	5.87	11.11	3.17	43.03	11.11	12.80	11.11	3.04	43.01	11.11	12.75
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.19	-19.81	63.47	67.5	66.59	71.74	-0.42	54.74	64.27	64.4	71.78	0	54.71	63.84	64.42

Overall Summary of Mixed Waste Stream Data for the UREX+1b Process Based on 40 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	79.25	21.26	0.98	0.25	101.74	79.25	21.26	0.98	0.25	101.74	79.25	21.26	0.98	0.25	101.74
		% of Total	77.9	20.89	0.97	0.25		77.9	20.89	0.97	0.25		77.9	20.89	0.97	0.25	
	Waste Mass	kilograms	27,353.77	3,454.50	974.10	190.50	31,972.87	27,353.77	3,454.50	974.10	190.50	31,972.87	27,353.77	3,454.50	974.10	190.50	31,972.87
		% of Total	85.55	10.8	3.05	0.6		85.55	10.8	3.05	0.6		85.55	10.8	3.05	0.6	
	Radionuclide Content	Curies	3.50	2.52	10.34	0.20	16.56	3.50	2.52	10.34	0.20	16.56	3.50	2.52	10.34	0.20	16.56
		% of Total	21.13	15.23	62.43	1.2		21.13	15.23	62.43	1.2		21.13	15.23	62.43	1.2	
	Radionuclide Content	grams	3.37	0.52	0.72	0.06	4.67	3.37	0.52	0.72	0.06	4.67	3.37	0.52	0.72	0.06	4.67
		% of Total	72.17	11.13	15.48	1.22		72.17	11.13	15.48	1.22		72.17	11.13	15.48	1.22	
Treated	Waste Volume	m^3	47.51	21.26	0.86	0.25	69.88	47.51	21.26	0.86	0.25	69.88	47.51	21.26	0.86	0.25	69.88
		% of Total	67.98	30.43	1.24	0.36		67.98	30.43	1.24	0.36		67.98	30.43	1.24	0.36	
	Waste Volume Reduction	%	40.06	-0.03	12.02	0.00	31.31	40.06	-0.03	12.02	0.00	31.31	40.06	-0.03	12.02	0.00	31.31
	Waste Mass	kilograms	28,103.67	3,276.60	1,044.50	190.50	32,615.27	28,103.67	3,276.60	1,044.50	190.50	32,615.27	28,103.67	3,276.60	1,044.50	190.50	32,615.27
		% of Total	86.17	10.05	3.2	0.58		86.17	10.05	3.2	0.58		86.17	10.05	3.2	0.58	
	Radionuclide Content	Curies	3.50	2.52	10.34	0.20	16.56	3.50	2.52	10.34	0.20	16.56	3.50	2.52	10.34	0.20	16.56
		% of Total	21.16	15.21	62.43	1.2		21.16	15.21	62.43	1.2		21.16	15.21	62.43	1.2	
	Radionuclide Content	grams	3.40	0.49	0.72	0.06	4.67	3.40	0.49	0.72	0.06	4.67	3.40	0.49	0.72	0.06	4.67
		% of Total	72.8	10.5	15.48	1.22		72.8	10.5	15.48	1.22		72.8	10.5	15.48	1.22	
Packaged	Volume - Mixed LLW Drum	m^3	10.90	0.33	0.95		12.18	10.96	0.34	0.96		12.26	10.96	0.34	0.96		12.26
		% of Total	89.47	2.73	7.8	0		89.41	2.76	7.83	0		89.41	2.76	7.83	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11
		% of Total	64.23	35.77	0	0		64.23	35.77	0	0		64.23	35.77	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.28	0.28				0.28	0.28				0.28	0.28
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	52.72	23.62	0.95	0.28	77.57	52.78	23.63	0.96	0.28	77.65	52.78	23.63	0.96	0.28	77.65
		% of Total	67.96	30.45	1.22	0.36		67.98	30.43	1.24	0.36		67.98	30.43	1.24	0.36	
	Waste Volume Increase (relative to treated waste volume)	%	10.97	11.09	9.91	11.11	11.00	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	33.48	-11.12	3.29	-11.11	23.76	33.4	-11.14	2.24	-11.11	23.68	33.4	-11.14	2.24	-11.11	23.68

Overall Summary of Waste Stream Data for the UREX+1b Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	14,639.29	1,476.05	5,814.66	4,298.28	26,228.28	9,463.72	1,279.18	10,778.27	4,707.10	26,228.28	11,318.18	1,275.78	8,914.07	4,720.24	26,228.28
		% of Total	55.81	5.63	22.17	16.39		36.08	4.88	41.09	17.95		43.15	4.86	33.99	18	
	Waste Mass	kilograms	3,160,837.59	1,888,604.82	668,982.69	714,011.74	6,432,436.84	2,309,140.41	1,867,192.35	1,451,891.63	804,212.45	6,432,436.84	2,525,180.71	1,866,750.95	1,210,932.73	829,572.45	6,432,436.84
		% of Total	49.14	29.36	10.4	11.1		35.9	29.03	22.57	12.5		39.26	29.02	18.83	12.9	
	Radionuclide Content	Curies	20,036.23	5,688.05	78,911.32	100,101.11	204,736.71	19,893.23	5,722.39	78,324.95	100,796.14	204,736.71	20,294.78	5,468.82	78,184.74	100,788.37	204,736.71
		% of Total	9.79	2.78	38.54	48.89		9.72	2.79	38.26	49.23		9.91	2.67	38.19	49.23	
	Radionuclide Content	grams	6,682.23	415,978.17	3,673.92	24,215.56	450,549.87	7,018.84	415,969.44	3,671.28	23,890.32	450,549.87	8,313.52	415,963.71	2,424.91	23,847.73	450,549.87
		% of Total	1.48	92.33	0.82	5.37		1.56	92.32	0.81	5.3		1.85	92.32	0.54	5.29	
Treated	Waste Volume	m^3	3,729.37	1,784.87	1,512.51	1,250.73	8,277.48	2,295.09	1,777.71	2,816.06	1,388.63	8,277.48	2,893.87	1,627.63	2,354.58	1,401.40	8,277.48
		% of Total	45.05	21.56	18.27	15.11		27.73	21.48	34.02	16.78		34.96	19.66	28.45	16.93	
	Waste Volume Reduction	%	74.52	-20.92	73.99	70.90	68.44	75.75	-38.97	73.87	70.50	68.44	74.43	-27.58	73.59	70.31	68.44
	Waste Mass	kilograms	3,139,886.09	6,088,830.62	671,288.39	714,011.74	10,614,016.84	2,270,527.61	6,086,725.15	1,452,551.63	804,212.45	10,614,016.84	2,560,820.71	6,006,750.95	1,216,212.73	830,232.45	10,614,016.84
		% of Total	29.58	57.37	6.32	6.73		21.39	57.35	13.69	7.58		24.13	56.59	11.46	7.82	
	Radionuclide Content	Curies	478.97	24,807.81	79,348.82	100,101.11	204,736.71	181.69	25,433.93	78,324.95	100,796.14	204,736.71	20,294.78	5,468.82	78,184.74	100,788.37	204,736.71
		% of Total	0.23	12.12	38.76	48.89		0.09	12.42	38.26	49.23		9.91	2.67	38.19	49.23	
	Radionuclide Content	grams	3,788.60	418,861.92	3,683.79	24,215.56	450,549.87	4,108.29	418,879.98	3,671.28	23,890.32	450,549.87	8,313.52	415,963.71	2,424.91	23,847.73	450,549.87
		% of Total	0.84	92.97	0.82	5.37		0.91	92.97	0.81	5.3		1.85	92.32	0.54	5.29	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	3,594.87	0.00	0.00		3,594.87	2,475.76	0.00	59.75		2,535.51	3,141.07	0.00	0.00		3,141.07
		% of Total	100	0	0	0		97.64	0	2.36	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	200.87	157.83	84.64		443.34	74.34	141.81	180.17		396.32	74.34	141.81	180.17		396.32
		% of Total	45.31	35.6	19.09	0		18.76	35.78	45.46	0		18.76	35.78	45.46	0	
	Volume - High Integrity Container	m^3	0.00	185.44	1,930.03	12.00	2,127.46	0.00	219.55	3,803.89	12.00	4,035.44	0.00	0.00	3,207.44	12.00	3,219.43
		% of Total	0	8.72	90.72	0.56		0	5.44	94.26	0.3		0	0	99.63	0.37	
	Volume - Solidified LLW Box	m^3	32.45	1,535.51	0.00		1,567.96	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.07	97.93	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				952.07	952.07				1,145.78	1,145.78				1,159.99	1,159.99
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				2.84	2.84				0.02	0.02				0.00	0.00
		% of Total	0	0	0	100		0	0	0	100						
	Volume - Engineered GTCC Container	m^3				340.99	340.99				388.01	388.01				388.01	388.01
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	3,828.19	1,878.78	2,015.28	1,307.89	9,030.14	2,550.10	1,891.98	4,043.81	1,545.80	10,031.69	3,215.41	1,672.43	3,387.61	1,559.99	9,835.44
		% of Total	42.39	20.81	22.32	14.48		25.42	18.86	40.31	15.41		32.69	17	34.44	15.86	
	Waste Volume Increase (relative to treated waste volume)	%	2.65	5.26	33.24	4.57	9.09	11.11	6.43	43.60	11.32	21.19	11.11	2.75	43.87	11.32	18.82
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.85	-27.28	65.34	69.57	65.57	73.05	-47.91	62.48	67.16	61.75	71.59	-31.09	62	66.95	62.5

Overall Summary of Mixed Waste Stream Data for the UREX+1b Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 5 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	79.19	21.23	0.57	0.75	101.74	79.19	21.23	0.57	0.75	101.74	79.19	21.23	0.57	0.75	101.74
		% of Total	77.83	20.87	0.56	0.74		77.83	20.87	0.56	0.74		77.83	20.87	0.56	0.74	
	Waste Mass	kilograms	26,630.57	3,149.40	1,621.40	571.50	31,972.87	26,630.57	3,149.40	1,621.40	571.50	31,972.87	26,630.57	3,149.40	1,621.40	571.50	31,972.87
		% of Total	83.29	9.85	5.07	1.79		83.29	9.85	5.07	1.79		83.29	9.85	5.07	1.79	
	Radionuclide Content	Curies	12.85	4.96	20.41	1.76	39.99	12.85	4.96	20.41	1.76	39.99	12.85	4.96	20.41	1.76	39.99
		% of Total	32.14	12.4	51.05	4.41		32.14	12.4	51.05	4.41		32.14	12.4	51.05	4.41	
	Radionuclide Content	grams	2.47	0.14	1.88	0.17	4.67	2.47	0.14	1.88	0.17	4.67	2.47	0.14	1.88	0.17	4.67
		% of Total	52.95	3.02	40.35	3.67		52.95	3.02	40.35	3.67		52.95	3.02	40.35	3.67	
Treated	Waste Volume	m^3	47.34	21.25	0.55	0.75	69.88	47.34	21.25	0.55	0.75	69.88	47.34	21.25	0.55	0.75	69.88
		% of Total	67.74	30.41	0.78	1.07		67.74	30.41	0.78	1.07		67.74	30.41	0.78	1.07	
	Waste Volume Reduction	%	40.22	-0.10	4.71	0.00	31.31	40.22	-0.10	4.71	0.00	31.31	40.22	-0.10	4.71	0.00	31.31
	Waste Mass	kilograms	26,956.17	3,195.60	1,892.00	571.50	32,615.27	26,956.17	3,195.60	1,892.00	571.50	32,615.27	26,956.17	3,195.60	1,892.00	571.50	32,615.27
		% of Total	82.65	9.8	5.8	1.75		82.65	9.8	5.8	1.75		82.65	9.8	5.8	1.75	
	Radionuclide Content	Curies	12.85	4.96	20.41	1.76	39.99	12.85	4.96	20.41	1.76	39.99	12.85	4.96	20.41	1.76	39.99
		% of Total	32.14	12.4	51.05	4.41		32.14	12.4	51.05	4.41		32.14	12.4	51.05	4.41	
	Radionuclide Content	grams	2.47	0.14	1.88	0.17	4.67	2.47	0.14	1.88	0.17	4.67	2.47	0.14	1.88	0.17	4.67
		% of Total	52.95	3.02	40.35	3.67		52.95	3.02	40.35	3.67		52.95	3.02	40.35	3.67	
Packaged	Volume - Mixed LLW Drum	m^3	10.72	0.32	0.58		11.62	10.77	0.32	0.61		11.70	10.77	0.32	0.61		11.70
		% of Total	92.25	2.76	4.99	0		92.04	2.77	5.18	0		92.04	2.77	5.18	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11
		% of Total	64.23	35.77	0	0		64.23	35.77	0	0		64.23	35.77	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.83	0.83				0.83	0.83				0.83	0.83
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	52.55	23.61	0.58	0.83	77.57	52.60	23.61	0.61	0.83	77.65	52.60	23.61	0.61	0.83	77.65
		% of Total	67.74	30.44	0.75	1.07		67.74	30.41	0.78	1.07		67.74	30.41	0.78	1.07	
	Waste Volume Increase (relative to treated waste volume)	%	11.01	11.09	6.19	11.11	11.00	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	33.64	-11.2	-1.19	-11.11	23.76	33.58	-11.22	-5.88	-11.11	23.68	33.58	-11.22	-5.88	-11.11	23.68

Overall Summary of Waste Stream Data for the UREX+1b Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	14,817.11	1,439.27	5,774.99	4,196.91	26,228.28	12,778.45	1,618.65	7,140.67	4,690.50	26,228.28	12,768.51	1,618.65	7,120.87	4,720.24	26,228.28
		% of Total	56.49	5.49	22.02	16		48.72	6.17	27.23	17.88		48.68	6.17	27.15	18	
	Waste Mass	kilograms	3,196,149.93	1,874,052.64	667,243.62	694,990.65	6,432,436.84	2,737,183.96	1,906,886.41	987,892.43	800,474.05	6,432,436.84	2,714,606.56	1,906,886.41	981,371.43	829,572.45	6,432,436.84
		% of Total	49.69	29.13	10.37	10.8		42.55	29.64	15.36	12.44		42.2	29.64	15.26	12.9	
	Radionuclide Content	Curies	5,420.78	1,818.73	38,534.19	40,632.51	86,406.21	5,408.50	39,282.98	171.76	41,542.96	86,406.21	5,408.66	39,282.98	167.20	41,547.36	86,406.21
		% of Total	6.27	2.1	44.6	47.02		6.26	45.46	0.2	48.08		6.26	45.46	0.19	48.08	
	Radionuclide Content	grams	7,048.52	415,617.57	3,772.85	24,110.94	450,549.87	8,310.50	417,717.51	655.08	23,866.78	450,549.87	8,365.97	417,717.51	618.66	23,847.73	450,549.87
		% of Total	1.56	92.25	0.84	5.35		1.84	92.71	0.15	5.3		1.86	92.71	0.14	5.29	
Treated	Waste Volume	m^3	3,891.78	1,662.50	1,512.40	1,210.80	8,277.48	3,277.67	1,608.05	2,010.88	1,380.88	8,277.48	3,267.72	1,603.00	2,005.36	1,401.40	8,277.48
		% of Total	47.02	20.08	18.27	14.63		39.6	19.43	24.29	16.68		39.48	19.37	24.23	16.93	
	Waste Volume Reduction	%	73.73	-15.51	73.81	71.15	68.44	74.35	0.65	71.84	70.56	68.44	74.41	0.97	71.84	70.31	68.44
	Waste Mass	kilograms	3,228,519.98	6,022,544.09	667,962.12	694,990.65	10,614,016.84	2,772,823.96	6,000,646.41	1,040,072.43	800,474.05	10,614,016.84	2,750,246.56	5,994,925.01	1,038,612.83	830,232.45	10,614,016.84
		% of Total	30.42	56.74	6.29	6.55		26.12	56.54	9.8	7.54		25.91	56.48	9.79	7.82	
	Radionuclide Content	Curies	5,420.51	1,811.45	38,541.74	40,632.51	86,406.21	5,408.50	1,706.99	37,747.76	41,542.96	86,406.21	5,408.66	1,583.99	37,866.19	41,547.36	86,406.21
		% of Total	6.27	2.1	44.61	47.02		6.26	1.98	43.69	48.08		6.26	1.83	43.82	48.08	
	Radionuclide Content	grams	6,685.95	415,979.78	3,773.21	24,110.94	450,549.87	8,310.50	415,969.07	2,403.52	23,866.78	450,549.87	8,365.97	415,963.34	2,372.83	23,847.73	450,549.87
		% of Total	1.48	92.33	0.84	5.35		1.84	92.32	0.53	5.3		1.86	92.32	0.53	5.29	
Packaged	Volume - LLW Drum	m^3	0.00	0.00	0.61		0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total	0	0	100	0											
	Volume - Standard LLW Box	m^3	3,728.24	0.00	0.00		3,728.24	3,540.15	0.00	0.00		3,540.15	3,529.10	0.00	0.00		3,529.10
		% of Total	100	0	0	0		100	0	0	0		100	0	0	0	
	Volume - Engineered LLW Container	m^3	236.10	125.08	104.80		465.99	101.70	114.45	180.17		396.32	101.70	114.45	180.17		396.32
		% of Total	50.67	26.84	22.49	0		25.66	28.88	45.46	0		25.66	28.88	45.46	0	
	Volume - High Integrity Container	m^3	0.00	60.63	1,905.51	12.00	1,978.13	0.00	7.39	2,704.62	12.00	2,724.00	0.00	0.00	2,696.53	12.00	2,708.53
		% of Total	0	3.06	96.33	0.61		0	0.27	99.29	0.44		0	0	99.56	0.44	
	Volume - Solidified LLW Box	m^3	32.45	1,535.51	0.00		1,567.96	0.00	1,530.61	0.00		1,530.61	0.00	1,530.61	0.00		1,530.61
		% of Total	2.07	97.93	0	0		0	100	0	0		0	100	0	0	
	Volume - GTCC Drum	m^3				934.77	934.77				1,137.17	1,137.17				1,159.99	1,159.99
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Standard GTCC Box	m^3				0.02	0.02				0.02	0.02				0.00	0.00
		% of Total	0	0	0	100		0	0	0	100						
	Volume - Engineered GTCC Container	m^3				318.35	318.35				388.01	388.01				388.01	388.01
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Total	m^3	3,996.79	1,721.22	2,010.92	1,265.13	8,994.06	3,641.85	1,652.45	2,884.79	1,537.19	9,716.28	3,630.80	1,645.06	2,876.71	1,559.99	9,712.56
		% of Total	44.44	19.14	22.36	14.07		37.48	17.01	29.69	15.82		37.38	16.94	29.62	16.06	
	Waste Volume Increase (relative to treated waste volume)	%	2.70	3.53	32.96	4.49	8.66	11.11	2.76	43.46	11.32	17.38	11.11	2.62	43.45	11.32	17.34
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	73.03	-19.59	65.18	69.86	65.71	71.5	-2.09	59.6	67.23	62.95	71.56	-1.63	59.6	66.95	62.97

Overall Summary of Mixed Waste Stream Data for the UREX+1b Process Based on 60 GWd/MTIHM Used Nuclear Fuel Cooled for 30 years

Basis	Parameter	Units	Total By Summing Individual Waste Streams (summed by bulk volume, treated volume and packaged volume)					Total By Summing Blended Operational, Job Control and Maintenance Waste Streams (includes remaining non-blendable waste streams)					Total by Summing Waste Streams Blended Across the Entire Process Function (includes remaining non-blendable waste streams)				
			Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total	Class A	Class B	Class C	GTCC	Total
As Generated	Waste Volume	m^3	79.19	21.23	0.82	0.50	101.74	79.19	21.23	0.82	0.50	101.74	79.19	21.23	0.82	0.50	101.74
		% of Total	77.83	20.87	0.81	0.49		77.83	20.87	0.81	0.49		77.83	20.87	0.81	0.49	
	Waste Mass	kilograms	26,630.57	3,149.40	1,811.90	381.00	31,972.87	26,630.57	3,149.40	1,811.90	381.00	31,972.87	26,630.57	3,149.40	1,811.90	381.00	31,972.87
		% of Total	83.29	9.85	5.67	1.19		83.29	9.85	5.67	1.19		83.29	9.85	5.67	1.19	
	Radionuclide Content	Curies	3.50	2.40	10.17	0.32	16.40	3.50	2.40	10.17	0.32	16.40	3.50	2.40	10.17	0.32	16.40
		% of Total	21.35	14.66	62.03	1.96		21.35	14.66	62.03	1.96		21.35	14.66	62.03	1.96	
	Radionuclide Content	grams	2.47	0.14	1.94	0.11	4.67	2.47	0.14	1.94	0.11	4.67	2.47	0.14	1.94	0.11	4.67
		% of Total	52.95	3.02	41.58	2.45		52.95	3.02	41.58	2.45		52.95	3.02	41.58	2.45	
Treated	Waste Volume	m^3	47.38	21.21	0.80	0.50	69.88	47.38	21.21	0.80	0.50	69.88	47.38	21.21	0.80	0.50	69.88
		% of Total	67.8	30.35	1.14	0.72		67.8	30.35	1.14	0.72		67.8	30.35	1.14	0.72	
	Waste Volume Reduction	%	40.17	0.10	3.28	0.00	31.31	40.17	0.10	3.28	0.00	31.31	40.17	0.10	3.28	0.00	31.31
	Waste Mass	kilograms	27,239.67	2,912.10	2,082.50	381.00	32,615.27	27,239.67	2,912.10	2,082.50	381.00	32,615.27	27,239.67	2,912.10	2,082.50	381.00	32,615.27
		% of Total	83.52	8.93	6.39	1.17		83.52	8.93	6.39	1.17		83.52	8.93	6.39	1.17	
	Radionuclide Content	Curies	3.51	2.40	10.17	0.32	16.40	3.51	2.40	10.17	0.32	16.40	3.51	2.40	10.17	0.32	16.40
		% of Total	21.38	14.62	62.03	1.96		21.38	14.62	62.03	1.96		21.38	14.62	62.03	1.96	
	Radionuclide Content	grams	2.50	0.11	1.94	0.11	4.67	2.50	0.11	1.94	0.11	4.67	2.50	0.11	1.94	0.11	4.67
		% of Total	53.58	2.39	41.58	2.45		53.58	2.39	41.58	2.45		53.58	2.39	41.58	2.45	
Packaged	Volume - Mixed LLW Drum	m^3	10.77	0.28	0.86		11.90	10.82	0.28	0.88		11.98	10.82	0.28	0.88		11.98
		% of Total	90.46	2.33	7.21	0		90.3	2.32	7.38	0		90.3	2.32	7.38	0	
	Reserved																
	Volume - Mixed Engineered LLW Container	m^3	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11	41.82	23.29	0.00		65.11
		% of Total	64.23	35.77	0	0		64.23	35.77	0	0		64.23	35.77	0	0	
	Volume - Mixed High Integrity Container	m^3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		% of Total															
	Volume - Mixed Solidified LLW Box	m^3	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00
		% of Total															
	Volume - Mixed GTCC Drum	m^3				0.56	0.56				0.56	0.56				0.56	0.56
		% of Total	0	0	0	100		0	0	0	100		0	0	0	100	
	Volume - Mixed Standard GTCC Box	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Mixed Engineered GTCC Container	m^3				0.00	0.00				0.00	0.00				0.00	0.00
		% of Total															
	Volume - Total	m^3	52.59	23.57	0.86	0.56	77.57	52.64	23.57	0.88	0.56	77.65	52.64	23.57	0.88	0.56	77.65
		% of Total	67.8	30.38	1.11	0.72		67.8	30.35	1.14	0.72		67.8	30.35	1.14	0.72	
	Waste Volume Increase (relative to treated waste volume)	%	11.00	11.11	7.74	11.11	11.00	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
	Overall Waste Volume Reduction (relative to as generated waste volume)	%	33.59	-11	-4.2	-11.11	23.76	33.52	-11	-7.47	-11.11	23.68	33.52	-11	-7.47	-11.11	23.68