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**DRAFT**

*Recommended Values and Technical Bases for  
Airborne Release Fractions (ARFs),  
Airborne Release Rates (ARRs),  
and Respirable Fractions (RFs) for  
Materials from Accidents in DOE Fuel Cycle,  
Ex-Reactor Facilities  
Revision 2*

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**DRAFT**

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## RECOMMENDED AIRBORNE RELEASE FRACTIONS AIRBORNE RELEASE RATES AND RESPIRABLE FRACTIONS FOR EVALUATION OF PUBLIC RISK SOURCE TERMS UNDER ACCIDENT CONDITIONS

### SUMMARY

This document provides reasonable factors for estimating the radiological source terms in deterministic analyses of upper-bound (worst case) accident scenarios postulated for ex-reactor, fuel cycle facilities. These factors are the Airborne Release Fractions (ARF), or Airborne Release Rate (ARR), and the Respirable Fraction (RF). Factors are developed for different types of materials that can be involved in ex-reactor/fuel cycle process facility accidents: non-condensable gases, vapors, liquids, solids, and surface contamination. Factors are also developed for inadvertent nuclear criticalities that can produce radionuclides. The factors are based on experimental data; a distillation of the experimental conditions is used to support the recommendations of bounding factors for the situations considered. The recommended values for each type of material are briefly summarized below. The Summary Table (found at the end of this summary) provides a quick reference to the values recommended. The reader is strongly encouraged to use the table only as a reference, and thus a cross reference to the document sections that discuss each value is included.

### NON-CONDENSIBLE GASES

Total release of non-condensable gases upon loss of containment is assumed. This includes any noble gases generated by inadvertent criticalities in solutions or released into moderator from small diameter pieces of solid or powder. (The expectation is that if the surface to volume ratio is large and the gases generated do not have to migrate through great distances, most of the gases will be released into the moderator and be released into the ambient environment.) If the criticality occurs in large pieces of solid where the surface to volume ratio is small and any gases generated would have to migrate a large distance through the solid to reach the surface, most of the gas will not be released even when heated to high temperature. Even a reduction of material released of a factor of two is not significant when the uncertainty of the estimates is considered. Use of an ARF of 1E+0 is recommended to maintain consistency with releases most realistically anticipated.

### VAPORS

Under accident conditions where volatile forms of materials (e.g., iodine, or tritiated water) can be generated, an ARF of 1E+0 is assumed. In the case of criticalities in solutions or moderated/reflected materials, the LeakPath Factor (LPF) of 0.25 assumed in the NRC Reg Guides (NRC April 1977, April 1979, July 1979) is applied to be consistent with these Reg Guides.

## LIQUIDS

Experimentally derived data were available that reflect the response of two types of liquids (aqueous and combustible, organic liquids) to the five accident stresses covered (thermal stress, explosion generated forces, venting of pressurized gases over the material, free-fall spill/crush-impact/shock-vibration, and aerodynamic entrainment). The responses are further subdivided by different level of impact generated by the mechanism (e.g., shock and blast effects for explosive releases) and the varying responses of subcategories of some types of materials (e.g., solutions, slurries and viscous solutions of aqueous liquid in free-fall spill). The ARF/RF values for the aqueous liquids for all mechanisms are based upon experimentally derived data. However, for combustible, organic liquids only the response to thermal stress has been determined experimentally. Because the effects of surface tension and viscosity do not appear to be great, the response of combustible, organic liquids to the other mechanism is assumed to be the same as for aqueous liquids.

### Aqueous Liquids

#### Thermal Stress

**Heating of Aqueous Solution in Flowing Air without Surface Rupture of Bubbles.** Bounding ARF/RF values of 3E-5/1.0 for the airborne release of the bulk liquid during the heating of aqueous solutions in flowing air without noticeable surface breaking of the bubbles of the bulk liquid appear to be conservative based upon the experimental data available. Median values of 6E-7/1.0 are also estimated from the existing data.

**Boiling (continuous surface breaking of bubble of the bulk liquid with <30% of the volume of the liquid as bubbles) of Aqueous Solutions in Flowing Air.** A bounding ARF for the airborne release from the bubble-burst at the surface for aqueous solutions of 2E-3 exceeds all measured values reported. In the absence of a measured size distribution for the airborne droplets, a conservative value of 1.0 for the bound is assumed. A median value of 1E-3 is selected for the ARF values measured.

#### Explosive Release

**Shock Effects.** For detonations or deflagrations in or contiguous to a pool of aqueous liquid, a bounding ARF of the mass of inert material airborne equal to the calculated TNT Equivalent with an RF of 1.0 is recommended.

**Blast Effects.** For detonations and deflagration at a distance where the pressure impulse is essentially equal to a flow parallel to the surface of the liquid, an ARF of 4E-3/hour (1E-6/second) for the time the pressure pulse is over the liquid. A RF of 1.0 is conservatively assumed.

### 3.0 Liquids; Aqueous Solutions

Some important observations, based upon the review of literature of entrainment of liquid droplets from bubbling or boiling pools performed by Borkowski, Bunz and Schoeck (May 1986), are:

1. the influence of surface effects on the amount and composition of the generated aerosols.
2. the possibility of chemical enrichment and depletion of substances in aerosols.
3. the existence of two groups of droplets with different mean sizes and amounts of airborne mass.
4. the limited range of ejected jet droplets due to initial velocity.

Droplet formation during boiling is dependent upon conditions of boiling and bubble characteristics. There appear to be at least two and possibly three boiling regimes that affect bubble and droplet formation. The first regime occurs at lower rates where the volume fraction of the bubbles is less than 30%, when discrete bubbles rise through the liquid and grow due to decreasing hydrostatic head. Bubbles may coalesce or divide during ascent. Droplets are formed from three mechanisms (bubble film disintegration, jet drops from crater collapse, and secondary droplets from jet drop reentry into bulk liquid). This regime is the predominant concern for fuel cycle accident situations. A second regime occurs at higher boiling rates; the liquid is turbulently mixed and progressively disintegrates at the surface forming drops from both mechanisms. A possible third regime occurs at very high boiling rates when splashing and foaming dominate the surface (Borkowski, Bunz and Sheock May 1986).

Gas flow conditions and material characteristics are important parameters in bubble-induced droplet formation. Bubble size determines the number and size of the droplets formed. Bubble size is determined by the volume of vapor, surface characteristics such as surface tension, and bubble contact angle. Contact angle changes due to local turbulence during bubble formation resulting in a distribution of bubble sizes. Many bubbles are unstable and coalesce and break up during ascent. Steam bubbles are in the range of 0.5 to 5 cm diameter at low pressure and nucleate boiling (presence of rough surface, suspended particles). The formation and detachment of macro-bubbles is a function of contact angle of the liquid and the degree of superheat. Bubble shape at the surface may range from spherical to hemispherical depending on size. The liquid in the dome of the bubble runs down the sides and thins the film. The bubble bursts when the internal pressure exceeds the external pressure and surface tension of the film. Droplets are formed by the film breakup. The crater remaining from the bubble rupture itself collapses forming an ascending liquid jet that decays into droplets after some critical length. Jets ascend up to 20 cm from the surface of the bulk liquid. Jet drops are only formed from bubbles < 5 to 6 mm diameter. Droplets

### 3.0 Liquids; Aqueous Solutions

from film breakup are only formed for bubbles  $> 0.2$  mm in diameter. Therefore, by inference, only jet drops are formed from bubbles  $< 0.2$  mm in diameter and only film breakup droplets are formed from bubbles  $> 6$  mm in diameter. The number and size distribution of droplets formed from film breakup correlates with the size of the bubble and may number into the hundreds for the upper limit of bubble diameter. Figure 3-1, taken from the reference document, shows a number distribution from the burst of two bubbles of 0.1% NaCl in water. Only one jet drop ejected from collapse of a bubble  $\sim 2$ -mm diameter with up to 6 ejected from very small diameter bubbles (high internal pressure). The diameter of the drop is  $\sim 20\%$  of the bubble diameter (100 to 1000 micrometers for the conditions covered here) (Borkowski, Bunz and Shoeck May 1986).

#### 3.2.1.1 Airborne Release During Heating of Shallow Pools of Liquid

The airborne release during heating of aqueous solution was measured and reported by Mishima, Schwendiman and Radasch (November 1968). This study involved the collection and measurement of airborne Pu during drying of shallow pools of concentrated acidic plutonium nitrate solution at three air velocities and the evaporation of 90% of the volume of a dilute acidic plutonium nitrate solution. Table 3-1 displays measurements extracted from the study reference document (see Table A.1 in Appendix A) and shows the ARFs from evaporation of concentrated plutonium nitrate solutions under three air velocities (0.1, 0.5, and 1.0 m/s). A schematic diagram of the apparatus is shown in Figure A.1 (Appendix A). Approximately 2.5 to 3 ml of a concentrated  $\text{Pu}(\text{NO}_3)_4$  solution containing from 0.72 to 0.86 g Pu were placed in a shallow depression ( $\sim 25.4$ -mm diameter  $\times \sim 2.4$ -mm deep) in a 31.8-mm diameter  $\times$  6.35-mm deep stainless steel dish. The dish was placed in a teflon retainer that filled half of the diameter of a 38.1-mm diameter borosilicate glass tube. Filtered room air was drawn through the tube at three nominal velocities (0.1, 0.5, and 1.0 m/s) over the solution and through a water-cooled condenser to remove excess moisture; the airborne particles were then collected on an in-line glass fiber filter. The liquids were heated to various temperatures by heat lamps positioned over the liquid. The evaporation times ranged from 1.5 to 24 hours. None of the solutions were observed to boil during any of the experiments and the airborne release is most probably due to the aerodynamic breakup of the surface with the increase with temperature due to reduced surface tension. The airborne fractional releases measured are shown in Table 3-1. ARFs range from  $< 1E-8$  to  $3E-5$ . The highest ARFs were measured at the highest temperature ( $1E-5$  and  $3E-5$  at  $100^\circ\text{C}$ ). The limited data also tend to indicate some increase in airborne release with increasing air velocity. The surfaces during the drying were relatively undisturbed (no visible surface disturbance). The upper bound release is  $3E-5$ , and, in as much as the size distribution of the airborne materials was not measured, a conservative value for the RF of 1.0 is selected. The median value is  $6E-7$  ( $5.5E-7$  rounded upward) with an average value of  $7E-6$ .

## 3.0 Liquids; Aqueous Solutions

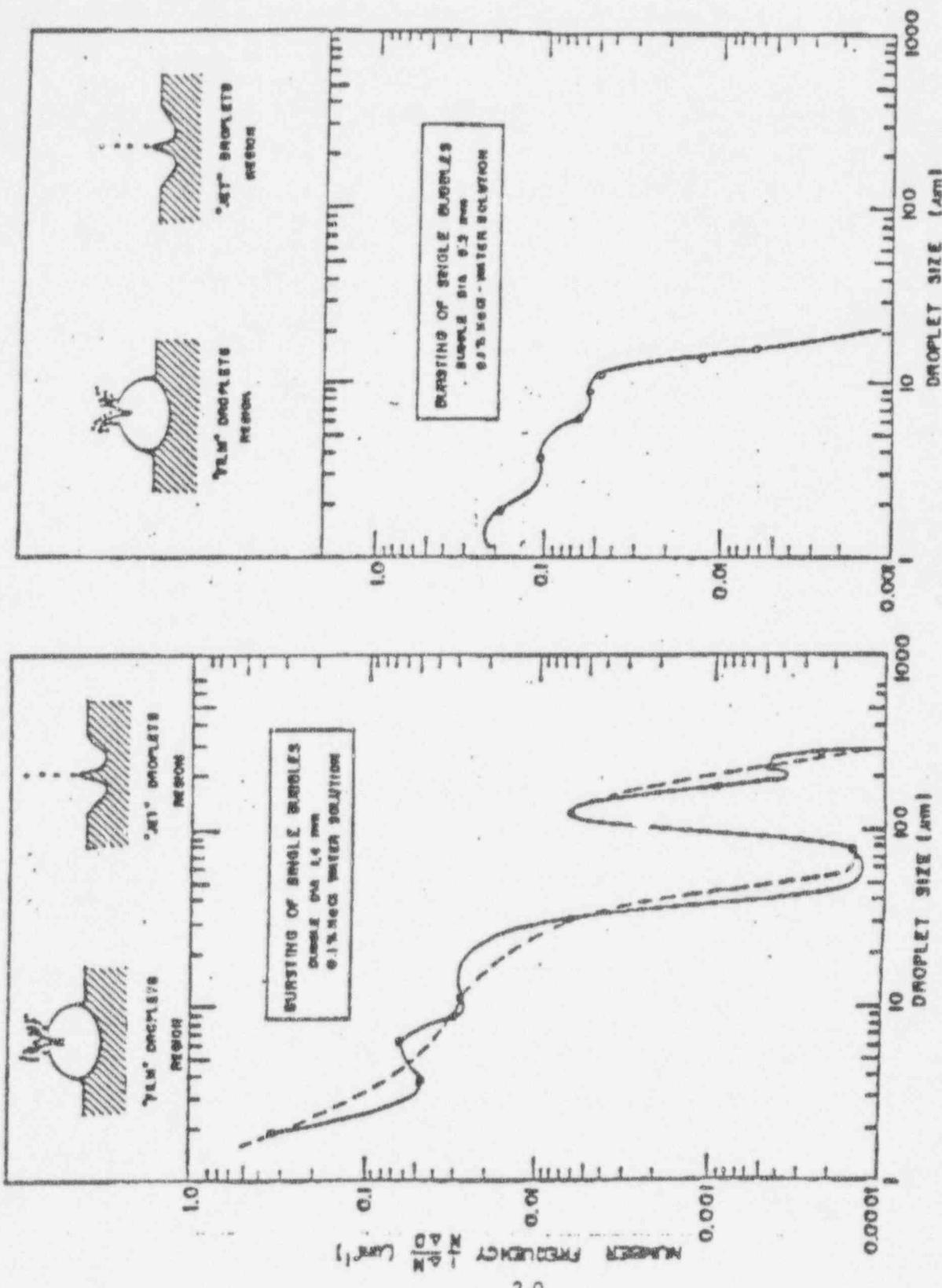


Figure 3-1. Size Distribution of Bubble Induced Droplets  
(Borkowski, Lanz, and Schock undated)

## 3.0 Liquids; Aqueous Solutions

Table 3-1. Fractional Airborne Releases During the Heating with  
 Flowing Air of Concentrated Plutonium Nitrate Solution  
 (Table 1 from Mishima, Schwendiman, and Radasch,  
 November 1968)

Temp, °C	Air Velocity, m/s	Sampling Time, hr	ARF
50	1.0	2	1.3E-7
75	0.5	5	< 1.0E-8
90	0.5	2	5.3E-7
90	1.0	1.5	5.7E-7
100	0.1	2	1.0E-5
100	0.5	2	3.0E-5

The data are limited but do appear to consistently indicate a gradual increase in airborne release with temperature until boiling or near boiling temperatures. The air velocity range is very limited although the air velocity probably represents a much greater aerodynamic stress on the surface than the nominal velocity indicates (air velocity measurements are usually at much greater distances from the surface than in the experimental apparatus, and, air being a fluid, the velocity decreases with distance from the surface due to frictional forces). The concentrated plutonium nitrate solution used represents a very important class of liquids found in DOE facilities but its fluid characteristics (higher density, surface tension) may not make it bounding for other aqueous solutions.

### 3.2.1.2 Airborne Release During the Heating of Pools of Liquids

ARFs were also measured during the evaporation of 90% of the volume of aqueous solutions at three surface disturbance levels: simmering, disturbed surface, and boiling (Mishima, Schwendiman and Radasch November 1968). The results and experimental apparatus from the source document are shown in Table A.2 and Figure A.2, respectively, in Appendix A. In the experiments, 100 ml of a dilute  $\text{Pu}(\text{NO}_3)_4$  solution (0.25 M  $\text{HNO}_3$ ) containing 0.7 mg Pu was placed in a 180 ml borosilicate beaker. The surface area of the liquid was  $11.5 \text{ cm}^2$ . The beaker was held in the center of a transite support ring that positioned the beaker in a aluminum plate set upon a hot plate. A screen supporting a glass fiber filter filled the annular area between the support ring and beaker and allowed air to be drawn through the 4-liter borosilicate glass bell jar to entrain particulate material escaping from the beaker. The velocity through the annular filter was estimated to be 3 cm/s. The air was drawn out of the top of the bell jar via a water-cooled condenser to remove moisture. The condensate was collected. Airborne material was collected on an in-line glass fiber filter.

## 3.0 Liquids; Aqueous Solutions

The pertinent results are shown in Table 3-2. The ARFs for the four runs at boiling ranged from 4.5E-7 to 1.8E-3. Three of the four values ranged from 3E-4 to 1.8E-3. The two highest values (1.1E-3 and 1.8E-3), because they include solution splattered from the vessel onto the glassware, were estimated by the sum of the filter acid leach and from acid washes of the equipment downstream of the filter position due to loss of the filter. The values are almost certainly high, but it is not known how high. Two of the runs (ARFs 4.5E-7 and 1.1E-3) used a 0.70 mg Pu source without an airflow. The two runs performed at simmering (no surface breaking) resulted in ARFs of 1.3E-6 and 4.5E-6 that are bounded by the evaporation value of 3E-5 quoted in Subsection 3.2.1.1. The experiments with heating rates resulting in disturbed surfaces generated ARFs ranging from 5.8E-5 to 8.4E-4: an order of magnitude variation in estimates. A bounding value for heating of aqueous solutions of 2E-3 is selected, and, in the absence of a measured particle size distribution, a conservative value for an RF of 1.0 is selected. The median value is 6E-5 (6.4E-5 rounded off) with an average value of 7E-4.

Table 3-2. Fractional Airborne Release During Heating of Pools  
of Dilute Plutonium Nitrate Solution - 90% Volume Reduction  
(Table II, Mishima, Schwendiman, and Radasch, November 1968)

Average Hot Plate Temperature, °F	Average Boil-Off Rate, ml/min	Minutes Heated	Appearance Surface	ARF
150	0.6	151	Simmering	4.5E-6
150	0.5	150	Simmering	1.3E-6
164	0.66	121	Disturbed	5.8E-5
175	0.73	124	Disturbed	2.4E-4
188	1.2	64	Disturbed	8.0E-5
190	0.9	80	Disturbed	8.4E-4
200	1.4	66	Boiling	1.1E-3 <sup>a,b</sup>
218	1.4	63	Boiling	1.8E-3 <sup>a</sup>
218	1.4	59	Boiling	3.0E-4
220	2.1	42	Boiling	4.5E-7 <sup>b</sup>

\* Filter ruptured, estimate based on activity collected in acid washes of equipment downstream of filter position.

<sup>b</sup> Only 0.07 mg Pu used as source. No air sweep used during these experiments. ARF estimate from activity collected in condensate.

The fraction of source material carried from the container and deposited nearby (fallout) ranged from -3E-8 during simmering to 1.7E-2 during boiling and may be indicative of the liquid ejected from the container but not airborne during such event. As with the airborne materials, the fraction ejected will increase with the increase in surface disturbance.

### 3.0 Liquids; Aqueous Solutions

The data are limited for each type of heated liquid. The loss of the filters coupled with not using air sweeps in two of the boiling experiments makes the data for that type of heating especially uncertain. The surface of the heated liquid is recessed from the airflow and may reduce the airborne material due to losses to the sides of the beaker prior to escape. The configuration may be indicative of airborne release from heated liquids from the tops of vessels. The liquids are very dilute aqueous solutions and should bound other more viscous liquids or those with greater surface tension.

#### 3.2.1.3 Airborne Release of Dissolved Matter from Evaporation and Bubbling Aqueous Solution

Borkowski, Bunz, and Schoeck reviewed 12 experimental studies that examined the airborne release of dissolved matter from bubble-burst at the surface of aqueous solutions. The slope of the rate change for fraction entrained as a function of gas velocity changes at a gas velocity of 15 cm/s. The experimental data reported in this region are plotted in Figure 3-2.

The data by Mishima, Schwendiman, and Radasch (November 1968) covered in Subsection 3.2.1.2 are plotted along with data from six other studies under reasonably comparable conditions. Manowitz et al. (1955) measured the DF (decontamination factor, the ratio between the radioactivity retained in the liquid in the vessel to that boiled off) during evaporation of waste solution using a de-entrainment device (not specified). The DFs ranged from 1E-4 to 1E-5 depending upon the boiling rate and contents suspended in solution. Garner et al. (1959) performed experiments at reduced pressures and equilibrium conditions to identify the main parameters for liquid entrainment during evaporation. Entrainment increased with evaporation rate and decreasing solute concentration. Entrainment rates ranged from 1E-5 to 1E-4. Garner et al. (1954) measured the drop size distribution and total entrainment during evaporation in vessels of various diameters (4-in. and 12-in. diameter tubes). Entrainment rates were in the 1E-5 range. Although ~95% of the drops were < 20 micrometers diameter range, the total mass entrained was due to the drops > 100 micrometers in diameter. Shor et al. (1957) measured the radioactivity carried over in boilers by continuous monitoring of the  $^{137}\text{CsCl}$  at elevated pressures (0.93 to 1.0 MPa). Entrainment (1E-6 to 1E-4) correlated with boiling rate and had an initial high release. Heger et al. (1982, 1983) conducted bubbling experiments to simulate reprocessing plant components. Stirring air flow velocity was ~ 10 m/h (2.8 cm/s). Entrainment values ranged from 1E-7 to 1E-4. The presence of TBP reduced the surface tension and increased entrainment by a factor of 5 to 10. The drops airborne were bimodally distributed with maxima at 0.3 and 0.8 micrometers diameter. Addition of the TBP increased the generation of larger diameter drops.

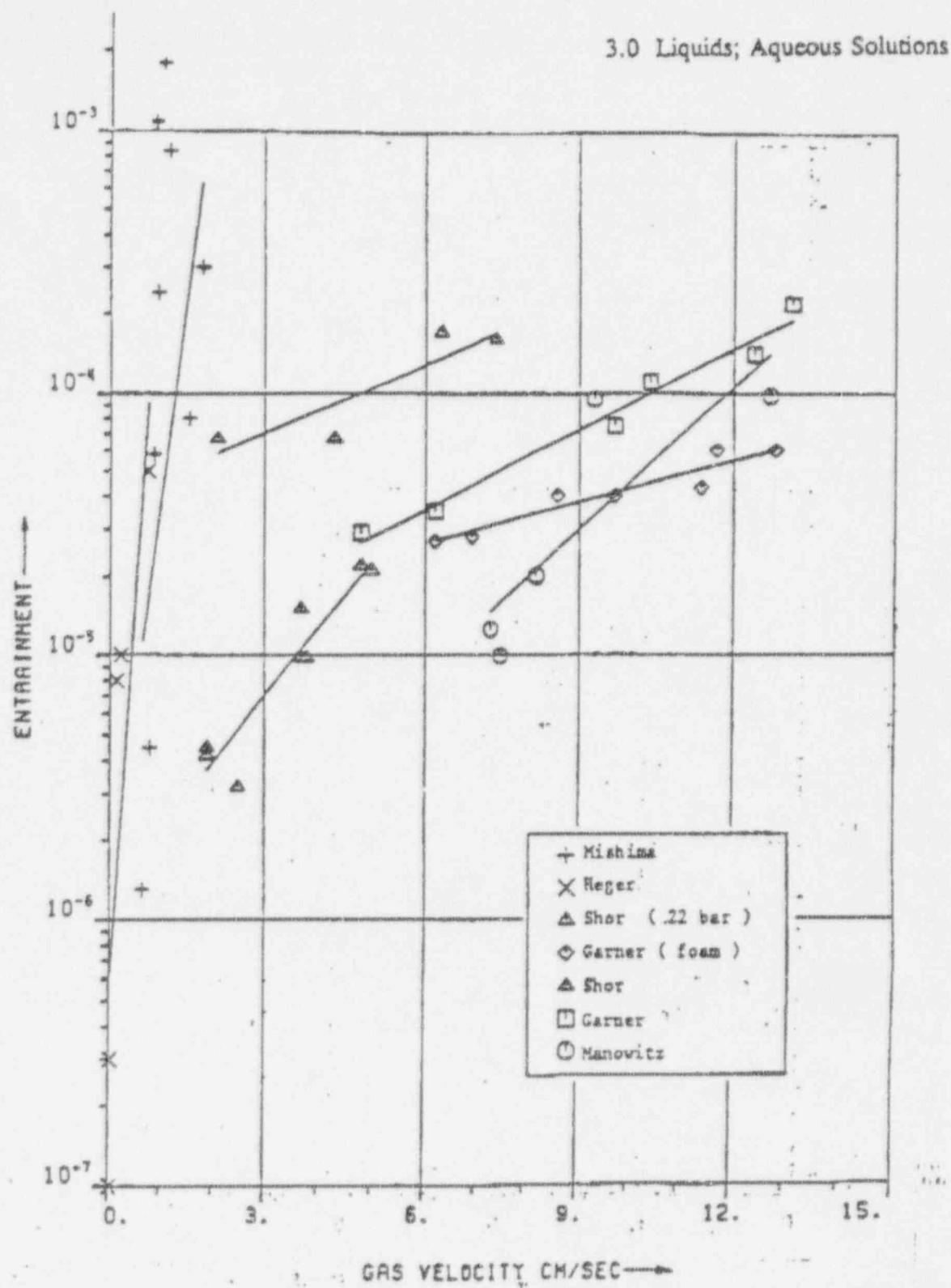


Figure 3-2. Entrainment Data Obtained at Small Gas Velocity  
(Borkowski, Lunz, and Schock undated)

### 3.0 Liquids; Aqueous Solutions

It is evident that the ARF of 2E-3 measured by Mishima, Schwendiman and Radasch (November 1968) bounds the value measured by the other reported studies. Data generated by the venting of pressurized liquids shown in Figure 3-3 indicate that short of flashing spray conditions (superheating of the liquid by pressurization), a release value in the range of 1E-3 will bound the airborne release of liquids during boiling at normal atmospheric pressures. Thus, a bounding ARF of 2E-3 with an RF of 1.0 would conservatively bound the airborne release of respirable size drops during accident condition resulting in the boiling of aqueous solutions.

#### 3.2.2 Explosive Release of Liquids

Liquids may be subdivided by the shock generated by detonation-like reactions or by shear stress at the surface generated by the accelerated airflow generated by the blast.

##### 3.2.2.1 Shock Effects

Steindler and Seefeldt (1980) provide an empirical correlation to experimental data on the fragmentation of metals and aqueous solution by detonations [energy releases in microseconds with brisance (shattering effect)] (Ayer, et al. May 1988). The experiments covered the work performed by TNT related to the mass ratios (ratio mass of inert to TNT Eq.) of 1 to 10. The experiments were conducted with the condensed phase explosive embedded or contiguous to the material affected. Estimates of the ARF and size distribution for various mass ratios up to 1000 are provided in Appendix C of Ayer, et al. (May 1988) for a GSD (Geometric Standard Deviation, the slope of the line on log probability plot) of 8. The GSD is much greater than normally assumed (GSD 2) and provides greater fractions in the larger size ranges (an unconservative assumption for the assessment of radiological impacts). Due to the rapid change in size distribution, the maximum mass of inert material airborne in the respirable fraction is for an MR of 1. Therefore, a bounding ARF/RF of inert material equal in mass to the TNT Equivalent for the detonation is assumed.

##### 3.2.2.2 Suspension of Liquid Due to Blast Effects (Accelerated Gas Velocities)

Mishima and Schwendiman (August 1973) reported the results of measurements of the airborne release of uranium from various surfaces (soil, vegetated soil, stainless steel, asphalt with UO<sub>2</sub> powder or UNH solution) before, during and after gasoline fires in a wind tunnel at air velocities of ~ 1 m/s and ~ 10 m/s. (The flame speed in flammable vapor mixtures is also on the order of 10 m/s, although flame speed may propagate to sonic velocities under turbulent conditions.) The results are listed in Table A.3 and the experimental apparatus is shown in Figure A.3 in Appendix A. The only experiments involving UNH solution were performed on a substrate of loose, sandy soil at air velocities of ~ 1 & 10 m/s. The ARF measured at 10 m/s from soil during a 28-hour sampling period was 3.9E-4 with an RF of

### 3.0 Liquids; Aqueous Solutions

solutions. The pertinent data extracted from the reference document (Ballinger and Hodgson December 1986) are shown in Table 3-8 (see Tables A.14 and A.15 in Appendix A).

Table 3-8. Measured ARFs/RFs for Free-Fall Spill of Slurries  
(1 liter source, 3 meter fall distance)  
(Tables B.3 and B.4 - Ballinger and Hodgson, December 1986)

TiO <sub>2</sub> , g/l	Glass Frit, g/l	Uranine, g/l	Sucrose, g/l	Viscosity, centipoise	Surface Tension, dyne/cm	SpG	ARF	RF	ARF x RF
10	0	20	250	3.2	58.2	1.12	9.0E-7	0.73	7.0E-6
100	0	20	200	NM	54.5	1.16	1.0E-5	0.64	7.0E-6
40	60	20	335	4.9	64.6	1.19	9.0E-6	0.77	7.0E-6
40	60	20	335	3.1	68.6	1.20	2.0E-5	0.76	1.0E-5
200	300	20	0	1.3	63.1	1.33	5.0E-5	0.78	4.0E-5
200	300	20	0	1.3	63.4	1.35	3.0E-5	0.81	2.0E-5
200	300	20	100	1.3	64.9	1.29	3.0E-5	0.78	2.0E-5
200	300	20	100	2.9	62.8	1.41	2.0E-5	0.72	1.0E-5

The bounding ARF/RF values are 5E-5/0.8 with median and average values of 2E-5/0.7 and 2E-5/0.8, respectively. The empirical model for calculation of ARFs and drop size characteristics was discussed in Subsection 3.2.4.1.

#### 3.2.4.3 Viscous Solutions

Experiments were also performed to measure the ARFs/RFs from the free-fall spill of viscous solutions (Ballinger and Hodgson December 1986). The experimental apparatus is essentially the same as used for the free-fall spill experiments involving aqueous solution and slurries and is shown in Figure A.7 in Appendix A. Table 3-9 is a tabulation of pertinent data taken from the reference source (Tables A.16 and A.17 in Appendix A).

Figure 3-7 from that reference shows the ARF tends to decrease with viscosity. For solutions that have a viscosity > 8 centipoise, the ARFs are less than 7E-6 with 0.9 of the airborne material in the respirable size fraction. For the range of experimental conditions (viscosity > 1.3 centipoise, surface tension > 65 dyne/cm, specific gravity > 1.01) the ARF/RF are bounded by 3E-5/0.7 with median values of 6E-6/0.8. The average ARF/RF values were 1E-5/0.8.

#### 3.2.5 Aerodynamic Entrainment (Resuspension) of Liquids

Liquid can be made airborne by the passage of air over its surfaces through either parallel airflow or airflow directed into the surface—"whitecaps," spume, and by film breakup due to capillary action of the liquid up the sides of its container. The latter effect

## 3.0 Liquids; Aqueous Solutions

Table 3-9. Measured ARFs/RFs for Free-Fall Spill of Viscous Solutions

(1 liter source volume, 3 meter fall height)

(Tables B.1 and B.2 - Ballinger and Hodgson, December 1986)

Viscosity, centipoise	Surface Tension, dyne/cm	SpG	ARF	RF	ARF x RF
1.3	65.2	1.01	3.0E-5	0.59	2.0E-5
			3.0E-5	0.74	2.0E-5
2.6	68.9	1.10	7.0E-6	0.70	5.0E-6
			1.0E-5	0.76	8.0E-6
7.9	70.9	1.19	5.0E-6	0.80	3.0E-6
			7.0E-6	0.83	5.0E-6
17.5	77.4	1.23	3.0E-6	0.78	2.0E-6
			3.0E-6	0.90	2.0E-6
46.0	74.5	1.28	2.0E-6	0.84	1.0E-6
			3.0E-6	0.89	2.0E-6

may only be important for situations where the ratio of perimeter distance is a significant fraction of the surface area as in small pools used in experimental studies. Only a thin layer at the surface of the liquid can be involved in droplet formation since the droplets are formed by the film fragments that would not suspend if the film were too thick or the fragments too large. The airborne release fraction for this type of situation has been studied theoretically and measured under two sets of conditions. Calculations indicate that particles held to heterogeneous surface by a layer of water greater than 5 molecules thick cannot be resuspended at superficial gas velocities < 5000 m/s (greater than sonic velocities) (Brockman February 1985). Other calculations performed in the paper indicate that the aerodynamic flow profile at the surface may not be properly estimated; particles 10 micrometers in diameter were entrained at the lowest superficial velocity, 1.8 m/s, although most calculations indicate that the minimum velocities are required for particles an order of magnitude larger. Nonetheless, the calculations indicate the force necessary to suspend shallow pools of liquid probably requires substantial superficial velocities for suspension and that release of liquid droplets under most ordinary conditions are very low.

## 3.2.5.1 Spray Release From Large Outdoor Pond

A model, SPRAYMASS, was developed from empirical formulas representing ocean sprays (Roblyer and Owczarski April 1992). Correlations between wind velocity and fetch (distance from the lee shore where turbulence begins) were developed from sea-salt aerosols (principally during surface breakup of bubbles formed in wave action) in the open sea, finite ponds and diffusion in atmosphere-surface boundary layers. The concentration of aerosol above ocean waves with finite fetch as a function of windspeed has been measured and is represented by:



From Vitrification Process Development  
WIN EK:89:0232  
Date October 10, 1989  
Subject Vitrification Mass Balance Revision Number 7

To V. S. Arakali D. E. Carl D. K. Ploetz  
S. M. Barnes D. D. Daruwalla J. M. Pope  
B. P. Bauer R. W. Devlin K. R. Routt  
R. R. Borisch\* A. Drobot M. A. Schiffhauer  
B. W. Bowan J. P. Englert J. R. Stimmel  
P. Burn\* P. S. Klanian\* D. J. Stroud  
D. C. Burns C. W. McVay R. F. Vance  
L. H. Cadoff L. L. Petkus

cc: J. J. Buggy, Jr.  
R. F. Gessner\*  
R. E. Lawrence, Jr.\*  
MRC  
VIP 1C01, 1C, 1K

Reference: 1) Letter EK:89:0020, Process Development to Distribution, "Vitrification Mass Balance (Rev. 6)," dated January 27, 1989.

2) Letter W. A. Ross to J. M. Pope, "West Valley Mass Balance Software Development", dated 9/13/89 - BW:89:0185 - WVSP 89-132.

#### SYNOPSIS:

The overall mass balance for Vitrification is reissued periodically to maintain a current reference. Revision 7, as documented by this letter and attachments, incorporates the combining of the Tank Farm and Vitrification spreadsheets into one Lotus file and a number of other changes in process parameters and spreadsheet format as detailed in Reference 2 and summarized in this letter.

The vitrification mass balance is maintained using Lotus (Rev. 2) software. All mass balance revisions are stored on High Density 3 1/2 inch format diskettes. The first five revisions are stored as Rev1FLST, ..., Rev5FLST. Revision 6 is stored in two files labeled WVTFPR6 and WVVR6. Revision 7 is stored in one file as CMB7.

\*W/O Attachments

DMS0102

Component concentrations are based on analytical work done in previous years and reported in earlier flowsheet versions.

One of the major upgrades to the Flowsheet was to combine all the input parameters into one range area for ease of presentation. The input parameter values used in Rev. 7 are as follows:

* Year radionuclides decayed to	= 1990
* Water level in 8D-1	= 6 feet
* Rust in 8D-1 and 8D-2 as Fe2O3 pounds	= 0
* Dirt in 8D-1 as SiO2	= 11,00 pounds
* Cesium-137 activity as of 10/22/84	= 625 Curies
* Strontium-90 activity as of 10/22/84	= 625 Curies
* Supernatant pump heel	= 1 foot
* Pre-washed sludge height	= 1.5 feed
* Post wash sludge height	= 3.0 feet
* Number of washes	= 4
* Water volume per wash	= 632,000 liters
* Wash supernatant heel	= 1 foot
* 8D-2 supernatant processed per cycle	= 36,000 liters
* 8D- wash solution processed per cycle	= 292,368 liters
* Water produced in 8D-1 per 1X cycle	= 2,907 liters
* Zeolite produced in 8D-1 per 1X cycle	= 1,200 liters
* Fraction of Cesium recovered	= 0.999
* Total number of sand beds	= 1
* 8D-4 water flush	= 6,400
* Waste Oxide Loading	= 36.5 wt %
* Melter feed concentration (oxide basis)	= 450 g/l
* Melter feed batch size in MFHT DMS0102	= 3250 gallons

* Jet Dilution	= 10%
* Feed water dilution factor	= 1.0
* Glass per canister	= 1900 Kg
* Glass production rate	= 45 kg/hr

THIS PARAMETER LISTING IS NOT ALL INCLUSIVE. THESE ARE THE PARAMETERS MOST LIKELY TO CHANGE DURING DEVELOPMENT AND TESTING OF THE MELTER SYSTEMS.

The primary advantage in isolating key input parameters in one table is for easy review and co-ordination with other support groups.

Tank farm and vitrification spreadsheets were combined in order to facilitate response to "what if" scenarios in regard to tank farm operations. The combined spreadsheet allows for expedient evaluation of impact on vitrification processes, especially the total quantity of glass that will be produced.

Other modifications are detailed as follows:

- \* A number of makeup chemicals have been changed and these changes have been incorporated into the spreadsheet.
- \* Current values for feed concentration, production rate, and glass per canister are used.
- \* A row showing the total sulfate as SO<sub>3</sub> and total sulfate as wt% oxide basis for each stream have been added to the bottom of the spreadsheet to provide more visibility to this key parameter.
- \* Total glass production is calculated three different ways. As the sum of the components. A total concentrated feed divided by the waste loading fraction. And as the sum of the glass formers and concentrated feed. These are listed on last page of matrix and agree within 2%.
- \* Decontamination factors have been organized into a summary table for easy reference.
- \* Key glass components have been listed in table form and provided for simple reference to current target glass composition. This table is interactive with the spreadsheet.
- \* The software is now capable of updating SVS parameters over a range of temperatures and determining the extent of steam condensation.

\* Units were included at the top of each stream column for the chemical balance, radionuclide balance, and oxide balance ranges.

\* The glass composition was changed from ATM-10 to reference 4, and the accompanying waste loading was also changed.

Ongoing Activities

\* Key components are being set up with individual mass balances to be used as an accuracy check and to support development of a simple flowsheet verification routine.

\* FY'1989 Sludge Sampling will be completed by the end of October. This will provide the most extensive analytical data to date. Characterization results should be available in early 1990 and will be used to support Rev. 8 update.

\* The benefits of integrating the mass balance spreadsheet with a data base program such as dBIV or R-Base are being evaluated. The database format may provide for much simpler input/modification and verification of the spreadsheet.



R. L. Crocker, Principal Engineer  
West Valley Nuclear Services Co., Inc.

RLC:dms

Attachment

DMS0102

## ATTACHMENT

NETS: BALANCE:  
STREAM NUMBER  
STREAM NAME

COMPONENT #	MOLECULAR WEIGHT	D		F		G		H		I		J	
		1 THOREX SUPERNATANT 2/26/87	2 THOREX SLUDGE 2/26/87	3 THOREX WASTE 2/26/87	4 PUREX SUPERNATANT 2/26/87	5 PUREX SLUDGE 1/31/87	6 PUREX WASTE 1/31/87	7 PUREX WASTE 1/31/87	8 PUREX WASTE CONDENSATE	9 SOI	10 SOI	11 SOI	12 SOI
	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg
H2O	18.02		34,148	0	34,148	1,727,164	0	1,727,164	0	1,727,164	0	664,000	
Rg	107.87				5.00						0.00		
RgM05	169.89		0.06	0.00	0.06						0.00		
Rg20	231.76				0.00						0.00		
RgOH	124.88				0.00						0.00		
AlF3	69.38				0.00						0.70		
Al<NO3>3	219.00		4,175.00	0.00	4,175.00						534.00	515.00	
Al2O3	101.56				0.00						0.00		
Al<OH>3	79.00				0.00						0.00		
Al<OH>3	294.00				0.00						0.00		
Al<NO3>3	429.00				0.00						0.00		
Al<NO3>3	534.20				0.00						27.00		
B2O3	69.62				0.00						0.00		
Ba<NO3>2	261.58		27.00	0.00	27.00						0.00		
BaO	185.32				0.00						0.00		
BaSO4	233.40				0.00						303.00	303.00	
C	12.00				0.00						0.00		
<CH2>10	140.00				0.00						0.00		
CaCO3	100.09				0.00						3,208.00	3,208.00	
CaC2O4	128.12				0.00						0.00		
CaF2	78.08				0.00						0.00		
Ca<NO3>2	164.09		30.00	0.00	30.00						0.00		
CaO	56.08				0.00						0.00		
Ca<OH>2	74.09				0.00						0.00		
Ca3<PO4>2	310.18				0.00						0.00		
CaSO4	136.14				0.00						0.00		
Ca<NO3>2	236.41		0.30	0.00	0.30						0.00		
CdO	128.40				0.00						0.00		
Cd<OH>2	146.15				0.00						1.70		
Ca<NO3>3	326.23		43.00	0.00	43.00						0.00		
Ca2O3	328.24				0.00						0.00		
Ca<OH>3	191.14				0.00						0.00		
Ca<NO3>3	433.00				0.00						0.00		
Ca2O3	542.00				0.00						0.40		
Ca<OH>3	299.00				0.00						0.00		
Co	58.93				0.00						0.00		
Co<NO3>2	185.04		3.00	0.00	3.00						0.00		
CoO	74.93				0.00						0.00		
Co<OH>2	92.95				0.00						0.00		
Cr<NO3>3	238.15		1,918.00	0.00	1,918.00						354.00	354.00	
Cr2O3	182.02				0.00						0.00		
CrO3	99.99				0.00						0.00		
Cr<OH>3	105.02				0.00						65.00	65.00	
CaM03	194.91		28.00	0.00	28.00						0.00	534.00	
CaCl<SO4>	168.36				0.00						0.00		
Ca2O	281.81				0.00						0.00		
CaP<4>	281.81				0.00						0.00		
CaU	62.56				0.00						0.00		
Ca<NO3>2	187.40		0.90	0.00	0.90						6.00	6.00	
CaUO	79.54				0.00						0.00		
CaSO4	159.61				0.00						0.00		
Dy<MC3>3	548.58		0.00	0.00	0.00						0.00		
Dy2O3	573.00				0.00						0.00		
Dy<OH>3	213.52				0.00						0.00		
Eu<NO3>3	338.07		1.00	0.00	1.00						0.00		
Eu2O3	381.92				0.00						0.00		
Eu<OH>3	202.96				0.00						7.50	7.50	
Fo	55.85				0.00						0.00		
Fo<NO3>3	242.02		8,462.00	0.00	8,462.00						43.00		
FoO	71.85				0.00						0.00		
Fo<OH>3	104.86				0.00						66,040.00	66,040.00	
Fo2O3	159.69				0.00						0.00		
FoFO<	150.85				0.00						6,351.00	6,351.00	
Ga<NO3>3	345.34		0.40	0.00	0.40						0.00		
Ge2O3	362.50				0.00						0.00		
Ge<OH>3	208.27				0.00						1.70		
Ge<HO3>4	320.59		0.02	0.00	0.02						0.00		
Ge<OH>4	104.59				0.00						0.00		
H3BO3	81.63		480.00	0.00	480.00						0.00		
H2CO3	82.03				0.00						9.00		
H2C2O4	90.00				0.00						0.00		
HCl	36.46				0.00						0.00		
HF	20.01				0.00						0.00		
HNO3	63.02		2,805.00	0.00	2,805.00						23.00		
H2SO4	98.07				0.00						0.00		
Hg	200.59				0.00						0.00		
Hg2Cl2	472.09				0.00						0.00		
Hg2I2	654.99				0.00						0.00		
Hg<NO3>2	524.63				0.00						0.00		
HgO	218.61				0.00						0.00		
Hg<OH>2	500.88		0.06	0.00	0.06						0.00		
In2O3	277.64				0.00						0.00		
In<OH>3	165.84				0.00						0.30		
K2Cr2O7	194.20				0.00						5,113.00		
KMnO4	197.12		98.00	0.00	98.00						0.00		
KNb3	101.10		191.00	0.00	191.00						36,274.00		
K2O	94.20				0.00						0.00		
La<NO3>3	325.02		22.00	0.00	22.00						0.20		
La2O3	325.82				0.00						0.00		
La<OH>3	189.93				0.00						185.00		
LiOH	23.95				0.00						0.00		
LiMnO3	66.94				0.00						14.00		
Li2O	29.86				0.00						0.00		
MgCl2	54.41				0.00						826.00	826.00	
MgO	40.32				0.00						2.00		
Mg<OH>2	58.33				0.00						0.00		
Mn<NO3>2	170.05				0.00						0.00		
MnO2	70.94				0.00						0.00		
MnO3	86.95				0.00						0.00		
Mn<OH>2	145.95				0.00						0.00		
Mn2O3	127.78				0.00						557.00		
Na2B4O7	201.27				0.00						0.00		
Na2Cr2O4	154.01				0.00						0.00		
Na2CO3	106.00				0.00						25,249.00		
NaCl	56.46		50.00	0.00	50.00						4,644.00	4,644.00	
NaP<4>	58.97				0.00						0.00		
Na<OH>2	141.97		1.00	0.00	1.00						4,581.00	4,581.00	
Na2O	111.90				0.00						0.00		
NaOH	40.01				0.00						503.00		
Na2P<4>O4	163.94				0.00						0.00		
Na2P<4>O7<OH>-4	305.80				0.00						42,557.00		
Na2Rh<4>	212.91				0.00						0.00		
Na2SiO4	211.07				0.00						0.00		
Na2SiO4	140.06				0.00						17,537.00		
Na2SiO4	166.96				0.00						17,537.00		
Na2SiO4	122.06				0.00						15.00		
Na2TeO4	146.00				0.00						0.00		
Na2TeO4	237.58				0.00						177.00		
Na2U2O7	634.00				0.00						82.00		
Na<NO3>3	330.35				0.00						231.00		
Na2O	336.48				0.00						0.00		





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18 WASTE BLEND	19 BD1 HEEL FLUSH	20 BD4 CHEMICAL ADD	21 BD4 WATER ADD	22 ADJUSTED THOREX WASTE	23 CAUSTIC ADDITION TO BD2	24 CAUSTIC WATER FLUSH TO BD2	25 BD4 TRUNK FLUSH	26 NEUTRALIZED THOREX WASTE IN BD2	27 VITRIFICATION SYSTEM FEED BD2
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg
8,400,743			H2O	34,148	21,084		6,400	62,574	1,519,617
0.00			Ru	0.00			0.00	0.00E+00	
0.00			Ru003	0.08			0.00	0.00E+00	
0.00			Ru20	0.00			0.00	0.00E+00	
0.00			RuH	0.00			0.00	7.59E-01	
0.00			Ru3	0.00			0.00	5.38E+02	
0.00			Ru<H03>3	4,175.00			0.00	8.67E+02	
0.00			Ru203	0.00			1,328.67	7.38E+02	
0.00			Ru<H03>3	0.00			0.00	0.00E+00	
0.00			Ru<H03>3	0.00			0.00	2.70E+01	
0.00			Ru203	0.00			0.00	0.00E+00	
0.00			Ru203	27.00			0.00	0.00E+00	
0.00			Ru<H03>2	27.00			0.00	0.00E+00	
0.00			Ru0	0.00			24.11	3.27E+02	
0.00			Ru504	0.00			0.00	0.00E+00	
0.00			C	0.00			0.00	0.00E+00	
0.00			CN20310	0.00			0.00	0.00E+00	
0.00			CaC05	0.00			0.00	3.21E+02	
0.00			Ca<204	0.00			0.00	0.00E+00	
0.00			CaF2	0.00			0.00	0.00E+00	
0.00			Ca<H03>2	30.00			0.00	0.00E+00	
0.00			CaG	0.00			0.00	6.15E+02	
0.00			Ca<H03>2	0.00			0.00	1.55E+01	
0.00			Ca<3P04>2	0.00			0.00	0.00E+00	
0.00			CaS04	0.30			0.00	0.00E+00	
0.00			Ca<H03>2	0.00			0.00	0.00E+00	
0.00			Ca0	0.00			0.00	0.00E+00	
0.00			Ca<H03>2	45.00			0.00	0.00E+00	
0.00			Ca<H03>3	0.00			0.00	0.00E+00	
0.00			Ce203	0.00			0.00	0.00E+00	
0.00			Ce<H03>5	0.00			0.00	3.54E+02	
0.00			Ce<H03>3	0.00			0.00	4.0E-01	
0.00			Ce203	0.00			0.00	0.00E+00	
0.00			Ce<H03>3	0.00			0.00	0.00E+00	
0.00			Ce	0.00			0.00	0.00E+00	
0.00			Ce<H03>2	3.00			0.00	0.00E+00	
0.00			Ce0	0.00			0.00	1.52E+00	
0.00			Ce<H03>2	1,916.00			0.00	0.00E+00	
0.00			Ce203	0.00			0.00	0.00E+00	
0.00			Ce<H03>3	0.00			0.00	0.00E+00	
0.00			Ce03	0.00			0.00	0.00E+00	
0.00			Ce<H03>3	28.00			0.00	0.00E+00	
0.00			CeH03	0.00			0.00	0.00E+00	
0.00			CeCl<SV>	0.00			0.00	0.00E+00	
0.00			Ce20	0.00			0.00	0.00E+00	
0.00			Er<H03>9	0.00			0.00	0.00E+00	
0.00			Cu	0.80			0.00	1.84E-02	
0.00			Cu<H03>2	0.00			0.00	0.00E+00	
0.00			Cu0	0.00			0.42	3.75E+02	
0.00			CuS04	0.00			0.00	0.00E+00	
0.00			Cu<H03>3	0.00			0.00	0.00E+00	
0.00			Dy203	0.00			0.00	0.00E+00	
0.00			Dy<H02>5	1.00			0.00	1.22E-02	
0.00			Eu<H03>3	0.00			0.00	0.00E+00	
0.00			Eu203	0.00			0.00	6.10E+02	
0.00			Eu<H03>3	0.00			0.00	0.00E+00	
0.00			Fe	8,462.00			0.00	0.00E+00	
0.00			Fe0	0.00			0.00	0.00E+00	
0.00			Fe<H03>3	0.00			0.00	1.52E+00	
0.00			FeF03	0.00			0.00	0.00E+00	
0.00			Gd<H03>5	0.00			0.00	0.00E+00	
0.00			Gd203	0.00			0.00	0.00E+00	
0.00			Gd<H03>3	0.02			0.24	1.94E+01	
0.00			Gd<H03>4	0.00			0.00	0.00E+00	
0.00			Ge02	0.00			0.01	6.77E-02	
0.00			Ge<H03>4	480.00			0.00	0.00E+00	
0.00			H2B03	0.00			0.00	0.00E+00	
0.00			H2C03	0.00			0.00	0.00E+00	
0.00			H2C204	0.00			0.00	0.00E+00	
0.00			HCl	0.00			0.00	0.00E+00	
0.00			Hf	2,805.00			0.00	0.00E+00	
0.00			Hf03	0.00			0.00	0.00E+00	
0.00			Hg	0.00			0.00	0.00E+00	
0.00			Hg2C12	0.00			0.00	0.00E+00	
0.00			Hg2J2	0.00			0.00	0.00E+00	
0.00			Hg<H03>2	0.00			0.00	0.00E+00	
0.00			Hg0	0.00			0.00	2.30E+00	
0.00			Hg<H03>2	0.04			0.00	0.00E+00	
0.00			Hg<H03>3	0.00			0.00	0.00E+00	
0.00			Hg203	0.00			0.02	3.22E+00	
0.00			Hg<H03>3	0.00			0.00	1.56E+00	
0.00			K2C04	99.00			0.00	0.00E+00	
0.00			KRu04	191.00			0.00	0.00E+00	
0.00			KRu3	0.00			0.00	0.00E+00	
0.00			KRu	0.00			0.00	0.00E+00	
0.00			La<H03>3	22.00			0.00	0.00E+00	
0.00			La203	0.00			0.00	0.00E+00	
0.00			La<H03>3	0.00			0.00	12.86	1.98E+00
0.00			LiOH	0.00			0.00	0.00E+00	
0.00			LiH03	0.00			0.00	0.00E+00	
0.00			Li20	0.00			0.00	0.00E+00	
0.00			MgC03	57.00			0.00	0.00E+00	
0.00			Mg0	0.00			0.00	0.00E+00	
0.00			Mg<H03>2	0.00			0.00	0.00E+00	
0.00			Mn0	0.00			0.00	0.00E+00	
0.00			Mn02	0.00			0.00	0.00E+00	
0.00			Mn<H03>2	0.00			0.00	0.00E+00	
0.00			Re03	0.00			0.00	0.00E+00	
0.00			Re3B03	0.00			0.00	0.00E+00	
0.00			Re2B04	0.00			0.00	0.00E+00	
0.00			Re2B047	0.00			0.00	0.00E+00	
0.00			Re2C204	0.00			0.00	0.00E+00	
0.00			Re2C03	90.00			0.00	0.00E+00	
0.00			ReC1	0.00			0.00	0.00E+00	
0.00			ReF03	0.00			0.00	0.00E+00	
0.00			Re2C04	1.00			0.00	0.00E+00	
0.00			ReM2P04	0.00			0.00	0.00E+00	
0.00			ReMCD03	0.00			0.00	1.30E+00	
0.00			ReI	0.00			0.00	0.00E+00	
0.00			ReP04	54.00			0.00	5.61E+02	
0.00			Re2Mn04	0.00			0.00	0.00E+00	
0.00			ReM02	0.00			0.00	0.00E+00	
0.00			ReM03	0.00			0.00	0.00E+00	
0.00			Re20	0.00			0.00	0.00E+00	
0.00			Re0H	12.00			0.00	0.00E+00	
0.00			Re2P042<H04>4	0.00			0.00	0.00E+00	
0.00			Re2R04	0.00			0.00	0.00E+00	
0.00			Re2R046	180.00			0.00	0.00E+00	
0.00			Re2S04	1.00			0.00	0.00E+00	
0.00			Re2S04	128.00			0.00	0.00E+00	
0.00			Re2S03	11.00			0.00	0.00E+00	
0.00			Re2T04	5.00			0.00	0.00E+00	
0.00			Re2U207	0.00			0.00	0.00E+00	
0.00			Re<H03>3	73.00			0.00	0.00E+00	
0.00			Re203	0.00			0.00	0.00E+00	
0.00			Re17n45	0.00			0.00	0.00E+00	



RE 29 902 SLURRY TRANSFER FLUSH	HF 29 SBS RECYCLE	MU 30 DECOM SOLN RECYCLE	NH 31 WASTE RECYCLE	F13 32 LMTS CONCENTRATE RECYCLE	F14 33 WASTE RECYCLE	34 ROUTINE WASTE RECYCLE	35 DILUTE WASTE RECYCLE	36 CMFT WASTE FEED	36 CONCENTRATED CMFT WASTE	37 CMFT WASTE OVERHEADS
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg
13.029	5.6E-006		5.29E-002	H2O	0		1.90E+004	240.163	1.65E+731	
	0.00E+00		0.00E+00	Rg			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	RgM03			0.00E+00	0.00E+00	0.00E+00	
	2.28E-03		5.59E-05	Rg20			2.25E-03	3.81E-06		
	0.00E+00		0.00E+00	RgOH			7.34E-01	1.13E-03		
	0.00E+00		0.00E+00	Rif3			5.36E-02	5.34E-02	8.01E-01	
	0.00E+00		0.00E+00	R1<HO3>5			0.00E+00	0.00E+00	0.00E+00	
	1.00E+02		3.35E+00	R1203			8.77E+03	1.315E+01		
	0.00E+00		0.00E+00	R1<OH>3			7.38E+03	1.109E+01		
	0.00E+00		0.00E+00	Rn<OH>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Rn<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	8.73E-02		2.91E-03	Rn203			2.71E+01	2.71E+01	4.058E-02	
	9.77E-02		4.72E-01	R203			9.78E+02	9.78E+02	1.46E+00	
	0.00E+00		0.00E+00	R<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	1.63E-01		5.42E-03	Rao			5.05E+01	5.05E+01	7.55E-02	
	1.06E-00		5.33E-02	Ras04			3.28E+02	3.28E+02	4.90E-01	
	0.00E+00		0.00E+00	C			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	<CH2>10			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CaCO3			3.21E+03	4.79E+00		
	0.00E+00		0.00E+00	CaCO24			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CaF2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Ca<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	7.67E-00		2.86E-01	CaO			6.23E+02	6.23E+02	9.31E-01	
	1.06E-00		0.00E+00	Ca<OH>2			1.35E+01	1.35E+01	2.02E+00	
	0.00E+00		0.00E+00	Ca3<PO4>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CaSO4			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Ca<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	9.48E-02		1.83E-02	CaO			1.12E-01	1.12E-01	1.69E-04	
	0.00E+00		0.00E+00	Ca<HO3>3			1.89E+00	1.89E+00	2.82E-05	
	5.83E-01		3.28E-02	Ca203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Ca<OH>3			1.02E+00	1.02E+00	1.54E-03	
	0.00E+00		0.00E+00	Ca<HO5>3			3.54E+02	3.54E+02	5.29E-01	
	1.29E-03		4.31E-05	Ca203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Ca<HO3>3			4.01E-01	4.01E-01	6.03E-04	
	0.00E+00		0.00E+00	Ca			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Ca<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	3.57E-03		1.32E-04	CaO			4.10E-03	4.10E-03	6.17E-06	
	0.00E+00		0.00E+00	Ca<HO3>3			1.52E+00	1.52E+00	2.28E-05	
	5.28E-01		3.28E-02	Ca203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Ca<OH>3			2.28E+00	2.28E+00	3.36E-05	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			8.95E+02	8.95E+02	1.34E+00	
	1.29E-03		4.31E-05	Cr<HO3>3			2.94E+01	2.94E+01	4.43E-02	
	0.00E+00		0.00E+00	Cr			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>2			3.92E+02	3.92E+02	5.67E-01	
	0.00E+00		0.00E+00	CrO			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			1.23E-03	1.23E-03	1.83E-06	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CrO			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CrO			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CrO			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CrO			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	CrO			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<OH>2			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr<HO3>3			0.00E+00	0.00E+00	0.00E+00	
	0.00E+00		0.00E+00	Cr203			0.00E+0			

0 3,182 0 102 TOTAL SOLIDS 0

0 .. 00E+00	0 .. 00E+00	0 .. 00E+00	0 .. 00E+00	TOTAL DRASES	0 .. 00E+00	0 .. 00E+00	0 .. 00E+00		
				EXCL H <sub>2</sub> O					
				B TRACES					
28 SLURRY TRANSFER	29 SBS RECYCLE	30 CAMISTER RECYCLE	31 HEME RECYCLE	32 LWTS CONCENTRATE RECYCLE	33 WASTE HEADER RECYCLE	34 NONROUTINME WASTE RECYCLE	35 DILUTE CHFT WASTE FEED	36 CONCENTRATED CHFT WASTE	37 CHFT WASTE OVERHEADS



U...UUE+UU	U...UUE+UU	U...UUU	U...UUU	U...UUU	U...UUU	U...UUU	U...UUU
4...01E+00	4...01E+00	1...199...74	4...716...0	4...01E+00	4...01E+00	4...01E+00	4...01E+00
1...49E+03	1...49E+03	0...00	W1<CHD>2	0...0000	W1<CHD>2	0...0000	W1<CHD>2
0...00E+00	0...00E+00	0...00	Wp<CHD>4	0...0000	Wp<CHD>4	0...0000	Wp<CHD>4
3...81E+01	3...81E+01	35...50	Wp<CHD>2	0...1395	1...152...01	0...00E+00	Wp<CHD>4
8...59E-01	8...59E-01	0...00	Wp<CHD>4	0...0000	0...00E+00	3...75E+01	Wp<CHD>4
3...74E+01	3...74E+01	11...204...96	P205	4...04E+00	0...0000	0...00E+00	P205
0...00E+00	0...00E+00	0...00	P<CHD>4	0...0000	0...00E+00	2...21E-03	P<CHD>4
2...20E-05	2...20E-05	0...66	P<D2	0...0028	2...21E-03	0...00E+00	P<D2
7...50E-01	7...50E-01	0...00	P<CHD>4	0...0000	0...00E+00	0...00E+00	P<CHD>4
0...00E+00	0...00E+00	0...00	P<D	0...0000	0...00E+00	0...00E+00	P<D
0...00E+00	0...00E+00	0...00	Pd<CHD>2	0...0000	0...00E+00	0...00E+00	Pd<CHD>2
1...13E-01	1...13E-01	35...89	Pd0	0...1322	1...15E-01	0...00E+00	Pd0
3...69E+01	3...69E+01	0...00	Pd<CHD>2	0...0000	0...00E+00	0...00E+00	Pd<CHD>2
0...00E+00	0...00E+00	0...00	Pw<CHD>3	0...0000	0...00E+00	0...00E+00	Pw<CHD>3
4...54E-03	4...54E-03	1...30	Pw<D2	0...0011	4...35E-03	0...00E+00	Pw<D2
1...51E+00	1...51E+00	0...00	Pw<CHD>5	0...0000	0...00E+00	0...00E+00	Pw<CHD>5
0...00E+00	0...00E+00	0...00	Pw<CHD>5	0...0000	0...00E+00	0...00E+00	Pw<CHD>5
9...23E-01	9...23E-01	154...66	Pw<D2	0...6158	5...24E-01	0...00E+00	Pw<D2
1...62E-02	1...62E-02	0...00	Pw<CHD>3	0...0000	0...00E+00	0...00E+00	Pw<CHD>3
0...00E+00	0...00E+00	0...00	Pw<CHD>4	0...3000	0...00E+00	0...00E+00	Pw<CHD>4
3...75E+01	3...75E+01	37...58	Pw02	0...1470	1...25E-01	Rw02	
9...36E+00	9...36E+00	0...00	Rb<CHD>3	0...0000	0...00E+00	0...00E+00	Rb<CHD>3
1...35E-02	1...35E-02	4...03	Rb20	0...0159	1...35E-02	Rb20	
0...00E+00	0...00E+00	0...00	Rb	0...0000	0...00E+00	0...00E+00	Rb
0...00E+00	0...00E+00	0...00	Rh<CHD>4	0...0000	0...00E+00	0...00E+00	Rh<CHD>4
2...22E-01	2...22E-01	64...58	Rh02	0...2617	2...24E-01	Rh02	
8...44E+01	8...44E+01	0...00	Rh<CHD>4	0...0000	0...00E+00	0...00E+00	Rh<CHD>4
0...00E+00	0...00E+00	0...00	Rh	0...0000	0...00E+00	0...00E+00	Rh
0...00E+00	0...00E+00	0...00	Ru<CHD>4	0...0000	0...00E+00	0...00E+00	Ru<CHD>4
4...18E+01	4...18E+01	0...00	Ru02	0...1470	1...25E-01	Ru02	
0...00E+00	0...00E+00	0...00	Rw<CHD>4	0...0000	0...00E+00	0...00E+00	Rw<CHD>4
4...78E+02	4...78E+02	0...00	Rw<D2	0...0000	0...00E+00	0...00E+00	Rw<D2
0...00E+00	0...00E+00	0...00	Rw	0...0000	0...00E+00	0...00E+00	Rw
2...13E-03	2...13E-03	64...58	Rh02	0...2617	2...24E-01	Rh02	
7...54E-01	7...54E-01	0...00	Rh<CHD>4	0...0000	0...00E+00	0...00E+00	Rh<CHD>4
7...21E-02	7...21E-02	0...61	Rw02	0...0024	3...27E-02	Rw02	
7...04E-01	7...04E-01	0...00	Si<CHD>4	0...0000	0...00E+00	0...00E+00	Si<CHD>4
2...04E+05	2...04E+05	0...00	Si02	1...4796	4...16E+01	Rw02	
0...00E+00	0...00E+00	0...00	Sp<P>	0...0000	0...00E+00	0...00E+00	Sp<P>
4...78E+02	4...78E+02	0...00	Ru<CHD>4	0...0000	0...00E+00	0...00E+00	Ru<CHD>4
0...00E+00	0...00E+00	0...00	S03	0...0000	0...00E+00	0...00E+00	S03
2...32E-02	2...32E-02	0...00	Sb<CHD>3	0...0000	0...00E+00	0...00E+00	Sb<CHD>3
7...54E-01	7...54E-01	0...64	Sb202	0...0025	2...13E-03	Sb202	
7...21E-02	7...21E-02	0...00	Sb<CHD>3	0...0000	0...00E+00	0...00E+00	Sb<CHD>3
7...04E-01	7...04E-01	0...61	Sr02	0...0024	3...27E-02	Sr02	
2...04E+05	2...04E+05	0...00	Si<CHD>4	0...0000	0...00E+00	0...00E+00	Si<CHD>4
0...00E+00	0...00E+00	0...00	Si02	1...4796	4...16E+01	Rw02	
1...22E-02	1...22E-02	0...00	Sm<CHD>3	0...0000	0...00E+00	0...00E+00	Sm<CHD>3
2...24E+01	2...24E+01	131...07	Sm203	0...3152	4...35E-01	Sm203	
7...50E-01	7...50E-01	0...00	Sm<CHD>5	0...0000	0...00E+00	0...00E+00	Sm<CHD>5
8...73E-03	8...73E-03	0...00	Sm<CHD>4	0...0000	0...00E+00	0...00E+00	Sm<CHD>4
2...86E+00	2...86E+00	0...00	Sm<CHD>4	0...0000	0...00E+00	0...00E+00	Sm<CHD>4
0...00E+00	0...00E+00	0...00	SmC03	0...0000	0...00E+00	0...00E+00	SmC03
1...22E-02	1...22E-02	0...00	Sm<CHD>2	0...0000	0...00E+00	0...00E+00	Sm<CHD>2
2...24E+01	2...24E+01	22...38	Sm0	0...0000	0...00E+00	0...00E+00	Sm0
0...00E+00	0...00E+00	0...00	Sm<CHD>2	0...0000	0...00E+00	0...00E+00	Sm<CHD>2
2...32E+02	2...32E+02	230...88	Sm50	0...0000	0...00E+00	0...00E+00	Sm50
1...12E+05	1...12E+05	0...00	SUGAR<CC12H02>1	0...0000	0...00E+00	0...00E+00	SUGAR<CC12H02>2
0...00E+00	0...00E+00	0...00	Tb<CHD>2	0...0000	0...00E+00	0...00E+00	Tb<CHD>2
7...04E-06	7...04E-06	0...00	Tz02	0...0000	0...00E+00	0...00E+00	Tz02
2...43E-03	2...43E-03	0...00	T<CHD>3	0...0000	0...00E+00	0...00E+00	T<CHD>3
1...04E+00	1...04E+00	0...00	T<2017	0...0378	3...07E+00	T<2017	
1...85E-01	1...85E-01	9...1	Tz02	0...0159	1...86E-01	Tz02	
6...67E+02	6...67E+02	3...83	Th<CHD>4	0...0000	0...00E+00	0...00E+00	Th<CHD>4
5...71E+01	5...71E+01	0...00	Th02	0...1415	6...71E+01	Th02	
1...90E+04	1...90E+04	0...00	Th<CHD>4	0...0000	0...00E+00	0...00E+00	Th<CHD>4
4...25E+03	4...25E+03	4...315...81	T102	16...9647	1...44E+01	T102	
0...00E+00	0...00E+00	0...00	U02<CHD>2	0...0000	0...00E+00	0...00E+00	U02<CHD>2
9...18E+00	9...18E+00	2...746...53	U02	10...794...1	9...18E+00	U02	
0...00E+00	0...00E+00	0...00	U03	0...0000	0...00E+00	0...00E+00	U03
3...09E+03	3...09E+03	0...00	U02<CHD>2	0...0000	0...00E+00	0...00E+00	U02<CHD>2
0...00E+00	0...00E+00	0...00	V2<CHD>3	0...0000	0...00E+00	0...00E+00	V2<CHD>3
0...00E+00	0...00E+00	0...00	V<CHD>3	0...0000	0...00E+00	0...00E+00	V<CHD>3
2...97E-01	2...97E-01	88...85	V203	0...3493	2...97E-01	V203	
1...10E+02	1...10E+02	0...00	V<CHD>3	0...0000	0...00E+00	0...00E+00	V<CHD>3
0...00E+00	0...00E+00	0...00	Sp<P>	0...0000	0...00E+00	0...00E+00	Sp<P>
0...00E+00	0...00E+00	0...00	Zn<CHD>2	0...0000	0...00E+00	0...00E+00	Zn<CHD>2
3...85E-01	3...85E-01	109...1...	Zn0	0...4285	3...65E-01	Zn0	
1...32E+02	1...32E+02	0...00	Zn<CHD>2	0...0000	0...00E+00	0...00E+00	Zn<CHD>2
0...00E+00	0...00E+00	0...00	Zr<CHD>4	0...0000	0...00E+00	0...00E+00	Zr<CHD>4
6...01E+01	6...01E+01	807...62	Zr02	3...1746	2...70E+00	Zr02	
9...70E+02	9...70E+02	0...00	Zr<CHD>4	0...0000	0...00E+00	0...00E+00	Zr<CHD>4
7...93...662	7...93...662	483...359	TOTAL SOLIDS	1...900	2...777	TOTAL SOLIDS	

3...84E+01	6...079E+05	1...749E+05	8...89E+05	2...49E+06	8...00E+05
3...84E+01	2...70E+05	1...69E+05	1...42E+05	1...69E+05	2...43E+05
3...84E+01	0...00E+00	1...16E+06	0...00E+00	0...00E+00	1...37E+06
3...84E+01	0...00E+00	0...00E+00	0...00E+00	1...37E+06	1...04E+06
38 GLASS FORMERS	39 MEDIUM-UP HELTER FEED	40 HELTER FEED	41 AIR INTAKE TO SPFM	42 GLASS PRODUCTION	43 FILLED GLASS CANNISTERS
					44 SFPM OFF GRS
					45 FILM COOLER AIR
					46 PRESSURE CONTROL AIR

OFF SBS	OFF SBS	SBS	48 CHEMICAL ADD		49 KBS AIR SPARGE		SBS OFF SBS	SO VESSEL SBS	51 VENT SBS	ODD CHEMICAL ADD	52 CHEMICAL ADD		OFF SBS	HEME NAME OFF SBS	54 CHEMICAL ADD		OFF SBS	55 FILTER PREHEATER OFF SBS		
			kg	kg	kg	kg					kg	kg	kg	kg						
9.47	SBS	H2O	1.217		413.937		69.534				463.471		4.992		463.471		463.471		463.471	
0.00E+00		Ag			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		AgHCO3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
2.36E-02		Ag2O			7.85E-05						0.00E+00							2.42E-05		2.42E-05
0.00E+00		AgOH			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		AlF3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Al(HCO3)3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
1.04E+02		Al2O3			3.44E+00						3.44E+00							1.15E-01		1.15E-01
0.00E+00		Al2(OH)3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Al(OH)3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Al(OH)3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Al2O3			3.01E-03						3.01E-03							1.00E-04		1.00E-04
9.78E-02		B2O3			0.95E-01						0.95E-01							1.63E-02		1.63E-02
0.00E+00		Ba(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
1.68E-01		BaO			8.1E-03						8.1E-03							1.87E-04		1.87E-04
1.09E+00		BaSO4			3.85E-02						3.85E-02							1.22E-03		1.22E-03
0.00E+00		C			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)10			0.00E+00						0.00E+00							0.00E+00		0.00E+00
9.00E+00		CaCO3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaCO3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaF2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
7.54E-06		CaO			2.45E-01						2.45E-01							0.00E+00		0.00E+00
0.00E+00		Ca(OH)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca3(PO4)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaSO4			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
1.14E-01		CaO			1.90E-02						1.90E-02							3.22E-04		3.22E-04
0.00E+00		Ca(OH)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			3.39E-02						3.39E-02							1.35E-03		1.35E-03
0.00E+00		Ca(OH)3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
1.34E-03		Ca2O3			4.46E-05						4.46E-05							1.49E-04		1.49E-04
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			3.42E-02						3.42E-02							2.48E-05		2.48E-05
0.00E+00		Ca(OH)3			0.00E+00						0.00E+00							1.14E-03		1.14E-03
0.00E+00		Ca(HCO3)3			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		Ca(HCO3)2			0.00E+00						0.00E+00							0.00E+00		0.00E+00
0.00E+00		CaO			0.00E+0															



LOT  
S7  
IFPA FILTER  
OFF GRS  
TRENT  
HEATER  
OFF GRS

IC9 58

483,471 H2O  
0.00E+00 0.00E+00 Reg  
0.00E+00 0.00E+00 RegH2O  
2.62E-12 2.52E-12 RegS0  
0.00E+00 0.00E+00 RegOH  
0.00E+00 0.00E+00 RIF3  
0.00E+00 0.00E+00 R1<HO3>3  
1.15E-07 1.15E-07 R1203  
0.00E+00 0.00E+00 R1<HO>5  
0.00E+00 0.00E+00 Reg<HO>3  
0.00E+00 0.00E+00 Reg<HO3>3  
1.00E-10 1.00E-10 Reg203  
1.63E-06 1.63E-06 Reg203  
0.00E+00 0.00E+00 Ba<HO3>2  
1.87E-10 1.87E-10 Ba0  
1.22E-09 1.22E-09 BaSD4  
0.00E+00 0.00E+00 Ca  
0.00E+00 0.00E+00 CaH2 10  
0.00E+00 0.00E+00 CaCa3  
0.00E+00 0.00E+00 CaCa204  
0.00E+00 0.00E+00 CaF2  
0.00E+00 0.00E+00 Ca<HO3>2  
8.62E-07 8.62E-07 Ca0  
0.00E+00 0.00E+00 Ca<HO>2  
0.00E+00 0.00E+00 Ca2<PO4>2  
0.00E+00 0.00E+00 CaSD4  
0.00E+00 0.00E+00 Cd<HO3>2  
6.32E-10 6.32E-10 Cd0  
0.00E+00 0.00E+00 Cd<HO>2  
0.00E+00 0.00E+00 Ge<HO3>3  
1.12E-09 1.12E-09 Ge203  
0.00E+00 0.00E+00 Ge<HO>5  
0.00E+00 0.00E+00 Ge<HO3>3  
1.49E-12 1.49E-12 Ge203  
0.00E+00 0.00E+00 Ge<HO3>3  
0.00E+00 0.00E+00 Ge  
0.00E+00 0.00E+00 Ge<HO3>2  
4.54E-12 4.54E-12 GeC  
0.00E+00 0.00E+00 Ge<HO>2  
0.00E+00 0.00E+00 Gr<HO3>3  
2.48E-09 2.48E-09 Gr203  
0.00E+00 0.00E+00 Gr05  
0.00E+00 0.00E+00 Gr<HO>5  
0.00E+00 0.00E+00 CaMn3  
0.00E+00 0.00E+00 CaCl<SA>  
4.60E-08 4.60E-08 Ca2D  
0.00E+00 0.00E+00 FePf#  
0.00E+00 0.00E+00 Cu  
0.00E+00 0.00E+00 Cu<HO3>2  
1.14E-09 1.14E-09 Cu0  
0.00E+00 0.00E+00 Cu<HO3>2  
0.00E+00 0.00E+00 CuSO4  
0.00E+00 0.00E+00 Du<HO3>3  
3.98E-15 3.98E-15 Du203  
0.00E+00 0.00E+00 Du<Ov>5  
0.00E+00 0.00E+00 Eu<HO3>3  
2.83E-11 2.83E-11 Eu203  
0.00E+00 0.00E+00 Eu<HO>5  
0.00E+00 0.00E+00 Fe  
0.00E+00 0.00E+00 Fe<HO3>3  
0.00E+00 0.00E+00 Fe0  
0.00E+00 0.00E+00 Fe<OH>5  
2.14E-07 2.14E-07 Fe203  
0.00E+00 0.00E+00 FePO4  
0.00E+00 0.00E+00 Bd<HO3>3  
6.28E-12 6.28E-12 Bd203  
0.00E+00 0.00E+00 Bd<OH>5  
0.00E+00 0.00E+00 Bd<HO3>4  
2.42E-14 2.42E-14 Bd02  
0.00E+00 0.00E+00 Ge<OH>4  
0.00E+00 0.00E+00 H3BO3  
0.00E+00 0.00E+00 H2CO3  
0.00E+00 0.00E+00 H2C2O4  
0.00E+00 0.00E+00 HC1  
0.00E+00 0.00E+00 HF  
0.00E+00 0.00E+00 HNO3  
0.00E+00 0.00E+00 H2SO4  
3.84E-08 3.84E-08 Hg  
0.00E+00 0.00E+00 Hg2Cl2  
0.00E+00 0.00E+00 Hg2I2  
0.00E+00 0.00E+00 Hg<HO3>2  
0.00E+00 0.00E+00 Hg0  
0.00E+00 0.00E+00 Hg<OH>2  
0.00E+00 0.00E+00 I<HO3>3  
1.00E-12 1.00E-12 I<HO>2  
0.00E+00 0.00E+00 I<v<OH>3  
0.00E+00 0.00E+00 I<v<Cr>4  
0.00E+00 0.00E+00 KPO4  
0.00E+00 0.00E+00 KMO3  
6.58E-08 6.58E-08 K2O  
0.00E+00 0.00E+00 KDH  
0.00E+00 0.00E+00 La<HO3>3  
6.31E-10 6.31E-10 La203  
0.00E+00 0.00E+00 La<OH>3  
0.00E+00 0.00E+00 Li OH  
0.00E+00 0.00E+00 Li MO3  
5.54E-09 5.54E-09 Li2O  
0.00E+00 0.00E+00 Mg<O>3  
0.00E+00 0.00E+00 Mg<HO3>2  
1.59E-08 1.59E-08 Mg0  
0.00E+00 0.00E+00 Mg<OH>2  
0.00E+00 0.00E+00 Mn<HO3>2  
1.76E-08 1.76E-08 Mn0  
0.00E+00 0.00E+00 MnO2  
0.00E+00 0.00E+00 Mn<OH>2  
9.43E-10 9.43E-10 MnO3  
0.00E+00 0.00E+00 Na2B05  
0.00E+00 0.00E+00 L13PO4  
0.00E+00 0.00E+00 Na2B4O7  
0.00E+00 0.00E+00 Na2C2O4  
0.00E+00 0.00E+00 Na2CO3  
1.19E-07 1.19E-07 NaCl  
0.00E+00 0.00E+00 FePf#  
0.00E+00 0.00E+00 Na2CrO4  
1.49E-06 1.49E-06 NaF  
0.00E+00 0.00E+00 Na2P2O4  
0.00E+00 0.00E+00 NaHC03  
0.00E+00 0.00E+00 NaI  
0.00E+00 0.00E+00 Na3P04  
0.00E+00 0.00E+00 Na2ThO4  
0.00E+00 0.00E+00 Na2TiO4  
0.00E+00 0.00E+00 NaH02  
0.00E+00 0.00E+00 NaH03  
2.01E-07 2.01E-07 Na2O  
0.00E+00 0.00E+00 NaOH  
0.00E+00 0.00E+00 Na2P04  
0.00E+00 0.00E+00 Na2P2O5<OH>4  
0.00E+00 0.00E+00 Na2Rb0M  
0.00E+00 0.00E+00 Na2Rb0M  
1.49E-08 1.49E-08 Na2SiO4  
0.00E+00 0.00E+00 Na2S04  
0.00E+00 0.00E+00 Na2SiO3  
0.00E+00 0.00E+00 Na2TiO4  
0.00E+00 0.00E+00 Na2TiO4  
0.00E+00 0.00E+00 Na2UO4  
0.00E+00 0.00E+00 Na2VO4  
1.80E-07 1.80E-07 Na203  
0.00E+00 0.00E+00 Na<HO3>3  
1.80E-07 1.80E-07 Na203  
0.00E+00 0.00E+00 Na<OH>3

4. 46E-09 M12  
 0. 00E+00 M1 <OH>2  
 0. 00E+00 M1 <OH>4  
 1. 32E-10 M1O2  
 0. 00E+00 M1 <OH>4  
 4. 16E-08 P205  
 0. 00E+00 P1 <OH>3>4  
 2. 45E-12 P1O2  
 0. 00E+00 P1 <OH>4  
 0. 00E+00 P1  
 0. 00E+00 P1 <OH>3>2  
 1. 26E-10 P1O2  
 0. 00E+00 P1 <OH>2  
 0. 00E+00 P1 <OH>3>3  
 4. 83E-12 P1O2  
 0. 00E+00 P1 <OH>3  
 0. 00E+00 P1 <OH>3>3  
 5. 82E-10 P1O2  
 0. 00E+00 P1 <OH>5  
 0. 00E+00 P1 <OH>3>4  
 1. 39E-10 P1O2  
 0. 00E+00 P1 <OH>5  
 1. 50E-11 P1O2  
 0. 00E+00 Rn  
 0. 00E+00 Rn <OH>3>4  
 2. 47E-10 RnO2  
 0. 00E+00 Rn <OH>4  
 0. 00E+00 Rn  
 0. 00E+00 Rn <OH>3>4  
 6. 97E-09 RnO2  
 0. 00E+00 Sr<OH>4  
 0. 00E+00 Sr<OH>4  
 0. 00E+00 SO3  
 0. 00E+00 Sb <OH>3>3  
 2. 37E-12 Sb2O3  
 0. 00E+00 Sb <OH>3  
 1. 80E-10 S<OH>2  
 0. 00E+00 Si <OH>3>4  
 7. 65E-07 SiO2  
 0. 00E+00 Si <OH>3>3  
 4. 87E-10 SiO2  
 0. 00E+00 Si <OH>5  
 0. 00E+00 Si <OH>3>4  
 9. 71E-12 SiO2  
 0. 00E+00 Si <OH>4  
 0. 00E+00 Si <OH>2  
 0. 00E+00 Si <OH>3>2  
 9. 23E-11 SrO  
 0. 00E+00 Sr <OH>2  
 8. 58E-10 SrSO4  
 0. 00E+00 SiO2(CC12H22O2112)  
 0. 00E+00 Tb <OH>3>3  
 7. 66E-18 Tb2O3  
 0. 00E+00 Tb <OH>3  
 6. 92E-09 T<OH>2  
 1. 03E-09 T<OH>2  
 0. 00E+00 Th <OH>3>4  
 6. 25E-08 ThO2  
 0. 00E+00 Th <OH>4  
 1. 60E-08 TiO2  
 0. 00E+00 UO2 <OH>3>2  
 3. 02E-08 UO2  
 0. 00E+00 UO3  
 0. 00E+00 V2O3  
 0. 00E+00 V<OH>3>3  
 3. 20E-10 V2O3  
 0. 00E+00 V<OH>3  
 0. 00E+00 V<OH>4  
 0. 00E+00 Zn<OH>3>2  
 4. 05E-10 ZnO  
 0. 00E+00 Zn <OH>2  
 0. 00E+00 Zr <OH>3>4  
 3. 00E-09 ZrO2  
 0. 00E+00 Zr <OH>4  
 3. 40E-06 TOTAL SOLIDS  
 0. 00E+00 CO2  
 1. 74E+05 CO2  
 0. 00E+00 H2  
 6. 00E+06 H2  
 0. 00E+00 H2O  
 1. 41E+05 H2O  
 1. 72E+05 O2  
 0. 00E+00 SO3  
 8. 04E-06 TOTAL BASES  
 8. 04E-06 EXCL H2O  
 8. 04E-06 TRACES

ST  
 HEPA FILTER  
 OFF GRS

SB  
 FRENCH  
 HEATER  
 OFF GRS



WATER ADD CL	PUREX WASTE CL	PUREX SUPERNATANT CL	PUREX SLUDGE CL	WASH WATER CL	SLURRY BDI CL	SLURRY BDI CL	WASH SUPERNATANT CL	SLUDGE CL
2-M	8.23E+01	7.33E+01	8.54E+00	8.54E+00	8.54E+00	8.54E+00	8.54E+00	2.52E-03
1-M-2	1.37E+02	1.22E+02	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	4.19E-01
3-E-0	6.49E+02	6.00E+00	6.49E+02	6.49E+02	6.49E+02	6.49E+02	6.49E+02	4.19E-02
6-O-1-E	3.17E+00	9.00E+00	3.17E+00	3.17E+00	3.17E+00	3.17E+00	3.17E+00	9.17E+00
6-O-1-E	8.54E+01	9.00E+00	8.54E+01	8.54E+01	8.54E+01	8.54E+01	8.54E+01	8.54E+01
6-O-1-E	8.54E+01	9.00E+00	8.54E+01	8.54E+01	8.54E+01	8.54E+01	8.54E+01	8.54E+01
7-O-2-E	8.54E+01	8.05E+01	8.54E+01	8.54E+01	8.54E+01	8.54E+01	8.54E+01	1.74E-01
9-O-1-E	6.28E+04	2.40E+03	6.28E+04	6.28E+04	6.28E+04	6.28E+04	6.28E+04	2.40E+04
9-O-1-E	6.28E+04	2.40E+03	6.28E+04	6.28E+04	6.28E+04	6.28E+04	6.28E+04	2.40E+04
9-O-2-E	2.54E+02	2.28E+01	2.54E+02	2.54E+02	2.54E+02	2.54E+02	2.54E+02	2.54E+02
9-O-2-E	1.71E+02	1.54E+01	1.71E+02	1.71E+02	1.71E+02	1.71E+02	1.71E+02	1.71E+02
9-O-2-E	1.60E+03	1.43E+03	1.74E+02	1.74E+02	1.74E+02	1.74E+02	1.74E+02	4.90E+00
10-O-2-E	1.41E+01	1.25E+02	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01
10-O-2-E	1.41E+01	1.25E+02	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01
10-T-Pd	1.09E+01	9.72E+03	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01
11.2-H-Cd	2.09E+03	1.86E+00	2.09E+03	2.09E+03	2.09E+03	2.09E+03	2.09E+03	2.09E+03
12.1-H-Sn	1.59E+01	1.50E+02	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01
12.4-Sn	1.01E+02	9.00E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
12.5-Sn	7.15E+03	2.06E+01	7.15E+03	7.15E+03	7.15E+03	7.15E+03	7.15E+03	2.06E+00
12.6-Sn	1.42E+01	1.24E+02	1.41E+01	1.41E+01	1.41E+01	1.41E+01	1.41E+01	1.41E+01
12.6-Sn	1.01E+02	9.00E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
12.8-Sn-Te	1.75E+03	5.07E+00	1.75E+03	1.75E+03	1.75E+03	1.75E+03	1.75E+03	5.07E+00
12.9-Sn-T	2.10E+01	1.87E+01	2.29E+02	2.29E+02	2.29E+02	2.29E+02	2.29E+02	2.29E+02
13.0-Cu-Cu	8.07E+03	4.51E+03	8.51E+02	8.51E+02	8.51E+02	8.51E+02	8.51E+02	8.51E+02
13.5-Cu-Cu	1.54E+02	1.39E+02	1.70E+01	1.70E+01	1.70E+01	1.70E+01	1.70E+01	1.70E+01
13.7-Cu-Cu	8.77E+06	6.04E+06	7.36E+06	7.36E+06	7.36E+06	7.36E+06	7.36E+06	6.04E+06
13.7-Pt-Ba	8.41E+06	5.71E+06	6.97E+06	6.97E+06	6.97E+06	6.97E+06	6.97E+06	5.71E+06
14.0-Cu-Cu	8.34E+01	1.29E+06	6.29E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01	1.29E+01
14.0-Cu-Pt	8.39E+01	1.29E+06	6.29E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01	1.29E+01
14.0-Cu-Pt	1.05E+01	2.91E+02	1.05E+01	1.05E+01	1.05E+01	1.05E+01	1.05E+01	2.91E+01
14.7-Pt-Pt	8.29E+04	2.30E+02	8.37E+04	8.37E+04	8.37E+04	8.37E+04	8.37E+04	2.30E+04
15.1-Sn-Sn	7.96E+04	4.38E+01	7.95E+04	7.95E+04	7.95E+04	7.95E+04	7.95E+04	4.38E+01
15.2-Sn-Sn	3.24E+02	5.50E+02	3.24E+02	3.24E+02	3.24E+02	3.24E+02	3.24E+02	5.50E+02
15.4-Cu-Cu	9.35E+04	1.01E+01	9.34E+04	9.34E+04	9.34E+04	9.34E+04	9.34E+04	1.01E+01
15.5-Cu-Cu	2.34E+01	1.39E+06	2.33E+01	2.33E+01	2.33E+01	2.33E+01	2.33E+01	1.39E+06
z-7-T-Tl	9.55E+04	1.67E+08	9.55E+04	9.55E+04	9.55E+04	9.55E+04	9.55E+04	1.67E+08
2.09-T-Tl	1.11E+00	6.21E+02	1.04E+00	1.04E+00	1.04E+00	1.04E+00	1.04E+00	6.21E+02
2.09-Pb-Pb	2.11E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.12-Pb-Pb	8.57E+04	1.67E+08	8.57E+04	8.57E+04	8.57E+04	8.57E+04	8.57E+04	1.67E+08
2.12-Pb-Pb	5.09E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	5.07E+04	1.67E+08	5.07E+04	5.07E+04	5.07E+04	5.07E+04	5.07E+04	1.67E+08
2.13-Pb-Pb	3.09E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.11E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1.24E+04
2.13-Pb-Pb	1.98E+00	1.01E+01	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	1.01E+01
2.13-Pb-Pb	2.05E+03	1.24E+04	1.99E+03	1.99E+03	1.99E+03	1.99E+03	1	

903.786	WEIGHT, KG	85.273	42.168	WEIGHT, KG	6.400	133.517	1.346.729
881.343	VOLUME, L	51.334	27.681	VOLUME, L	6.400	85.208	1.402.729
3.135.812	ACTIVITY, CI	1.724.936	0.00E+00	ACTIVITY, CI	0.00E+00	1.724.936	27.903.548
0.00E+00	ACTIMIDES, CI	1.819	0.00E+00	ACTIMIDES, CI	0.00E+00	1.819	15.4.480
32.628	HEAT GEN., W	8.036	0.00E+00	HEAT GEN., W	0.00E+00	8.036	83.143
1.03	SqD	1.66	1.53	SqD	1.00	1.86	1.1C

13.02%	EYD, 138	0.00E+00	5,293		0.00E+00	WEIGHT, KG	2,134.790	44.9, 956	1,645.074
13.02%	564,956	0.00E+00	5,292		0.00E+00	VOLUME, L	1,988.005	240.163	1,645.731
0.00E+00	283,612	0.00E+00	47,699	In Matl. Bal.	ACTIVITY, Ci	20.235.459	20.235.458	*2.192	
0.00E+00	459	0.00E+00	16.66	In Matl. Bal.	ACTINIDES,Ci	154.996	154.996	231.50	
0.00E+10	HEM. SIBLE	0.00E+00	NEGLIGIBLE	Negligible	HEAT GEN., W	63.141	*3.141	124.21	
1.00	1.01	0.00	1.03		Spd	1.07	1.96	1.00	

CLSSS FORCES	PHASE-UP	HELTER	HLR	ULASS	EXTRA ULASS	AIR
HELTER	FEED	FEED	INTERVANCE	PRODUCTION	CANISTERS	OFF GRS
FEED	FEED	TO SFCH	CL	CL	CL	CL
CL	CL	CL	CL	CL	CL	CL
3-M	3.32E-03	3.32E-01	0.00	3-M	0.00	2.32E-01
1-M-1	5.49E-01	5.49E-01	0.00	1-M-C	0.00	5.49E-01
3-E-1*	0.5E+02	7.05E-02	702.46	3-E-F*	2.78	2.35E+00
6-D-1*	7.7E-02	7.7E-02	771.49	6-D-C*	3.03	2.58E+00
6-D-1**	1.06E+02	1.06E+02	105.90	5.9-H1	0.42	3.57E-01
6-D-1**	7.70E+03	7.70E+03	T-677.19	6-D-H1	36.18	2.57E-01
6-D-1**	5.71E+00	5.71E+00	3.52	7-9-S*	0.01	1.89E-01
7-9-S-1*	6.72E+06	6.72E+06	6,699.39E-45	9-0-S*	26,330.25	2.24E+04
9-0-S*	6.72E+06	6.72E+06	6,700.172.78	9-0-V	26,337.24	2.24E+04
9-0-S*	2.75E+02	2.75E+02	272.20	5.5-Z*	1.07	9.1DE-01
9-0-S*	1.83E+02	1.83E+02	181.95	9.5-M-N*	0.72	6.0DE-01
9-0-S*	2.12E+02	2.12E+02	108.83	9.9-T-C	0.43	1.23E+01
9-0-T-C	1.87E+01	1.87E+01	14.09	10-E-B*	0.06	1.37E+00
10-E-B*	1.42E+01	1.42E+01	14.13	10-E-BH	0.06	4.72E-02
10-E-B*	1.11E+01	1.11E+01	11.01	10-T-P*	0.04	3.46E-02
10-T-P*	2.36E+03	2.36E+03	Z-121.22	11D-W-C*	8.34	2.36E+02
11.D-W-C*	1.75E+01	1.75E+01	17.46	12.1-W-S*	0.07	8.98E-02
12.D-W-S*	1.04E+02	1.04E+02	104.11	12.6-S*	0.41	3.49E-01
12.6-S*	7.29E+03	7.29E+03	T-264.26	12.9-S*	26.55	2.45E+01
12.9-S*	1.48E+01	1.48E+01	14.58	12.9-S*	0.06	4.87E-02
12.9-S*	1.04E+02	1.04E+02	104.11	12.9-S*	0.41	3.49E-01
12.9-S*	1.87E+03	1.87E+03	3,779.98	12.9-S*	7.80	9.27E+01
12.9-S*	1.81E+01	1.81E+01	0.00	12.9-L	0.00	1.81E-01
12.9-L	5.28E+03	5.28E+03	S-172.88	13.4-C*	20.23	1.04E+02
13.4-C*	1.65E+02	1.65E+02	161.30	13.5-C*	0.83	3.29E+00
13.5-C*	7.74E+06	7.74E+06	T-209.98E-70	13.7-C*	20.341.24	1.07E+06
13.7-C*	6.94E+06	6.94E+06	6,820.745.89	13.7-C*	24,811.19	1.37E+06
13.7-C*	6.50E+01	6.50E+01	0.45	14-E-C*	0.00	2.17E-03
14-E-C*	6.50E+01	6.50E+01	0.65	14-E-P*	0.00	2.17E-03
14-E-P*	1.09E+01	1.09E+01	10.83	14-E-P*	0.54	3.46E-02
14-E-P*	8.81E+04	8.81E+04	67.777.40	14-T-P*	34.92	2.94E+02
14-T-P*	8.46E+04	8.46E+04	8-E-309.07	15.1-S*	331.40	2.82E+02
15.1-S*	3.64E+02	3.64E+02	364.91	15.2-E-U	1.43	1.22E+00
15.2-E-U	9.57E+04	9.57E+04	9-E-427.31	15.4-E-U	378.11	3.19E+02
15.4-E-U	2.39E+04	2.39E+04	23,832.06	15.5-E-U	93.46	7.97E+01
15.5-E-U	8.22E+00	8.22E+00	8.19	20-F-T	0.03	2.74E-02
20-F-T	3.23E+00	3.23E+00	3.22	20-G-T	0.01	1.09E-02
20-G-T	2.10E+01	2.10E+01	0.21	20-H-P*	0.00	7.01E-04
20-H-P*	9.25E+00	9.25E+00	8.22	21.1-P*	0.03	2.75E-02
21.1-P*	9.00E+00	9.00E+00	8.97	21.2-P*	0.04	3.00E-02
21.2-P*	8.25E+00	8.25E+00	8.22	21.1-S*	0.03	2.75E-02
21.1-S*	9.00E+00	9.00E+00	8.97	21.2-S*	0.04	3.00E-02
21.2-S*	2.10E+01	2.10E+01	0.21	21.3-S*	0.00	7.01E-04
21.3-S*	5.77E+00	5.77E+00	8.75	21.2-P*	0.02	1.92E-02
21.2-P*	2.04E+01	2.04E+01	0.20	21.3-P*	0.00	8.14E-04
21.3-P*	8.25E+00	8.25E+00	8.22	21.5-P*	0.03	2.75E-02
21.5-P*	9.00E+00	9.00E+00	8.97	21.6-P*	0.04	3.00E-02
21.6-P*	2.10E+01	2.10E+01	0.21	21.7-P*	0.00	7.01E-04
21.7-P*	6.25E+00	6.25E+00	8.22	21.8-P*	0.03	2.75E-02
21.8-P*	9.00E+00	9.00E+00	8.97	22.0-P*	0.04	3.00E-02
22.0-P*	2.10E+01	2.10E+01	0.21	22.1-P*	0.00	7.01E-04
22.1-P*	1.14E+01	1.14E+01	0.19	22.2-P*	0.03	3.75E-02
22.2-P*	9.25E+00	9.25E+00	8.22	22.3-P*	0.04	3.00E-02
22.3-P*	9.00E+00	9.00E+00	8.97	22.4-P*	0.00	7.01E-04
22.4-P*	2.10E+01	2.10E+01	0.21	22.5-P*	0.03	2.75E-02
22.5-P*	8.25E+00	8.25E+00	8.22	22.6-P*	0.04	3.00E-02
22.6-P*	9.00E+00	9.00E+00	8.97	22.7-P*	0.00	7.01E-04
22.7-P*	2.10E+01	2.10E+01	0.21	22.8-P*	0.03	3.75E-02
22.8-P*	6.25E+00	6.25E+00	8.22	22.9-P*	0.04	3.00E-02
22.9-P*	9.00E+00	9.00E+00	8.97	22.10	0.00	7.01E-04
22.10	9.00E+00	9.00E+00	8.97	22.8-T	0.03	3.00E-02
22.8-T	2.10E+01	2.10E+01	0.21	22.9-T	0.00	7.01E-04
22.9-T	6.25E+00	6.25E+00	8.22	23.0-T	0.03	2.75E-02
23.0-T	9.00E+00	9.00E+00	8.97	23.1-T	0.04	3.00E-02
23.1-T	2.10E+01	2.10E+01	0.21	23.2-T	0.00	7.01E-04
23.2-T	6.25E+00	6.25E+00	8.22	23.3-T	0.03	2.75E-02
23.3-T	9.00E+00	9.00E+00	8.97	23.4-T	0.04	3.00E-02
23.4-T	2.10E+01	2.10E+01	0.21	23.5-T	0.00	7.01E-04
23.5-T	6.25E+00	6.25E+00	8.22	23.6-T	0.03	2.75E-02
23.6-T	9.00E+00	9.00E+00	8.97	23.7-T	0.04	3.00E-02
23.7-T	2.10E+01	2.10E+01	0.21	23.8-T	0.00	7.01E-04
23.8-T	6.25E+00	6.25E+00	8.22	23.9-T	0.03	2.75E-02
23.9-T	9.00E+00	9.00E+00	8.97	23.10	0.04	3.00E-02
23.10	9.00E+00	9.00E+00	8.97	23.11	0.00	7.01E-04
23.11	2.10E+01	2.10E+01	0.21	23.12	0.03	2.75E-02
23.12	6.25E+00	6.25E+00	8.22	23.13	0.04	3.00E-02
23.13	9.00E+00	9.00E+00	8.97	23.14	0.00	7.01E-04
23.14	2.10E+01	2.10E+01	0.21	23.15	0.03	2.75E-02
23.15	6.25E+00	6.25E+00	8.22	23.16	0.04	3.00E-02
23.16	9.00E+00	9.00E+00	8.97	23.17	0.00	7.01E-04
23.17	2.10E+01	2.10E+01	0.21	23.18	0.03	2.75E-02
23.18	6.25E+00	6.25E+00	8.22	23.19	0.04	3.00E-02
23.19	9.00E+00	9.00E+00	8.97	23.20	0.00	7.01E-04
23.20	2.10E+01	2.10E+01	0.21	23.21	0.03	2.75E-02
23.21	6.25E+00	6.25E+00	8.22	23.22	0.04	3.00E-02
23.22	9.00E+00	9.00E+00	8.97	23.23	0.00	7.01E-04
23.23	2.10E+01	2.10E+01	0.21	23.24	0.03	2.75E-02
23.24	6.25E+00	6.25E+00	8.22	23.25	0.04	3.00E-02
23.25	9.00E+00	9.00E+00	8.97	23.26	0.00	7.01E-04
23.26	2.10E+01	2.10E+01	0.21	23.27	0.03	2.75E-02
23.27	6.25E+00	6.25E+00	8.22	23.28	0.04	3.00E-02
23.28	9.00E+00	9.00E+00	8.97	23.29	0.00	7.01E-04
23.29	2.10E+01	2.10E+01	0.21	23.30	0.03	2.75E-02
23.30	6.25E+00	6.25E+00	8.22	23.31	0.04	3.00E-02
23.31	9.00E+00	9.00E+00	8.97	23.32	0.00	7.01E-04
23.32	2.10E+01	2.10E+01	0.21	23.33	0.03	2.75E-02
23.33	6.25E+00	6.25E+00	8.22	23.34	0.04	3.00E-02
23.34	9.00E+00	9.00E+00	8.97	23.35	0.00	7.01E-04
23.35	2.10E+01	2.10E+01	0.21	23.36	0.03	2.75E-02
23.36	6.25E+00	6.25E+00	8.22	23.37	0.04	3.00E-02
23.37	9.00E+00	9.00E+00	8.97	23.38	0.00	7.01E-04
23.38	2.10E+01	2.10E+01	0.21	23.39	0.03	2.75E-02
23.39	6.25E+00	6.25E+00	8.22	23.40	0.04	3.00E-02
23.40	9.00E+00	9.00E+00	8.97	23.41	0.00	7.01E-04
23.41	2.10E+01	2.10E+01	0.21	23.42	0.03	2.75E-02
23.42	6.25E+00	6.25E+00	8.22	23.43	0.04	3.00E-02
23.43	9.00E+00	9.00E+00	8.97	23.44	0.00	7.01E-04
23.44	2.10E+01	2.10E+01	0.21	23.45	0.03	2.75E-02
23.45	6.25E+00	6.25E+00	8.22	23.46	0.04	3.00E-02
23.46	9.00E+00	9.00E+00	8.97	23.47	0.00	7.01E-04
23.47	2.10E+01	2.10E+01	0.21	23.48	0.03	2.75E-02
23.48	6.25E+00	6.25E+00	8.22	23.49	0.04	3.00E-02
23.49	9.00E+00	9.00E+00	8.97	23.50	0.00	7.01E-04
23.50	2.10E+01	2.10E+01	0.21	23.51	0.03	2.75E-02
23.51	6.25E+00	6.25E+00	8.22	23.52	0.04	3.00E-02
23.52	9.00E+00	9.00E+00	8.97	23.53	0.00	7.01E-04
23.53	2.10E+01	2.10E+01	0.21	23.54	0.03	2.75E-02
23.54	6.25E+00	6.25E+00	8.22	23.55	0.04	3.00E-02
23.55	9.00E+00	9.00E+00	8.97	23.56	0.00	7.01E-04
23.56	2.10E+01	2.10E+01	0.21	23.57	0.03	2.75E-02
23.57	6.25E+00	6.25E+00	8.22	23.58	0.04	3.00E-02
23.58	9.00E+00	9.00E+00	8.97	23.59	0.00	7.01E-04
23.59	2.10E+01	2.10E+01	0.21	23.60	0.03	2.75E-02
23.60	6.25E+00	6.25E+00	8.22	23.61	0.04	3.00E-02
23.61	9.00E+00	9.00E+00	8.97	23.62	0.00	7.01E-04
23.62	2.10E+01	2.10E+01	0.21	23.63	0.03	2.75E-02
23.63	6.25E+00	6.25E+00	8.22	23.64	0.04	3.00E-02
23.64	9.00E+00	9.00E+00	8.97	23.65	0.00	7.01E-04
23.65	2.10E+01	2.10E+01	0.21	23.66	0.03	2.75E-02
23.66	6.25E+00	6.25E+00	8.22	23.67	0.04	3.00E-02
23.67	9.00E+00	9.00E+00	8.97	23.68	0.00	7.01E-04
23.68	2.10E+01	2.10E+01	0.21	23.69	0.03	2.75E-02
23.69	6.25E+00	6.25E+00	8.22	23.70	0.04	3.00E-02
23.70	9.00E+00	9.00E+00	8.97	23.71	0.00	7.01E-04
23.71	2.10E+01	2.10E+01	0.21	23.72	0.03	2.75E-02
23.72	6.25E+00	6.25E+00	8.22	23.73	0.04	3.00E-02
23.73	9.00E+00	9.00E+00	8.97	23.74	0.00	7.01E-04
23.74	2.10E+01	2.10E+01	0.21	23.75	0.03	2.75E-02
23.75	6.25E+00	6.25E+00	8.22	23.76	0.04	3.00E-02
23.76	9.00E+00	9.00E+00	8.97	23.77	0.00	7.01E-04
23.77	2.10E+01	2.10E+01	0.21	23.78	0.03	2.75E-02
23.78	6.25E+00	6.25E+00	8.22	23.79	0.04	3.00E-02
23.79	9.00E+00	9.00E+00	8.97	23.80	0.00	7.01E-04
23.80	2.10E+01	2.10E+01	0.21	23.81	0.03	2.75E-02
23.81	6.25E+00	6.25E+00	8.22</			

986, 180	1, 429, 235	1, 535, 473	1, 183, 237	483, 358, 81	1, 900, 00	2, 234, 219	2, 313, 064	1, 064, 912
689, 636	962, 372	1, 058, 605	1, 028, 548, 919	201, 399, 56	701, 11	8, 502, 708, 833	2, 925, 622, 347	940, 378, 611
0, 00E+00	26, 235, 458	26, 235, 498	0, 00E+00	27, 902, 300, 54	109, 679, 19	333, 156	0, 00E+00	0, 00E+00
0, 00E+00	154, 996	154, 996	0, 00E+00	154, 479, 71	607, 23	917	0, 00E+00	0, 00E+00
0, 00E+00	83, 141	83, 141	0, 00E+00	83, 137, 31	326, 80	0	0, 00E+00	0, 00E+00
1, 43	1, 50	1, 46	1, 18E-05	2, 40	2, 71	4, 08E-04	1, 13E-03	1, 13E-03



1.0E+11  
 OFF GR5  
 OFF GR5  
 C1  
 3.08E-02 3.08E-02 3-M  
 8.49E-01 8.49E-01 1-M-C  
 2.61E-09 2.61E-09 5C-P  
 2.67E-09 2.67E-09 6O-Co  
 2.94E-10 2.94E-10 59-M1  
 2.85E-08 2.85E-08 63-M1  
 1.03E-09 1.03E-09 79-S  
 2.49E-05 2.49E-05 90-S  
 2.49E-05 2.49E-05 90-V  
 1.01E-09 1.01E-09 93-Z  
 8.78E-10 8.78E-10 93-Mn  
 6.72E-08 6.72E-08 99-T  
 1.74E-09 1.74E-09 106-Ru  
 8.25E-11 8.25E-11 106-Rh  
 8.09E-11 8.09E-11 107-Pd  
 1.31E-08 1.31E-08 113m-Cd  
 8.49E-11 8.49E-11 121m-Sn  
 3.67E-10 3.67E-10 126-Sn  
 2.70E-08 2.70E-08 125-Sb  
 5.42E-11 5.42E-11 126-Sb  
 3.67E-10 3.67E-10 126m-Sb  
 5.20E-07 5.20E-07 125m-T  
 1.81E-01 1.81E-01 129-I  
 5.86E-07 5.86E-07 134-Ce  
 1.83E-08 1.83E-08 135-Ce  
 8.17E-04 8.17E-04 137-Ce  
 7.73E-04 7.73E-04 137m-Ba  
 2.41E-12 2.41E-12 140m-Ce  
 2.41E-12 2.41E-12 140m-Pt  
 4.02E-11 4.02E-11 146-Pt  
 3.26E-07 3.26E-07 147-Pt  
 3.13E-07 3.13E-07 151-Sm  
 1.36E-09 1.36E-09 152-Eu  
 5.55E-07 5.55E-07 154-Eu  
 8.04E-08 8.04E-08 155-Eu  
 3.05E-11 3.05E-11 207-Tl  
 1.20E-11 1.20E-11 208-Tl  
 7.79E-13 7.79E-13 209-Pb  
 3.05E-11 3.05E-11 211-Pb  
 3.33E-11 3.33E-11 212-Pb  
 3.05E-11 3.05E-11 211-Sb  
 3.33E-11 3.33E-11 212-Sb  
 7.79E-13 7.79E-13 213-Sb  
 2.14E-12 2.14E-12 212-Po  
 7.61E-13 7.61E-13 213-Po  
 3.05E-11 3.05E-11 215-Po  
 3.33E-11 3.33E-11 216-Po  
 7.79E-13 7.79E-13 217-Ag  
 3.05E-11 3.05E-11 219-Rn  
 3.33E-11 3.33E-11 220-Rn  
 7.79E-13 7.79E-13 221-P  
 4.22E-13 4.22E-13 223-P  
 3.05E-11 3.05E-11 223-Ra  
 3.33E-11 3.33E-11 224-Ra  
 7.79E-13 7.79E-13 225-Ra  
 5.66E-12 5.66E-12 226-Ra  
 7.79E-13 7.79E-13 225-Ac  
 3.05E-11 3.05E-11 227-Ac  
 5.66E-12 5.66E-12 228-Ac  
 3.01E-11 3.01E-11 227-T  
 3.33E-11 3.33E-11 228-T  
 7.79E-13 7.79E-13 229-T  
 2.17E-13 2.17E-13 230-T  
 3.52E-13 3.52E-13 231-T  
 6.09E-12 6.09E-12 232-T  
 2.96E-12 2.96E-12 234-T  
 9.65E-11 9.65E-11 231-P  
 8.68E-11 8.68E-11 233-P  
 2.96E-12 2.96E-12 234m-P  
 2.57E-11 2.57E-11 232-U  
 3.36E-11 3.36E-11 233-U  
 1.56E-11 1.56E-11 234-U  
 3.52E-13 3.52E-13 235-U  
 1.03E-12 1.03E-12 236-U  
 2.96E-12 2.96E-12 238-U  
 3.52E-11 3.52E-11 232m-Pb  
 8.68E-11 8.68E-11 237-A  
 1.29E-09 1.29E-09 235-9-Pb  
 3.12E-12 3.12E-12 236-Pu  
 3.09E-08 3.09E-08 238-Pu  
 6.04E-09 6.04E-09 235-9-Pu  
 4.42E-09 4.42E-09 240-Pu  
 3.00E-07 3.00E-07 241-Pu  
 6.03E-12 6.03E-12 242-Pu  
 1.04E-07 1.04E-07 241-Rn  
 1.10E-09 1.10E-09 242-Rn  
 1.10E-09 1.10E-09 242m-Rn  
 1.29E-09 1.29E-09 243-Rn  
 2.10E-10 2.10E-10 242-Cm  
 4.99E-10 4.99E-10 243-Cm  
 2.84E-08 2.84E-08 244-Cm  
 3.28E-12 3.28E-12 245-Cm  
 3.75E-13 3.75E-13 246-Cm

#### TOTALS

8,520,519	8,520,519	WEIGHT, KB
9,971,433,984	10,000,313,216	VOLUME, L
0.762	0.762	ACTIVITY, Ci
5.74E-07	5.74E-07	MOTI NIDES, Ci
NEGLIGIBLE	NEGLIGIBLE	MERT DEN., u
8.54E-04	8.54E-04	Spo

COMPONENT #	MOLECULAR WEIGHT	THORIUM SUPERNATANT		THORIUM SLUDGE		URANIUM WASTE		PURIF. SUPERNATANT		PURIF. SLUDGE		PURIF. WASTE		B61 CONDENSATE
		1 2/26/87	2 2/26/87	3 2/26/87	4 2/26/87	5 2/26/87	6 2/26/87	7 2/26/87	8 2/26/87	9 2/26/87	10 2/26/87	11 2/26/87	12 2/26/87	
Ag	107.87	1.07E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AgNO3	169.97	6.6E21	9.4E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ag2O	124.98	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AgOH	109.99	2.1070	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.6E-02	1.12E+03	1.29E+03	0.00E+00	0.00E+00	0.00E+00
RIF3	213.00	0.2593	9.7E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
R1C(HO)3	101.98	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
R1D(HO)3	78.00	0.6556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
R1L(HO)3	294.00	0.9087	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rn(HO)2.5	429.00	0.6227	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.70E+01	0.00E+00	0.00E+00	0.00E+00
Rn203	934.30	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
R203	69.42	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.5E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba(HO)3.2	261.25	0.5866	1.6E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba6	153.32	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.0E-02	3.0E-02	0.00E+00	0.00E+00
BaSO4	233.40	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C	12.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CH2Cl2O	140.00	0.6503	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaCO3	100.09	0.4777	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaCO4	128.12	1.7938	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaF2	78.08	0.3418	1.0E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(HO)2.2	164.07	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaO	56.08	0.7549	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(OH)2.2	510.18	1.0002	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaSO4	136.14	0.3431	1.6E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(HO)3.2	236.41	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaO	126.40	0.3431	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(OH)2.2	146.11	0.3031	2.1E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(HO)3.2	526.23	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca2O3	728.24	0.3192	6.12E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(HO)3.2	455.00	0.6255	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca2O3	542.00	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(HO)3.2	298.00	0.9094	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaO	56.95	1.2715	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(OH)2.2	185.04	0.4094	1.23E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaO	74.93	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(OH)2.2	92.95	0.6061	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(HO)3.2	238.18	0.3192	6.12E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr2O3	152.02	0.7403	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CrO3	103.02	0.7778	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr(HO)3.2	194.91	0.7229	2.0E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr2O3	164.36	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr2O4	201.01	0.6061	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr(HO)3.2	185.88	0.2115	3.59E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr2O3	208.27	0.8705	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr(HO)3.2	320.55	0.1948	3.9E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr(HO)3.2	104.55	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr(HO)3.2	140.55	0.7439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H3BO3	61.85	5.630	2.70E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H2CO3	62.03	1.6031	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HCl	36.46	1.8051	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hf	20.01	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg	212.09	0.9574	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg2Cl2	65.99	0.8125	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg2Cl2	324.83	0.6175	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg2O	236.51	0.8260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HgO	120.00	0.8551	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg2O	200.88	0.4614	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg2O2	277.64	1.0000	0.0											

HgO2	265.05	1.0000	0.00E+00	0.00E+00	0.00E+00						
HgO2(MD3>4)	301.00	0.8959	0.00E+00	0.00E+00	0.00E+00						
P2O5	141.99	1.0000	0.00E+00	0.00E+00	0.00E+00						
P4<(MD3>4)	279.04	0.9427	6.40E-01	0.00E+00	0.00E+00	6.40E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
P4<MD3>2	265.04	1.0000	0.00E+00	0.00E+00	0.00E+00						
P4<MD3>4	299.04	0.8794	0.00E+00	0.00E+00	0.00E+00						
P4<P4<MD3>2	108.40	1.1804	0.00E+00	0.00E+00	0.00E+00						
P4<P4<MD3>2	250.42	0.8112	4.20E+00	0.00E+00	0.00E+00	4.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PbO	122.0	0.0000	0.00E+00	0.00E+00	0.00E+00						
PbO<MD3>2	140.40	0.8718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-01	2.94E-01	0.00E+00
PbO<MD3>3	333.00	0.8152	8.13E-03	0.00E+00	0.00E+00	8.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PbO2	941.80	1.0000	0.00E+00	0.00E+00	0.00E+00						
Pb<MD3>3	197.90	0.8634	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-01	1.20E-01	0.00E+00
Pb<MD3>5	324.91	0.8044	1.06E+01	0.00E+00	0.00E+00	1.06E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pb2O3	328.81	1.0000	0.00E+00	0.00E+00	0.00E+00						
Pb<OH>3	191.93	0.8592	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-02	1.44E-02	0.00E+00
Pb<MD3>4	486.16	0.8552	3.89E-01	0.00E+00	0.00E+00	3.89E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PbO2	271.05	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-01	3.70E-01	0.00E+00
RbO2	147.47	0.4358	5.80E+00	0.00E+00	0.00E+00	5.80E+00	0.00E+00	0.00E+00	7.54E-01	7.54E-01	0.00E+00
RbO	186.94	1.0000	0.00E+00	0.00E+00	0.00E+00						
Rb	102.91	1.3109	0.00E+00	0.00E+00	0.00E+00						
Rb<MD3>4	350.91	0.3644	4.20E+00	0.00E+00	0.00E+00	4.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RbO2	120.90	1.0000	0.00E+00	0.00E+00	0.00E+00						
Rb<OH>4	170.91	0.7893	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.24E-01	8.24E-01	0.00E+00
Rb	101.07	1.2184	0.00E+00	0.00E+00	0.00E+00						
Rb<MD3>4	548.07	0.5812	1.80E+01	0.00E+00	0.00E+00	1.80E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RbO2	137.07	1.0000	0.00E+00	0.00E+00	0.00E+00						
Rb<OH>4	146.07	0.8061	0.00E+00	0.00E+00	0.00E+00						
S2O3	80.07	0.7871	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-02	3.40E-02	0.00E+00
Sb<MD3>3	307.76	0.3481	3.48E-02	0.00E+00	0.00E+00	3.48E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sb<MD3>2	291.50	1.0000	0.00E+00	0.00E+00	0.00E+00						
Sb<MD3>3	172.75	0.8437	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.51E-01	8.51E-01	0.00E+00
Sb<O2	110.96	1.0000	0.00E+00	0.00E+00	0.00E+00						
Si<MD3>4	274.10	0.2176	0.00E+00	0.00E+00	0.00E+00						
Si<O2	60.08	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03	1.26E-03	0.00E+00
Si<MD3>3	334.46	0.5182	7.25E+00	0.00E+00	0.00E+00	7.25E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Si<O2	201.37	0.8656	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-02	1.24E-02	0.00E+00
Si<MD3>4	366.71	0.4110	2.89E-01	0.00E+00	0.00E+00	2.89E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SnO2	150.70	1.0000	0.00E+00	0.00E+00	0.00E+00						
Sn<MD3>4	186.69	0.8072	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.52E+00	2.52E+00	0.00E+00
Sn<O3	147.64	0.7019	0.00E+00	0.00E+00	0.00E+00						
Sn<MD3>2	211.59	0.4695	7.49E+00	0.00E+00	0.00E+00	7.49E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sn<O2	105.63	1.0000	0.00E+00	0.00E+00	0.00E+00						
Sn<MD3>2	121.64	0.8515	0.00E+00	0.00E+00	0.00E+00						
SnO2	183.70	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-02	2.17E-02	0.00E+00
SnO2(MD2>1)	342.30	1.0000	0.00E+00	0.00E+00	0.00E+00						
Tb<MD3>2	345.00	0.5202	2.12E-03	0.00E+00	0.00E+00	2.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tb<O3	365.85	1.0000	0.00E+00	0.00E+00	0.00E+00						
Tb<MD3>3	205.53	0.8714	0.00E+00	0.00E+00	0.00E+00						
Tc2O7	309.81	1.0000	0.00E+00	0.00E+00	0.00E+00						
TcO2	157.30	0.9000	0.00E+00	0.00E+00	0.00E+00						
Tf<MD3>4	480.04	0.5500	1.71E+04	0.00E+00	0.00E+00	1.71E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TfO2	264.05	1.0000	0.00E+00	0.00E+00	0.00E+00						
Tf<OH>4	300.04	0.8900	0.00E+00	0.00E+00	0.00E+00						
Tf<O2	79.90	1.0000	0.00E+00	0.00E+00	0.00E+00						
Tf<MD3>2	394.10	0.6852	4.11E+00	0.00E+00	0.00E+00	4.11E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TfO2	270.07	1.0000	0.00E+00	0.00E+00	0.00E+00						
TfO3	286.07	0.9441	0.00E+00	0.00E+00	0.00E+00						
TfO2<MD3>2	304.07	0.6962	0.00E+00	0.00E+00	0.00E+00						
Tf<O2>3	357.86	0.6310	0.00E+00	0.00E+00	0.00E+00						
Tf<MD3>3	275.00	0.4106	5.75E+00	0.00E+00	0.00E+00	5.75E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tf<O2>3	225.81	1.0000	0.00E+00	0.00E+00	0.00E+00						
Tf<MD3>2	139.93	0.8069	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.51E+01	8.51E+01	0.00E+00
Tf<O2>4	109.47	1.0000	0.00E+00	0.00E+00	0.00E+00						
ZnO	81.37	1.0000	0.00E+00	0.00E+00	0.00E+00						
Zn<MD3>2	99.37	0.8189	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E+02	1.05E+02	0.00E+00
Zr<MD3>4	339.23	0.3432	4.36E+00	0.00E+00	0.00E+00	4.36E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZrO2	123.22	1.0000	0.00E+00	0.00E+00	0.00E+00						
Zr<OH>4	159.25	0.7738	0.00E+00	22.984	0.00E+00	22.984	0.00E+00	0.00E+00	7.46E-02	7.46E-02	0.00E+00
TOTAL OXIDES				35	0.00E+00	35	0.00E+00	0.00E+00	7.52E-02	7.52E-02	5.00E+00
TOTAL OXIDES				35	0.00E+00	35	0.00E+00	0.00E+00	7.52E-02	7.52E-02	5.00E+00
S0.5 Equivalent			101.454	0.00E+00	101.454	0.00E+00	42.903	5.75%	198.532</		



0.000 0.000 43,181.907 38,310.927 4,870.966 0.000 0.000 0.000 0.000 4,540.890 330,080  
0.00% 0.00% 7.35% 9.38% 4.88% 0.00% 0.00% 0.00% 0.00% 8.36% 0.43%

18 WASTE BLEND	19 BD1 HEEL FLUSH	20 BD4 CHEMICAL ADD	21 BD4 WATER ADD	22 ADJUSTED THORIUM WASTE	23 CRUSTIC ADDITION TO BD2 <502>	24 CRUSTIC WATER FLUSH TO BD2	25 BD4 TANK FLUSH	26 NEUTRALIZED THORIUM WASTE IN BD2	27 VITRIFICATION SYSTEM FEED BD2
0.00E+00				Rg	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				RgH03	5.4E-02	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Rg2D	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				RgH04	0.00E+00	0.00E+00		8.4E-02	7.4E-01
0.00E+00				RgF03	0.00E+00	0.00E+00		0.00E+00	1.1E-01
0.00E+00				Rg1H03>3	9.3E-02	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Rg12D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Rg1CDH>3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Rg1CH03>3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Rg203	0.00E+00	0.00E+00		0.00E+00	2.70E-01
0.00E+00				Rg2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Rg1CH03>2	1.5E-01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Rg0	0.00E+00	0.00E+00		0.00E+00	5.0E-01
0.00E+00				Rg>04	0.00E+00	0.00E+00		2.41E+01	3.27E+02
0.00E+00				C	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				(CH2)>10	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				CaC03	0.00E+00	0.00E+00		0.00E+00	1.80E+03
0.00E+00				CaC204	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				CaF2	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca<H03>2	1.03E+01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca<OH>2	0.00E+00	0.00E+00		1.07E+01	1.07E+01
0.00E+00				Ca<3>PO4>2	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca5D4	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca<CM03>2	1.43E-01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca<OH>2	0.00E+00	0.00E+00		1.01E+01	1.02E+00
0.00E+00				Ca<CM03>3	2.16E+01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca<OH>2	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Ca<CM03>3	8.12E+02	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<OH>3	0.00E+00	0.00E+00		2.12E+02	4.50E+00
0.00E+00				CrM03	2.02E+01	0.00E+00		2.01E+01	2.01E+01
3.14E-02				Cr<Cl>(SO4)	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<OH>2	0.00E+00	0.00E+00		1.23E+00	1.23E+00
0.00E+00				Cr<CM03>3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<OH>3	0.00E+00	0.00E+00		5.50E-01	5.50E-01
0.00E+00				CrM03	2.02E+01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<Cl>(SO4)	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<OH>2	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<CM03>2	5.39E-01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr03	0.00E+00	0.00E+00		3.39E-01	3.39E-02
0.00E+00				Cr<OH>3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				CrM03	2.02E+01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<Cl>(SO4)	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<OH>2	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Cr<CM03>3	2.79E+03	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe<OH>3	0.00E+00	0.00E+00		2.79E+03	5.21E+04
0.00E+00				Fe203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe<OH>3	2.79E+03	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe<OH>3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
1.96E-03				Fe203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe04	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe<OH>2	2.11E-01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe03	0.00E+00	0.00E+00		2.11E-01	1.59E+00
0.00E+00				Fe<OH>3	3.90E-03	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Fe02	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<ZCl>2	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg212	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<H03>2	2.10E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<OH>3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				HgM03	1.85E-02	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg2S04	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<OH>3	1.85E-02	0.00E+00		1.85E-02	2.70E-01
0.00E+00				Hg203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<Cl>(SO4)	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<OH>2	0.00E+00	0.00E+00		0.00E+00	0.00E+00
1.58E-01				Hg03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg203	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<OH>3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				HgM03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg02	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<Cl>(SO4)	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg0	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<OH>2	1.00E+00	0.00E+00		0.00E+00	0.00E+00
3.83E-03				Hg<Pb>O2<OH>>4	1.20E+01	0.00E+00		1.20E+01	2.34E+01
0.00E+00				Hg2R04	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				HgM03	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg2R04	9.40E+01	0.00E+00		9.40E+01	1.59E+00
0.00E+00				Hg2R04	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg2R04	9.40E+01	0.00E+00		9.40E+01	1.59E+00
0.00E+00				Hg2R04	1.80E+02	0.00E+00		1.80E+02	3.74E+02
0.00E+00				Hg2R04	9.15E-01	0.00E+00		9.15E-01	1.645E+01
0.00E+00				Hg251D3	1.25E+02	0.00E+00		1.25E+02	3.83E+03
0.00E+00				Hg2T04	1.10E+01	0.00E+00		1.10E+01	1.55E+01
0.00E+00				Hg2T04	4.66E+00	0.00E+00		4.66E+00	6.90E+00
0.00E+00				Hg2U07	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg<CH03>3	3.72E+01	0.00E+00		0.00E+00	0.00E+00
0.00E+00				Hg2D3	0.00E+00	0.00E+00		0.00E+00	0.00E+00
0.00E+00									







GLASS FORMERS	MELTER FEED	GLASS	MELTER FEED
kg	kg	kg	kg
			Reg
			RegM03
		7.06E-01	RegZ0
		R1.203, RaF	RegOH
			R1F3
1.72E+04	1.39E+04	3.12E+04	R1.CHO3>3
			R1.COH>3
			R1.CHO3>3
		2.71E+01	R1.Z03
4.76E+04	1.25E+01	4.189E+04	B2D3
			B2<MO3>2
		5.08E+01	BaO
		5.28E+02	BaSO4
		0.00E+00	C
		0.00E+00	CH2C>10
			CaCO3
			CaC2O4
			CaF2
			Ca(CH3)>2
-4.89E+01	2.43E+03	2.38E+03	CaO
			Ca(OH)>2
			Ca3<PO4>2
		0.00E+00	CaSiO4
		1.14E+00	Ca(MO3)>2
			CaO
			Ca(OH)>2
		5.08E+02	Ca<MO3>3
			Ca2O3
			Ca(OH)>5
			Ca(MO3)>3
		4.01E-01	Ca2O3
			Ca(OH)>3
			Ca
		1.23E+00	Ca<MO3>2
			CaO
			Ca(OH)>2
		6.64E+02	Ca<MO3>3
			Ca2O3
			Ca(OH)>3
		4.14E+02	Ca<2>
			Ca<4>
		5.08E+02	Cu
			Cu<MO3>2
			CuO
			Cu(OH)>2
		1.07E-03	CuSiO4
			Dy<MO3>3
		1.07E-03	Dy2O3
			Dy<MO3>5
		7.65E+00	Eu<MO3>3
			Eu2O3
			Eu<MO3>5
			F
			F<0>
8.90E+01	5.74E+04	5.77E+04	F<203>3
	F<203>3		F<P04>4
		1.70E+00	Ge<MO3>3
			Ge<MO3>4
		6.55E-03	GeO2
			Ge(OH)>4
		8203	H3BO3
			H2CO3
			H2C2O4
			HeI
			HeO3
		0.6.Mg2SiO4	H2SiO4
	2.62E+01	2.62E+01	Hg
	Hg, NaCl		Hg2C1>2
	Hg, Li2		Hg2Z2
	Hg		Hg<MO3>2
	Hg		HgO
	Hg, H2O, 02		Hg(OH)2
		2.70E-01	1.n<MO3>3
	K2O, Cr2O3		1.n<MO3>3
	K2O, MnO2		K2Cr<0>4
			K2InO4
			KNO3
1.75E+04	2.31E+02	1.70E+04	K2O
			KOH
		1.70E+02	La<MO3>3
			La2O3
			La<OH>3
			LiOH
			Li2NO3
1.50E+04	5.00E+01	1.50E+04	Li2O
			NgCO3
			Ng<MO3>2
3.47E+03	6.16E+02	4.29E+03	NgO
			Ng<OH>2
			Ng<MO3>2
1.67E+03	5.10E+03	4.76E+03	NgO2
			Ng<UH>2
			Ng2O3
		5.66E+01	Na2O
	Na2O, Si2O5		Na2SiO5
	Li2O, P2O5		Li2PO4
	Na2O, Si2O5		Na2B4O7
			Na2C2O4
			Na2C2O3
		8.56E+01	NaCl
	Na2O, Cr2O3		NaClO4
	1.07E+03	1.07E+03	Na2Cr<0>4
			Na2Fe2PO4
			Na2HC03
			NaI
			Na3PO4
			Na2MoO4
			Na2O2
			NaNO3
3.32E+04	2.12E+04	5.44E+04	Na2O
			Na2OH
			Na3PO4
	Na2O, P2O5		Na2Pb2O4<OH>4
	Na2O, PuO2		Na2Rb<0>4
	Na2O, RhO2		Na2Ru<0>4
	Na2O, RuO2		Na2S<0>4
	4.00E+02	4.00E+02	Na2SiO4
	Na2O, Si2O5		Na2SiO3
	Na2O, Si2O5		Na2T<0>4
	Na2O, Tc2O7		Na2U2O7
	Na2O, TaO2		Na<MO3>3
	Na2O, UO2		Na2VO3
		4.85E+02	Na2ZrO3
			Na<MO3>5
		1.20E+05	Ni
			Ni<MO3>2
			NiO

8.21E+03	3.04E+03	1.12E+04	Pb<OHD>4 Pb<NO3>4
6.62E-01		6.62E-01	Pa<OHD>4 Pa<NO3>4 Pa
3.40E+01		3.40E+01	Pd<OHD>2 Pd<NO3>2
1.30E+00		1.30E+00	Pn<OHD>3 Pn<NO3>3
1.57E+02		1.57E+02	Pr<OHD>3 Pr<NO3>3
3.75E+01		3.75E+01	Pu<OHD>4 Pu<NO3>4
4.05E+00		4.05E+00	Rb<OHD>5 Rb<NO3>4
6.50E+01		6.50E+01	Rh<OHD>2 Rh<NO3>4
4.18E+02		4.18E+02	Ru<OHD>4 Ru<NO3>4 Ru<sp>4
0.00E+00		0.00E+00	S03
6.40E-01		6.40E-01	Sb<OHD>3 Sb<NO3>3
6.46E-01		6.46E-01	Se<O2
1.65E+05	4.11E+04	2.07E+05	Si<OHD>4 Si<NO3>3
1.32E+02		1.32E+02	Sm<O2> Sm<OHD>2 Sm<NO3>4
2.62E+00		2.62E+00	Sn<O2> Sn<OHD>4 Sr<O5> Sr<NO3>2
2.25E+01		2.25E+01	Sr<O> Sr<OHD>2
2.32E+02		2.32E+02	Sr<SO4> SUGAR(CC12H22O11)
0.00E+00			Tb<OHD>3
2.13E-03		2.13E-03	Tb<O2> Tb<OHD>3
1.07E+01		1.07E+01	Tc<O7>
3.71E+00		3.71E+00	Tf<O2>
1.71E+04		1.71E+04	Th<OHD>4
4.30E+03	3.12E+01	4.33E+03	Tl<O2> UO2<OHD>2
	2.76E+03	2.76E+03	UO2 Mo2 UO2<OHD>2 V2<CO3>3 V<NO3>3
	8.92E+01	8.92E+01	V2O5 V<NO3>3 V<sp>4
	0.00E+00		Zn<OHD>2
	1.09E+02	1.09E+02	Zn<O> Zn<OHD>2 Zn<NO3>4
	8.10E+02	8.10E+02	Zr<O2> Zr<OHD>4
513,701	172,434	486,135	TOTAL OXIDES
513,701	172,434	476,374	TOTAL OXIDES
0.000	589.4	484,135	TOTAL OXIDES
0.000	0.340	589.5	S03 EQUIVALENT
		0.122503	MTR

36  
GLASS FORMERS

39  
MELTER  
FEED

40  
MELTER  
FEED  
W/O GLASS

GLASS

WEST VALLEY HIGH LEVEL WASTE FLOW SHEET  
PARAMETER SELECTIONS

PARAMETER (COLUMN A-B)	NUMBER (COLUMN C)
WEST VALLEY WASTE COMPOSITION LOTUS COLUMNS D = 1	
YEAR RADIONUCLIDES DECAYED TO, YR	1990

WEST VALLEY BD1 SLUDGE WASHING  
LOTUS COLUMNS J = V

## J/7 BD1 CONDENSATE

1. Water Level in BD1                          6.00 ft  
MHS, 8/26/87                          684,000 l
2. Solids Composition  
per MHS
  - a. Rust(Fe2O3)                          0.1%
  - b. Dirc(SiO2)                          11,000 lb
3. Radionuclide Content  
per MHS as of 10/22/84
  - a. 137-Cs                          6.2% Ci
  - b. 90-Sr                          6.2% Ci

## H/11 DECANTED PUREX SUPERNATANT

1. Supernatant Pump Head                          1.00 ft  
109,000 l

## H/12 DECANTED PUREX SLUDGE

1. Pressurized Total  
Sludge Height                          1.50 ft  
165,500 l
2. Postwash Total  
Sludge Height                          3.00 ft  
327,000 l

## P/13 SLUDGE WASH WATER

1. Number of Washes                          4.00
2. Water Volume / Wash                          632,000 l  
5.80 ft
3. Wash Supernatant Head                          1.00 ft  
109,000 l

## D/14 IX ZEOLITE SLURRY BD1 (See 844 to 866 for parameter explanation)

1. BD2 Supernatant  
Processed Per Cycle                          36,000 l
2. BD2 Wash Solution  
Processed Per Cycle                          292,368 l
3. Water Produced In BD1  
Per IX Cycle                          2,907 l
4. Zeolite (with hydration  
water) Produced In BD1  
Per IX Cycle                          1,200 l
5. Fraction Of Cesium  
Recovered                          0.998

## R/15 SAND FILTER SLURRY TO BD1

1. Total Number Of Sand  
Beds                          1.000

WEST VALLEY BD4 THOREX WASTE NEUTRALIZATION  
LOTUS COLUMNS M = MP

## R8/25 BD4 TANK FLUSH

1. BD4 Water Flush                          6,400 l

WEST VALLEY VITRIFICATION FEED MAKEUP  
LOTUS COLUMNS AD = MP

## BASIC VITRIFICATION PROCESS PARAMETERS

1. Waste Oxide Loading In  
Glass (Basis for trial  
glass formulation)                          36,500 wt%
2. Melter Feed  
Concentration In PHT  
On Oxide Basis                          0.3650 fraction
3. Melter Feed Batch  
Size In PHT                          450.00 g/l of T0  
12501.25 l
4. Salt Dilution                          10.00 weight
5. Vitrification Feed  
Water Dilution Factor                          1.00
6. Glass Per Canister                          1900.00 kg
7. Glass Production  
Rate                          45.0 kg/hr
8. OFF Gas Decontamination Factors  
Equipment Flow                          Melter

Chemical Column  
Non-volatile

	Particulates	300.0	30.0	30.0
Semi-volatile				
Cs	50.0	6.0	30.0	
B	50.0	2,000.0	30.0	
Ru	10.0	20.0	30.0	
Mo	100.0	20.0	30.0	
Cl	4.0	6.0	30.0	
F1	4.0	6.0	30.0	
Se	20.0	6.0	30.0	
Te	20.0	6.0	30.0	
S	Part. Run.	Part. Run.	Not Present	
Tc	10.0	6.0	30.0	
Hg	4.0	6.0	30.0	
Cd	10.0	6.0	30.0	

Volatile	NOT APPLICABLE	1.0	1.0
Cow			
I2	1.0		
Mg2		Part. Run.	Part. Run.
M2	1.0		
G2	1.0		
H2			
Mg			

SDm from meltar quantitatively reacts in SBS.

8. Air Inleakages/Supplies (Based Dry Air)	
See other bases in appropriate column notes	
a. Meltar	50.00 scfm
b. Film Cooler	1400.00 scfm
c. Pressure Control	45.00 scfm
d. SBS Air Sparge	2.50 scfm
e. Vessel Vent	100.00 scfm

Total 337.50

9. Glass Formulation	
a. Melt Loading	36.50 wt%
Variable Location C132S	
b. Composition Scaling Factor	1.0000
c. Glass Weight: Basis Loading	476,374 kg
Calculated	466,135 kg
d. Critical Component Addition: Fe2O3 (+ 0)	89 kg

	WT%	WT Fraction
Al2O3	0.0000	0.00E+00
Al2O3	5.5400	5.54E-02
Aln2O3	0.0056	5.57E-05
B2O3	10.2600	1.03E-01
BaO	0.0104	1.04E-04
BaSO4	0.0000	0.00E+00
CCl2F10	0.0000	0.00E+00
CaO	0.5000	5.00E-05
CaSO4	0.0000	0.00E+00
Cr2O3	0.0627	6.27E-04
Cr2O3	0.0000	0.00E+00
CrO	0.1375	1.38E-03
Cr2O	0.0482	8.53E-04
CuO	0.0633	6.37E-04
Dy2O3	0.0000	0.00E+00
Eu2O3	0.0000	0.00E+00
Fe2O3	12.1200	1.21E-01
Ge2O3	0.0000	0.00E+00
GeO2	0.0000	0.00E+00
Hg	0.0000	0.00E+00
In2O3	0.0000	0.00E+00
K2O	3.7300	3.73E-02
La2O3	0.0350	3.50E-04
Li2O	3.1500	3.15E-02
PgO	0.0000	9.00E-03
PrnO	1.0000	1.00E-02
PrnO3	0.0116	1.16E-04
RaCl	0.0000	0.00E+00
RaO	0.0000	0.00E+00
Ra2SO4	11.4200	1.14E-01
Re2O3	0.0000	0.00E+00
Re2O3	0.0997	9.97E-04
Si	0.2475	2.48E-03
MoO2	0.0073	7.33E-05
P2O5	2.3600	2.36E-02
PaO3	0.0000	0.00E+00
PdO	0.0070	6.99E-05
Pu2O3	0.0000	0.00E+00
Pu2O3	0.0333	3.23E-04
PuO2	0.0077	7.72E-05
Rb2O	0.0000	0.00E+00
RhO2	0.0137	1.37E-04
RuO2	0.0060	6.60E-04
SO3	0.0000	0.00E+00
Sb2O5	0.0000	0.00E+00
Se1/2	43.0500	4.30E-01
SiO2	0.0000	0.00E+00
Sn2O3	0.0000	0.00E+00
SnO2	0.0000	0.00E+00
Sp	0.0000	0.00E+00
SrSO4	0.0000	0.00E+00
Tb2O3	0.0000	0.00E+00
Tc2O7	0.0000	0.00E+00
TcO2	0.0000	0.00E+00
ThO2	0.0000	0.00E+00
TlO2	0.0000	0.00E+00
UO2	0.0000	0.00E+00
V2O5	0.0000	0.00E+00
ZnO	0.0000	0.00E+00
ZrO2	0.0000	0.00E+00
Total	97.1519	9.72E-01

RE/28 802 SLURRY TRANSFER FLUSH

1. Water Flush Volume Per Feed makeup	40.00 gal
	151.40 l

RE/29 SBS RECYCLE

1. Include In Recycle NonO_Vessel	1.000
2. SBS Jet Dilution	6.00 weight

RE/30 CANISTER DECOM SOLUTION RECYCLE

1. Include Jet Dilution Fctr	1.00
2. Include In Recycle NonO_Vessel	0.00E+00

RE/31 HEME FLUSH CONDENSATE RECYCLE

1. Include In Recycle NonO_Vessel	1.00
2. Heme Condensate Dilution	1.00 weight

2. Water Flush Frequency 720.0 hr  
3. Water Flush Volume 90.0 gal

RJ/35 WASTE HEADER RECYCLE

1. Include In Recycle 0.00E+00  
RCM0: Yes

RF/37 CFRT WASTE OVERHEADS

1. Average Concentration Of Solids In Bottoms/  
Average Concentration Of Solids In Overhead 1,000

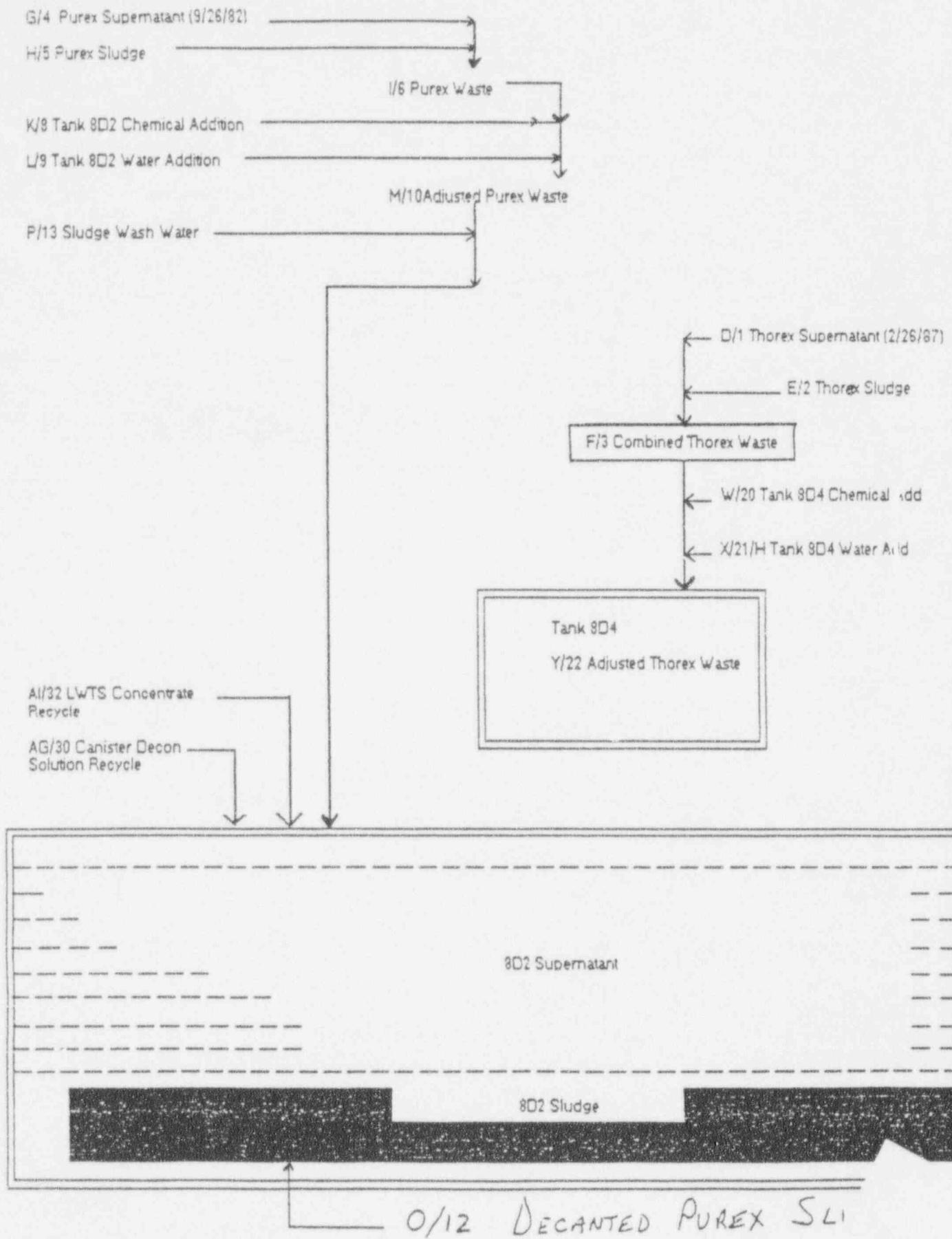
RF/39 MADE-UP MELTER FEED

1. Water Flush Per Batch Of Glass Formers 100 gal

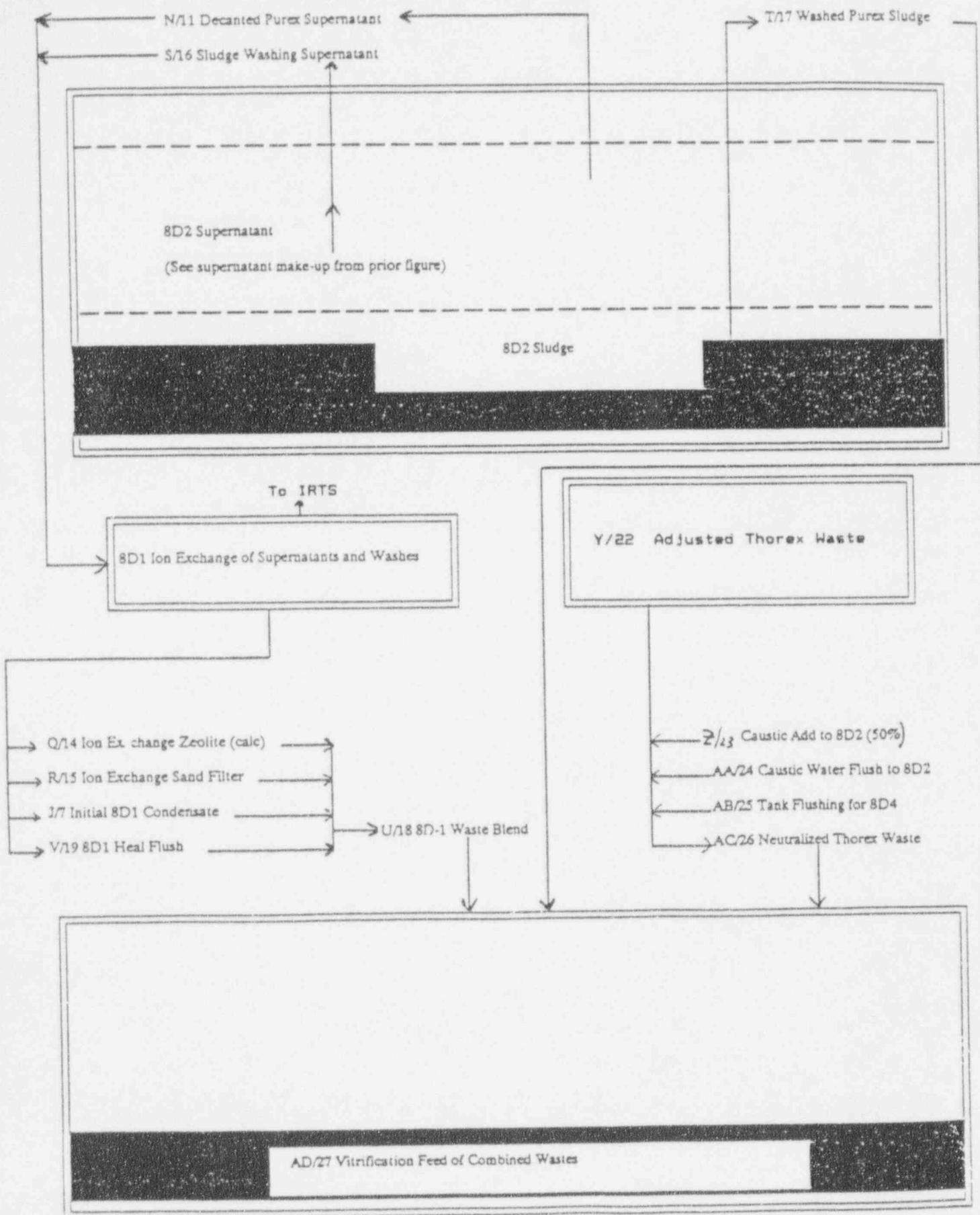
RM/50 SBS OFF GAS

1. SBS Bed Temperature 45 C  
2. SBS Bed Pressure 48 in H<sub>2</sub>O Vac.

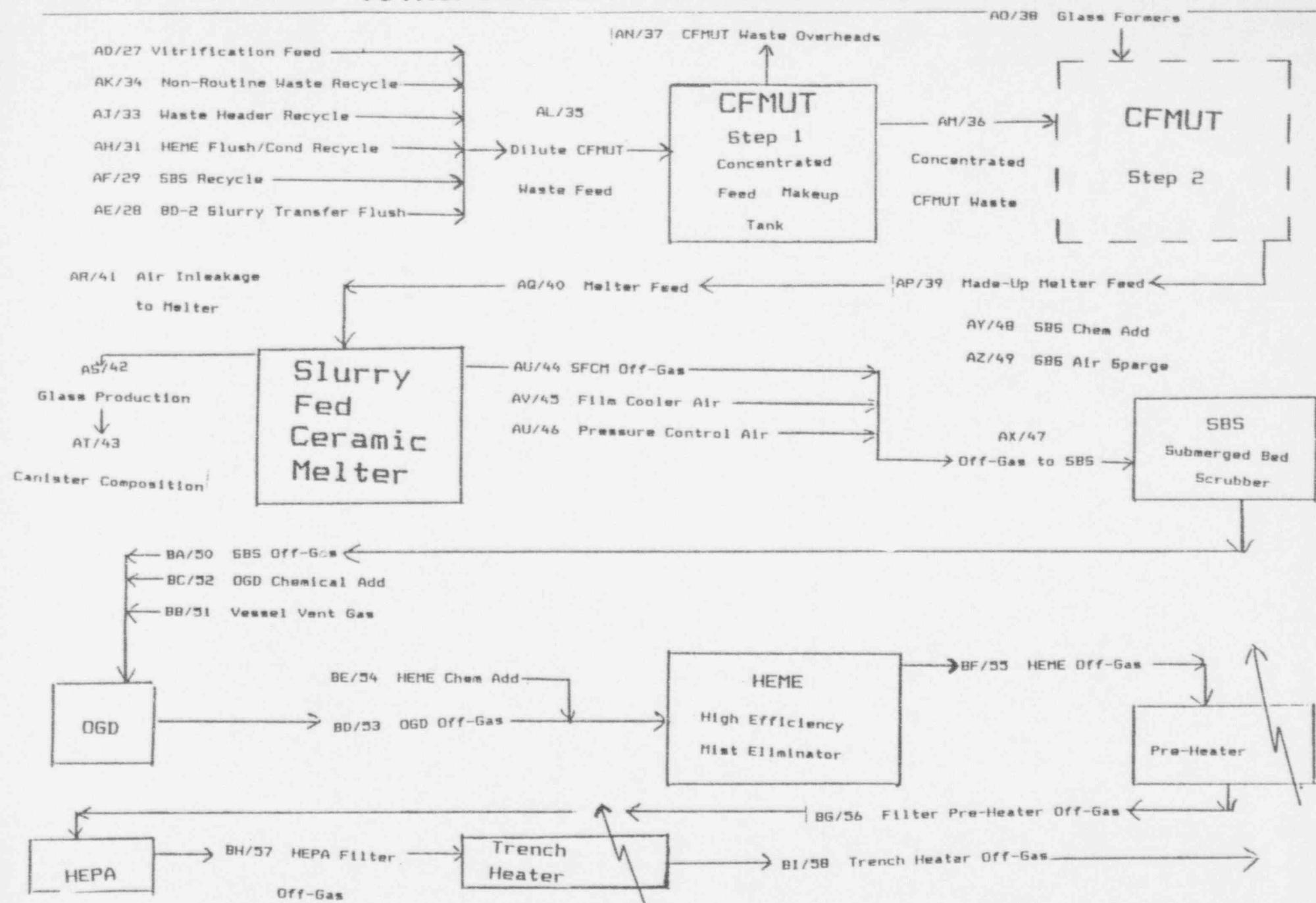
# Assumed Initial and Interim Compositions for Tanks 8D2 and 8D4

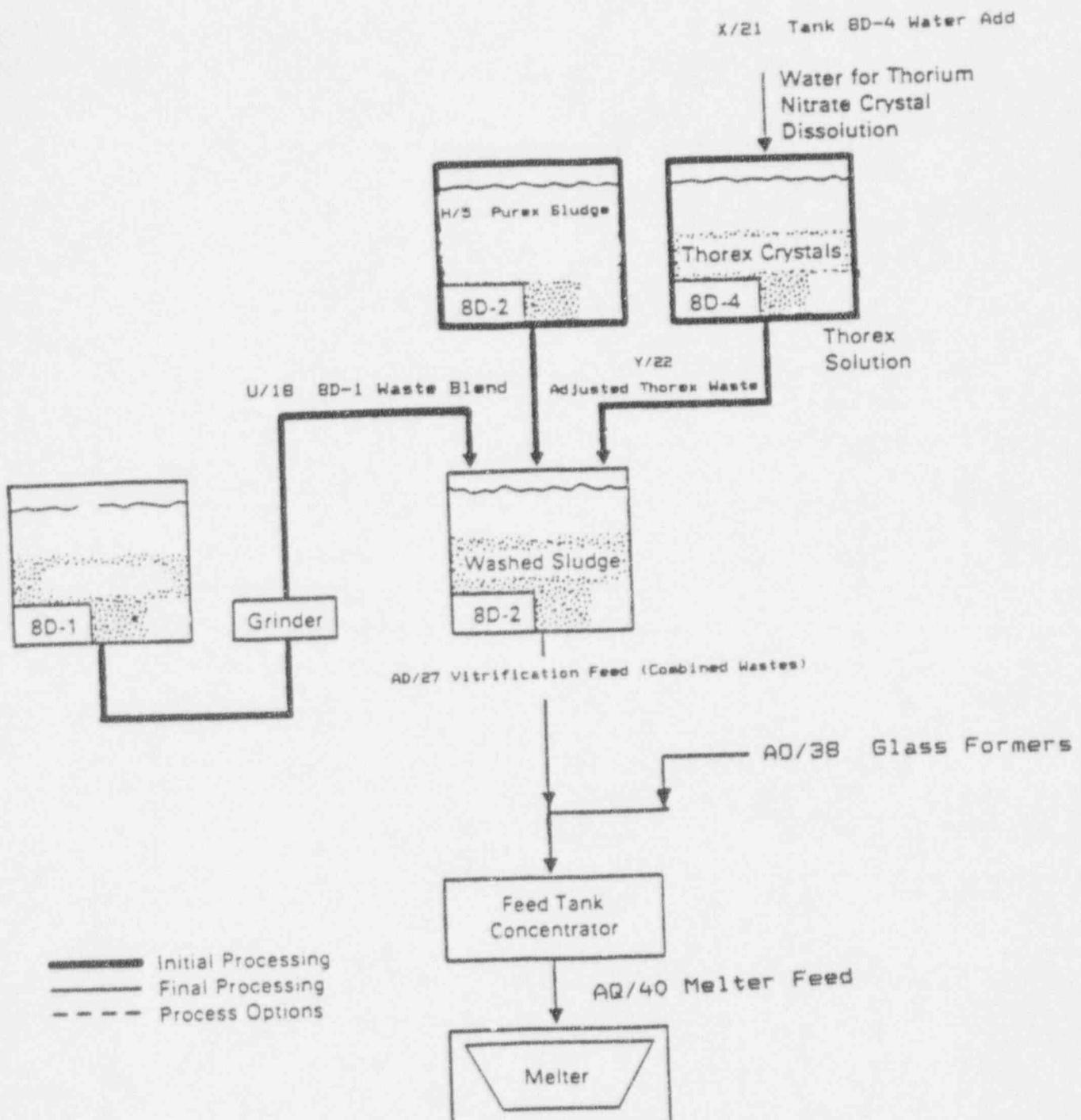


## Vitrification Waste Feed and Assumed Ion Exchange



# VITRIFICATION FLOW SCHEMATIC





Simplified Waste Tank Process Flowsheet

STREAM NUMBER STREAM NAME	COMPONENT	MOLECULAR WEIGHT	1	2	3	4	5
			THOREX SUPERNATANT 2/26/87	THOREX SLUDGE 2/26/87	THOREX WASTE 2/26/87	PUREX SUPERNATANT 9/26/82	PUREX SLUDGE 1/31/89
KG		kg	kg	kg	kg	kg	kg
H2O	18.02		34,148	0	34,148	1,727,164	0
Ag	107.87				0.00		
AgNO3	169.89		0.08	0.00	0.08		
Ag2O	231.76				0.00		
AgOH	124.88				0.00	0.00	0.70
AlF3	83.98				0.00	77.00	536.00
Al(NO3)3	213.00		4,175.00	0.00	4,175.00		
Al2O3	101.96				0.00		
Al(OH)3	78.00				0.00	0.00	5,852.00
Am(OH)3	294.00				0.00		
Am(NO3)3	429.00				0.00		
Am2O3	534.30				0.00	0.00	27.00
B2O3	69.62				0.00		
Ba(NO3)2	261.35		27.00	0.00	27.00		
BaO	153.32				0.00		
BaSO4	233.40				0.00	0.00	303.00
C	12.00				0.00		
(CH2)10	140.00				0.00		
CeCO3	100.09				0.00	0.00	3,208.00
CaC2O4	128.12				0.00		
CaF2	78.08				0.00		
Ca(NO3)2	164.09		30.00	0.00	30.00		
CaO	56.08				0.00		
Ce(OH)2	74.09				0.00		
Ca3(PO4)2	310.18				0.00		
CaSO4	136.14				0.00		
Cd(NO3)2	236.41		0.30	0.00	0.30		
CdO	128.40				0.00		
Cd(OH)2	146.11				0.00	0.00	1.70
Ce(NO3)3	326.23		43.00	0.00	43.00		
Ce2O3	328.24				0.00		
Ce(OH)3	191.14				0.00	0.00	354.00
Cm(NO3)3	433.00				0.00		
Cm2O3	542.00				0.00	0.00	0.40
Cm(OH)3	298.00				0.00		
Co	58.93				0.00		
Co(NO3)2	183.04		3.00	0.00	7.00		
CoO	74.93				0.00		
Co(OH)2	92.95				0.00		
Cr(NO3)3	238.15		1,918.00	0.00	1,918.00		
Cr2O3	152.02				0.00		
CrO3	99.99				0.00		
Cr(OH)3	103.02				0.00	0.00	65.00
CsNO3	194.91		28.00	0.00	28.00	534.00	0.00
CsCl(SV)	168.36				0.00		
Cs2O	281.81				0.00		
spare	281.81				0.00		
Cu	63.55				0.00		
Cu(NO3)2	187.60		0.80	0.00	0.80	6.00	0.00
CuO	79.54				0.00		
Cu(OH)2	97.55				0.00	0.00	376.00
CuSO4	159.61				0.00		
Dy(NO3)3	348.58		0.00	0.00	0.00		
Dy2O3	373.00				0.00		
Dy(OH)3	213.52				0.00		

STREAM NUMBER STREAM NAME	6 PUREX WASTE	7 BD1 CONDENSATE	8 BD2 CHEMICAL ADD	9 BD2 WATER ADD	10 ADJUSTED PUREX WASTE	11 DECANTED PUREX SUPERNATANT	12 DECANTED PUREX SLUDGE
COMPONENT KG	kg	kg	kg	kg	kg	kg	kg
H2O	1,727,164	654,000			1,727,164	1,539,415	187,749
Ag	0.00				0.00	0.00	0.00
AgNO3	0.00				0.00	0.00	0.00
Ag2O	0.00				0.00	0.00	0.00
AgOH	0.70				0.70	0.00	0.70
AlF3	613.00				613.00	68.63	544.37
Al(NO3)3	0.00				0.00	0.00	0.00
Al2O3	0.00				0.00	0.00	0.00
Al(OH)3	5,852.00				5,852.00	0.00	5,852.00
Am(OH)3	0.00				0.00	0.00	0.00
Am(NO3)3	0.00				0.00	0.00	0.00
Am2O3	27.00				27.00	0.00	27.00
B2O3	0.00				0.00	0.00	0.00
Ba(NO3)2	0.00				0.00	0.00	0.00
BaO	0.00				0.00	0.00	0.00
BaSO4	303.00				303.00	0.00	303.00
C	0.00				0.00	0.00	0.00
(CH2)10	0.00				0.00	0.00	0.00
CaCO3	3,208.00				3,208.00	0.00	3,208.00
CaC2O4	0.00				0.00	0.00	0.00
CaF2	0.00				0.00	0.00	0.00
Ca(NO3)2	0.00				0.00	0.00	0.00
CaO	0.00				0.00	0.00	0.00
Ca(OH)2	0.00				0.00	0.00	0.00
Ca3(PO4)2	0.00				0.00	0.00	0.00
CaSO4	0.00				0.00	0.00	0.00
Cd(NO3)2	0.00				0.00	0.00	0.00
CdO	0.00				0.00	0.00	0.00
Cd(OH)2	1.70				1.70	0.00	1.70
Ce(NO3)3	0.00				0.00	0.00	0.00
Ce2O3	0.00				0.00	0.00	0.00
Ce(OH)3	354.00				354.00	0.00	354.00
Cr(NO3)3	0.00				0.00	0.00	0.00
Cr2O3	0.40				0.40	0.00	0.40
Cr(OH)3	0.00				0.00	0.00	0.00
Co	0.00				0.00	0.00	0.00
Co(NO3)2	0.00				0.00	0.00	0.00
CoO	0.00				0.00	0.00	0.00
Co(OH)2	0.00				0.00	0.00	0.00
Cr(NO3)3	0.00				0.00	0.00	0.00
Cr2O3	0.00				0.00	0.00	0.00
CrO3	0.00				0.00	0.00	0.00
Cr(OH)3	65.00				65.00	0.00	65.00
CsNO3	534.00				534.00	475.95	58.05
CsCl(SV)	0.00				0.00	0.00	0.00
Cs2O	0.00				0.00	0.00	0.00
spare	0.00				0.00	0.00	0.00
Cu	0.00				0.00	0.00	0.00
Cu(NO3)2	6.00				6.00	5.35	0.65
CuO	0.00				0.00	0.00	0.00
Cu(OH)2	376.00				376.00	0.00	376.00
CuSO4	0.00				0.00	0.00	0.00
Dy(NO3)3	0.00				0.00	0.00	0.00
Dy2O3	0.00				0.00	0.00	0.00
Dy(OH)3	0.00				0.00	0.00	0.00

STREAM NUMBER	13 SLUDGE WASH WATER	14 IX ZEOLITE SLURRY BD1	15 SAND FILTER SLURRY BD1	16 SLUDGE WASH SUPERNATANT	17 WASHED PUREX SLUDGE	18 BD1 WASTE BLEND	19 BD1 HEEL FLUSH
COMPONENT	KG	kg	kg	kg	kg	kg	kg
H2O	1,618,628	191,743	3,000	2,364,500	408,300	848,743	
Ag				0.00	0.00	0.00	
AgNO3				0.00	0.00	0.00	
Ag2O				0.00	0.00	0.00	
AgOH				0.00	0.70	0.00	
AlF3				8.13	536.24	0.00	
Al(NO3)3				0.00	0.00	0.00	
Al2O3		8,668.60		0.00	0.00	8,668.60	
Al(OH)3				0.00	5,852.00	0.00	
Am(OH)3				0.00	0.00	0.00	
Am(NO3)3				0.00	0.00	0.00	
Am2O3				0.00	27.00	0.00	
B2O3				0.00	0.00	0.00	
Ba(NO3)2				0.00	0.00	0.00	
BaO		50.33		0.00	0.00	50.33	
BaSO4				0.00	303.00	0.00	
C				0.00	0.00	0.00	
(CH2)10				0.00	0.00	0.00	
CaCO3				0.00	3,208.00	0.00	
CaC2O4				0.00	0.00	0.00	
CaF2				0.00	0.00	0.00	
Ca(NO3)2				0.00	0.00	0.00	
CaO		615.19		0.00	0.00	615.19	
Ca(OH)2				0.00	0.00	0.00	
Ca3(PO4)2				0.00	0.00	0.00	
CaSO4				0.00	0.00	0.00	
Cd(NO3)2				0.00	0.00	0.00	
CdO				0.00	0.00	0.00	
Cd(OH)2				0.00	1.70	0.00	
Ce(NO3)3				0.00	0.00	0.00	
Ce2O3				0.00	0.00	0.00	
Ce(OH)3				0.00	354.00	0.00	
Cm(NO3)3				0.00	0.00	0.00	
Cm2O3				0.00	0.40	0.00	
Cm(OH)3				0.00	0.00	0.00	
Co				0.00	0.00	0.00	
Co(NO3)2				0.00	0.00	0.00	
CoO				0.00	0.00	0.00	
Co(OH)2				0.00	0.00	0.00	
Cr(NO3)3				0.00	0.00	0.00	
Cr2O3				0.00	0.00	0.00	
CrO3				0.00	0.00	0.00	
Cr(OH)3				0.00	65.00	0.00	
CsNO3				56.41	1.63	0.00	
CsCl (SV)				0.00	0.00	0.00	
Cs2O		384.47		0.00	0.00	384.47	
spare				0.00	0.00	0.00	
Cu				0.00	0.00	0.00	
Cu(NO3)2				0.63	0.02	0.00	
CuO				0.00	0.00	0.00	
Cu(OH)2				0.00	376.00	0.00	
CuSO4				0.00	0.00	0.00	
Dy(NO3)3				0.00	0.00	0.00	
Dy2O3				0.00	0.00	0.00	
Dy(OH)3				0.00	0.00	0.00	

STREAM NUMBER	20	21	22	23	24	25	26
STREAM NAME	BD4	BD4	ADJUSTED THOREX WASTE	CAUSTIC ADDITION TO BD2	CAUSTIC WATER FLUSH TO BD2	BD4 TANK FLUSH	NEUTRALIZED THOREX WASTE IN BD2
CHEMICAL ADD							
COMPONENT KG	kg	kg	kg	kg	kg	kg	kg
H2O			34,148	21,084		6,400	62,574
Ag			0.00				0.00
AgNO3			0.08				0.00
Ag2O			0.00				0.00
AgOH			0.00				0.06
AlF3			0.00				0.00
Al(NO3)3			4,175.00				0.00
Al2O3			0.00				0.00
Al(OH)3			0.00				1,528.87
Am(OH)3			0.00				0.00
Am(NO3)3			0.00				0.00
Am2O3			0.00				0.00
B2O3			0.00				0.00
Ba(NO3)2			27.00				0.00
BaO			0.00				0.00
BaSO4			0.00				24.11
C			0.00				0.00
(CH2)10			0.00				0.00
CaCO3			0.00				0.00
CaC2O4			0.00				0.00
CaF2			0.00				0.00
Ca(NO3)2			30.00				0.00
CaO			0.00				0.00
Ca(OH)2			0.00				13.55
Ca3(PO4)2			0.00				0.00
CaSO4			0.00				0.00
Cd(NO3)2			0.30				0.00
CdO			0.00				0.00
Cd(OH)2			0.00				0.19
Ce(NO3)3			43.00				0.00
Ce2O3			0.00				0.00
Ce(OH)3			0.00				0.00
Cm(NO3)3			0.00				0.00
Cm2O3			0.00				0.00
Cm(OH)3			0.00				0.00
Co			0.00				0.00
Co(NO3)2			3.00				0.00
CoO			0.00				0.00
Co(OH)2			0.00				1.52
Cr(NO3)3			1,918.00				0.00
Cr2O3			0.00				0.00
CrO3			0.00				0.00
Cr(OH)3			0.00				829.70
CsNO3			28.00				28.00
CsCl(SV)			0.00				0.00
Cs2O			0.00				0.00
spare			0.00				0.00
Cu			0.00				0.00
Cu(NO3)2			0.80				0.00
CuO			0.00				0.00
Cu(OH)2			0.00				0.42
CuSO4			0.00				0.00
Dy(NO3)3			0.00				0.00
Dy2O3			0.00				0.00
Dy(OH)3			0.00				0.00

STREAM NUMBER	27	28	29	30	31	32	33
STREAM NAME	VITRIFICATION SYSTEM FEED BD2	BD2 SLURRY TRANSFER FLUSH	SBS RECYCLE	CANISTER DECON SOLN RECYCLE	HEME FLUSH/COND RECYCLE	LWTS CONCENTRATE RECYCLE	WASTE HEADER RECYCLE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
H2O	1,319,617	13,029	566,956	0	5,292		0
Ag	0.00E+00		0.00E+00		0.00E+00		
AgNO3	0.00E+00		0.00E+00		0.00E+00		
Ag2O	0.00E+00		2.28E-03		7.59E-05		
AgOH	7.59E-01		0.00E+00		0.00E+00		
AlF3	5.36E+02		0.00E+00		0.00E+00		
Al(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Al2O3	8.67E+03		1.00E+02		3.35E+00		
Al(OH)3	7.38E+03		0.00E+00		0.00E+00		
Am(OH)3	0.00E+00		0.00E+00		0.00E+00		
Am(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Am2O3	2.70E+01		8.73E-02		2.91E-03		
B2O3	0.00E+00		9.77E+02		4.72E-01		
Ba(NO3)2	0.00E+00		0.00E+00		0.00E+00		
BaO	5.03E+01		1.63E-01		5.42E-03		
BaSO4	3.27E+02		1.06E+00		3.53E-02		
C	0.00E+00		0.00E+00		0.00E+00		
(CH2)10	0.00E+00		0.00E+00		0.00E+00		
CaCO3	3.21E+03		0.00E+00		0.00E+00		
CaC2O4	0.00E+00		0.00E+00		0.00E+00		
CaF2	0.00E+00		0.00E+00		0.00E+00		
Ca(NO3)2	0.00E+00		0.00E+00		0.00E+00		
CaO	6.15E+02		7.67E+00		2.56E-01		
Ca(OH)2	1.35E+01		0.00E+00		0.00E+00		
Ca3(PO4)2	0.00E+00		0.00E+00		0.00E+00		
CaSO4	0.00E+00		0.00E+00		0.00E+00		
Cd(NO3)2	0.00E+00		0.00E+00		0.00E+00		
CdO	0.00E+00		9.48E-02		1.83E-02		
Cd(OH)2	1.89E+00		0.00E+00		0.00E+00		
Ce(NO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		
Ce2O3	0.00E+00		9.83E-01		3.28E-02		
Ce(OH)3	3.54E+02		0.00E+00		0.00E+00		
Cm(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Cm2O3	4.00E-01		1.29E-03		4.31E-05		
Cm(OH)3	0.00E+00		0.00E+00		0.00E+00		
Co	0.00E+00		0.00E+00		0.00E+00		
Co(NO3)2	0.00E+00		0.00E+00		0.00E+00		
CoO	0.00E+00		3.97E-03		1.32E-04		
Co(OH)2	1.52E+00		0.00E+00		0.00E+00		
Cr(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Cr2O3	0.00E+00		2.15E+00		7.18E-02		
CrO3	0.00E+00		0.00E+00		0.00E+00		
Cr(OH)3	8.95E+02		0.00E+00		0.00E+00		
CsNO3	2.96E+01		0.00E+00		0.00E+00		
CsCl(SV)	0.00E+00		0.00E+00		0.00E+00		
Cs2O	3.84E+02		6.90E+00		1.33E+00		
spare	0.00E+00		0.00E+00		0.00E+00		
Cu	0.00E+00		0.00E+00		0.00E+00		
Cu(NO3)2	1.84E-02		0.00E+00		0.00E+00		
CuO	0.00E+00		9.92E-01		3.31E-02		
Cu(OH)2	3.76E+02		0.00E+00		0.00E+00		
CuSO4	0.00E+00		0.00E+00		0.00E+00		
Dy(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Dy2O3	0.00E+00		3.46E-06		1.15E-07		
Dy(OH)3	1.23E-03		0.00E+00		0.00E+00		

STREAM NUMBER	34 NONROUTINE WASTE RECYCLE	35 DILUTE CFMUT WASTE FEED	36 CONCENTRATED CFMUT WASTE	37 CFMUT WASTE OVERHEADS	38 GLASS FORMERS	39 MADE-UP MELTER FEED	40 MELTER FEED
COMPONENT	KG	kg	kg	kg	kg	kg	kg
H2O		1,904,894	240,163	1,664,731	374,838	647,574	143,811
Ag		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
AgNO3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Ag2O		2.35E-03	2.35E-03	3.51E-06		2.35E-03	2.35E-03
AgOH		7.59E-01	7.59E-01	1.13E-03		7.59E-01	7.59E-01
AlF3		5.36E+02	5.36E+02	8.01E-01		5.36E+02	5.36E+02
Al(NO3)3		0.00E+00	0.00E+00	0.00E+00		6.54E+04	6.54E+04
Al2O3		8.77E+03	8.77E+03	1.31E+01		8.77E+03	8.77E+03
Al(OH)3		7.38E+03	7.38E+03	1.10E+01	2.64E+04	9.80E+03	9.80E+03
Am(OH)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Am(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Am2O3		2.71E+01	2.71E+01	4.05E-02		2.71E+01	2.71E+01
B2O3		9.78E+02	9.78E+02	1.46E+00		9.78E+02	9.78E+02
Ba(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
BaO		5.05E+01	5.05E+01	7.55E-02		5.05E+01	5.05E+01
BaSO4		3.28E+02	3.28E+02	4.90E-01		3.28E+02	3.28E+02
C		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
(CH2)10		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
CaCO3		3.21E+03	3.21E+03	4.79E+00	-8.73E+01	3.21E+03	3.21E+03
CaC2O4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
CaF2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Ca(NO3)2		0.00E+00	0.00E+00	0.00E+00		-1.43E+02	-1.43E+02
CaO		6.23E+02	6.23E+02	9.31E-01		6.23E+02	6.23E+02
Ca(OH)2		1.35E+01	1.35E+01	2.02E-02		1.35E+01	1.35E+01
Ca3(Po4)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
CaSO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cd(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
CdO		1.13E-01	1.13E-01	1.69E-04		1.13E-01	1.13E-01
Cd(OH)2		1.89E+00	1.89E+00	2.82E-03		1.89E+00	1.89E+00
Ce(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Ce2O3		1.02E+00	1.02E+00	1.52E-03		1.02E+00	1.02E+00
Ce(OH)3		3.54E+02	3.54E+02	5.29E-01		3.54E+02	3.54E+02
Cm(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cm2O3		4.01E-01	4.01E-01	6.00E-04		4.01E-01	4.01E-01
Cm(OH)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Co		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Co(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
CoO		4.10E-03	4.10E-03	6.13E-06		4.10E-03	4.10E-03
Co(OH)2		1.52E+00	1.52E+00	2.28E-03		1.52E+00	1.52E+00
Cr(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cr2O3		2.23E+00	2.23E+00	3.33E-03		2.23E+00	2.23E+00
CrO3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cr(OH)3		8.95E+02	8.95E+02	1.34E+00		8.95E+02	8.95E+02
CsNO3		2.96E+01	2.96E+01	4.43E-02		2.96E+01	2.96E+01
CsCl(SV)		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cs2O		3.93E+02	3.93E+02	5.87E-01		3.93E+02	3.93E+02
spare		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cu		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cu(NO3)2		1.84E-02	1.84E-02	2.74E-05		1.84E-02	1.84E-02
CuO		1.03E+00	1.03E+00	1.53E-03		1.03E+00	1.03E+00
Cu(OH)2		76E+02	3.76E+02	5.62E-01		3.76E+02	3.76E+02
CuSO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Dy(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Dy2O3		3.57E-06	3.57E-06	5.34E-09		3.57E-06	3.57E-06
Dy(OH)3		1.23E-03	1.23E-03	1.83E-06		1.23E-03	1.23E-03

STREAM NUMBER	41	42	43	44	45	46
STREAM NAME	AIR	GLASS	FILLED GLASS	SFCM	FILM COOLER	PRESSURE
	INLEAKAGE TO SFCM	PRODUCTION	CANISTER ( / CANISTER)	OFF GAS	AIR	CONTROL AIR
COMPONENT	kg	kg	kg	kg	kg	kg
H2O	24,337	0	H2O	0	857,538	68,143
Ag		0.00	Ag	0.0000	0.00E+00	
AgNO3		0.00	AgNO3	0.0000	0.00E+00	
Ag2O		0.70	Ag2O	0.0028	2.35E-03	
AgOH		0.00	AgOH	0.0000	0.00E+00	
AlF3		0.00	AlF3	0.0000	0.00E+00	
Al(NO3)3		0.00	Al(NO3)3	0.0000	0.00E+00	
Al2O3		31,051.02	Al2O3	122.0563	1.04E+02	
Al(OH)3		0.00	Al(OH)3	0.0000	0.00E+00	
Am(OH)3		0.00	Am(OH)3	0.0000	0.00E+00	
Am(NO3)3		0.00	Am(NO3)3	0.0000	0.00E+00	
Am2O3		27.00	Am2O3	0.1061	9.03E-02	
B2O3		47,898.47	B2O3	188.2807	9.78E+02	
Ba(NO3)2		0.00	Ba(NO3)2	0.0000	0.00E+00	
BaO		50.33	BaO	0.1979	1.68E-01	
BasO4		327.11	BasO4	1.2858	1.09E+00	
C		0.00	C	0.0000	0.00E+00	
(CH2)10		0.00	(CH2)10	0.0000	0.00E+00	
CaCO3		0.00	CaCO3	0.0000	0.00E+00	
CaC2O4		0.00	CaC2O4	0.0000	0.00E+00	
CaF2		0.00	CaF2	0.0000	0.00E+00	
Ca(NO3)2		0.00	Ca(NO3)2	0.0000	0.00E+00	
CaO		2,373.93	CaO	9.3315	7.94E+00	
Ca(OH)2		0.00	Ca(OH)2	0.0000	0.00E+00	
Ca3(PO4)2		0.00	Ca3(PO4)2	0.0000	0.00E+00	
CaSO4		0.00	CaSO4	0.0000	0.00E+00	
Cd(NO3)2		0.00	Cd(NO3)2	0.0000	0.00E+00	
CdO		1.02	CdO	0.0040	1.14E-01	
Cd(OH)2		0.00	Cd(OH)2	0.0000	0.00E+00	
Ce(NO3)3		0.00	Ce(NO3)3	0.0000	0.00E+00	
Ce2O3		303.96	Ce2O3	1.1948	1.02E+00	
Ce(OH)3		0.00	Ce(OH)3	0.0000	0.00E+00	
Cm(NO3)3		0.00	Cm(NO3)3	0.0000	0.00E+00	
Cm2O3		0.40	Cm2O3	0.0016	1.34E-03	
Cm(OH)3		0.00	Cm(OH)3	0.0000	0.00E+00	
Co		0.00	Co	0.0000	0.00E+00	
Co(NO3)2		0.00	Co(NO3)2	0.0000	0.00E+00	
CoO		1.23	CoO	0.0048	4.11E-03	
Co(OH)2		0.00	Co(OH)2	0.0000	0.00E+00	
Cr(NO3)3		0.00	Cr(NO3)3	0.0000	0.00E+00	
Cr2O3		666.25	Cr2O3	2.6189	2.23E+00	
CrO3		0.00	CrO3	0.0000	0.00E+00	
Cr(OH)3		0.00	Cr(OH)3	0.0000	0.00E+00	
CsNO3		0.00	CsNO3	0.0000	0.00E+00	
CsCl(SV)		0.00	CsCl(SV)	0.0000	0.00E+00	
Cs2O		405.85	Cs2O	1.5953	8.28E+00	
spare		0.00	spare	0.0000	0.00E+00	
Cu		0.00	Cu	0.0000	0.00E+00	
Cu(NO3)2		0.00	Cu(NO3)2	0.0000	0.00E+00	
CuO		306.93	CuO	1.2065	1.03E+00	
Cu(OH)2		0.00	Cu(OH)2	0.0000	0.00E+00	
CuSO4		0.00	CuSO4	0.0000	0.00E+00	
Dy(NO3)3		0.00	Dy(NO3)3	0.0000	0.00E+00	
Dy2O3		0.0L	Dy2O3	0.0000	3.58E-06	
Dy(OH)3		0.00	Dy(OH)3	0.0000	0.00E+00	

STREAM NUMBER	47	48	49	50	51	52	53
STREAM NAME	OFF GAS TO SBS	SBS CHEMICAL ADD	SBS AIR SPARGE	SBS OFF GAS	VESSEL VENT GAS	OGD CHEMICAL ADD	OGD OFF GAS
COMPONENT KG	kg	kg	kg	kg	kg	kg	kg
H2O	947,585		1,217	413,937	69,534		483,471
Ag	0.00E+00			0.00E+00			0.00E+00
AgNO3	0.00E+00			0.00E+00			0.00E+00
Ag2O	2.35E-03			7.85E-05			7.85E-05
AgOH	0.00E+00			0.00E+00			0.00E+00
AlF3	0.00E+00			0.00E+00			0.00E+00
Al(NO3)3	0.00E+00			0.00E+00			0.00E+00
Al2O3	1.04E+02			3.46E+00			3.46E+00
Al(OH)3	0.00E+00			0.00E+00			0.00E+00
Am(OH)3	0.00E+00			0.00E+00			0.00E+00
Am(NO3)3	0.00E+00			0.00E+00			0.00E+00
Am2O3	9.03E-02			3.01E-03			3.01E-03
B2O3	9.78E+02			4.89E-01			4.89E-01
Ba(NO3)2	0.00E+00			0.00E+00			0.00E+00
BaO	1.68E-01			5.61E-03			5.61E-03
BaSO4	1.09E+00			3.65E-02			3.65E-02
C	0.00E+00			0.00E+00			0.00E+00
(CH2)10	0.00E+00			0.00E+00			0.00E+00
CaCO3	0.00E+00			0.00E+00			0.00E+00
CaC2O4	0.00E+00			0.00E+00			0.00E+00
CaF2	0.00E+00			0.00E+00			0.00E+00
Ca(NO3)2	0.00E+00			0.00E+00			0.00E+00
CaO	7.94E+00			2.65E-01			2.65E-01
Ca(OH)2	0.00E+00			0.00E+00			0.00E+00
Ca3(PO4)2	0.00E+00			0.00E+00			0.00E+00
CaSO4	0.00E+00			0.00E+00			0.00E+00
Cd(NO3)2	0.00E+00			0.00E+00			0.00E+00
CdO	1.14E-01			1.90E-02			1.90E-02
Cd(OH)2	0.00E+00			0.00E+00			0.00E+00
Ce(NO3)3	0.00E+00			0.00E+00			0.00E+00
Ce2O3	1.02E+00			3.39E-02			3.39E-02
Ce(OH)3	0.00E+00			0.00E+00			0.00E+00
Cm(NO3)3	0.00E+00			0.00E+00			0.00E+00
Cm2O3	1.34E-03			4.46E-05			4.46E-05
Cm(OH)3	0.00E+00			0.00E+00			0.00E+00
Co	0.00E+00			0.00E+00			0.00E+00
Co(NO3)2	0.00E+00			0.00E+00			0.00E+00
CoO	4.11E-03			1.37E-04			1.37E-04
Co(OH)2	0.00E+00			0.00E+00			0.00E+00
Cr(NO3)3	0.00E+00			0.00E+00			0.00E+00
Cr2O3	2.23E+00			7.43E-02			7.43E-02
CrO3	0.00E+00			0.00E+00			0.00E+00
Cr(OH)3	0.00E+00			0.00E+00			0.00E+00
CsNO3	0.00E+00			0.00E+00			0.00E+00
CsCl(SV)	0.00E+00			0.00E+00			0.00E+00
Cs2O	8.28E+00			1.38E+00			1.38E+00
spare	0.00E+00			0.00E+00			0.00E+00
Cu	0.00E+00			0.00E+00			0.00E+00
Cu(NO3)2	0.00E+00			0.00E+00			0.00E+00
CuO	1.03E+00			3.42E-02			3.42E-02
Cu(OH)2	0.00E+00			0.00E+00			0.00E+00
CuSO4	0.00E+00			0.00E+00			0.00E+00
Dy(NO3)3	0.00E+00			0.00E+00			0.00E+00
Dy2O3	3.58E-06			1.19E-07			1.19E-07
Dy(OH)3	0.00E+00			0.00E+00			0.00E+00

STREAM NUMBER	54	55	56	57	58
STREAM NAME	HEME CHEMICAL ADD	HEME OFF GAS	FILTER PREHEATER OFF GAS	HEPA FILTER OFF GAS	TRENCH HEATER OFF GAS
COMPONENT	KG	kg	kg	kg	kg
H2O	4,992	483,471	483,471	483,471	483,471
Ag		0.00E+00	0.00E+00	0.00E+00	0.00E+00
AgNO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ag2O		2.62E-06	2.62E-06	2.62E-12	2.62E-12
AgOH		0.00E+00	0.00E+00	0.00E+00	0.00E+00
AlF3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Al(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Al2O3		1.15E-01	1.15E-01	1.15E-07	1.15E-07
Al(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Am(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Am(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Am2O3		1.00E-04	1.00E-04	1.00E-10	1.00E-10
B2O3		1.63E-02	1.63E-02	1.63E-08	1.63E-08
Ba(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaO		1.87E-04	1.87E-04	1.87E-10	1.87E-10
BaSO4		1.22E-03	1.22E-03	1.22E-09	1.22E-09
C		0.00E+00	0.00E+00	0.00E+00	0.00E+00
(CH2)10		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaCO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaC2O4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaF2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaO		8.82E-03	8.82E-03	8.82E-09	8.82E-09
Ca(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ca3(PO4)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CaSO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cd(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CdO		6.32E-04	6.32E-04	6.32E-10	6.32E-10
Cd(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce2O3		1.13E-03	1.13E-03	1.13E-09	1.13E-09
Ce(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm2O3		1.49E-06	1.49E-06	1.49E-12	1.49E-12
Cm(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CoO		4.56E-06	4.56E-06	4.56E-12	4.56E-12
Co(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr2O3		2.48E-03	2.48E-03	2.48E-09	2.48E-09
CrO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CsNO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CsCl(SV)		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs2O		4.60E-02	4.60E-02	4.60E-08	4.60E-08
spare		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cu		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cu(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CuO		1.14E-03	1.14E-03	1.14E-09	1.14E-09
Cu(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CuSO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dy(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dy2O3		3.98E-09	3.98E-09	3.98E-15	3.98E-15
Dy(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00

STREAM NUMBER STREAM NAME	COMPONENT	MOLECULAR WEIGHT	1	2	3	4	5
			THOREX SUPERNATANT 2/26/87	THOREX SLUDGE 2/26/87	THOREX WASTE 2/26/87	PUREX SUPERNATANT 9/26/82	PUREX SLUDGE 1/31/89
KG	kg	kg	kg	kg	kg	kg	kg
Eu(NO <sub>3</sub> ) <sub>3</sub>	338.07		1.00	0.00	1.00		
Eu <sub>2</sub> O <sub>3</sub>	351.92				0.00		
Eu(OH) <sub>3</sub>	202.96				0.00	0.00	7.50
Fe	55.85				0.00		
Fe(NO <sub>3</sub> ) <sub>3</sub>	242.02		8,462.00	0.00	8,462.00	43.00	0.00
FeO	71.85				0.00		
Fe(OH) <sub>3</sub>	106.86				0.00	0.00	66,040.00
Fe <sub>2</sub> O <sub>3</sub>	159.69				0.00		
FePO <sub>4</sub>	150.85				0.00	0.00	6,351.00
Gd(NO <sub>3</sub> ) <sub>3</sub>	343.36		0.40	0.00	0.40		
Gd <sub>2</sub> O <sub>3</sub>	362.50				0.00		
Gd(OH) <sub>3</sub>	208.27				0.00	0.00	1.70
Ge(NO <sub>3</sub> ) <sub>4</sub>	320.59		0.02	0.00	0.02		
GeO <sub>2</sub>	104.59				0.00		
Ge(OH) <sub>4</sub>	140.59				0.00		
H <sub>3</sub> BO <sub>3</sub>	61.83		480.00	0.00	480.00		
H <sub>2</sub> CO <sub>3</sub>	62.03				0.00	9.00	0.00
H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	90.00				0.00		
HCl	36.46				0.00		
HF	20.01				0.00		
HNO <sub>3</sub>	63.02		2,805.00	0.00	2,805.00		
H <sub>2</sub> SO <sub>4</sub>	98.07				0.00		
Hg	200.59				0.00		
Hg <sub>2</sub> C <sub>12</sub>	472.09				0.00		
Hg <sub>2</sub> I <sub>2</sub>	654.99				0.00		
Hg(NO <sub>3</sub> ) <sub>2</sub>	324.63				0.00		
HgO	216.61				0.00		
Hg(OH) <sub>2</sub>	234.59				0.00	0.00	23.00
In(NO <sub>3</sub> ) <sub>3</sub>	300.88		0.04	0.00	0.04		
In <sub>2</sub> O <sub>3</sub>	277.64				0.00		
In(OH) <sub>3</sub>	165.84				0.00	0.00	0.30
K <sub>2</sub> CrO <sub>4</sub>	194.20				0.00	5,113.00	0.00
KMnO <sub>4</sub>	197.12		98.00	0.00	98.00		
KNO <sub>3</sub>	101.10		191.00	0.00	191.00	36,274.00	0.00
K <sub>2</sub> O	94.20				0.00		
KOH	56.11				0.00		
La(NO <sub>3</sub> ) <sub>3</sub>	325.02		22.00	0.00	22.00		
La <sub>2</sub> O <sub>3</sub>	325.82				0.00		
La(OH) <sub>3</sub>	189.93				0.00	0.00	185.00
LiOH	23.95				0.00		
LiNO <sub>3</sub>	68.94				0.00	14.00	0.00
Li <sub>2</sub> O	29.88				0.00		
MgCO <sub>3</sub>	84.32				0.00	0.00	826.00
Mg(NO <sub>3</sub> ) <sub>2</sub>	148.41		57.00	0.00	57.00	2.00	0.00
MgO	40.32				0.00		
Mg(OH) <sub>2</sub>	58.33				0.00		
Mn(NO <sub>3</sub> ) <sub>2</sub>	170.05				0.00		
MnO	70.94				0.00		
MnO <sub>2</sub>	86.94				0.00	0.00	4,581.00
Mn(OH) <sub>2</sub>	88.95				0.00		
MoO <sub>3</sub>	143.95				0.00		
Na <sub>3</sub> BO <sub>3</sub>	127.78				0.00	597.00	0.00
Li <sub>3</sub> PO <sub>4</sub>	115.80				0.00		
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	201.27				0.00		
Na <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	134.01				0.00		
Na <sub>2</sub> CO <sub>3</sub>	106.00				0.00	25,249.00	0.00
NaCl	58.45		50.00	0.00	50.00	4,684.00	0.00
spare	58.45				0.00		

STREAM NUMBER	6	7	8	9	10	11	12
STREAM NAME	PUREX WASTE	BD1 CONDENSATE	BD2 CHEMICAL ADD	BD2 WATER ADD	ADJUSTED PUREX WASTE	DECANTED PUREX SUPERNATANT	DECANTED PUREX SLUDGE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Eu(NO3)3	0.00				0.00	0.00	0.00
Eu2O3	0.00				0.00	0.00	0.00
Eu(OH)3	7.50				7.50	0.00	7.50
Fe	0.00				0.00	0.00	0.00
Fe(NO3)3	43.00				43.00	38.33	4.67
FeO	0.00				0.00	0.00	0.00
Fe(OH)3	66,040.00				66,040.00	0.00	66,040.00
Fe2O3	0.00	0.00			0.00	0.00	0.00
FePO4	6,351.00				6,351.00	0.00	6,351.00
Gd(NO3)3	0.00				0.00	0.00	0.00
Gd2O3	0.00				0.00	0.00	0.00
Gd(OH)3	1.70				1.70	0.00	1.70
Ge(NO3)4	0.00				0.00	0.00	0.00
GeO2	0.00				0.00	0.00	0.00
Ge(OH)4	0.00				0.00	0.00	0.00
H3BO3	0.00				0.00	0.00	0.00
H2CO3	9.00				9.00	8.02	0.98
H2C2O4	0.00				0.00	0.00	0.00
HCl	0.00				0.00	0.00	0.00
HF	0.00				0.00	0.00	0.00
HNO3	0.00				0.00	0.00	0.00
H2SO4	0.00				0.00	0.00	0.00
Hg	0.00				0.00	0.00	0.00
Hg2Cl2	0.00				0.00	0.00	0.00
Hg2I2	0.00				0.00	0.00	0.00
Hg(NO3)2	0.00				0.00	0.00	0.00
HgO	0.00				0.00	0.00	0.00
Hg(OH)2	23.00				23.00	0.00	23.00
In(NO3)3	0.00				0.00	0.00	0.00
In2O3	0.00				0.00	0.00	0.00
In(OH)3	0.30				0.30	0.00	0.30
K2CrO4	5,113.00				5,113.00	4,557.20	555.80
KMnO4	0.00				0.00	0.00	0.00
KN03	36,274.00				36,274.00	32,330.2	3,943.11
K2O	0.00				0.00	0.00	0.00
KOH	0.00				0.00	0.00	0.00
La(NO3)3	0.00				0.00	0.00	0.00
La2O3	0.00				0.00	0.00	0.00
La(OH)3	185.00				185.00	0.00	185.00
LiOH	0.00				0.00	0.00	0.00
LiNO3	14.00				14.00	12.48	1.52
Li2O	0.00				0.00	0.00	0.00
MgCO3	826.00				826.00	0.00	826.00
Mg(NO3)2	2.00				2.00	1.78	0.22
MgO	0.00				0.00	0.00	0.00
Mg(OH)2	0.00				0.00	0.00	0.00
Mn(NO3)2	0.00				0.00	0.00	0.00
MnO	0.00				0.00	0.00	0.00
MnO2	4,581.00				4,581.00	0.00	4,581.00
Mn(OH)2	0.00				0.00	0.00	0.00
MoO3	0.00				0.00	0.00	0.00
Na3BO3	597.00				597.00	532.10	64.90
Li3PO4	0.00				0.00	0.00	0.00
Na2B4O7	0.00				0.00	0.00	0.00
Na2C2O4	0.00				0.00	0.00	0.00
Na2CO3	25,249.00				25,249.00	22,504.35	2,744.65
NaCl	4,684.00				4,684.00	4,174.83	509.17
spare	0.00				0.00	0.00	0.00

STREAM NUMBER	13	14	15	16	17	18	19
STREAM NAME	SLUDGE	IX ZEOLITE	SAND FILTER	SLUDGE	WASHED	BD1	BD1
	WASH	SLURRY	SLURRY	WASH	PIREX	WASTE BLEND	HEEL FLUSH
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Eu(NO <sub>3</sub> ) <sub>3</sub>				0.00	0.00	0.00	
Eu <sub>2</sub> O <sub>3</sub>				0.00	0.00	0.00	
Eu(OH) <sub>3</sub>				0.00	7.50	0.00	
Fe				0.00	0.00	0.00	
Fe(NO <sub>3</sub> ) <sub>3</sub>				4.54	0.13	0.00	
FeO				0.00	0.00	0.00	
Fe(OH) <sub>3</sub>				0.00	66,040.00	0.00	
Fe <sub>2</sub> O <sub>3</sub>	1,957.43			0.00	0.00	1,957.43	
FePO <sub>4</sub>				0.00	6,351.00	0.00	
Gd(NO <sub>3</sub> ) <sub>3</sub>				0.00	0.00	0.00	
Gd <sub>2</sub> O <sub>3</sub>				0.00	0.00	0.00	
Gd(OH) <sub>3</sub>				0.00	1.70	0.00	
Ge(NO <sub>3</sub> ) <sub>4</sub>				0.00	0.00	0.00	
GeO <sub>2</sub>				0.00	0.00	0.00	
Ge(OH) <sub>4</sub>				0.00	0.00	0.00	
H <sub>3</sub> BO <sub>3</sub>				0.00	0.00	0.00	
H <sub>2</sub> CO <sub>3</sub>				0.95	0.03	0.00	
H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>				0.00	0.00	0.00	
HCl				0.00	0.00	0.00	
HF				0.00	0.00	0.00	
HNO <sub>3</sub>				0.00	0.00	0.00	
H <sub>2</sub> SO <sub>4</sub>				0.00	0.00	0.00	
Hg				0.00	0.00	0.00	
Hg <sub>2</sub> Cl <sub>2</sub>				0.00	0.00	0.00	
HgCl <sub>2</sub>				0.00	0.00	0.00	
Hg(NO <sub>3</sub> ) <sub>2</sub>				0.00	0.00	0.00	
HgO				0.00	0.00	0.00	
Hg(OH) <sub>2</sub>				0.00	23.00	0.00	
In(NO <sub>3</sub> ) <sub>3</sub>				0.00	0.00	0.00	
In <sub>2</sub> O <sub>3</sub>				0.00	0.00	0.00	
In(OH) <sub>3</sub>				0.00	0.30	0.00	
K <sub>2</sub> CrO <sub>4</sub>			540.15		15.65	0.00	
KMnO <sub>4</sub>			0.00		0.00	0.00	
KN <sub>3</sub>			3,832.09		111.01	0.00	
K <sub>2</sub> O			0.00		0.00	0.00	
KOH			0.00		0.00	0.00	
La(NO <sub>3</sub> ) <sub>3</sub>			0.00		0.00	0.00	
La <sub>2</sub> O <sub>3</sub>			0.00		0.00	0.00	
La(OH) <sub>3</sub>			0.00		185.00	0.00	
LiOH			0.00		0.00	0.00	
LiNO <sub>3</sub>			1.48		0.04	0.00	
Li <sub>2</sub> O			0.00		0.00	0.00	
MgCO <sub>3</sub>			0.03		826.00	0.00	
Mg(NO <sub>3</sub> ) <sub>2</sub>			0.21		0.01	0.00	
MgO	391.49		0.00		0.00	391.49	
Mg(OH) <sub>2</sub>			0.00		0.00	0.00	
Mn(NO <sub>3</sub> ) <sub>2</sub>			0.00		0.00	0.00	
MnO			0.00		0.00	0.00	
MnO <sub>2</sub>			0.00		4,581.00	0.00	
Mn(OH) <sub>2</sub>			0.00		0.00	0.00	
MoO <sub>3</sub>	16.78		0.00		0.00	16.78	
Na <sub>3</sub> BO <sub>3</sub>			63.07		1.83	0.00	
Li <sub>3</sub> PO <sub>4</sub>			0.00		0.00	0.00	
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>			0.00		0.00	0.00	
Na <sub>2</sub> C <sub>2</sub> O <sub>4</sub>			0.00		0.00	0.00	
Na <sub>2</sub> CO <sub>3</sub>			2,667.38		77.27	0.00	
NaCl			494.83		14.34	0.00	
spare			0.00		0.00	0.00	

STREAM NUMBER	20 BD4	21 BD4	22 ADJUSTED WATER	23 CAUSTIC THOREX WASTE	24 CAUSTIC ADDITION TO BD2	25 WATER FLUSH TO BD2	26 NEUTRALIZED TANK FLUSH
STREAM NAME	CHEMICAL ADD						THOREX WASTE IN BD2
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Eu(NO3)3			1.00				0.00
Eu2O3			0.00				0.00
Eu(OH)3			0.00				0.60
Fe			0.00				0.00
Fe(NO3)3			8,462.00				0.00
FeO			0.00				0.00
Fe(OH)3			0.00				3,736.26
Fe2O3			0.00				0.00
FePO4			0.00				0.00
Gd(NO3)3			0.40				0.00
Gd2O3			0.00				0.00
Gd(OH)3			0.00				0.24
Ge(NO3)4			0.02				0.00
GeO2			0.00				0.00
Ge(OH)4			0.00				0.01
H3BO3			480.00				0.00
H2CO3			0.00				0.00
H2C2O4			0.00				0.00
HCl			0.00				0.00
HF			0.00				0.00
HNO3			2,805.00				0.00
H2SO4			0.00				0.00
Hg			0.00				0.00
Hg2Cl2			0.00				0.00
Hg212			0.00				0.00
Hg(NO3)2			0.00				0.00
HgO			0.00				0.00
Hg(OH)2			0.00				0.00
In(NO3)3			0.04				0.00
In2O3			0.00				0.00
In(OH)3			0.00				0.02?
K2CrO4			0.00				0.00
KMnO4			98.00				98.00
KNO3			191.00				191.00
K2O			0.00				0.00
KOH			0.00				0.00
La(NO3)3			22.00				0.00
La2O3			0.00				0.00
La(OH)3			0.00				12.86
LiOH			0.00				0.00
LiNO3			0.00				0.00
Li2O			0.00				0.00
MgCO3			0.00				0.00
Mg(NO3)2			57.00				0.00
MgO			0.00				0.00
Mg(OH)2			0.00				22.40
Mn(NO3)2			0.00				0.00
MnO			0.00				0.00
MnO2			0.00				0.00
Mn(OH)2			0.00				0.00
MoO3			0.00				0.00
Na3BO3			0.00				991.98
Li3PO4			0.00				0.00
Na2B4O7			0.00				0.00
Na2C2O4			0.00				0.00
Na2CO3			0.00				0.00
NaCl			50.00				50.00
spare			0.00				0.00

STREAM NUMBER	27 VITRIFICATION SYSTEM FEED BD2	28 BD2 SLURRY TRANSFER FLUSH	29 SBS RECYCLE	30 CANISTER DECON SOLN RECYCLE	31 HEME FLUSH/COND RECYCLE	32 LWTS CONCENTRATE RECYCLE	33 WASTE HEADER RECYCLE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Eu(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Eu2O3	0.00E+00		2.46E-02		8.22E-04		
Eu(OH)3	8.10E+00		0.00E+00		0.00E+00		
Fe	0.00E+00		0.00E+00		0.00E+00		
Fe(NO3)3	1.32E-01		0.00E+00		0.00E+00		
FeO	0.00E+00		0.00E+00		0.00E+00		
Fe(OH)3	6.98E+04		0.00E+00	0.00E+00	0.00E+00		
Fe2O3	1.96E+03		1.86E+02		6.20E+00		
FePO4	6.35E+03		0.00E+00		0.00E+00		
Gd(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Gd2O3	0.00E+00		5.47E-03		1.82E-04		
Gd(OH)3	1.94E+00		0.00E+00		0.00E+00		
Ge(NO3)4	0.00E+00		0.00E+00		0.00E+00		
GeO2	0.00E+00		2.11E-05		7.03E-07		
Ge(OH)4	8.77E-03		0.00E+00		0.00E+00		
H3BO3	0.00E+00		0.00E+00		0.00E+00		
H2CO3	2.75E-02		0.00E+00		0.00E+00		
H2CO4	0.00E+00		0.00E+00		0.00E+00		
HCl	0.00E+00		0.00E+00		0.00E+00		
HF	0.00E+00		0.00E+00		0.00E+00		
HNO3	0.00E+00		3.57E+02		3.33E+00		
H2SO4	0.00E+00		0.00E+00		0.00E+00		
Hg	0.00E+00		5.45E+00		1.05E+00		
Hg2Cl2	0.00E+00		0.00E+00		0.00E+00		
Hg2I2	0.00E+00		0.00E+00		0.00E+00		
Hg(NO3)2	0.00E+00		0.00E+00		0.00E+00		
HgO	0.00E+00		0.00E+00		0.00E+00		
Hg(OH)2	2.30E+01		0.00E+00		0.00E+00		
In(NO3)3	0.00E+00		0.00E+00		0.00E+00		
In2O3	0.00E+00		8.72E-04		2.91E-05		
In(OH)3	3.22E-01		0.00E+00		0.00E+00		
K2CrO4	1.56E+01		0.00E+00		0.00E+00		
KMnO4	9.80E+01		0.00E+00		0.00E+00		
KNO3	3.02E+02		0.00E+00		0.00E+00		
K2O	0.00E+00		5.73E+01		1.91E+00		
KOH	0.00E+00		0.00E+00		0.00E+00		
La(NO3)3	0.00E+00		0.00E+00		0.00E+00		
La2O3	0.00E+00		5.49E-01		1.83E-02		
La(OH)3	1.98E+02		0.00E+00		0.00E+00		
LiOH	0.00E+00		0.00E+00		0.00E+00		
LiNO3	4.28E-02		0.00E+00		0.00E+00		
Li2O	0.00E+00		4.84E+01		1.61E+00		
MgCO3	8.26E+02		0.00E+00		0.00E+00		
Mg(NO3)2	6.12E-03		0.00E+00		0.00E+00		
MgO	3.91E+02		1.38E+01		4.60E-01		
Mg(OH)2	2.24E+01		0.00E+00		0.00E+00		
Mn(NO3)2	0.00E+00		0.00E+00		0.00E+00		
MnO	0.00E+00		1.53E+01		5.12E-01		
MnO2	4.58E+03		0.00E+00		0.00E+00		
Mn(OH)2	0.00E+00		0.00E+00		0.00E+00		
MoO3	1.68E+01		5.37E-01		2.73E-02		
Na3BO3	9.94E+02		0.00E+00		0.00E+00		
Li3PO4	0.00E+00		0.00E+00		0.00E+00		
Na2B4O7	0.00E+00		0.00E+00		0.00E+00		
Na2C2O4	0.00E+00		0.00E+00		0.00E+00		0.00E+00
Na2CO3	7.73E+01		0.00E+00		0.00E+00		
NaCl	6.43E+01		1.78E+01		3.45E+00		
spare	0.00E+00		0.00E+00		0.00E+00		

STREAM NUMBER	34 NONROUTINE WASTE RECYCLE	35 DILUTE CFMUT WASTE FEED	36 CONCENTRATED CFMUT WASTE	37 CFMUT WASTE OVERHEADS	38 GLASS FORMERS	39 MADE-UP MELTER FEED	40 MELTER FEED
COMPONENT	KG	kg	kg	kg	kg	kg	kg
Eu(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Eu2O3		2.55E-02	2.55E-02	3.81E-05		2.55E-02	2.55E-02
Eu(OH)3		8.10E+00	8.10E+00	1.21E-02		8.10E+00	8.10E+00
Fe		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Fe(NO3)3		1.32E-01	1.32E-01	1.97E-04		1.32E-01	1.32E-01
FeO		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Fe(OH)3		6.98E+04	6.98E+04	1.04E+02		6.98E+04	6.98E+04
Fe2O3		2.15E+03	2.15E+03	3.21E+00	8.90E+01	2.24E+03	2.24E+03
FePO4		6.35E+03	6.35E+03	9.49E+00		6.35E+03	6.35E+03
Gd(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Gd2O3		5.65E-03	5.65E-03	8.44E-06		5.65E-03	5.65E-03
Gd(OH)3		1.94E+00	1.94E+00	2.90E-03		1.94E+00	1.94E+00
Ge(NO3)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
GeO2		2.18E-05	2.18E-05	3.26E-08		2.18E-05	2.18E-05
Ge(OH)4		8.77E-03	8.77E-03	1.31E-05		8.77E-03	8.77E-03
H3BO3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
H2CO3		2.75E-02	2.75E-02	4.12E-05		NEGLIGIBLE	NEGLIGIBLE
H2C2O4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
HCl		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
HF		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
HNO3		3.61E+02	0.00E+00	5.39E-01	1.58E+05	NEGLIGIBLE	NEGLIGIBLE
H2SO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Hg		6.51E+00	6.51E+00	9.72E-03		6.51E+00	6.51E+00
HgCl2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
HgCl2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Hg(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
HgO		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Hg(OH)2		2.30E+01	2.30E+01	3.44E-02		2.30E+01	2.30E+01
In(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
In2O3		9.01E-04	9.01E-04	1.35E-06		9.01E-04	9.01E-04
In(OH)3		3.22E-01	3.22E-01	4.81E-04		3.22E-01	3.22E-01
K2CrO4		1.56E+01	1.56E+01	2.34E-02		1.56E+01	1.56E+01
KMnO4		9.80E+01	9.80E+01	1.46E-01		9.80E+01	9.80E+01
KNO3		3.02E+02	3.02E+02	4.51E-01		3.79E+04	3.79E+04
K2O		5.92E+01	5.92E+01	8.84E-02		5.92E+01	5.92E+01
KOH		0.00E+00	0.00E+00	0.00E+00	2.09E+04	0.00E+00	0.00E+00
La(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
La2O3		5.67E-01	5.67E-01	8.47E-04		5.67E-01	5.67E-01
La(OH)3		1.98E+02	1.98E+02	2.96E-01		1.98E+02	1.98E+02
LiOH		0.00E+00	0.00E+00	0.00E+00	2.40E+04	0.00E+00	0.00E+00
LiNO3		4.28E-02	4.28E-02	6.40E-05		6.90E+04	6.90E+04
Li2O		5.00E+01	5.00E+01	7.47E-02		5.00E+01	5.00E+01
MgCO3		8.26E+02	8.26E+02	1.23E+00		8.26E+02	8.26E+02
Mg(NO3)2		6.12E-03	6.12E-03	9.15E-06		1.28E+04	1.28E+04
MgO		4.06E+02	4.06E+02	6.06E-01		4.06E+02	4.06E+02
Mg(OH)2		2.24E+01	2.24E+01	3.35E-02	5.02E+03	2.24E+01	2.24E+01
Mn(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
MnO		1.59E+01	1.59E+01	2.37E-02		1.59E+01	1.59E+01
MnO2		4.58E+03	4.58E+03	6.85E+00	2.04E+03	6.62E+03	6.62E+03
Mn(OH)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
MoO3		1.73E+01	1.73E+01	2.59E-02		1.73E+01	1.73E+01
Na3BO3		9.94E+02	9.94E+02	1.49E+00		9.94E+02	9.94E+02
Li3PO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Na2B4O7		0.00E+00	0.00E+00	0.00E+00	6.88E+04	6.88E+04	6.88E+04
Na2C2O4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Na2CO3		7.73E+01	7.73E+01	1.15E-01		7.73E+01	7.73E+01
NaCl		8.56E+01	8.56E+01	1.28E-01		8.56E+01	8.56E+01
spare		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00

STREAM NUMBER	41	42	43	44	45	46
STREAM NAME	AIR	GLASS	FILLED GLASS	SFCM	FILM COOLER	PRESSURE
	INLEAKAGE TO SFCM	PRODUCTION	CANISTER ( / CANISTER)	OFF GAS	AIR	CONTROL AIR
COMPONENT	kg	kg	kg	kg	kg	kg
Eu(NO <sub>3</sub> ) <sub>3</sub>		0.00	Eu(NO <sub>3</sub> ) <sub>3</sub>	0.0000	0.00E+00	
Eu <sub>2</sub> O <sub>3</sub>		7.62	Eu <sub>2</sub> O <sub>3</sub>	0.0300	2.55E-02	
Eu(OH) <sub>3</sub>		0.00	Eu(OH) <sub>3</sub>	0.0000	0.00E+00	
Fe		0.00	Fe	0.0000	0.00E+00	
Fe(NO <sub>3</sub> ) <sub>3</sub>		0.00	Fe(NO <sub>3</sub> ) <sub>3</sub>	0.0000	0.00E+00	
FeO		0.00	FeO	0.0000	0.00E+00	
Fe(OH) <sub>3</sub>		0.00	Fe(OH) <sub>3</sub>	0.0000	0.00E+00	
Fe <sub>2</sub> O <sub>3</sub>		57,544.10	Fe <sub>2</sub> O <sub>3</sub>	226.1960	1.92E+02	
FePO <sub>4</sub>		0.00	FePO <sub>4</sub>	0.0000	0.00E+00	
Gd(NO <sub>3</sub> ) <sub>3</sub>		0.00	Gd(NO <sub>3</sub> ) <sub>3</sub>	0.0000	0.00E+00	
Gd <sub>2</sub> O <sub>3</sub>		1.69	Gd <sub>2</sub> O <sub>3</sub>	0.0066	5.65E-03	
Gd(OH) <sub>3</sub>		0.00	Gd(OH) <sub>3</sub>	0.0000	0.00E+00	
Ge(NO <sub>3</sub> ) <sub>4</sub>		0.00	Ge(NO <sub>3</sub> ) <sub>4</sub>	0.0000	0.00E+00	
GeO <sub>2</sub>		0.01	GeO <sub>2</sub>	0.6000	2.18E-05	
Ge(OH) <sub>4</sub>		0.00	Ge(OH) <sub>4</sub>	0.0000	0.00E+00	
H <sub>3</sub> BO <sub>3</sub>		0.00	H <sub>3</sub> BO <sub>3</sub>	0.0000	0.00E+00	
H <sub>2</sub> CO <sub>3</sub>		0.00	H <sub>2</sub> CO <sub>3</sub>	0.0000	0.00E+00	
H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>		0.00	H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	0.0000	0.00E+00	
HCl		0.00	HCl	0.0000	0.00E+00	
HF		0.00	HF	0.0000	0.00E+00	
HNO <sub>3</sub>		0.00	HNO <sub>3</sub>	0.0000	0.00E+00	
H <sub>2</sub> SO <sub>4</sub>		0.00	H <sub>2</sub> SO <sub>4</sub>	0.0000	0.00E+00	
Hg		19.63	Hg	0.0772	6.54E+00	
Hg <sub>2</sub> Cl <sub>2</sub>		0.00	Hg <sub>2</sub> Cl <sub>2</sub>	0.0000	0.00E+00	
Hg <sub>2</sub> I <sub>2</sub>		0.00	Hg <sub>2</sub> I <sub>2</sub>	0.0000	0.00E+00	
Hg(NO <sub>3</sub> ) <sub>2</sub>		0.00	Hg(NO <sub>3</sub> ) <sub>2</sub>	0.0000	0.00E+00	
HgO		0.00	HgO	0.0000	0.00E+00	
Hg(OH) <sub>2</sub>		0.00	Hg(OH) <sub>2</sub>	0.0000	0.00E+00	
In(NO <sub>3</sub> ) <sub>3</sub>		0.00	In(NO <sub>3</sub> ) <sub>3</sub>	0.0000	0.00E+00	
In <sub>2</sub> O <sub>3</sub>		0.27	In <sub>2</sub> O <sub>3</sub>	0.0011	9.02E-04	
In(OH) <sub>3</sub>		0.00	In(OH) <sub>3</sub>	0.0000	0.00E+00	
K <sub>2</sub> CrO <sub>4</sub>		0.00	K <sub>2</sub> CrO <sub>4</sub>	0.0000	0.00E+00	
KMnO <sub>4</sub>		0.00	KMnO <sub>4</sub>	0.0000	0.00E+00	
KN <sub>3</sub>		0.00	KN <sub>3</sub>	0.0000	0.00E+00	
K <sub>2</sub> O		17,709.53	K <sub>2</sub> O	69.6131	5.92E+01	
KOH		0.00	KOH	0.0000	0.00E+00	
La(NO <sub>3</sub> ) <sub>3</sub>		0.00	La(NO <sub>3</sub> ) <sub>3</sub>	0.0000	0.00E+00	
La <sub>2</sub> O <sub>3</sub>		169.71	La <sub>2</sub> O <sub>3</sub>	0.6671	5.68E-01	
La(OH) <sub>3</sub>		0.00	La(OH) <sub>3</sub>	0.0000	0.00E+00	
LiOH		0.00	LiOH	0.0000	0.00E+00	
LiNO <sub>3</sub>		0.00	LiNO <sub>3</sub>	0.0000	0.00E+00	
Li <sub>2</sub> O		14,955.77	Li <sub>2</sub> O	58.7886	5.00E+01	
MgCO <sub>3</sub>		0.00	MgCO <sub>3</sub>	0.0000	0.00E+00	
Mg(NO <sub>3</sub> ) <sub>2</sub>		0.00	Mg(NO <sub>3</sub> ) <sub>2</sub>	0.0000	0.00E+00	
MgO		4,273.08	MgO	16.7967	1.43E+01	
Mg(OH) <sub>2</sub>		0.00	Mg(OH) <sub>2</sub>	0.0000	0.00E+00	
Mn(NO <sub>3</sub> ) <sub>2</sub>		0.00	Mn(NO <sub>3</sub> ) <sub>2</sub>	0.0000	0.00E+00	
MnO		4,747.86	MnO	18.6630	1.59E+01	
MnO <sub>2</sub>		0.00	MnO <sub>2</sub>	0.0000	0.00E+00	
Mn(OH) <sub>2</sub>		0.00	Mn(OH) <sub>2</sub>	0.0000	0.00E+00	
MoO <sub>3</sub>		56.00	MoO <sub>3</sub>	0.2201	5.66E-01	
Na <sub>3</sub> BO <sub>3</sub>		0.00	Na <sub>3</sub> BO <sub>3</sub>	0.0000	0.00E+00	
Li <sub>3</sub> PO <sub>4</sub>		0.00	Li <sub>3</sub> PO <sub>4</sub>	0.0000	0.00E+00	
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>		0.00	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	0.0000	0.00E+00	
Na <sub>2</sub> C <sub>2</sub> O <sub>4</sub>		0.00	Na <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	0.0000	0.00E+00	
Na <sub>2</sub> CO <sub>3</sub>		0.00	Na <sub>2</sub> CO <sub>3</sub>	0.0000	0.00E+00	
NaCl		64.22	NaCl	0.2524	2.14E+01	
spare		0.00	spare	0.0000	0.00E+00	

STREAM NUMBER STREAM NAME	47 OFF GAS TO SBS	48 SBS CHEMICAL ADD	49 SBS AIR SPARGE	50 SBS OFF GAS	51 VESSEL VENT GAS	52 OGD CHEMICAL ADD	53 OGD OFF GAS
COMPONENT KG	kg	kg	kg	kg	kg	kg	kg
Eu(No3)3	0.00E+00			0.00E+00			0.00E+00
Eu2O3	2.55E-02			8.50E-04			8.50E-04
Eu(OH)3	0.00E+00			0.00E+00			0.00E+00
Fe	0.10E+00			0.00E+00			0.00E+00
Fe(No3)3	0.00E+00			0.00E+00			0.00E+00
FeO	0.00E+00			0.00E+00			0.00E+00
Fe(OH)3	0.00E+00			0.00E+00			0.00E+00
Fe2O3	1.92E+02			6.42E+00			6.42E+00
FePO4	0.00E+00			0.00E+00			0.00E+00
Gd(No3)3	0.00E+00			0.00E+00			0.00E+00
Gd2O3	5.55E-03			1.88E-04			1.88E-04
Gd(OH)3	0.00E+00			0.00E+00			0.00E+00
Ge(No3)4	0.00E+00			0.00E+00			0.00E+00
GeO2	2.18E-05			7.27E-07			7.27E-07
Ge(OH)4	0.00E+00			0.00E+00			0.00E+00
H3BO3	0.00E+00			0.00E+00			0.00E+00
H2CO3	0.00E+00			0.00E+00			0.00E+00
H2C2O4	0.00E+00			0.00E+00			0.00E+00
HCl	0.00E+00			0.00E+00			0.00E+00
HF	0.00E+00			0.00E+00			0.00E+00
HNO3	0.00E+00			0.00E+00			0.00E+00
H2SO4	0.00E+00			0.00E+00			0.00E+00
Hg	6.54E+00			1.09E+00			1.09E+00
Hg2Cl2	0.00E+00			0.00E+00			0.00E+00
Hg212	0.00E+00			0.00E+00			0.00E+00
Hg(No3)2	0.00E+00			0.00E+00			0.00E+00
HgO	0.00E+00			0.00E+00			0.00E+00
Hg(OH)2	0.00E+00			0.00E+00			0.00E+00
In(No3)3	0.00E+00			0.00E+00			0.00E+00
In2O3	9.02E-04			3.01E-05			3.01E-05
In(OH)3	0.00E+00			0.00E+00			0.00E+00
K2CrO4	0.00E+00			0.00E+00			0.00E+00
KMnO4	0.00E+00			0.00E+00			0.00E+00
KNO3	0.00E+00			0.00E+00			0.00E+00
K2O	5.92E+01			1.97E+00			1.97E+00
KOH	0.00E+00			0.00E+00			0.00E+00
La(No3)3	0.00E+00			0.00E+00			0.00E+00
La2O3	5.68E-01			1.89E-02			1.89E-02
La(OH)3	0.00E+00			0.00E+00			0.00E+00
LiOH	0.00E+00			0.00E+00			0.00E+00
LiNo3	0.00E+00			0.00E+00			0.00E+00
Li2O	5.00E+01			1.67E+00			1.67E+00
MgCO3	0.00E+00			0.00E+00			0.00E+00
Mg(No3)2	0.00E+00			0.00E+00			0.00E+00
MgO	1.43E+01			4.76E-01			4.76E-01
Mg(OH)2	0.00E+00			0.00E+00			0.00E+00
Mn(No3)2	0.00E+00			0.00E+00			0.00E+00
MnO	1.59E+01			5.29E-01			5.29E-01
MnO2	0.00E+00			0.00E+00			0.00E+00
Mn(OH)2	0.00E+00			0.00E+00			0.00E+00
MoO3	5.66E-01			2.83E-02			2.83E-02
Na3BO3	0.00E+00			0.00E+00			0.00E+00
Li3PO4	0.00E+00			0.00E+00			0.00E+00
Na2B4O7	0.00E+00			0.00E+00			0.00E+00
Na2C2O4	0.00E+00			0.00E+00			0.00E+00
Na2CO3	0.00E+00			0.00E+00			0.00E+00
NaCl	2.14E+01			3.57E+00			3.57E+00
spare	0.00E+00			0.00E+00			0.00E+00

STREAM NUMBER	54 HEME CHEMICAL ADD	55 HEME OFF GAS	56 FILTER PREHEATER OFF GAS	57 HEPA FILTER OFF GAS	58 TRENCH HEATER OFF GAS
COMPONENT	KG	kg	kg	kg	kg
Eu(NO <sub>3</sub> ) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Eu <sub>2</sub> O <sub>3</sub>		2.83E-05	2.83E-05	2.83E-11	2.83E-11
Eu(OH) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe(NO <sub>3</sub> ) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
FeO		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe(OH) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe <sub>2</sub> O <sub>3</sub>		2.14E-01	2.14E-01	2.14E-07	2.14E-07
FePO <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gd(NO <sub>3</sub> ) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gd <sub>2</sub> O <sub>3</sub>		6.28E-06	6.28E-06	6.28E-12	6.28E-12
Gd(OH) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ge(NO <sub>3</sub> ) <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
GeO <sub>2</sub>		2.42E-08	2.42E-08	2.42E-14	2.42E-14
Ge(OH) <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
H <sub>3</sub> BO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
H <sub>2</sub> CO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>		0.00E+00	0.00E+00	0.00F+00	0.00E+00
HCl		0.00E+00	0.00E+00	0.00E+00	0.00E+00
HF		0.00E+00	0.00E+00	0.00E+00	0.00E+00
HNO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
H <sub>2</sub> SO <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg		3.64E-02	3.64E-02	3.64E-08	3.64E-08
Hg <sub>2</sub> Cl <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
HgCl <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg(NO <sub>3</sub> ) <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
HgO		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg(OH) <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
In(NO <sub>3</sub> ) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
In <sub>2</sub> O <sub>3</sub>		1.00E-06	1.00E-06	1.00E-12	1.00E-12
In(OH) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
K <sub>2</sub> CrO <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
KMnO <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
KNO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
K <sub>2</sub> O		6.58E-02	6.58E-02	6.58E-08	6.58E-08
KOH		0.00E+00	0.00E+00	0.00E+00	0.00E+00
La(NO <sub>3</sub> ) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
La <sub>2</sub> O <sub>3</sub>		6.31E-04	6.31E-04	6.31E-10	6.31E-10
La(OH) <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
LiOH		0.00E+00	0.00E+00	0.00E+00	0.00E+00
LiNO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Li <sub>2</sub> O		5.56E-02	5.56E-02	5.56E-08	5.56E-08
MgCO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mg(NO <sub>3</sub> ) <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
MgO		1.59E-02	1.59E-02	1.59E-08	1.59E-08
Mg(OH) <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mn(NO <sub>3</sub> ) <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
MnO		1.76E-02	1.76E-02	1.76E-08	1.76E-08
MnO <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mn(OH) <sub>2</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
MoO <sub>3</sub>		9.43E-04	9.43E-04	9.43E-10	9.43E-10
Na <sub>3</sub> BO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
L <sub>1</sub> <sub>3</sub> PO <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na <sub>2</sub> C <sub>2</sub> O <sub>4</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na <sub>2</sub> CO <sub>3</sub>		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaCl		1.19E-01	1.19E-01	1.19E-07	1.19E-07
spare		0.00E+00	0.00E+00	0.00E+00	0.00E+00

STREAM NUMBER STREAM NAME	COMPONENT	MOLECULAR WEIGHT	1	2	3	4	5
			THOREX SUPERNATANT	THOREX SLUDGE	THOREX WASTE	PUREX SUPERNATANT	PUREX SLUDGE
			2/26/87	2/26/87	2/26/87	9/26/82	1/31/89
KG		kg	kg	kg	kg	kg	kg
Na2CrO4	161.97				0.00		
NaF	41.99		1.00	0.00	1.00	503.00	0.00
NaH2PO4	120.00				0.00		
NaHCO3	84.01				0.00	42,557.00	0.00
NaI	149.92				0.00		
H3PO4	98.00				0.00		
Na2MoO4	205.95		54.00	0.00	54.00	691.00	0.00
NaNO2	69.00				0.00	311,326.00	0.00
NaNO3	85.01		227.00	0.00	227.00	602,659.00	0.00
Na2O	61.98				0.00		
NaOH	40.01				0.00	17,537.00	0.00
Na3PO4	163.94		12.00	0.00	12.00	3,799.00	0.00
Na2PuO2(OH)4	385.00				0.00		
Na2RhO4	212.91				0.00		
Na2RuO4	211.07				0.00		
Na2SO4	142.06		180.00	0.00	180.00	76,261.00	0.00
Na2SeO4	188.96		1.00	0.00	1.00	15.00	0.00
Na2SiO3	122.08		126.00	0.00	126.00		
NaTcO4	186.00		11.00	0.00	11.00	177.00	0.00
Na2TeO4	237.58		5.00	0.00	5.00	82.00	0.00
Na2U2O7	634.00				0.00	231.00	0.00
Nd(NO3)3	330.35		73.00	0.00	73.00		
Nd2O3	336.48				0.00		
Nd(OH)3	234.26				0.00	0.00	621.00
Ni	58.71				0.00		
Ni(NO3)2	182.81		791.00	0.00	791.00		
NiO	74.71				0.00		
Ni(OH)2	92.74				0.00	0.00	1,088.00
Np(NO3)4	485.00		0.90	0.00	0.90		
NpO2	269.05				0.00	0.00	35.00
Np(OH)4	301.00				0.00		
P2O5	141.99				0.00		
Pa(NO3)4	279.04		0.70	0.00	0.70		
PaO2	263.04				0.00		
Pa(OH)4	299.04				0.00		
Pd	106.40				0.00		
Pd(NO3)2	230.42		8.00	0.00	8.00		
PdO	122.40				0.00		
Pd(OH)2	140.40				0.00	0.00	34.00
Pm(NO3)3	333.00		0.01	0.00	0.01		
Pm2O3	341.80				0.00		
Pm(OH)3	197.90				0.00	0.00	1.50
Pr(NO3)3	326.91		21.00	0.00	21.00		
Pr2O3	329.81				0.00		
Pr(OH)3	191.93				0.00	0.00	170.00
Pu(NO3)4	488.16		0.70	0.00	0.70		
PuO2	271.05				0.00	0.00	37.00
RbNO3	147.47		6.00	0.00	6.00	119.00	0.00
Rb2O	186.94				0.00		
Rh	102.91				0.00		
Rh(NO3)4	350.91		11.00	0.00	11.00		
RhO2	134.90				0.00		
Rh(OH)4	170.91				0.00	0.00	79.00
Ru	101.07				0.00		
Ru(NO3)4	349.07		42.00	0.00	42.00		
RuO2	133.07				0.00		
spare	165.07				0.00		
Ru(OH)4	169.07				0.00	0.00	458.00

STREAM NUMBER	6 PUREX WASTE	7 BD1 CONDENSATE	8 BD2 CHEMICAL ADD	9 BD2 WATER ADD	10 ADJUSTED PUREX WASTE	11 DECANTED PUREX SUPERNATANT	12 DECANTED PUREX SLUDGE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Na <sub>2</sub> CrO <sub>4</sub>	0.00				0.00	0.00	0.00
NaF	503.00				503.00	448.32	54.68
NaH <sub>2</sub> PO <sub>4</sub>	0.00				0.00	0.00	0.00
NaHCO <sub>3</sub>	42,557.00				42,557.00	37,930.91	4,626.09
NaI	0.00				0.00	0.00	0.00
H <sub>3</sub> PO <sub>4</sub>	0.00				0.00	0.00	0.00
Na <sub>2</sub> MoO <sub>4</sub>	691.00				691.00	615.89	75.11
NaNO <sub>2</sub>	311,326.00				311,326.00	277,483.81	33,842.19
NaNO <sub>3</sub>	602,659.00				602,659.00	537,147.93	65,511.07
Na <sub>2</sub> O	0.00				0.00	0.00	0.00
NaOH	17,537.00				17,537.00	15,630.67	1,906.33
Na <sub>3</sub> PO <sub>4</sub>	3,799.00				3,799.00	3,386.04	412.96
Na <sub>2</sub> PuO <sub>2</sub> (OH) <sub>4</sub>	0.00				0.00	0.00	0.00
Na <sub>2</sub> RhO <sub>4</sub>	0.00				0.00	0.00	0.00
Na <sub>2</sub> RuO <sub>4</sub>	0.00				0.00	0.00	0.00
Na <sub>2</sub> SO <sub>4</sub>	76,261.00				76,261.00	67,971.17	8,289.83
Na <sub>2</sub> SeO <sub>4</sub>	15.00				15.00	13.37	1.63
Na <sub>2</sub> SiO <sub>3</sub>	0.00				0.00	0.00	0.00
Na <sub>1</sub> C <sub>0</sub> 4	177.00				177.00	157.76	19.24
Na <sub>2</sub> TeO <sub>4</sub>	82.00				82.00	73.09	8.91
Na <sub>2</sub> U <sub>2</sub> O <sub>7</sub>	231.00				231.00	205.89	25.11
Nd(NO <sub>3</sub> ) <sub>3</sub>	0.00				0.00	0.00	0.00
Nd <sub>2</sub> O <sub>3</sub>	0.00				0.00	0.00	0.00
Nd(OH) <sub>3</sub>	621.00				621.00	0.00	621.00
Ni	0.00				0.00	0.00	0.00
Ni(NO <sub>3</sub> ) <sub>2</sub>	0.00				0.00	0.00	0.00
NiO	0.00				0.00	0.00	0.00
Ni(OH) <sub>2</sub>	1,088.00				1,088.00	0.00	1,088.00
Np(NO <sub>3</sub> ) <sub>4</sub>	0.00				0.00	0.00	0.00
NpO <sub>2</sub>	35.00				35.00	0.00	35.00
Np(OH) <sub>4</sub>	0.00				0.00	0.00	0.00
P <sub>2</sub> O <sub>5</sub>	0.00				0.00	0.00	0.00
Pa(NO <sub>3</sub> ) <sub>4</sub>	0.00				0.00	0.00	0.00
PaO <sub>2</sub>	0.00				0.00	0.00	0.00
Pa(OH) <sub>4</sub>	0.00				0.00	0.00	0.00
Pd	0.00				0.00	0.00	0.00
Pd(NO <sub>3</sub> ) <sub>2</sub>	0.00				0.00	0.00	0.00
PdO	0.00				0.00	0.00	0.00
Pd(OH) <sub>2</sub>	34.00				34.00	0.00	34.00
Pm(NO <sub>3</sub> ) <sub>3</sub>	0.00				0.00	0.00	0.00
Pm <sub>2</sub> O <sub>3</sub>	0.00				0.00	0.00	0.00
Pm(OH) <sub>3</sub>	1.50				1.50	0.00	1.50
Pr(NO <sub>3</sub> ) <sub>3</sub>	0.00				0.00	0.00	0.00
Pr <sub>2</sub> O <sub>3</sub>	0.00				0.00	0.00	0.00
Pr(OH) <sub>3</sub>	170.00				170.00	0.00	170.00
Pu(NO <sub>3</sub> ) <sub>4</sub>	0.00				0.00	0.00	0.00
PuO <sub>2</sub>	37.00				37.00	0.00	37.00
Rb <sub>2</sub> MoO <sub>3</sub>	119.00				119.00	106.06	12.94
Rb <sub>2</sub> O	0.00				0.00	0.00	0.00
Rh	0.00				0.00	0.00	0.00
Rh(NO <sub>3</sub> ) <sub>4</sub>	0.00				0.00	0.00	0.00
RhO <sub>2</sub>	0.00				0.00	0.00	0.00
Rh(OH) <sub>4</sub>	79.00				79.00	0.00	79.00
Ru	0.00				0.00	0.00	0.00
Ru(NO <sub>3</sub> ) <sub>4</sub>	0.00				0.00	0.00	0.00
RuO <sub>2</sub>	0.00				0.00	0.00	0.00
spare	0.00				0.00	0.00	0.00
Ru(OH) <sub>4</sub>	458.00				458.00	0.00	458.00

STREAM NUMBER	13	14	15	16	17	18	19
STREAM NAME	SLUDGE	IX ZEOLITE	SAND FILTER	SLUDGE	WASHED	BD1	BD1
	WASH	SLURRY	SLURRY	WASH	PUREX	WASTE BLEND	HEEL FLUSH
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Na2CrO4				0.00	0.00	0.00	
NaF				53.14	1.54	0.00	
NaH2PO4				0.00	0.00	0.00	
NaHCO3				4,495.85	130.24	0.00	
Nb1				0.00	0.00	0.00	
H3PO4				0.00	0.00	0.00	
Na2MoO4				73.00	2.11	0.00	
NaNO2				32,889.39	952.80	0.00	
NaNO3				63,666.66	1,844.40	0.00	
Na2O	3,830.29			0.00	0.00	3,830.29	
NaOH				1,852.66	53.67	0.00	
Na3PO4				401.34	11.63	0.00	
Na2PuO2(OH)4				0.00	0.00	0.00	
Na2RhO4				0.00	0.00	0.00	
Na2RuO4				0.00	0.00	0.00	
Na2SO4				8,056.44	233.39	0.00	
Na2SeO4				1.58	0.05	0.00	
Na2SiO3				0.00	0.00	0.00	
NaTcO4				18.70	0.54	0.00	
Na2TeO4				8.66	0.25	0.00	
Na2U2O7				24.40	0.71	0.00	
Nd(NO3)3				0.00	0.00	0.00	
Nd2O3				0.00	0.00	0.00	
Nd(OH)3				0.00	621.00	0.00	
Ni				0.00	0.00	0.00	
Ni(NO3)2				0.00	0.00	0.00	
NiO				0.00	0.00	0.00	
Ni(OH)2				0.00	1,088.00	0.00	
Np(NO3)4				0.00	0.00	0.00	
NpO2				0.00	35.00	0.00	
Np(OH)4				0.00	0.00	0.00	
P2O5				0.00	0.00	0.00	
Pa(NO3)4				0.00	0.00	0.00	
PaO2				0.17	0.00	0.00	
Pa(OH)4				0.00	0.00	0.00	
Pd				0.00	0.00	0.00	
Pd(NO3)2				0.00	0.00	0.00	
PdO				0.00	0.00	0.00	
Pd(OH)2				0.00	34.00	0.00	
Pm(NO3)3				0.00	0.00	0.00	
Pm2O3				0.00	0.00	0.00	
Pm(OH)3				0.00	1.50	0.00	
Pr(NO3)3				0.00	0.00	0.00	
Pr2O3				0.00	0.00	0.00	
Pr(OH)3				0.00	170.00	0.00	
Pu(NO3)4				0.00	0.00	0.00	
PuO2				0.00	37.00	0.00	
RbNO3				12.57	0.36	0.00	
Rb2O				0.00	0.00	0.00	
Rh				0.00	0.00	0.00	
Rh(NO3)4				0.00	0.00	0.00	
RhO2				0.00	0.00	0.00	
Rh(OH)4				0.00	79.00	0.00	
Ru				0.00	0.00	0.00	
Ru(NO3)4				0.00	0.00	0.00	
RuO2				0.00	0.00	0.00	
spare				0.00	0.00	0.00	
Ru(OH)4				0.00	458.00	0.00	

STREAM NUMBER	20	21	22	23	24	25	26
STREAM NAME	BD4	BD4	ADJUSTED	CAUSTIC	CAUSTIC	BD4	NEUTRALIZED
	CHEMICAL	WATER	THOREX	ADDITION	WATER FLUSH	TANK	THOREX WASTE
COMPONENT	ADD	ADD	WASTE	TO BD2	TO BD2	FLUSH	IN BD2
KG	kg	kg	kg	kg	kg	kg	kg
Na2CrO4				0.00			0.00
NaF				1.00			1.00
NaH2PO4				0.00			0.00
NaHCO3				0.00			0.00
NaI				0.00			0.00
Na3PO4				0.00			0.00
Na2MoO4				54.00			54.00
NaNO2				0.00			0.00
NaNO3				227.00			43,044.76
Na2O				0.00			0.00
NaOH				0.00	21,084.02		0.00
Na3PO4				12.00			12.00
Na2PuO2(OH)4				0.00			0.00
Na2RhO4				0.00			0.00
Na2RuO4				0.00			0.00
Na2SO4				180.00			165.32
Na2SeO4				1.00			1.00
Na2SiO3				126.00			126.00
NaTcO4				11.00			11.00
Na2TeO4				5.00			5.00
Na2U2O7				0.00			0.00
Nd(NO3)3				73.00			0.00
Nd2O3				0.00			0.00
Nd(OH)3				0.00			51.77
Ni				0.00			0.00
Ni(NO3)2				791.00			0.00
NiO				0.00			0.00
Ni(OH)2				0.00			401.28
Np(NO3)4				0.90			0.00
NpO2				0.00			0.00
Np(OH)4				0.00			0.56
P2O5				0.00			0.00
Pa(NO3)4				0.70			0.00
PaO2				0.00			0.00
Pa(OH)4				0.00			0.75
Pd				0.00			0.00
Pd(NO3)2				8.00			0.00
PdO				0.00			0.00
Pd(OH)2				0.00			4.87
Pm(NO3)3				0.01			0.00
Pm2O3				0.00			0.00
Pm(OH)3				0.00			0.01
Pr(NO3)3				21.00			0.00
Pr2O3				0.00			0.00
Pr(CH)3				0.00			12.33
Pu(NO3)4				0.70			0.00
PuO2				0.00			0.39
RbNO3				6.00			6.00
Rb2O				0.00			0.00
Rh				0.00			0.00
Rh(NO3)4				11.00			0.00
RhO2				0.00			0.00
Rh(OH)4				0.00			5.36
Ru				0.00			0.00
Ru(NO3)4				42.00			0.00
RuO2				0.00			0.00
spare				0.00			0.00
Ru(OH)4				0.00			20.34

STREAM NUMBER	27	28	29	30	31	32	33
STREAM NAME	VITRIFICATION SYSTEM FEED 8D2	8D2 SLURRY TRANSFER FLUSH	SBS RECYCLE	CANISTER DECON SOLN RECYCLE	HEME FLUSH/COND RECYCLE	LWTS CONCENTRATE RECYCLE	WASTE HEADER RECYCLE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Na2CrO4	0.00E+00		0.00E+00		0.00E+00		
NaF	2.54E+00		2.24E+02		4.33E+01		
NaH2PO4	0.00E+00		0.00E+00		0.00E+00		
NaHC03	1.30E+02		0.00E+00		0.00E+00		
NaI	0.00E+00		0.00E+00		0.00E+00		
H3P04	0.00E+00		0.00E+00		0.00E+00		
Na2Mo04	5.61E+01		0.00E+00		0.00E+00		
NaNO2	9.53E+02		0.00E+00	0.00E+00	0.00E+00		
NaNO3	4.49E+04		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na20	3.83E+03		5.89E+01		5.84E+00		
NaOH	5.37E+01		0.00E+00		0.00E+00		
Na3P04	2.36E+01		0.00E+00		0.00E+00		
Na2Pu02(OH)4	0.00E+00		0.00E+00		0.00E+00		
Na2Rh04	0.00E+00		0.00E+00		0.00E+00		
Na2Ru04	0.00E+00		0.00E+00		0.00E+00		
Na2S04	3.99E+02		2.68E+02		4.30E-02		
Na2Se04	1.05E+00		0.00E+00		0.00E+00		
Na2Si03	1.26E+02		0.00E+00		0.00E+00		
NaTc04	1.15E+01		0.00E+00		0.00E+00		
Na2Te04	5.25E+00		0.00E+00		0.00E+00		
Na2U207	7.07E-01		0.00E+00		0.00E+00		
Nd(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Nd203	0.00E+00		1.56E+00		5.21E-02		
Nd(OH)3	6.73E+02		0.00E+00		0.00E+00		
Ni	0.00E+00		0.00E+00		0.00E+00		
Ni(NO3)2	0.00E+00		0.00E+00		0.00E+00		
NiO	0.00E+00		3.88E+00		1.29E-01		
Ni(OH)2	1.49E+03		0.00E+00		0.00E+00		
Np(NO3)4	0.00E+00		0.00E+00		0.00E+00		
Np02	3.50E+01		1.15E-01		3.83E-03		
Np(OH)4	5.59E-01		0.00E+00		0.00E+00		
P205	0.00E+00		3.62E+01		1.21E+00		
Pa(NO3)4	0.00E+00		0.00E+00		0.00E+00		
Pa02	0.00E+00		2.13E-03		7.11E-05		
Pa(OH)4	7.50E-01		0.00E+00		0.00E+00		
Pd	0.00E+00		0.00E+00		0.00E+00		
Pd(NO3)2	0.00E+00		0.00E+00		0.00E+00		
Pd0	0.00E+00		1.10E-01		3.65E-03		
Pd(OH)2	3.89E+01		0.00E+00		0.00E+00		
Pm(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Pm203	0.00E+00		4.20E-03		1.40E-04		
Pm(OH)3	1.51E+00		0.00E+00		0.00E+00		
Pr(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Pr203	0.00E+00		5.06E-01		1.69E-02		
Pr(OH)3	1.82E+02		0.00E+00		0.00E+00		
Pu(NO3)4	0.00E+00		0.00E+00		0.00E+00		
Pu02	3.74E+01		1.21E-01		4.03E-03		
RbNO3	6.36E+00		0.00E+00		0.00E+00		
Rb20	0.00E+00		1.30E-02		4.35E-04		
Rh	0.00E+00		0.00E+00		0.00E+00		
Rh(NO3)4	0.00E+00		0.00E+00		0.00E+00		
Rh02	0.00E+00		2.15E-01		7.18E-03		
Rh(OH)4	8.44E+01		0.00E+00		0.00E+00		
Ru	0.00E+00		0.00E+00		0.00E+00		
Ru(NO3)4	0.00E+00		0.00E+00		0.00E+00		
Ru02	0.00E+00		3.97E+01		2.02E+00		
spare	0.00E+00		0.00E+00		0.00E+00		
Ru(OH)4	4.78E+02		0.00E+00		0.00E+00		

STREAM NUMBER	34	35	36	37	38	39	40
STREAM NAME	NONROUTINE WASTE RFC:CLE	DILUTE CFMUT WASTE FEED	CONCENTRATED CFMUT WASTE	CFMUT WASTE OVERHEADS	GLASS FORMERS	MADE-UP MELTER FEED	MELTER FEED
COMPONENT	KG	kg	kg	kg	kg	kg	kg
Na2CrO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
NaF		2.70E+02	2.70E+02	4.03E-01		2.70E+02	2.70E+02
NaH2PO4		0.00E+00	0.00E+00	0.00E+00	1.39E+04	0.00E+00	0.00E+00
NaHCO3		1.30E+02	1.30E+02	1.95E-01		1.30E+02	1.30E+02
NaI		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
H3PO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Na2MoO4		5.61E+01	5.61E+01	8.39E-02		5.61E+01	5.61E+01
NaNO2		9.53E+02	9.53E+02	1.42E+00		9.53E+02	9.53E+02
NaNO3		4.49E+04	4.49E+04	6.71E+01		4.84E+04	4.84E+04
Na2O		3.90E+03	3.90E+03	5.82E+00		3.90E+03	3.90E+03
NaOH		5.37E+01	5.37E+01	8.02E-02	1.09E+04	5.37E+01	5.37E+01
Na3PO4		2.36E+01	2.36E+01	3.53E-02		1.90E+04	1.90E+04
Na2PuO2(OH)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Na2RhO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Na2RuO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Na2SO4		6.67E+02	6.67E+02	9.96E-01		6.67E+02	6.67E+02
Na2SeO4		1.05E+00	1.05E+00	1.56E-03		1.05E+00	1.05E+00
Na2SiO3		1.26E+02	1.26E+02	1.88E-01		1.26E+02	1.26E+02
NaTcO4		1.15E+01	1.15E+01	1.72E-02		1.15E+01	1.15E+01
Na2TeO4		5.25E+00	5.25E+00	7.85E-03		5.25E+00	5.25E+00
Na2U2O7		7.07E-01	7.07E-01	1.06E-03		7.07E-01	7.07E-01
Nd(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Nd2O3		1.61E+00	1.61E+00	2.41E-03		1.61E+00	1.61E+00
Nd(OH)3		6.73E+02	6.73E+02	1.01E+00		6.73E+02	6.73E+02
Ni		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Ni(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
NiO		4.01E+00	4.01E+00	5.99E-03		4.01E+00	4.01E+00
Ni(OH)2		1.49E+03	1.49E+03	2.23E+00		1.49E+03	1.49E+03
Np(NO3)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
NpO2		3.51E+01	3.51E+01	5.25E-02		3.51E+01	3.51E+01
Np(OH)4		5.59E-01	5.59E-01	8.35E-04		5.59E-01	5.59E-01
P2O5		3.74E+01	3.74E+01	5.59E-02		3.74E+01	3.74E+01
Pa(NO3)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
PaO2		2.20E-03	2.20E-03	3.29E-06		2.20E-03	2.20E-03
Pa(OH)4		7.50E-01	7.50E-01	1.12E-03		7.50E-01	7.50E-01
Pd		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Pd(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
PdO		1.13E-01	1.13E-01	1.69E-04		1.13E-01	1.13E-01
Pd(OH)2		3.89E+01	3.89E+01	5.81E-02		3.89E+01	3.89E+01
Pm(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Pm2O3		4.34E-03	4.34E-03	6.49E-06		4.34E-03	4.34E-03
Pm(OH)3		1.51E+00	1.51E+00	2.25E-03		1.51E+00	1.51E+00
Pr(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Pr2O3		5.23E-01	5.23E-01	7.82E-04		5.23E-01	5.23E-01
Pr(OH)3		1.82E+02	1.82E+02	2.72E-01		1.82E+02	1.82E+02
Pu(NO3)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
PuO2		3.75E+01	3.75E+01	5.61E-02		3.75E+01	3.75E+01
RbNO3		6.36E+00	6.36E+00	9.51E-03		6.36E+00	6.36E+00
Rb2O		1.35E-02	1.35E-02	2.01E-05		1.35E-02	1.35E-02
Rh		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Rh(NO3)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
RhO2		2.22E-01	2.22E-01	3.32E-04		2.22E-01	2.22E-01
Rh(OH)4		8.44E+01	8.44E+01	1.26E-01		8.44E+01	8.44E+01
Ru		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Ru(NO3)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
RuO2		4.18E+01	4.18E+01	6.24E-02		4.18E+01	4.18E+01
spare		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Ru(OH)4		4.78E+02	4.78E+02	7.15E-01		4.78E+02	4.78E+02

STREAM NUMBER	41	42	43	44	45	46
STREAM NAME	AIR	GLASS	FILLED GLASS	SFCM	FILM COOLER	PRESSURE
	INLEAKAGE TO SFCM	PRODUCTION	CANISTER ( / CANISTER)	OFF GAS	AIR	CONTROL AIR
COMPONENT	KG	kg	kg	kg	kg	kg
Na2CrO4		0.00	Na2CrO4	0.0000	0.00E+00	
NaF		805.40	NaF	3.1659	2.68E+02	
NaH2PO4		0.00	NaH2PO4	0.0000	0.00E+00	
NaHCO3		0.00	NaHCO3	0.0000	0.00E+00	
NaI		0.00	NaI	0.0000	0.00E+00	
H3PO4		0.00	H3PO4	0.0000	0.00E+00	
Na2MoO4		0.00	Na2MoO4	0.0000	0.00E+00	
NaNO2		0.00	NaNO2	0.0000	0.00E+00	
NaNO3		0.00	NaNO3	0.0000	0.00E+00	
Na2O		54,220.59	Na2O	213.1319	1.81E+02	
NaOH		0.00	NaOH	0.0000	0.00E+00	
Na3PO4		0.00	Na3PO4	0.0000	0.00E+00	
Na2PuO2(OH)4		0.00	Na2PuO2(OH)4	0.0000	0.00E+00	
Na2RhO4		0.00	Na2RhO4	0.0000	0.00E+00	
Na2RuO4		0.00	Na2RuO4	0.0000	0.00E+00	
Na2SO4		398.71	Na2SO4	1.5673	1.33E+00	
Na2SeO4		0.00	Na2SeO4	0.0000	0.00E+00	
Na2SiO3		0.00	Na2SiO3	0.0000	0.00E+00	
NaTcO4		0.00	NaTcO4	0.0000	0.00E+00	
Na2TeO4		0.00	Na2TeO4	0.0000	0.00E+00	
Na2U2O7		0.00	Na2U2O7	0.0000	0.00E+00	
Nd(NO3)3		0.00	Nd(NO3)3	0.0000	0.00E+00	
Nd2O3		483.16	Nd2O3	1.8992	1.62E+00	
Nd(OH)3		0.00	Nd(OH)3	0.0000	0.00E+00	
Ni		0.00	Ni	0.0000	0.00E+00	
Ni(NO3)2		0.00	Ni(NO3)2	0.0000	0.00E+00	
NiO		1,199.74	NiO	4.7160	4.01E+00	
Ni(OH)2		0.00	Ni(OH)2	0.0000	0.00E+00	
Np(NO3)4		0.00	Np(NO3)4	0.0000	0.00E+00	
NpO2		35.50	NpO2	0.1395	1.19E-01	
Np(OH)4		0.00	Np(OH)4	0.0000	0.00E+00	
P2O5		11,204.96	P2O5	44.0448	3.75E+01	
Pa(NO3)4		0.00	Pa(NO3)4	0.0000	0.00E+00	
PaO2		0.66	PaO2	0.0026	2.21E-03	
Pa(OH)4		0.00	Pa(OH)4	0.0000	0.00E+00	
Pd		0.00	Pd	0.0000	0.00E+00	
Pd(NO3)2		0.00	Pd(NO3)2	0.0000	0.00E+00	
PdO		33.89	PdO	0.1332	1.13E-01	
Pd(OH)2		0.00	Pd(OH)2	0.0000	0.00E+00	
Pm(NO3)3		0.00	Pm(NO3)3	0.0000	0.00E+00	
Pm2O3		1.30	Pm2O3	0.0051	4.35E-03	
Pm(OH)3		0.00	Pm(OH)3	0.0000	0.00E+00	
Pr(NO3)3		0.00	Pr(NO3)3	0.0000	0.00E+00	
Pr2O3		156.66	Pr2O3	0.6158	5.24E-01	
Pr(OH)3		0.00	Pr(OH)3	0.0000	0.00E+00	
Pu(NO3)4		0.00	Pu(NO3)4	0.0000	0.00E+00	
PuO2		37.39	PuO2	0.1470	1.25E-01	
RbNO3		0.00	RbNO3	0.0000	0.00E+00	
Rb2O		4.03	Rb2O	0.0159	1.35E-02	
Rh		0.00	Rh	0.0000	0.00E+00	
Rh(NO3)4		0.00	Rh(NO3)4	0.0000	0.00E+00	
RhO2		66.58	RhO2	0.2617	2.23E-01	
Rh(OH)4		0.00	Rh(OH)4	0.0000	0.00E+00	
Ru		0.00	Ru	0.0000	0.00E+00	
Ru(NO3)4		0.00	Ru(NO3)4	0.0000	0.00E+00	
RuO2		376.42	RuO2	1.4796	4.18E+01	
spare		0.00	spare	0.0000	0.00E+00	
Ru(OH)4		0.00	Ru(OH)4	0.0000	0.00E+00	

STREAM NUMBER	47	48	49	50	51	52	53
STREAM NAME	OFF GAS TO SBS	SBS CHEMICAL ADD	SBS AIR SPARGE	SBS OFF GAS	VESSEL VENT GAS	OGD CHEMICAL ADD	OGD OFF GAS
COMPONENT							
KG	kg	kg	kg	kg	kg	kg	kg
Na <sub>2</sub> CrO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
NaF	2.68E+02			4.47E+01			4.47E+01
NaH <sub>2</sub> PO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
NaHCO <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
NaI	0.00E+00			0.00E+00			0.00E+00
H <sub>3</sub> PO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> MoO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
NaNO <sub>2</sub>	0.00E+00			0.00E+00			0.00E+00
NaNO <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> O	1.81E+02			6.04E+00			6.04E+00
NaOH	0.00E+00			0.00E+00			0.00E+00
Na <sub>3</sub> Po <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> PuO <sub>2</sub> (OH) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> RhO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> RuO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> SO <sub>4</sub>	1.33E+00			4.44E-02			4.44E-02
Na <sub>2</sub> SeO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> SiO <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
NaTcO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> TeO <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Na <sub>2</sub> U <sub>2</sub> O <sub>7</sub>	0.00E+00			0.00E+00			0.00E+00
Nd(NO <sub>3</sub> ) <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Nd <sub>2</sub> O <sub>3</sub>	1.62E+00			5.39E-02			5.39E-02
Nd(OH) <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Ni	0.00E+00			0.00E+00			0.00E+00
Ni(NO <sub>3</sub> ) <sub>2</sub>	0.00E+00			0.00E+00			0.00E+00
NiO	4.01E+00			1.34E-01			1.34E-01
Ni(OH) <sub>2</sub>	0.00E+00			0.00E+00			0.00E+00
Np(NO <sub>3</sub> ) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
NpO <sub>2</sub>	1.19E-01			3.96E-03			3.96E-03
Np(OH) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
P <sub>2</sub> O <sub>5</sub>	3.75E+01			1.25E+00			1.25E+00
Pa(NO <sub>3</sub> ) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
PaO <sub>2</sub>	2.21E-03			7.36E-05			7.36E-05
Pa(OH) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Pd	0.00E+00			0.00E+00			0.00E+00
Pd(NO <sub>3</sub> ) <sub>2</sub>	0.00E+00			0.00E+00			0.00E+00
PdO	1.13E-01			3.78E-03			3.78E-03
Pd(OH) <sub>2</sub>	0.00E+00			0.00E+00			0.00E+00
Pm(NO <sub>3</sub> ) <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Pm <sub>2</sub> O <sub>3</sub>	4.35E-03			1.45E-04			1.45E-04
Pm(OH) <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Pr(NO <sub>3</sub> ) <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Pr <sub>2</sub> O <sub>3</sub>	5.24E-01			1.75E-02			1.75E-02
Pr(OH) <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Pu(NO <sub>3</sub> ) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
PuO <sub>2</sub>	1.25E-01			4.17E-03			4.17E-03
RbNO <sub>3</sub>	0.00E+00			0.00E+00			0.00E+00
Rb <sub>2</sub> O	1.35E-02			4.50E-04			4.50E-04
Rh	0.00E+00			0.00E+00			0.00E+00
Rh(NO <sub>3</sub> ) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
RhO <sub>2</sub>	2.23E-01			7.42E-03			7.42E-03
Rh(OH) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
Ru	0.00E+00			0.00E+00			0.00E+00
Ru(NO <sub>3</sub> ) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00
RuO <sub>2</sub>	4.18E+01			2.09E+00			2.09E+00
spare	0.00E+00			0.00E+00			0.00E+00
Ru(OH) <sub>4</sub>	0.00E+00			0.00E+00			0.00E+00

STREAM NUMBER	54	55	56	57	58
STREAM NAME	HEME CHEMICAL ADD	HEME OFF GAS	FILTER PREHEATER OFF GAS	HEPA FILTER OFF GAS	TRENCH HEATER OFF GAS
COMPONENT	KG	kg	kg	kg	kg
Na2CrO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaF		1.49E+00	1.49E+00	1.49E-06	1.49E-06
NaH2PO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaHCO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaI		0.00E+00	0.00E+00	0.00E+00	0.00E+00
H3PO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2MoO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaNO2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaNO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2O		2.01E-01	2.01E-01	2.01E-07	2.01E-07
NaOH		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na3PO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2PuO2(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2RhO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2RuO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2SO4		1.48E-03	1.48E-03	1.48E-09	1.48E-09
Na2SeO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2SiO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaTcO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2TeO4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2U2O7		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nd(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nd2O3		1.80E-03	1.80E-03	1.80E-09	1.80E-09
Nd(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ni		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ni(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NiO		4.46E-03	4.46E-03	4.46E-09	4.46E-09
Ni(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Np(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NpO2		1.32E-04	1.32E-04	1.32E-10	1.32E-10
Np(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
P2O5		4.16E-02	4.16E-02	4.16E-08	4.16E-08
Pa(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
PaO2		2.45E-06	2.45E-06	2.45E-12	2.45E-12
Pa(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pd		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pd(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
PdO		1.26E-04	1.26E-04	1.26E-10	1.26E-10
Pd(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pm(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pm2O3		4.83E-06	4.83E-06	4.83E-12	4.83E-12
Pm(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pr(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pr2O3		5.82E-04	5.82E-04	5.82E-10	5.82E-10
Pr(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pu(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
PuO2		1.39E-04	1.39E-04	1.39E-10	1.39E-10
RbNO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rb2O		1.50E-05	1.50E-05	1.50E-11	1.50E-11
Rh		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rh(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
RhO2		2.47E-04	2.47E-04	2.47E-10	2.47E-10
Rh(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ru		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ru(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
RuO2		6.97E-02	6.97E-02	6.97E-08	6.97E-08
spare		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ru(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00

STREAM NUMBER STREAM NAME	COMPONENT KG	MOLECULAR WEIGHT	1	2	3	4	5
			THOREX SUPERNATANT 2/26/87	THOREX SLUDGE 2/26/87	THOREX WASTE 2/26/87	PUREX SUPERNATANT 9/26/82	PUREX SLUDGE 1/31/89
			kg	kg	kg	kg	kg
S03	80.07				0.00		
Sb(NO3)3	307.75		0.10	0.00	0.10		
Sb2O3	291.50				0.00		
Sb(OH)3	172.75				0.00	0.00	0.70
SeO2	110.96				0.00		
Si(NO3)4	276.10				0.00	230.00	0.00
SiO2	60.08				0.00	0.00	1,263.00
Sm(NO3)3	336.46		14.00	0.00	14.00		
Sm2O3	348.70				0.00		
Sm(OH)3	201.37				0.00	0.00	143.00
Sn(NO3)4	366.71		0.70	0.00	0.70	245.00	0.00
SnO2	150.70				0.00		
Sn(OH)4	186.69				0.00	0.00	2.50
SrCO3	147.64				0.00		
Sr(NO3)2	211.69		16.00	0.00	16.00	4.00	0.00
SrO	103.63				0.00		
Sr(OH)2	121.64				0.00		
SrSO4	183.70				0.00	0.00	217.00
SUGAR(C12H22O11)	342.30				0.00		
Tb(NO3)3	345.00		0.00	0.00	0.00		
Tb2O3	365.85				0.00		
Tb(OH)3	209.93				0.00		
Tc207	309.81				0.00		
TeO2	159.60				0.00		
Th(NO3)4	480.06		31,054.00	0.00	31,054.00		
ThO2	264.05				0.00		
Th(OH)4	300.04				0.00		
TiO2	79.90				0.00		
UO2(NO3)2	394.10		6.00	0.00	6.00		
UO2	270.07				0.00		
UO3	286.07				0.00		
UO2(OH)2	304.07				0.00	0.00	3,087.00
Y2(CO3)3	357.86				0.00		
Y(NO3)3	275.00		14.00	0.00	14.00		
Y2O3	225.81				0.00		
Y(OH)3	139.93				0.00	0.00	103.00
spare	1.00				0.00		
Zn(NO3)2	189.47		10.00	0.00	10.00		
ZnO	81.37				0.00		
Zn(OH)2	99.37				0.00		128.00
Zr(NO3)4	339.23		12.00	0.00	12.00		
ZrO2	123.22			35.00	35.00		
Zr(OH)4	159.25				0.00	0.00	964.00
TOTAL SOLIDS			51,090	35	51,125	1,129,038	97,171
CO	28.01				0.00E+00		
CO2	44.01				0.00E+00		
H2	2.02				0.00E+00		
N2	28.01				0.00E+00		
NO	30.01				0.00E+00		
NO2	46.01				0.00E+00		
O2	32.00				0.00E+00		
S03	80.00				0.00E+00		
TOTAL GASES			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EXCL H2O & TRACES							

STREAM NUMBER STREAM NAME	6 PUREX WASTE	7 BD1 CONDENSATE	8 BD2 CHEMICAL ADD	9 BD2 WATER ADD	10 ADJUSTED PUREX WASTE	11 DECANTED PUREX SUPERNATANT	12 DECANTED PUREX SLUDGE
COMPONENT KG	kg	kg	kg	kg	kg	kg	kg
SO3	0.00				0.00	0.00	0.00
Sb(NO3)3	0.00				0.00	0.00	0.00
Sb2O3	0.00				0.00	0.00	0.00
Sb(OH)3	0.70				0.70	0.00	0.70
SeO2	0.00				0.00	0.00	0.00
Si(NO3)4	230.00				230.00	205.00	25.00
SiO2	1,263.00	5,000.00			1,263.00	1,000.00	1,263.00
Sm(NO3)3	0.00				0.00	0.00	0.00
Sm2O3	0.00				0.00	0.00	0.00
Sm(OH)3	143.00				143.00	0.00	143.00
Sn(NO3)4	245.00				245.00	218.37	26.63
SnO2	0.00				0.00	0.00	0.00
Sn(OH)4	2.50				2.50	0.00	2.50
SrCO3	0.00				0.00	0.00	0.00
Sr(NO3)2	4.00				4.00	3.57	0.43
SrO	0.00				0.00	0.00	0.00
Sr(OH)2	0.00				0.00	0.00	0.00
SrSO4	217.00				217.00	0.00	217.00
SUGAR(C12H22O11)	0.00				0.00	0.00	0.00
Tb(NO3)3	0.00				0.00	0.00	0.00
Tb2O3	0.00				0.00	0.00	0.00
Tb(OH)3	0.00				0.00	0.00	0.00
Tc2O7	0.00				0.00	0.00	0.00
TeO2	0.00				0.00	0.00	0.00
Th(NO3)4	0.00				0.00	0.00	0.00
ThO2	0.00				0.00	0.00	0.00
Th(OH)4	0.00				0.00	0.00	0.00
TlO2	0.00				0.00	0.00	0.00
UO2(NO3)2	0.00				0.00	0.00	0.00
UO2	0.00				0.00	0.00	0.00
UO3	0.00				0.00	0.00	0.00
UO2(OH)2	3,087.00				3,087.00	0.00	3,087.00
Y2(CO3)3	0.00				0.00	0.00	0.00
Y(NO3)3	0.00				0.00	0.00	0.00
Y2O3	0.00				0.00	0.00	0.00
Y(OH)3	103.00				103.00	0.00	103.00
spare	0.00				0.00	0.00	0.00
Zn(NO3)2	0.00				0.00	0.00	0.00
ZnO	0.00				0.00	0.00	0.00
Zn(OH)2	128.00				128.00	0.00	128.00
Zr(NO3)4	0.00				0.00	0.00	0.00
ZrO2	0.00				0.00	0.00	0.00
Zr(OH)4	964.00				964.00	0.00	964.00
TOTAL SOLIDS	1,226,209	5,000			1,226,209	1,006,308	219,901
CO	0.00E+00	CO			0.00E+00	0.00E+00	0.00E+00
CO2	0.00E+00	CO2			0.00E+00	0.00E+00	0.00E+00
H2	0.00E+00	H2			0.00E+00	0.00E+00	0.00E+00
N2	0.00E+00	N2			0.00E+00	0.00E+00	0.00E+00
NO	0.00E+00	NO			0.00E+00	0.00E+00	0.00E+00
NO2	0.00E+00	NO2			0.00E+00	0.00E+00	0.00E+00
O2	0.00E+00	O2			0.00E+00	0.00E+00	0.00E+00
SO3	0.00E+00	SO3			0.00E+00	0.00E+00	0.00E+00
TOTAL GASES	0.00E+00	0.00E+00	TOTAL GASES		0.00E+00	0.00E+00	0.00E+00
EXCL H2O & TRACES			EXCL H2O & TRACES				

STREAM NUMBER	13	14	15	16	17	18	19
STREAM NAME	SLUDGE WASH WATER	IX ZEOLITE SLURRY BD1	SAND FILTER SLURRY BD1	SLUDGE WASH SUPERNATANT	WASHED PUREX SLUDGE	BD1 WASTE BLEND	BD1 HEEL FLUSH
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Sn3				0.00	0.00	0.00	
Sb(NO3)3				0.00	0.00	0.00	
Sb2O3				0.00	0.00	0.00	
Sb(OH)3				0.00	0.70	0.00	
SeO2				0.00	0.00	0.00	
Si(NO3)4				24.30	0.70	0.00	
SiO2	33,611.78		454.55	0.00	1,263.00	39,066.33	
Sm(NO3)3				0.00	0.00	0.00	
Sm2O3				0.00	0.00	0.00	
Sm(OH)3				0.00	143.00	0.00	
Sn(NO3)4				25.88	0.75	0.00	
SnO2				0.00	0.00	0.00	
Sn(OH)4				0.00	2.50	0.00	
SrCO3				0.00	0.00	0.00	
Sr(NO3)2				0.42	0.01	0.00	
SrO	22.37			0.00	0.00	22.37	
Sr(OH)2				0.00	0.00	0.00	
SrSO4				0.00	217.00	0.00	
SUGAR(C12H22O11)				0.00	0.00	0.00	
Tb(NO3)3				0.00	0.00	0.00	
Tb2O3				0.00	0.00	0.00	
Tb(OH)3				0.00	0.00	0.00	
Tc2O7				0.00	0.00	0.00	
TeO2				0.00	0.00	0.00	
Th(NO3)4				0.00	0.00	0.00	
ThO2				0.00	0.00	0.00	
Th(OH)4				0.00	0.00	0.00	
TiO2	16.78			0.00	0.00	16.78	
UO2(NO3)2				0.00	0.00	0.00	
UO2				0.00	0.00	0.00	
UO3				0.00	0.00	0.00	
UO2(OH)2				0.00	3,087.00	0.00	
Y2(CO3)3				0.00	0.00	0.00	
Y(NO3)3				0.00	0.00	0.00	
Y2O3				0.00	0.00	0.00	
Y(OH)3				0.00	103.00	0.00	
spare				0.00	0.00	0.00	
Zn(NO3)2				0.00	0.00	0.00	
ZnO				0.00	0.00	0.00	
Zn(OH)2				0.00	128.00	0.00	
Zr(NO3)4				0.00	0.00	0.00	
ZrO2	22.37			0.00	0.00	22.37	
Zr(OH)4				0.00	964.00	0.00	
TOTAL SOLIDS	0	49,588	455	119,275	100,626	55,042	
CO				0.00E+00	0.00E+00	0.00E+00	CO
CO2				0.00E+00	0.00E+00	0.00E+00	CO2
H2				0.00E+00	0.00E+00	0.00E+00	H2
N2				0.00E+00	0.00E+00	0.00E+00	N2
NO				0.00E+00	0.00E+00	0.00E+00	NO
NO2				0.00E+00	0.00E+00	0.00E+00	NO2
O2				0.00E+00	0.00E+00	0.00E+00	O2
SO3				0.00E+00	0.00E+00	0.00E+00	SO3
TOTAL GASES	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	TOTAL GASES
EXCL H2O & TRACES							EXCL H2O & TRACES

STREAM NUMBER	20	21	22	23	24	25	26
STREAM NAME	BD4	BD4	ADJUSTED	CAUSTIC	CAUSTIC	BD4	NEUTRALIZED
	CHEMICAL	WATER	THOREX	ADDITION	WATER FLUSH	TANK	THOREX WASTE
COMPONENT	ADD	ADD	WASTE	TO BD2	TO BD2	FLUSH	IN BD2
KG	kg	kg	kg	kg	kg	kg	kg
SO3				0.00			0.00
Sb(NO3)3				0.10			0.00
Sb2O3				0.00			0.00
Sb(OH)3				0.00			0.00
SeO2				0.00			0.06
Si(NO3)4				0.00			0.00
SiO2				0.00			0.00
Sm(NO3)3				14.00			0.00
Sm2O3				0.00			0.00
Sm(OH)3				0.00			8.38
Sn(NO3)4				0.70			0.00
SnO2				0.00			0.00
Sn(OH)4				0.00			0.36
SrCO3				0.00			0.00
Sr(NO3)2				16.00			0.00
SrO				0.00			0.00
Sr(OH)2				0.00			0.00
SrSO4				0.00			13.88
SUGAR(C12H22O11)				0.00			0.00
Tb(NO3)3				0.00			0.00
Tb2O3				0.00			0.00
Tb(OH)3				0.00			0.00
Tc2O7				0.00			0.00
TeO2				0.00			0.00
Th(NO3)4				31,054.00			0.00
ThO2				0.00			0.00
Th(OH)4				0.00			19,408.91
TiO2				0.00			0.00
UO2(NO3)2				6.00			0.00
UO2				0.00			0.00
UO3				0.00			0.00
UD2(OH)2				0.00			4.63
Y2(CO3)3				0.00			0.00
Y(NO3)3				14.00			0.00
Y2O3				0.00			0.00
Y(OH)3				0.00			7.12
spare				0.00			0.00
Zn(NO3)2				10.00			0.00
ZnO				0.00			0.00
Zn(OH)2				0.00			5.24
Zr(NO3)4				12.00			0.00
ZrO2				35.00			35.00
Zr(OH)4				0.00			5.63
TOTAL SOLIDS				51,125	21,084	0	70,943
CO				0.00E+00			0.00E+00
CO2				0.00E+00			0.00E+00
H2				0.00E+00			0.00E+00
N2				0.00E+00			0.00E+00
NO				0.00E+00			0.00E+00
NO2				0.00E+00			0.00E+00
O2				0.00E+00			0.00E+00
SO3				0.00E+00			0.00E+00
TOTAL GASES				0.00E+00	0.00E+00	0.00E+00	0.00E+00
EXCL H2O							
& TRACES							

STREAM NUMBER	27	28	29	30	31	32	33
STREAM NAME	VITRIFICATION SYSTEM FEED BD2	BD2 SLURRY TRANSFER FLUSH	SBS RECYCLE	CANISTER DECON SOLN RECYCLE	HEME FLUSH/COND RECYCLE	LWTS CONCENTRATE RECYCLE	WASTE HEADER RECYCLE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
SO3	0.00E+00		NEGLIGIBLE		NEGLIGIBLE		
Sb(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Sb2O3	0.00E+00		2.06E-03		6.87E-05		
Sb(OH)3	7.56E-01		0.00E+00		0.00E+00		
SeO2	0.00E+00		2.69E-02		5.21E-03		
Si(NO3)4	7.04E-01		0.00E+00		0.00E+00		
SiO2	4.03E+04		6.65E+02		2.22E+01		
Sm(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Sm2O3	0.00E+00		4.24E-01		1.41E-02		
Sm(OH)3	1.51E+02		0.00E+00		0.00E+00		
Sn(NO3)4	7.50E-01		0.00E+00		0.00E+00		
SnO2	0.00E+00		8.45E-03		2.82E-04		
Sn(OH)4	2.86E+00		0.00E+00		0.00E+00		
SrCO3	0.00E+00		0.00E+00		0.00E+00		
Sr(NO3)2	1.22E-02		0.00E+00		0.00E+00		
SrO	2.24E+01		7.23E-02		2.41E-03		
Sr(OH)2	0.00E+00		0.00E+00		0.00E+00		
SrSO4	2.31E+02		7.46E-01		2.49E-02		
SUGAR(C12H22O11)	0.00E+00		0.00E+00		0.00E+00		
Tb(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Tb2O3	0.00E+00		6.86E-06		2.29E-07		
Tb(OH)3	2.43E-03		0.00E+00		0.00E+00		
Tc2O7	0.00E+00		8.89E-01		1.72E-01		
TeO2	0.00E+00		1.55E-01		2.99E-02		
Th(NO3)4	0.00E+00		0.00E+00		0.00E+00		
ThO2	0.00E+00		5.52E+01		1.84E+00		
Th(OH)4	1.94E+04		0.00E+00		0.00E+00		
TiO2	1.68E+01		1.40E+01		4.65E-01		
UO2(NO3)2	0.00E+00		0.00E+00		0.00E+00		
UO2	0.00E+00		8.88E+00		2.96E-01		
UO3	0.00E+00		0.00E+00		0.00E+00		
UO2(OH)2	3.09E+03		0.00E+00		0.00E+00		
Y2(CO3)3	0.00E+00		0.00E+00		0.00E+00		
Y(NO3)3	0.00E+00		0.00E+00		0.00E+00		
Y2O3	0.00E+00		2.87E-01		9.58E-03		
Y(OH)3	1.10E+02		0.00E+00		0.00E+00		
spare	0.00E+00		0.00E+00		0.00E+00		
Zn(NO3)2	0.00E+00		0.00E+00		0.00E+00		
ZnO	0.00E+00		3.53E-01		1.18E-02		
Zn(OH)2	1.33E+02		0.00E+00		0.00E+00		
Zr(NO3)4	0.00E+00		0.00E+00		0.00E+00		
ZrO2	5.74E+01		2.61E+00		8.70E-02		
Zr(OH)4	9.70E+02		0.00E+00		0.00E+00		
TOTAL SOLIDS	226,612	0	3,182	0	102	0	
CO	0.00E+00				CO		
CO2	0.00E+00				CO2		
H2	0.00E+00				H2		
N2	0.00E+00				N2		
NO	0.00E+00				NO		
NO2	0.00E+00				NO2		
O2	0.00E+00				O2		
SO3	0.00E+00				SO3		
TOTAL GASES	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	TOTAL GASES	0.00E+00
EXCL H2O & TRACES						EXCL H2O & TRACES	

STREAM NUMBER	34	35	36	37	38	39	40
STREAM NAME	NONROUTINE WASTE RECYCLE	DILUTE CFMUT WASTE FEED	CONCENTRATED CFMUT WASTE	CFMUT WASTE OVERHEADS	GLASS FORMERS	MADE-UP MELTER FEED	MELTER FEED
COMPONENT	kg	kg	kg	kg	kg	kg	kg
SO3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Sb(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Sb2O3		2.13E-03	2.13E-03	3.18E-06		2.13E-03	2.13E-03
Sb(OH)3		7.56E-01	7.56E-01	1.13E-03		7.56E-01	7.56E-01
SeO2		3.21E-02	3.21E-02	4.80E-05		3.21E-02	3.21E-02
Si(NO3)4		7.04E-01	7.04E-01	1.05E-03		7.04E-01	7.04E-01
SiO2		4.10E+04	4.10E+04	6.13E+01	1.65E+05	2.06E+05	2.06E+05
Sm(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Sm2O3		4.38E-01	4.38E-01	6.54E-04		4.38E-01	4.38E-01
Sm(OH)3		1.51E+02	1.51E+02	2.26E-01		1.51E+02	1.51E+02
Sn(NO3)4		7.50E-01	7.50E-01	1.12E-03		7.50E-01	7.50E-01
SnO2		8.73E-03	8.73E-03	1.30E-05		8.73E-03	8.73E-03
Sn(OH)4		2.86E+00	2.86E+00	4.27E-03		2.86E+00	2.86E+00
SrCO3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Sr(NO3)2		1.22E-02	1.22E-02	1.83E-05		1.22E-02	1.22E-02
SrO		2.24E+01	2.24E+01	3.35E-02		2.24E+01	2.24E+01
Sr(OH)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
SrSO4		2.32E+02	2.32E+02	3.46E-01		2.32E+02	2.32E+02
SUGAR(C12H22O11)		0.00E+00	0.00E+00	0.00E+00	1.12E+05	1.12E+05	1.12E+05
Tb(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Tb2O3		7.09E-06	7.09E-06	1.06E-08		7.09E-06	7.09E-06
Tb(OH)3		2.43E-03	2.43E-03	3.64E-06		2.43E-03	2.43E-03
Tc2O7		1.06E+00	1.06E+00	1.59E-03		1.06E+00	1.06E+00
TeO2		1.85E-01	1.85E-01	2.76E-04		1.85E-01	1.85E-01
Th(NO3)4		0.00E+00	6.87E+02	0.00E+00		6.87E+02	6.87E+02
ThO2		5.71E+01	5.71E+01	8.53E-02		5.71E+01	5.71E+01
Th(OH)4		1.94E+04	1.94E+04	2.90E+01		1.90E+04	1.90E+04
TiO2		3.12E+01	3.12E+01	4.66E-02	4.30E+03	4.33E+03	4.33E+03
UO2(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
UO2		9.18E+00	9.18E+00	1.37E-02		9.18E+00	9.18E+00
UO3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
UO2(OH)2		3.09E+03	3.09E+03	4.62E+00		3.09E+03	3.09E+03
Y2(CO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Y(NO3)3		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Y2O3		2.97E-01	2.97E-01	4.44E-04		2.97E-01	2.97E-01
Y(OH)3		1.10E+02	1.10E+02	1.65E-01		1.10E+02	1.10E+02
spare		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Zn(NO3)2		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
ZnO		3.65E-01	3.65E-01	5.45E-04		3.65E-01	3.65E-01
Zn(OH)2		1.33E+02	1.33E+02	1.99E-01		1.33E+02	1.33E+02
Zr(NO3)4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
ZrO2		6.01E+01	6.01E+01	8.98E-02		6.01E+01	6.01E+01
Zr(OH)4		9.70E+02	9.70E+02	1.45E+00		9.70E+02	9.70E+02
TOTAL SOLIDS		229,896	229,793	344	611,304	791,662	791,662
CO		0.00E+00	0.00E+00	0.00E+00			
CO2		0.00E+00	0.00E+00	0.00E+00	3.84E+01		
H2		0.00E+00	0.00E+00	0.00E+00			
N2		0.00E+00	0.00E+00	0.00E+00			
NO		0.00E+00	0.00E+00	0.00E+00			
NO2		0.00E+00	0.00E+00	0.00E+00			
O2		0.00E+00	0.00E+00	0.00E+00			
SO3		0.00E+00	0.00E+00	0.00E+00			
TOTAL GASES		0.00E+00	0.00E+00	0.00E+00	3.84E+01	0.00E+00	0.00E+00
EXCL H2O							
& TRACES							

STREAM NUMBER	41	42	43	44	45	46
STREAM NAME	AIR	GLASS PRODUCTION	FILLED GLASS CANISTER ( / CANISTER)	SFCM OFF GAS	FILM COOLER AIR	PRESSURE CONTROL AIR
COMPONENT						
	kg	kg	kg	kg	kg	kg
SO3		0.00	SO3	0.0000	0.00E+00	
Sb(NO3)3		0.00	Sb(NO3)3	0.0000	0.00E+00	
Sb2O3		0.64	Sb2O3	0.0025	2.13E-03	
Sb(OH)3		0.00	Sb(OH)3	0.0000	0.00E+00	
SeO2		0.61	SeO2	0.0024	3.23E-02	
Si(NO3)4		0.00	Si(NO3)4	0.0000	0.00E+00	
SiO2		205,819.85	SiO2	809.0428	6.88E+02	
Sm(NO3)3		0.00	Sm(NO3)3	0.0000	0.00E+00	
Sm2O3		131.07	Sm2O3	0.5152	4.38E-01	
Sm(OH)3		0.00	Sm(OH)3	0.0000	0.00E+00	
Sn(NO3)4		0.00	Sn(NO3)4	0.0000	0.00E+00	
SnO2		2.61	SnO2	0.0103	8.74E-03	
Sn(OH)4		0.00	Sn(OH)4	0.0000	0.00E+00	
SrCO3		0.00	SrCO3	0.0000	0.00E+00	
Sr(NO3)2		0.00	Sr(NO3)2	0.0000	0.00E+00	
SrO		22.38	SrO	0.0880	7.48E-02	
Sr(OH)2		0.00	Sr(OH)2	0.0000	0.00E+00	
SrSO4		230.88	SrSO4	0.9076	7.72E-01	
SUGAR(C12H22O11)		0.00	SUGAR(C12H22O11)	0.0000	0.00E+00	
Tb(NO3)3		0.00	Tb(NO3)3	0.0000	0.00E+00	
Tb2O3		0.00	Tb2O3	0.0000	7.09E-06	
Tb(OH)3		0.00	Tb(OH)3	0.0000	0.00E+00	
Tc2O7		9.61	Tc2O7	0.0378	1.07E+00	
TeO2		3.53	TeO2	0.0139	1.86E-01	
Th(NO3)4		0.00	Th(NO3)4	0.0000	0.00E+00	
ThO2		17,080.74	ThO2	67.1415	5.71E+01	
Th(OH)4		0.00	Th(OH)4	0.0000	0.00E+00	
TiO2		4,315.81	TiO2	16.9647	1.44E+01	
UO2(NO3)2		0.00	UO2(NO3)2	0.0000	0.00E+00	
UO2		2,746.53	UO2	10.7961	9.19E+00	
UO3		0.00	UO3	0.0000	0.00E+00	
UO2(OH)2		0.00	UO2(OH)2	0.0000	0.00E+00	
Y2(CO3)3		0.00	Y2(CO3)3	0.0000	0.00E+00	
Y(NO3)3		0.00	Y(NO3)3	0.0000	0.00E+00	
Y2O3		88.85	Y2O3	0.3493	2.97E-01	
Y(OH)3		0.00	Y(OH)3	0.0000	0.00E+00	
spare		0.00	spare	0.0000	0.00E+00	
Zn(NO3)2		0.00	Zn(NO3)2	0.0000	0.00E+00	
ZnO		109.11	ZnO	0.4289	3.65E-01	
Zn(OH)2		0.00	Zn(OH)2	0.0000	0.00E+00	
Zr(NO3)4		0.00	Zr(NO3)4	0.0000	0.00E+00	
ZrO2		807.62	ZrO2	3.1746	2.70E+00	
Zr(OH)4		0.00	Zr(OH)4	0.0000	0.00E+00	
TOTAL SOLIDS		483,359	TOTAL SOLIDS	1,900	2,777	
CO						
CO2					1.74E+05	
H2						
N2		8.89E+05				
NO						
NO2					1.42E+05	
O2		2.70E+05			1.69E+05	
SO3					1.50E+02	
TOTAL GASES	1.16E+06	0.00E+00		0.00E+00	1.37E+06	
EXCL H2O & TRACES					3.24E+06	1.04E+06

STREAM NUMBER	47	48	49	50	51	52	53
STREAM NAME	OFF GAS TO SBS	SBS CHEMICAL ADD	SBS AIR SPARGE	SBS OFF GAS	VESSEL VENT GAS	OGD CHEMICAL ADD	OGD OFF GAS
COMPONENT	kg	kg	kg	kg	kg	kg	kg
SO3	0.00E+00			0.00E+00			0.00E+00
Sb(NO3)3	0.00E+00			0.00E+00			0.00E+00
Sb2O3	2.13E-03			7.11E-05			7.11E-05
Sb(OH)3	0.00E+00			0.00E+00			0.00E+00
SeO2	3.23E-02			5.39E-03			5.39E-03
Si(NO3)4	0.00E+00			0.00E+00			0.00E+00
SiO2	6.88E+02			2.29E+01			2.29E+01
Sm(NO3)3	0.00E+00			0.00E+00			0.00E+00
Sm2O3	4.38E-01			1.46E-02			1.46E-02
Sm(OH)3	0.00E+00			0.00E+00			0.00E+00
Sn(NO3)4	0.00E+00			0.00E+00			0.00E+00
SnO2	8.74E-03			2.91E-04			2.91E-04
Sn(OH)4	0.00E+00			0.00E+00			0.00E+00
SrCO3	0.00E+00			0.00E+00			0.00E+00
Sr(NO3)2	0.00E+00			0.00E+00			0.00E+00
SrO	7.48E-02			2.49E-03			2.49E-03
Sr(OH)2	0.00E+00			0.00E+00			0.00E+00
SrSO4	7.72E-01			2.57E-02			2.57E-02
SUGAR(C12H22O11)	0.00E+00			0.00E+00			0.00E+00
Tb(NO3)3	0.00E+00			0.00E+00			0.00E+00
Tb2O3	7.09E-06			2.36E-07			2.36E-07
Tb(OH)3	0.00E+00			0.00E+00			0.00E+00
Tc2O7	1.07E+00			1.78E-01			1.78E-01
TeO2	1.86E-01			3.09E-02			3.09E-02
Th(NO3)4	0.00E+00			0.00E+00			0.00E+00
ThO2	5.71E+01			1.90E+00			1.90E+00
Th(OH)4	0.00E+00			0.00E+00			0.00E+00
TiO2	1.44E+01			4.81E-01			4.81E-01
UO2(NO3)2	0.00E+00			0.00E+00			0.00E+00
UO2	9.19E+00			3.06E-01			3.06E-01
UO3	0.00E+00			0.00E+00			0.00E+00
UO2(OH)2	0.00E+00			0.00E+00			0.00E+00
Y2(CO3)3	0.00E+00			0.00E+00			0.00E+00
Y(NO3)3	0.00E+00			0.00E+00			0.00E+00
Y2O3	2.97E-01			9.91E-03			9.91E-03
Y(OH)3	0.00E+00			0.00E+00			0.00E+00
spare	0.00E+00			0.00E+00			0.00E+00
Zn(NO3)2	0.00E+00			0.00E+00			0.00E+00
ZnO	3.65E-01			1.22E-02			1.22E-02
Zn(OH)2	0.00E+00			0.00E+00			0.00E+00
Zr(NO3)4	0.00E+00			0.00E+00			0.00E+00
ZrO2	2.70E+00			9.00E-02			9.00E-02
Zr(OH)4	0.00E+00			0.00E+00			0.00E+00
TOTAL SOLIDS	2,777			102			102
CO	0.00E+00	CO		0.00E+00			0.00E+00
CO2	1.74E+05	CO2		1.74E+05			1.74E+05
H2	0.00E+00	H2		0.00E+00			0.00E+00
N2	4.18E+06	N2	4.44E+04	4.22E+06	1.78E+06		6.00E+06
NO	0.00E+00	NO		0.00E+00			0.00E+00
NO2	1.42E+05	NO2		1.41E+05			1.41E+05
O2	1.17E+06	O2	1.35E+04	1.18E+06	5.40E+05		1.72E+06
SO3	1.50E+02	SO3		NEGLIGIBLE			0.00E+00
TOTAL GASES	5.66E+06	TOTAL GASES	5.79E+04	5.72E+06	2.32E+06		8.04E+06
EXCL H2O		EXCL H2O					
& TRACES		& TRACES					

STREAM NUMBER	54	55	56	57	58
STREAM NAME	HEME CHEMICAL ADD	HEME OFF GAS	FILTER PREHEATER OFF GAS	HEPA FILTER OFF GAS	TRENCH HEATER OFF GAS
COMPONENT	KG	kg	kg	kg	kg
SO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sb(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sb2O3		2.37E-06	2.37E-06	2.37E-12	2.37E-12
Sb(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
SeO2		1.80E-04	1.80E-04	1.80E-10	1.80E-10
Si(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
SiO2		7.65E-01	7.65E-01	7.65E-07	7.65E-07
Sm(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sm2O3		4.87E-04	4.87E-04	4.87E-10	4.87E-10
Sm(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sn(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
SnO2		9.71E-06	9.71E-06	9.71E-12	9.71E-12
Sn(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
SrCO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
SrO		8.32E-05	8.32E-05	8.32E-11	8.32E-11
Sr(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
SrSO4		8.58E-04	8.58E-04	8.58E-10	8.58E-10
SUGAR(C12H22O11)		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tb(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tb2O3		7.88E-09	7.88E-09	7.88E-15	7.88E-15
Tb(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tc2O7		5.93E-03	5.93E-03	5.93E-09	5.93E-09
TeO2		1.03E-03	1.03E-03	1.03E-09	1.03E-09
Th(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
ThO2		6.35E-02	6.35E-02	6.35E-08	6.35E-08
Th(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
TiO2		1.60E-02	1.60E-02	1.60E-08	1.60E-08
UO2(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
UO2		1.02E-02	1.02E-02	1.02E-08	1.02E-08
UO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
UO2(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y2(CO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y(NO3)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y2O3		3.30E-04	3.30E-04	3.30E-10	3.30E-10
Y(OH)3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
spare		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn(NO3)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZnO		4.05E-04	4.05E-04	4.05E-10	4.05E-10
Zn(OH)2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr(NO3)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZrO2		3.00E-03	3.00E-03	3.00E-09	3.00E-09
Zr(OH)4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL SOLIDS		3	3	3.40E-06	3.40E-06
CO		0.00E+00	0.00E+00	0.00E+00	0.00E+00
CO2		1.74E+05	1.74E+05	1.74E+05	1.74E+05
H2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
N2		6.00E+06	6.00E+06	6.00E+06	6.00E+06
NO		0.00E+00	0.00E+00	0.00E+00	0.00E+00
NO2		1.41E+05	1.41E+05	1.41E+05	1.41E+05
O2		1.72E+06	1.72E+06	1.72E+06	1.72E+06
SO3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL GASES		8.04E+06	8.04E+06	8.04E+06	8.04E+06
EXCL H2O & TRACES					

STREAM NUMBER RADIONUCLIDE	HALF LIFE YEARS	HEAT GENERATION WATTS/CURIE	1		2		3		4		5	
			THOREX SUPERNATANT	1990 Ci	THOREX SLUDGE	1990 Ci	THOREX WASTE	1990 Ci	PUREX SUPERNATANT	1990 Ci	PUREX SLUDGE	1990 Ci
3-H		1.23E+01	3.30E-05	1.47E+00	0.00E+00	1.47E+00	8.23E+01	0.00E+00				
14-C		5.73E+03	2.92E-04	1.30E-01	0.00E+00	1.30E-01	1.37E+02	0.00E+00				
55-Fe		2.60E+00	3.38E-05	2.53E+02	0.00E+00	2.53E+02	0.00E+00	4.49E+02				
60-Co		5.27E+00	1.54E-02	7.68E+02	0.00E+00	7.68E+02	0.00E+00	3.17E+00				
59-Ni		8.00E+04	3.97E-05	2.03E+01	0.00E+00	2.03E+01	0.00E+00	8.56E+01				
63-Ni		9.20E+01	3.97E-04	2.45E+03	0.00E+00	2.45E+03	8.69E+02	5.22E+03				
79-Se		6.50E+04	2.49E-04	3.35E+00	0.00E+00	3.35E+00	5.68E+01	0.00E+00				
90-Sr		2.91E+01	1.16E-03	4.23E+05	0.00E+00	4.23E+05	2.69E+03	6.28E+06				
90-Y		7.30E-03	5.54E-03	4.23E+05	0.00E+00	4.23E+05	2.69E+03	6.28E+06				
93-Zr		1.53E+06	1.16E-04	1.62E+01	0.00E+00	1.62E+01	2.56E-01	2.56E+02				
93m-Nb		1.36E+01	1.77E-04	1.11E+01	0.00E+00	1.11E+01	1.73E-01	1.71E+02				
99-Tc		2.13E+05	5.01E-04	1.04E+02	0.00E+00	1.04E+02	1.60E+03	0.00E+00				
106-Ru		1.01E+00	5.95E-05	7.96E-02	0.00E+00	7.96E-02	1.40E-02	1.40E+01				
106-Rh		9.48E-07	9.59E-03	7.97E-02	0.00E+00	7.97E-02	1.40E-02	1.40E+01				
107-Pd		6.50E+06	5.93E-05	1.14E-01	0.00E+00	1.14E-01	1.09E-02	1.09E+01				
113m-Cd		1.46E+01	1.68E-03	3.25E+01	0.00E+00	3.25E+01	2.09E+00	2.09E+03				
121m-Sn		5.00E+01	2.00E-03	5.75E-01	0.00E+00	5.75E-01	1.69E-02	1.69E+01				
126-Sn		1.00E+05	1.25E-03	3.11E+00	0.00E+00	3.11E+00	1.01E-01	1.01E+02				
125-Sb		2.77E+00	3.13E-03	1.36E+02	0.00E+00	1.36E+02	2.31E+01	7.13E+03				
126-Sb		3.40E+02	1.85E-02	4.35E-01	0.00E+00	4.35E-01	1.41E-02	1.41E+01				
126m-Sb		3.61E-05	1.27E-02	3.11E+00	0.00E+00	3.11E+00	1.01E-01	1.01E+02				
125m-Te		1.59E-01	8.41E-04	3.34E+01	0.00E+00	3.34E+01	5.67E+00	1.75E+03				
129-I		1.57E+07	4.63E-04	1.80E-01	0.00E+00	1.80E-01	2.10E-01	0.00E+00				
134-Cs		2.06E+00	1.02E-02	1.13E+02	0.00E+00	1.13E+02	5.07E+03	0.00E+00				
135-Cs		2.30E+06	3.34E-04	5.47E+00	0.00E+00	5.47E+00	1.56E+02	0.00E+00				
137-Cs		3.00E+01	1.11E-03	4.43E+05	0.00E+00	4.43E+05	6.77E+06	0.00E+00				
137m-Ba		4.85E-06	3.93E-03	4.19E+05	0.00E+00	4.19E+05	6.41E+06	0.00E+00				
144-Ce		7.79E-01	6.63E-04	9.63E-03	0.00E+00	9.63E-03	1.45E-06	6.38E-01				
144-Pr		3.29E-05	7.35E-03	9.64E-03	0.00E+00	9.64E-03	1.45E-06	6.39E-01				
146-Pm		5.50E+00	5.04E-03	3.47E-01	0.00E+00	3.47E-01	3.27E-02	1.05E+01				
147-Pm		2.62E+00	3.59E-04	4.12E+03	0.00E+00	4.12E+03	2.58E+02	8.37E+04				
151-Sm		9.00E+01	1.17E-04	4.67E+03	0.00E+00	4.67E+03	4.92E-01	7.96E+04				
152-Eu		1.36E+01	7.58E-03	4.14E+01	0.00E+00	4.14E+01	3.92E-02	3.24E+02				
154-Eu		8.60E+00	8.94E-03	1.99E+03	0.00E+00	1.99E+03	1.13E+01	9.34E+04				
155-Eu		4.96E+00	7.27E-04	5.55E+02	0.00E+00	5.55E+02	1.56E+00	2.33E+04				
207-Tl		9.08E-06	2.94E-03	8.19E+00	0.00E+00	8.19E+00	1.87E-08	8.55E-04				
208-Tl		5.84E-06	2.35E-02	2.18E+00	0.00E+00	2.18E+00	7.31E-02	1.04E+00				
209-Pb		3.76E-04	1.15E-03	2.08E-01	0.00E+00	2.08E-01	1.41E-04	1.97E-03				
211-Pb		6.87E-05	3.00E-03	8.22E+00	0.00E+00	8.22E+00	1.88E-08	8.57E-04				
212-Pb		1.21E-03	1.90E-03	6.08E+00	0.00E+00	6.08E+00	2.04E-01	2.88E+00				
211-Bi		4.05E-06	3.99E-02	8.22E+00	0.00E+00	8.22E+00	1.88E-08	8.57E-04				
212-Bi		1.15E-04	1.70E-02	6.08E+00	0.00E+00	6.08E+00	2.04E-01	2.88E+00				
213-Bi		8.68E-05	4.20E-03	2.08E-01	0.00E+00	2.08E-01	1.41E-04	1.97E-03				
212-Po		9.51E-15	5.30E-02	3.90E+00	0.00E+00	3.90E+00	1.30E-01	1.85E+00				
213-Po		1.33E-13	5.06E-02	2.03E-01	0.00E+00	2.03E-01	1.38E-04	1.93E-03				
215-Po		5.65E-11	4.46E-02	8.22E+00	0.00E+00	8.22E+00	1.88E-08	8.57E-04				
216-Po		4.76E-09	4.09E-02	6.08E+00	0.00E+00	6.08E+00	2.04E-01	2.88E+00				
217-At		1.02E-09	4.27E-02	2.08E-01	0.00E+00	2.08E-01	1.41E-04	1.97E-03				
219-Rn		1.26E-07	4.15E-02	8.22E+00	0.00E+00	8.22E+00	1.88E-08	8.57E-04				
220-Rn		1.76E-06	3.80E-02	6.08E+00	0.00E+00	6.08E+00	2.04E-01	2.88E+00				
221-Fr		9.13E-06	3.86E-02	2.08E-01	0.00E+00	2.08E-01	1.41E-04	1.97E-03				
223-Fr		4.15E-05	2.60E-03	1.13E-01	0.00E+00	1.13E-01	2.59E-10	1.18E-05				
223-Ra		3.13E-02	3.56E-02	8.22E+00	0.00E+00	8.22E+00	1.88E-08	8.57E-04				
224-Ra		1.00E-02	3.43E-02	6.08E+00	0.00E+00	6.08E+00	2.04E-01	2.88E+00				
225-Ra		4.06E-02	7.01E-04	2.08E-01	0.00E+00	2.08E-01	1.41E-04	1.97E-03				
228-Ra		6.70E+00	7.71E-05	1.52E+00	0.00E+00	1.52E+00	0.00E+00	5.09E-09				

STREAM NUMBER RADIONUCLIDE	6 PUREX WASTE	7 BD1 CONDENSATE	8 BD2 CHEMICAL ADD	9 WATER	10 ADJUSTED PUREX WASTE	11 DECANTED PUREX SUPERNATANT	12 DECANTED PUREX SLUDGE
CURIE	1990						
	Ci	Ci	Ci	Ci	Ci	Ci	Ci
3-H	8.23E+01				8.23E+01	7.33E+01	8.94E+00
14-C	1.37E+02				1.37E+02	1.22E+02	1.49E+01
55-Fe	4.49E+02				4.49E+02	0.00E+00	4.49E+02
60-Co	3.17E+00				3.17E+00	0.00E+00	3.17E+00
59-Ni	8.56E+01				8.56E+01	0.00E+00	8.56E+01
63-Ni	6.09E+03				6.09E+03	7.75E+02	5.32E+03
79-Se	5.68E+01				5.68E+01	5.06E+01	6.17E+00
90-Sr	6.28E+06	5.42E+02			6.28E+06	2.40E+03	6.28E+06
90-Y	6.28E+06	5.42E+02			6.28E+06	2.40E+03	6.28E+06
93-Zr	2.56E+02				2.56E+02	2.28E-01	2.56E+02
93m-Nb	1.71E+02				1.71E+02	1.54E-01	1.71E+02
99-Tc	1.60E+03				1.60E+03	1.43E+03	1.74E+02
106-Ru	1.41E+01				1.41E+01	1.25E-02	1.40E+01
106-Rh	1.41E+01				1.41E+01	1.25E-02	1.40E+01
107-Pd	1.09E+01				1.09E+01	9.72E-03	1.09E+01
113m-Cd	2.09E+03				2.09E+03	1.86E+00	2.09E+03
121m-Sn	1.69E+01				1.69E+01	1.50E-02	1.69E+01
126-Sn	1.01E+02				1.01E+02	9.00E-02	1.01E+02
125-Sb	7.15E+03				7.15E+03	2.06E+01	7.13E+03
126-Sb	1.42E+01				1.42E+01	1.26E-02	1.41E+01
126m-Sb	1.01E+02				1.01E+02	9.00E-02	1.01E+02
125m-Te	1.75E+03				1.75E+03	5.05E+00	1.75E+03
129-I	2.10E-01				2.10E-01	1.87E-01	2.28E-02
134-Cs	5.07E+03				5.07E+03	4.51E+03	5.51E+02
135-Cs	1.56E+02				1.56E+02	1.39E+02	1.70E+01
137-Cs	6.77E+06	5.44E+02			6.77E+06	6.04E+06	7.36E+05
137m-Ba	6.41E+06	5.15E+02			6.41E+06	5.71E+06	6.97E+05
144-Ce	6.38E-01				6.38E-01	1.29E-06	6.38E-01
144-Pr	6.39E-01				6.39E-01	1.29E-06	6.39E-01
146-Pm	1.05E+01				1.05E+01	2.91E-02	1.05E+01
147-Pm	8.39E+04				8.39E+04	2.30E+02	8.37E+04
151-Sm	7.96E+04				7.96E+04	4.38E-01	7.96E+04
152-Eu	3.24E+02				3.24E+02	3.50E-02	3.24E+02
154-Eu	9.35E+04				9.35E+04	1.01E+01	9.34E+04
155-Eu	2.33E+04				2.33E+04	1.39E+00	2.33E+04
207-Tl	8.55E-04				8.55E-04	1.67E-08	8.55E-04
208-Tl	1.11E+00				1.11E+00	6.51E-02	1.04E+00
209-Pb	2.11E-03				2.11E-03	1.26E-04	1.99E-03
211-Pb	8.57E-04				8.57E-04	1.67E-08	8.57E-04
212-Pb	3.09E+00				3.09E+00	1.81E-01	2.91E+00
211-Bi	8.57E-04				8.57E-04	1.67E-08	8.57E-04
212-Bi	3.09E+00				3.09E+00	1.81E-01	2.91E+00
213-Bi	2.11E-03				2.11E-03	1.26E-04	1.99E-03
212-Po	1.98E+00				1.98E+00	1.16E-01	1.86E+00
213-Po	2.07E-03				2.07E-03	1.23E-04	1.94E-03
215-Po	8.57E-04				8.57E-04	1.67E-08	8.57E-04
216-Po	3.09E+00				3.09E+00	1.81E-01	2.91E+00
217-At	2.11E-03				2.11E-03	1.26E-04	1.99E-03
219-Rn	8.57E-04				8.57E-04	1.67E-08	8.57E-04
220-Rn	3.09E+00				3.09E+00	1.81E-01	2.91E+00
221-Fr	2.11E-03				2.11E-03	1.26E-04	1.99E-03
223-Fr	1.18E-05				1.18E-05	2.31E-10	1.18E-05
223-Ra	8.57E-04				8.57E-04	1.67E-08	8.57E-04
224-Ra	3.09E+00				3.09E+00	1.81E-01	2.91E+00
225-Ra	2.11E-03				2.11E-03	1.26E-04	1.99E-03
228-Ra	5.09E-09				5.09E-09	0.00E+00	5.09E-09

STREAM NUMBER RADIONUCLIDE	13 SLUDGE WASH CURIE 3-H 14-C 55-Fe 60-Co 59-Ni 63-Ni 79-Se 90-Sr 90-Y 93-Zr 93m-Nb 99-Tc 106-Ru 106-Rh 107-Pd 113m-Cd 121m-Sn 126-Sn 125-Sb 126-Sb 126m-Sb 125m-Te 129-I 134-Cs 135-Cs 137-Cs 137m-Ba 144-Ce 144-Pr 146-Pm 147-Pm 151-Sm 152-Eu 154-Eu 155-Eu 207-Tl 208-Tl 209-Pb 211-Pb 212-Pb 211-Bi 212-Bi 213-Bi 212-Po 213-Po 215-Po 216-Po 217-At 219-Rn 220-Rn 221-Fr 223-Fr 223-Ra 224-Ra 225-Ra 228-Ra	14 IX ZEOLITE WATER Ci	15 SAND FILTER BD1 Ci	16 SLUDGE WASH Ci	17 WASHED PUREX Ci	18 BD1 WASTE BLEND Ci	19 BD1 HEEL FLUSH Ci
				8.69E+00	2.52E-01	0.00E+00	
				1.45E+01	4.19E-01	0.00E+00	
				0.00E+00	4.49E+02	0.00E+00	
				0.00E+00	3.17E+00	0.00E+00	
				0.00E+00	8.56E+01	0.00E+00	
				9.18E+01	5.22E+03	0.00E+00	
				6.00E+00	1.74E-01	0.00E+00	
				2.84E+02	6.28E+06	5.42E+02	
				2.84E+02	6.28E+06	5.42E+02	
				2.70E-02	2.56E+02	0.00E+00	
				1.82E-02	1.71E+02	0.00E+00	
				1.69E+02	4.90E+00	0.00E+00	
				1.48E-03	1.40E+01	0.00E+00	
				1.48E-03	1.40E+01	0.00E+00	
				1.15E-03	1.09E+01	0.00E+00	
				2.21E-01	2.09E+03	0.00E+00	
				1.78E-03	1.69E+01	0.00E+00	
				1.07E-02	1.01E+02	0.00E+00	
				2.44E+00	7.13E+03	0.00E+00	
				1.49E-03	1.41E+01	0.00E+00	
				1.07E-02	1.01E+02	0.00E+00	
				5.99E-01	1.75E+03	0.00E+00	
				2.22E-02	6.43E-04	0.00E+00	
		5.04E+03		5.35E+02	1.55E+01	5.04E+03	
		1.55E+02		1.65E+01	4.77E-01	1.55E+02	
		6.75E+06		7.16E+05	2.07E+04	6.75E+06	
		6.38E+06		6.77E+05	1.96E+04	6.38E+06	
				1.53E-07	6.38E-01	0.00E+00	
				1.53E-07	6.39E-01	0.00E+00	
				3.45E-03	1.05E+01	0.00E+00	
				2.73E+01	8.37E+04	0.00E+00	
				5.19E-02	7.96E+04	0.00E+00	
				4.14E-03	3.24E+02	0.00E+00	
				1.19E+00	9.34E+04	0.00E+00	
				1.65E-01	2.33E+04	0.00E+00	
				1.98E-09	8.55E-04	0.00E+00	
				7.72E-03	1.04E+00	0.00E+00	
				1.49E-05	1.97E-03	0.00E+00	
				1.98E-09	8.57E-04	0.00E+00	
				2.15E-02	2.89E+00	0.00E+00	
				1.98E-09	8.57E-04	0.00E+00	
				2.15E-02	2.89E+00	0.00E+00	
				1.49E-05	1.97E-03	0.00E+00	
				1.38E-02	1.85E+00	0.00E+00	
				1.46E-05	1.93E-03	0.00E+00	
				1.98E-09	8.57E-04	0.00E+00	
				2.15E-02	2.89E+00	0.00E+00	
				1.49E-05	1.97E-03	0.00E+00	
				1.98E-09	8.57E-04	0.00E+00	
				2.15E-02	2.89E+00	0.00E+00	
				1.49E-05	1.97E-03	0.00E+00	
				1.98E-09	8.57E-04	0.00E+00	
				2.15E-02	2.89E+00	0.00E+00	
				1.49E-05	1.97E-03	0.00E+00	
				1.98E-09	8.57E-04	0.00E+00	
				2.74E-11	1.18E-05	0.00E+00	
				1.98E-09	8.57E-04	0.00E+00	
				2.15E-02	2.89E+00	0.00E+00	
				1.49E-05	1.97E-03	0.00E+00	
				0.00E+00	5.09E-09	0.00E+00	

STREAM NUMBER RADIONUCLIDE	20 BD4 CHEMICAL	21 BD4 WATER	22 ADJUSTED THOREX WASTE	23 CAUSTIC ADDITION TO BD2 (50%)	24 CAUSTIC WATER FLUSH	25 BD4 TANK FLUSH	26 NEUTRALIZED THOREX WASTE IN BD2 Ci
CURIE	ADD Ci	ADD Ci	ci	ci	ci	ci	ci
3-H				1.47E+00			1.47E+00
14-C				1.30E-01			1.30E-01
55-Fe				2.53E+02			2.53E+02
60-Co				7.68E+02			7.68E+02
59-Ni				2.03E+01			2.03E+01
63-Ni				2.45E+03			2.45E+03
79-Se				3.35E+00			3.35E+00
90-Sr				4.23E+05			4.23E+05
90-Y				4.23E+05			4.23E+05
93-Zr				1.62E+01			1.62E+01
93m-Nb				1.11E+01			1.11E+01
99-Tc				1.04E+02			1.04E+02
106-Ru				7.96E-02			7.96E-02
106-Rh				7.97E-02			7.97E-02
107-Pd				1.14E-01			1.14E-01
113m-Cd				3.25E+01			3.25E+01
121m-Sn				5.75E-01			5.75E-01
126-Sn				3.11E+00			3.11E+00
125-Sb				1.36E+02			1.36E+02
126-Sb				4.35E-01			4.35E-01
126m-Sb				3.11E+00			3.11E+00
125m-Te				3.34E+01			3.34E+01
129-I				1.80E-01			1.80E-01
134-Cs				1.13E+02			1.13E+02
135-Cs				5.47E+00			5.47E+00
137-Cs				4.43E+05			4.43E+05
137m-Ba				4.19E+05			4.19E+05
144-Ce				9.63E-03			9.63E-03
144-Pr				9.64E-03			9.64E-03
146-Pm				3.47E-01			3.47E-01
147-Pm				4.12E+03			4.12E+03
151-Sm				4.67E+03			4.67E+03
152-Eu				4.14E+01			4.14E+01
154-Eu				1.99E+03			1.99E+03
155-Eu				5.55E+02			5.55E+02
207-Tl				8.19E+00			8.19E+00
208-Tl				2.18E+00			2.18E+00
209-Pb				2.08E-01			2.08E-01
211-Pb				8.22E+00			8.22E+00
212-Pb				6.08E+00			6.08E+00
211-Bi				8.22E+00			8.22E+00
212-Bi				6.08E+00			6.08E+00
213-Bi				2.08E-01			2.08E-01
212-Po				3.90E+00			3.90E+00
213-Po				2.03E-01			2.03E-01
215-Po				8.22E+00			8.22E+00
216-Po				6.08E+00			6.08E+00
217-At				2.08E-01			2.08E-01
219-Rn				8.22E+00			8.22E+00
220-Rn				6.08E+00			6.08E+00
221-Fr				2.08E-01			2.08E-01
223-Fr				1.13E-01			1.13E-01
223-Ra				8.22E+00			8.22E+00
224-Ra				6.08E+00			6.08E+00
225-Ra				2.08E-01			2.08E-01
228-Ra				1.52E+00			1.52E+00

STREAM NUMBER RADIONUCLIDE	27 VITRIFICATION SYSTEM FEED	28 B02 SLURRY TRANSFER	29 SBS RECYCLE	30 CANISTER DECON SOLN	31 HEME RECYCLE	32 LWTS CONCENTRATE	33 WASTE HEADER RECYCLE
CURIE	B02 Ci	FLUSH Ci		RECYCLE Ci	RECYCLE Ci	RECYCLE Ci	RECYCLE Ci
3-H	1.72E+00		2.01E-01		0.00E+00		
14-C	5.49E-01		NEGLIGIBLE		NEGLIGIBLE		
55-Fe	7.02E+02		2.27E+00		7.57E-02		
60-Co	7.71E+02		2.49E+00		8.31E-02		
59-Ni	1.06E+02		3.42E-01		1.14E-02		
63-Ni	7.68E+03		2.48E+01		8.27E-01		
79-Se	3.52E+00		1.55E-01		2.99E-02		
90-Sr	6.70E+06		2.17E+04		7.22E+02		
90-Y	6.70E+06		2.17E+04		7.22E+02		
93-Zr	2.72E+02		8.80E-01		2.93E-02		
93m-Nb	1.82E+02		5.88E-01		1.96E-02		
99-Tc	1.09E+02		1.01E+01		1.95E+00		
106-Ru	1.41E+01		1.49E+00		5.04E-02		
106-Rh	1.41E+01		4.57E-02		1.52E-03		
107-Pd	1.10E-01		3.56E-02		1.19E-03		
113m-Cd	2.12E+03		1.96E+02		3.80E+01		
121m-Sn	1.75E+01		5.64E-02		1.88E-03		
126-Sn	1.04E+02		3.37E-01		1.12E-02		
125-Sb	7.26E+03		2.35E+01		7.83E-01		
126-Sb	1.46E+01		4.71E-02		1.57E-03		
126m-Sb	1.04E+02		3.37E-01		1.12E-02		
125m-Te	1.78E+03		7.81E+01		1.51E+01		
129-I	1.81E-01		0.00E+00		0.00E+00		
134-Cs	5.17E+03		8.80E+01		1.70E+01		
135-Cs	1.61E+02		2.74E+00		5.30E-01		
137-Cs	7.21E+06		1.23E+05	0.00E+00	2.37E+04		
137m-Ba	6.82E+06		1.16E+05	0.00E+00	2.24E+04		
144-Ce	6.48E-01		2.09E-03		6.98E-05		
144-Pr	6.48E-01		2.10E-03		6.99E-05		
146-Pm	1.08E+01		3.50E-02		1.17E-03		
147-Pm	8.78E+04		2.84E+02		9.46E+00		
151-Sm	8.43E+04		2.73E+02		9.09E+00		
152-Eu	3.65E+02		1.18E+00		3.93E-02		
154-Eu	9.54E+04		3.09E+02		1.03E+01		
155-Eu	2.38E+04		7.70E+01		2.57E+00		
207-Tl	8.19E+00		2.65E-02		8.83E-04		
208-Tl	3.22E+00		1.04E-02		3.47E-04		
209-Pb	2.10E-01		6.77E-04		2.26E-05		
211-Pb	8.22E+00		2.66E-02		8.86E-04		
212-Pb	8.97E+00		2.90E-02		9.66E-04		
211-Bi	8.22E+00		2.66E-02		8.86E-04		
212-Bi	8.97E+00		2.90E-02		9.66E-04		
213-Bi	2.10E-01		6.77E-04		2.26E-05		
212-Po	5.75E+00		1.86E-02		6.20E-04		
213-Po	2.05E-01		6.62E-04		2.21E-05		
215-Po	8.22E+00		2.66E-02		8.86E-04		
216-Po	8.97E+00		2.90E-02		9.66E-04		
217-At	2.10E-01		6.77E-04		2.26E-05		
219-Rn	8.22E+00		2.66E-02		8.86E-04		
220-Rn	8.97E+00		2.90E-02		9.66E-04		
221-Fr	2.10E-01		6.77E-04		2.26E-05		
223-Fr	1.13E-01		3.67E-04		1.22E-05		
223-Ra	8.22E+00		2.66E-02		8.86E-04		
224-Ra	8.97E+00		2.90E-02		9.66E-04		
225-Ra	2.10E-01		6.77E-04		2.26E-05		
228-Ra	1.52E+00		4.92E-03		1.64E-04		

STREAM NUMBER RADIONUCLIDE	34 NONROUTINE CURIE	35 DILUTE WASTE RECYCLE	36 CONCENTRATED CFMUT WASTE FEED	37 CFMUT WASTE	38 OVERHEADS GLASS FORMERS	39 MADE-UP MELTER FEED	40 MELTER FEED
3-H		1.92E+00	2.32E-01	1.61E+00		2.32E-01	2.32E-01
14-C		5.49E-01	5.49E-01	8.20E-04		5.49E-01	5.49E-01
55-Fe		7.05E+02	7.05E+02	1.05E+00		7.05E+02	7.05E+02
60-Co		7.74E+02	7.74E+02	1.16E+00		7.74E+02	7.74E+02
59-Ni		1.06E+02	1.06E+02	1.59E-01		1.06E+02	1.06E+02
63-Ni		7.70E+03	7.70E+03	1.15E+01		7.70E+03	7.70E+03
79-Se		3.71E+00	3.71E+00	5.54E-03		3.71E+00	3.71E+00
90-Sr		6.72E+06	6.72E+06	1.00E+04		6.72E+06	6.72E+06
90-Y		6.72E+06	6.72E+06	1.00E+04		6.72E+06	6.72E+06
93-Zr		2.73E+02	2.73E+02	4.08E-01		2.73E+02	2.73E+02
93m-Nb		1.83E+02	1.83E+02	2.73E-01		1.83E+02	1.83E+02
99-Tc		1.21E+02	1.21E+02	1.81E-01		1.21E+02	1.21E+02
106-Ru		1.57E+01	1.57E+01	2.34E-02		1.57E+01	1.57E+01
106-Rh		1.42E+01	1.42E+01	2.12E-02		1.42E+01	1.42E+01
107-Pd		1.11E+01	1.11E+01	1.65E-02		1.11E+01	1.11E+01
113m-Cd		2.36E+03	2.36E+03	3.52E+00		2.36E+03	2.36E+03
121m-Sn		1.75E+01	1.75E+01	2.62E-02		1.75E+01	1.75E+01
126-Sn		1.04E+02	1.04E+02	1.56E-01		1.04E+02	1.04E+02
125-Sb		7.29E+03	7.29E+03	1.09E+01		7.29E+03	7.29E+03
126-Sb		1.46E+01	1.46E+01	2.19E-02		1.46E+01	1.46E+01
126m-Sb		1.04E+02	1.04E+02	1.56E-01		1.04E+02	1.04E+02
125m-Te		1.87E+03	1.87E+03	2.80E+00		1.87E+03	1.87E+03
129-I		1.81E-01	1.81E-01	2.70E-04		1.81E-01	1.81E-01
134-Cs		5.28E+03	5.28E+03	7.89E+00		5.28E+03	5.28E+03
135-Cs		1.65E+02	1.65E+02	2.46E-01		1.65E+02	1.65E+02
137-Cs		7.36E+06	7.36E+06	1.10E+04		7.36E+06	7.36E+06
137m-Ba		6.96E+06	6.96E+06	1.04E+04		6.96E+06	6.96E+06
144-Ce		6.50E-01	6.50E-01	9.71E-04		6.50E-01	6.50E-01
144-Pr		6.50E-01	6.50E-01	9.72E-04		6.50E-01	6.50E-01
146-Pm		1.09E+01	1.09E+01	1.62E-02		1.09E+01	1.09E+01
147-Pm		8.81E+04	8.81E+04	1.32E+02		8.81E+04	8.81E+04
151-Sm		8.46E+04	8.46E+04	1.26E+02		8.46E+04	8.46E+04
152-Eu		3.66E+02	3.66E+02	5.47E-01		3.66E+02	3.66E+02
154-Eu		9.57E+04	9.57E+04	1.43E+02		9.57E+04	9.57E+04
155-Eu		2.39E+04	2.39E+04	3.57E+01		2.39E+04	2.39E+04
207-Tl		8.22E+00	8.22E+00	1.23E-02		8.22E+00	8.22E+00
208-Tl		3.23E+00	3.23E+00	4.83E-03		3.23E+00	3.23E+00
209-Pb		2.10E-01	2.10E-01	3.14E-04		2.10E-01	2.10E-01
211-Pb		8.25E+00	8.25E+00	1.23E-02		8.25E+00	8.25E+00
212-Pb		9.00E+00	9.00E+00	1.34E-02		9.00E+00	9.00E+00
211-Bi		8.25E+00	8.25E+00	1.23E-02		8.25E+00	8.25E+00
212-Bi		9.00E+00	9.00E+00	1.34E-02		9.00E+00	9.00E+00
213-Bi		2.10E-01	2.10E-01	3.14E-04		2.10E-01	2.10E-01
212-Po		5.77E+00	5.77E+00	8.62E-03		5.77E+00	5.77E+00
213-Po		2.06E-01	2.06E-01	3.07E-04		2.06E-01	2.06E-01
215-Po		8.25E+00	8.25E+00	1.23E-02		8.25E+00	8.25E+00
216-Po		9.00E+00	9.00E+00	1.34E-02		9.00E+00	9.00E+00
217-At		2.10E-01	2.10E-01	3.14E-04		2.10E-01	2.10E-01
219-Rn		8.25E+00	8.25E+00	1.23E-02		8.25E+00	8.25E+00
220-Rn		9.00E+00	9.00E+00	1.34E-02		9.00E+00	9.00E+00
221-Fr		2.10E-01	2.10E-01	3.14E-04		2.10E-01	2.10E-01
223-Fr		1.14E-01	1.14E-01	1.70E-04		1.14E-01	1.14E-01
223-Ra		8.25E+00	8.25E+00	1.23E-02		8.25E+00	8.25E+00
224-Ra		9.00E+00	9.00E+00	1.34E-02		9.00E+00	9.00E+00
225-Ra		2.10E-01	2.10E-01	3.14E-04		2.10E-01	2.10E-01
228-Ra		1.53E+00	1.53E+00	2.28E-03		1.53E+00	1.53E+00

STREAM NUMBER RADIONUCLIDE CURIE	41 AIR INLEAKAGE TO SFOM Ci	42 GLASS PRODUCTION Ci	43 FILLED GLASS CANISTERS Ci	44 SFOM OFF GAS Ci	45 FILM COOLER AIR Ci	46 PRESSURE CONTROL AIR Ci
3-H		0.00	3-H	0.00	2.32E-01	
14-C		0.00	14-C	0.00	5.49E-01	
55-Fe		702.46	55-Fe	2.76	2.35E+00	
60-Co		771.49	60-Co	3.03	2.58E+00	
59-Ni		105.90	59-Ni	0.42	3.54E-01	
63-Ni		7,677.19	63-Ni	30.18	2.57E+01	
79-Se		3.52	79-Se	0.01	1.85E-01	
90-Sr		6,698,395.45	90-Sr	26,330.25	2.24E+04	
90-Y		6,700,172.78	90-Y	26,337.24	2.24E+04	
93-Zr		272.20	93-Zr	1.07	9.10E-01	
93m-Nb		181.99	93m-Nb	0.72	6.09E-01	
99-Tc		108.83	99-Tc	0.43	1.21E+01	
106-Ru		14.09	106-Ru	0.06	1.57E+00	
106-Rh		14.12	106-Rh	0.06	4.72E-02	
107-Pd		11.01	107-Pd	0.04	3.68E-02	
113m-Cd		2,121.22	113m-Cd	8.34	2.36E+02	
121m-Sn		17.46	121m-Sn	0.07	5.84E-02	
126-Sn		104.11	126-Sn	0.41	3.48E-01	
125-Sb		7,264.26	125-Sb	28.55	2.43E+01	
126-Sb		14.58	126-Sb	0.06	4.87E-02	
126m-Sb		104.11	126m-Sb	0.41	3.48E-01	
125m-Te		1,779.98	125m-Te	7.00	9.37E+01	
129-I		0.00	129-I	0.00	1.81E-01	
134-Cs		5,172.88	134-Cs	20.33	1.06E+02	
135-Cs		161.30	135-Cs	0.63	3.29E+00	
137-Cs		7,209,988.70	137-Cs	28,341.24	1.47E+05	
137m-Ba		6,820,745.89	137m-Ba	26,811.19	1.39E+05	
144-Ce		0.65	144-Ce	0.00	2.17E-03	
144-Pr		0.65	144-Pr	0.00	2.17E-03	
146-Pm		10.83	146-Pm	0.04	3.62E-02	
147-Pm		87,773.40	147-Pm	345.02	2.94E+02	
151-Sm		84,309.07	151-Sm	331.40	2.82E+02	
152-Eu		364.91	152-Eu	1.43	1.22E+00	
154-Eu		95,427.31	154-Eu	375.11	3.19E+02	
155-Eu		23,832.08	155-Eu	93.68	7.97E+01	
207-Tl		8.19	207-Tl	0.03	2.74E-02	
208-Tl		3.22	208-Tl	0.01	1.08E-02	
209-Pb		0.21	209-Pb	0.00	7.01E-04	
211-Pb		8.22	211-Pb	0.03	2.75E-02	
212-Pb		8.97	212-Pb	0.04	3.00E-02	
211-Bi		8.22	211-Bi	0.03	2.75E-02	
212-Bi		8.97	212-Bi	0.04	3.00E-02	
213-Bi		0.21	213-Bi	0.00	7.01E-04	
212-Po		5.75	212-Po	0.02	1.92E-02	
213-Po		0.20	213-Po	0.00	4.85E-04	
215-Po		8.22	215-Po	0.03	2.75E-02	
216-Po		8.97	216-Po	0.04	3.00E-02	
217-At		0.21	217-At	0.00	7.01E-04	
219-Rn		8.22	219-Rn	0.03	2.75E-02	
220-Rn		8.97	220-Rn	0.04	3.00E-02	
221-Fr		0.21	221-Fr	0.00	7.01E-04	
223-Fr		0.11	223-Fr	0.00	3.79E-04	
223-Ra		8.22	223-Ra	0.03	2.75E-02	
224-Ra		8.97	224-Ra	0.04	3.00E-02	
225-Ra		0.21	225-Ra	0.00	7.01E-04	
228-Ra		1.52	228-Ra	0.01	5.09E-03	

STREAM NUMBER RADIONUCLIDE	47 OFF GAS TO SBS	48 SBS CHEMICAL ADD	49 SBS AIR SPARGE	50 SBS OFF GAS	51 VESSEL VENT GAS	52 OGD CHEMICAL ADD	53 OGD OFF GAS
CURIE	ci	ci	ci	ci	ci	ci	ci
3-H	2.32E-01			3.08E-02			3.08E-02
14-C	5.49E-01			5.49E-01			5.49E-01
55-Fe	2.35E+00			7.83E-02			7.83E-02
60-Co	2.58E+00			8.60E-02			8.60E-02
59-Ni	3.54E-01			1.18E-02			1.18E-02
63-Ni	2.57E+01			8.56E-01			8.56E-01
79-Se	1.85E-01			3.09E-02			3.09E-02
90-Sr	2.24E+04			7.47E+02			7.47E+02
90-Y	2.24E+04			7.47E+02			7.47E+02
93-Zr	9.10E-01			3.03E-02			3.03E-02
93m-Nb	6.09E-01			2.03E-02			2.03E-02
99-Tc	1.21E+01			2.02E+00			2.02E+00
106-Ru	1.57E+00			5.22E-02			5.22E-02
106-Rh	4.72E-02			1.57E-03			1.57E-03
107-Pd	3.68E-02			1.23E-03			1.23E-03
113m-Cd	2.36E+02			3.93E+01			3.93E+01
121m-Sn	5.84E-02			1.95E-03			1.95E-03
126-Sn	3.48E-01			1.16E-02			1.16E-02
125-Sb	2.43E+01			8.10E-01			8.10E-01
126-Sb	4.87E-02			1.62E-03			1.62E-03
126m-Sb	3.48E-01			1.16E-02			1.16E-02
125m-Te	9.37E+01			1.56E+01			1.56E+01
129-I	1.81E-01			1.81E-01			1.81E-01
134-Cs	1.06E+02			1.76E+01			1.76E+01
135-Cs	3.29E+00			5.49E-01			5.49E-01
137-Cs	1.47E+05			2.45E+04			2.45E+04
137m-Ba	1.39E+05			2.32E+04			2.32E+04
144-Ce	2.17E-03			7.22E-05			7.22E-05
144-Pr	2.17E-03			7.23E-05			7.23E-05
146-Pm	3.62E-02			1.21E-03			1.21E-03
147-Pm	2.94E+02			9.79E+00			9.79E+00
151-Sm	2.82E+02			9.40E+00			9.40E+00
152-Eu	1.22E+00			4.07E-02			4.07E-02
154-Eu	3.19E+02			1.06E+01			1.06E+01
155-Eu	7.97E+01			2.66E+00			2.66E+00
207-Tl	2.74E-02			9.14E-04			9.14E-04
208-Tl	1.08E-02			3.59E-04			3.59E-04
209-Pb	7.01E-04			2.34E-05			2.34E-05
211-Pb	2.75E-02			9.16E-04			9.16E-04
212-Pb	3.00E-02			1.00E-03			1.00E-03
211-Bi	2.75E-02			9.16E-04			9.16E-04
212-Bi	3.00E-02			1.00E-03			1.00E-03
213-Bi	7.01E-04			2.34E-05			2.34E-05
212-Po	1.92E-02			6.41E-04			6.41E-04
213-Po	6.85E-04			2.28E-05			2.28E-05
215-Po	2.75E-02			9.16E-04			9.16E-04
216-Po	3.00E-02			1.00E-03			1.00E-03
217-At	7.01E-04			2.34E-05			2.34E-05
219-Rn	2.75E-02			9.16E-04			9.16E-04
220-Rn	3.00E-02			1.00E-03			1.00E-03
221-Fr	7.01E-04			2.34E-05			2.34E-05
223-Fr	3.79E-04			1.26E-05			1.26E-05
223-Ra	2.75E-02			9.16E-04			9.16E-04
224-Ra	3.00E-02			1.00E-03			1.00E-03
225-Ra	7.01E-04			2.34E-05			2.34E-05
228-Ra	5.09E-03			1.70E-04			1.70E-04

STREAM NUMBER RADIONUCLIDE	54	55	56	57	58
	HEME CHEMICAL ADD	HEME OFF GAS	FILTER PREHEATER	HEPA FILTER OFF GAS	TRENCH HEATER OFF GAS
	Ci	Ci	Ci	Ci	Ci
3-H		3.08E-02	3.08E-02	3.08E-02	3.08E-02
14-C		5.49E-01	5.49E-01	5.49E-01	5.49E-01
55-Fe		2.61E-03	2.61E-03	2.61E-09	2.61E-09
60-Co		2.87E-03	2.87E-03	2.87E-09	2.87E-09
59-Ni		3.94E-04	3.94E-04	3.94E-10	3.94E-10
63-Ni		2.85E-02	2.85E-02	2.85E-08	2.85E-08
79-Se		1.03E-03	1.03E-03	1.03E-09	1.03E-09
90-Sr		2.49E+01	2.49E+01	2.49E-05	2.49E-05
90-Y		2.49E+01	2.49E+01	2.49E-05	2.49E-05
93-Zr		1.01E-03	1.01E-03	1.01E-09	1.01E-09
93m-Nb		6.76E-04	6.76E-04	6.76E-10	6.76E-10
99-Tc		6.72E-02	6.72E-02	6.72E-08	6.72E-08
106-Ru		1.74E-03	1.74E-03	1.74E-09	1.74E-09
106-Rh		5.25E-05	5.25E-05	5.25E-11	5.25E-11
107-Pd		4.09E-05	4.09E-05	4.09E-11	4.09E-11
113m-Cd		1.31E+00	1.31E+00	1.31E-06	1.31E-06
121m-Sn		6.49E-05	6.49E-05	6.49E-11	6.49E-11
126-Sn		3.87E-04	3.87E-04	3.87E-10	3.87E-10
125-Sb		2.70E-02	2.70E-02	2.70E-08	2.70E-08
126-Sb		5.42E-05	5.42E-05	5.42E-11	5.42E-11
126m-Sb		3.87E-04	3.87E-04	3.87E-10	3.87E-10
125m-Te		5.20E-01	5.20E-01	5.20E-07	5.20E-07
129-I		1.81E-01	1.81E-01	1.81E-01	1.81E-01
134-Cs		5.86E-01	5.86E-01	5.86E-07	5.86E-07
135-Cs		1.83E-02	1.83E-02	1.83E-08	1.83E-08
137-Cs		8.17E+02	8.17E+02	8.17E-04	8.17E-04
137m-Ba		7.73E+02	7.73E+02	7.73E-04	7.73E-04
144-Ce		2.41E-06	2.41E-06	2.41E-12	2.41E-12
144-Pr		2.41E-06	2.41E-06	2.41E-12	2.41E-12
146-Pm		4.02E-05	4.02E-05	4.02E-11	4.02E-11
147-Pm		3.26E-01	3.26E-01	3.26E-07	3.26E-07
151-Sm		3.13E-01	3.13E-01	3.13E-07	3.13E-07
152-Eu		1.36E-03	1.36E-03	1.36E-09	1.36E-09
154-Eu		3.55E-01	3.55E-01	3.55E-07	3.55E-07
155-Eu		8.86E-02	8.86E-02	8.86E-08	8.86E-08
207-Tl		3.05E-05	3.05E-05	3.05E-11	3.05E-11
208-Tl		1.20E-05	1.20E-05	1.20E-11	1.20E-11
209-Pb		7.79E-07	7.79E-07	7.79E-13	7.79E-13
211-Pb		3.05E-05	3.05E-05	3.05E-11	3.05E-11
212-Pb		3.33E-05	3.33E-05	3.33E-11	3.33E-11
211-Bi		3.05E-05	3.05E-05	3.05E-11	3.05E-11
212-Bi		3.33E-05	3.33E-05	3.33E-11	3.33E-11
213-Bi		7.79E-07	7.79E-07	7.79E-13	7.79E-13
212-Po		2.14E-05	2.14E-05	2.14E-11	2.14E-11
213-Po		7.61E-07	7.61E-07	7.61E-13	7.61E-13
215-Po		3.05E-05	3.05E-05	3.05E-11	3.05E-11
216-Po		3.33E-05	3.33E-05	3.33E-11	3.33E-11
217-At		7.79E-07	7.79E-07	7.79E-13	7.79E-13
219-Rn		3.05E-05	3.05E-05	3.05E-11	3.05E-11
220-Rn		3.33E-05	3.33E-05	3.33E-11	3.33E-11
221-Fr		7.79E-07	7.79E-07	7.79E-13	7.79E-13
223-Fr		4.22E-07	4.22E-07	4.22E-13	4.22E-13
223-Ra		3.05E-05	3.05E-05	3.05E-11	3.05E-11
224-Ra		3.33E-05	3.33E-05	3.33E-11	3.33E-11
225-Ra		7.79E-07	7.79E-07	7.79E-13	7.79E-13
228-Ra		5.66E-06	5.66E-06	5.66E-12	5.66E-12

STREAM NUMBER RADIONUCLIDE	HALF LIFE YEARS	HEAT GENERATION WATTS/CURIE	1	2	3	4	5
			THOREX SUPERNATANT 1990	THOREX SLUDGE 1990	THOREX WASTE 1990	PUREX SUPERNATANT 1990	PUREX SLUDGE 1990
CURIE	YEARS	WATTS/CURIE	Ci	Ci	Ci	Ci	Ci
225-Ac	2.74E-02	3.49E-02	2.08E-01	0.00E+00	2.08E-01	1.41E-04	1.97E-03
227-Ac	2.18E+01	4.84E-04	8.22E+00	0.00E+00	8.22E+00	1.88E-08	8.57E-04
228-Ac	7.00E-04	8.64E-03	1.52E+00	0.00E+00	1.52E+00	0.00E+00	5.09E-09
227-Th	5.13E-02	3.65E-02	8.10E+00	0.00E+00	8.10E+00	1.85E-08	8.45E-04
228-Th	1.92E+00	3.27E-02	6.08E+00	0.00E+00	6.08E+00	2.04E-01	2.88E+00
229-Th	7.34E+03	3.06E-02	2.08E-01	0.00E+00	2.08E-01	1.41E-04	1.97E-03
230-Th	7.70E+04	2.83E-02	4.38E-02	0.00E+00	4.38E-02	7.57E-06	1.46E-02
231-Th	2.91E-03	5.61E-04	5.17E-03	0.00E+00	5.17E-03	6.41E-03	8.94E-02
232-Th	1.41E+10	2.42E-02	1.64E+00	0.00E+00	1.64E+00	0.00E+00	5.87E-09
234-Th	6.60E-02	4.06E-04	7.11E-05	0.00E+00	7.11E-05	5.71E-02	7.97E-01
231-Pa	3.28E+04	3.01E-02	1.52E+01	0.00E+00	1.52E+01	4.06E-07	2.98E-04
233-Pa	7.40E-02	2.27E-03	3.02E-01	0.00E+00	3.02E-01	3.25E-06	2.31E+01
234m-Pa	2.23E-06	4.94E-03	7.11E-05	0.00E+00	7.11E-05	5.71E-02	7.97E-01
232-U	7.20E+01	3.21E-02	2.66E+00	0.00E+00	2.66E+00	3.04E-01	4.26E+00
233-U	1.59E+05	2.91E-03	2.09E+00	0.00E+00	2.09E+00	4.98E-01	6.94E+00
234-U	2.45E+05	2.88E-02	2.21E-01	0.00E+00	2.21E-01	2.81E-01	3.97E+00
235-U	7.04E+08	2.62E-02	5.17E-03	0.00E+00	5.17E-03	6.41E-03	8.94E-02
236-U	2.34E+07	2.71E-02	9.80E-03	0.00E+00	9.80E-03	1.91E-02	2.67E-01
238-U	4.47E+09	2.54E-02	7.11E-05	0.00E+00	7.11E-05	5.71E-02	7.97E-01
236-Np	1.15E+05	2.02E-03	1.23E-01	0.00E+00	1.23E-01	0.00E+00	9.35E+00
237-Np	2.14E+06	3.06E-02	3.02E-01	0.00E+00	3.02E-01	3.25E-06	2.31E+01
239-Np	6.45E-03	2.42E-03	7.83E+00	0.00E+00	7.83E+00	0.00E+00	3.39E+02
236-Pu	2.85E+00	3.48E-02	1.09E-02	0.00E+00	1.09E-02	6.56E-03	8.28E-01
238-Pu	8.78E+01	3.31E-02	4.69E+02	0.00E+00	4.69E+02	1.24E+02	7.82E+03
239-Pu	2.41E+04	3.08E-02	1.54E+01	0.00E+00	1.54E+01	2.54E+01	1.61E+03
240-Pu	6.54E+03	3.11E-02	8.09E+00	0.00E+00	8.09E+00	1.87E+01	1.18E+03
241-Pu	1.44E+01	3.10E-05	7.36E+02	0.00E+00	7.36E+02	1.26E+03	7.99E+04
242-Pu	3.87E+05	2.95E-02	1.19E-02	0.00E+00	1.19E-02	2.54E-02	1.61E+00
241-Am	4.32E+02	3.32E-02	2.44E+02	0.00E+00	2.44E+02	6.53E+00	5.32E+04
242-Am	1.83E-03	1.14E-03	6.66E+00	0.00E+00	6.66E+00	3.00E+00	2.89E+02
242m-Am	1.52E+02	3.95E-04	6.70E+00	0.00E+00	6.70E+00	0.00E+00	2.90E+02
243-Am	7.38E+03	3.21E-02	7.83E+00	0.00E+00	7.83E+00	0.00E+00	3.39E+02
242-Cm	4.47E-01	1.16E-03	5.53E+00	0.00E+00	5.53E+00	0.00E+00	2.39E+02
243-Cm	2.85E+01	3.67E-02	2.18E-01	0.00E+00	2.18E-01	0.00E+00	1.34E+02
244-Cm	1.81E+01	3.50E-02	1.22E+01	0.00E+00	1.22E+01	0.00E+00	7.63E+03
245-Cm	8.50E+03	3.32E-02	2.00E-02	0.00E+00	2.00E-02	0.00E+00	8.62E-01
246-Cm	4.74E+03	3.27E-02	2.29E-03	0.00E+00	2.29E-03	0.00E+00	9.87E-02

## TOTALS

WEIGHT, KG	85,238	35.00	85,273	2,856,202	97,171
VOLUME, L	51,328	6.00	51,334	2,252,000	27,700
ACTINIDES, Ci	1,724,936	0.00E+00	1,724,936	13,197,046	13,002,812
ACTINIDES, Ci	1,519	0.00E+00	1,519	1,438	152,957
HEAT GEN., W	5,036	0.00E+00	5,036	32,780	45,377
SpG	1.66	5.85	1.66	1.27	3.50

STREAM NUMBER RADIONUCLIDE	6 PUREX WASTE	7 BD1 CONDENSATE	8 BD2 CHEMICAL ADD	9 BD2 WATER ADD	10 ADJUSTED PUREX WASTE	11 DECANTED PUREX SUPERNATANT	12 DECANTED PUREX SLUDGE
CURIE	1990	Ci	Ci	Ci	Ci	Ci	Ci
225-Ac	2.11E-03				2.11E-03	1.26E-04	1.99E-03
227-Ac	8.57E-04				8.57E-04	1.67E-08	8.57E-04
228-Ac	5.09E-09				5.09E-09	0.00E+00	5.09E-09
227-Th	8.45E-04				8.45E-04	1.65E-08	8.45E-04
228-Th	3.09E+00				3.09E+00	1.81E-01	2.91E+00
229-Th	2.11E-03				2.11E-03	1.26E-04	1.99E-03
230-Th	1.46E-02				1.46E-02	6.75E-06	1.46E-02
231-Th	9.58E-02				9.58E-02	5.71E-03	9.01E-02
232-Th	5.87E-09				5.87E-09	0.00E+00	5.87E-09
234-Th	8.54E-01				8.54E-01	5.09E-02	8.03E-01
231-Pa	2.98E-04				2.98E-04	3.62E-07	2.98E-04
233-Pa	2.31E+01				2.31E+01	2.90E-06	2.31E+01
234m-Pa	8.54E-01				8.54E-01	5.09E-02	8.03E-01
232-U	4.56E+00				4.56E+00	2.71E-01	4.29E+00
233-U	7.44E+00				7.44E+00	4.44E-01	6.99E+00
234-U	4.25E+00				4.25E+00	2.51E-01	4.00E+00
235-U	9.58E-02				9.58E-02	5.71E-03	9.01E-02
236-U	2.86E-01				2.86E-01	1.70E-02	2.69E-01
238-U	8.54E-01				8.54E-01	5.09E-02	8.03E-01
236-Np	9.35E+00				9.35E+00	0.00E+00	9.35E+00
237-Np	2.31E+01				2.31E+01	2.90E-06	2.31E+01
239-Np	3.39E+02				3.39E+02	0.00E+00	3.39E+02
236-Pu	8.35E-01				8.35E-01	5.84E-03	8.29E-01
238-Pu	7.94E+03				7.94E+03	1.11E+02	7.83E+03
239-Pu	1.64E+03				1.64E+03	2.26E+01	1.61E+03
240-Pu	1.20E+03				1.20E+03	1.67E+01	1.18E+03
241-Pu	8.12E+04				8.12E+04	1.13E+03	8.00E+04
242-Pu	1.64E+00				1.64E+00	2.26E-02	1.61E+00
241-Am	5.32E+04				5.32E+04	5.82E+00	5.32E+04
242-Am	2.89E+02				2.89E+02	0.00E+00	2.89E+02
242m-Am	2.90E+02				2.90E+02	0.00E+00	2.90E+02
243-Am	3.39E+02				3.39E+02	0.00E+00	3.39E+02
242-Cm	2.39E+02				2.39E+02	0.00E+00	2.39E+02
243-Cm	1.34E+02				1.34E+02	0.00E+00	1.34E+02
244-Cm	7.63E+03				7.63E+03	0.00E+00	7.63E+03
245-Cm	8.62E-01				8.62E-01	0.00E+00	8.62E-01
246-Cm	9.87E-02				9.87E-02	0.00E+00	9.87E-02

## TOTALS

WEIGHT, KG	2,953,373	659,000	WEIGHT, KG	2,953,373	2,545,723	407,650
VOLUME, L	2,270,000	654,000	VOLUME, L	2,270,000	2,007,200	272,500
ACTIVITY,Ci	26,199,858	2,142	ACTIVITY,Ci	26,199,858	11,762,483	14,437,375
ACTINIDES,Ci	154,395	0.00E+00	ACTINIDES,Ci	154,395	1,282	153,113
HEAT GEN., W	78,157	6.26	HEAT GEN., W	78,157	29,217	48,940
SpG	1.30	1.01	SpG		1.27	1.50

STREAM NUMBER RADIONUCLIDE	13 SLUDGE WASH WATER	14 IX ZEOLITE SLURRY	15 SAND FILTER SLURRY	16 SLUDGE WASH SUPERNATANT	17 WASHED PUREX	18 BD1 WASTE BLEND	19 BD1 HEEL FLUSH
CURIE	Ci	Ci	Ci	Ci	Ci	Ci	Ci
225-Ac				1.49E-05	1.97E-03	0.00E+00	
227-Ac				1.98E-09	8.57E-04	0.00E+00	
228-Ac				0.00E+00	5.09E-09	0.00E+00	
227-Th				1.96E-09	8.45E-04	0.00E+00	
228-Th				2.15E-02	2.87E+00	0.00E+00	
229-Th				1.49E-05	1.97E-03	0.00E+00	
230-Th				8.00E-07	1.47E-02	0.00E+00	
231-Th				6.77E-04	8.44E-02	0.00E+00	
232-Th				0.00E+00	5.87E-09	0.00E+00	
234-Th				6.03E-03	7.97E-01	0.00E+00	
231-Pa				4.29E-08	2.98E-04	0.00E+00	
233-Pa				3.43E-07	2.31E+01	0.00E+00	
234m-Pa				6.03E-03	7.97E-01	0.00E+00	
232-U				3.22E-02	4.26E+00	0.00E+00	
233-U				5.26E-02	6.94E+00	0.00E+00	
234-U				2.97E-02	3.97E+00	0.00E+00	
235-U				6.77E-04	8.94E-02	0.00E+00	
236-U				2.02E-03	2.67E-01	0.00E+00	
238-U				6.03E-03	7.97E-01	0.00E+00	
236-Np				0.00E+00	9.35E+00	0.00E+00	
237-Np				3.43E-07	2.31E+01	0.00E+00	
239-Np				0.00E+00	3.39E+02	0.00E+00	
236-Pu				6.93E-04	8.28E-01	0.00E+00	
238-Pu				1.31E+01	7.82E+03	0.00E+00	
239-Pu				2.68E+00	1.61E+03	0.00E+00	
240-Pu				1.97E+00	1.18E+03	0.00E+00	
241-Pu				1.34E+02	7.99E+04	0.00E+00	
242-Pu				2.68E-03	1.61E+00	0.00E+00	
241-Am				6.89E-01	5.32E+04	0.00E+00	
242-Am				0.00E+00	2.89E+02	0.00E+00	
242m-Am				0.00E+00	2.90E+02	0.00E+00	
243-Am				0.00E+00	3.39E+02	0.00E+00	
243-Cm				0.00E+00	2.39E+02	0.00E+00	
244-Cm				0.00E+00	7.63E+03	0.00E+00	
245-Cm				0.00E+00	8.62E-01	0.00E+00	
246-Cm				0.00E+00	9.87E-02	0.00E+00	

## TOTALS

WEIGHT, KG	1,618,628	241,331	3,455	2,483,775	508,926	903,786	WEIGHT, KG
VOLUME, L	1,618,628	224,145	3,198	2,364,500	436,000	881,343	VOLUME, L
ACTIVITY,Ci	0.00E+00	13,133,669 Negligible		1,394,175	13,043,201	13,135,812	ACTIVITY,Ci
ACTINIDES,Ci	0.00E+00	0.00E+00 Negligible		151.96	152,961	0.00E+00	ACTINIDES,Ci
HEAT GEN., W	0.00E+00	32,622 Negligible		3,463	45,477	32,628	HEAT GEN., W
SpG	1.00	1.08	1.08	1.05	1.17	1.03	SpG

STREAM NUMBER RADIONUCLIDE	20 8D4	21 CHEMICAL CURIE	22 WATER ADD Ci	ADJUSTED THOREX WASTE Ci	23 CAUSTIC ADDITION TO 8D2 (50%) Ci	24 CAUSTIC WATER FLUSH TO 8D2 Ci	25 8D4	26 NEUTRALIZED THOREX WASTE IN 8D2 Ci
225-Ac					2.08E-01			2.08E-01
227-Ac					8.22E+00			8.22E+00
228-Ac					1.52E+00			1.52E+00
227-Th					8.10E+00			8.10E+00
228-Th					6.08E+00			6.08E+00
229-Th					2.08E-01			2.08E-01
230-Th					4.38E-02			4.38E-02
231-Th					5.17E-03			5.17E-03
232-Th					1.64E+00			1.64E+00
234-Th					7.11E-05			7.11E-05
231-Pa					1.52E+01			1.52E+01
233-Pa					3.02E-01			3.02E-01
234m-Pa					7.11E-05			7.11E-05
232-U					2.66E+00			2.66E+00
233-U					2.09E+00			2.09E+00
234-U					2.21E-01			2.21E-01
235-U					5.17E-03			5.17E-03
236-U					9.80E-03			9.80E-03
238-U					7.11E-05			7.11E-05
236-Np					1.23E-01			1.23E-01
237-Np					3.02E-01			3.02E-01
239-Np					7.83E+00			7.83E+00
236-Pu					1.09E-02			1.09E-02
238-Pu					4.69E+02			4.69E+02
239-Pu					1.54E+01			1.54E+01
240-Pu					8.09E+00			8.09E+00
241-Pu					7.36E+02			7.36E+02
242-Pu					1.19E-02			1.19E-02
241-Am					2.44E+02			2.44E+02
242-Am					6.66E+00			6.66E+00
242m-Am					6.70E+00			6.70E+00
243-Am					7.83E+00			7.83E+00
242-Cm					5.53E+00			5.53E+00
243-Cm					2.18E-01			2.18E-01
244-Cm					1.22E+01			1.22E+01
245-Cm					2.00E-02			2.00E-02
246-Cm					2.29E-03			2.29E-03

## TOTALS

WEIGHT, KG	85,273	42,168	WEIGHT, KG	6,400	133,517
VOLUME, L	51,334	27,651	VOLUME, L	6,400	85,385
ACTIVITY,Ci	1,724,936	0.00E+00	ACTIVITY,Ci	0.00E+00	1,724,936
ACTINIDES,Ci	1,519	0.00E+00	ACTINIDES,Ci	0.00E+00	1,519
HEAT GEN.,W	5,036	0.00E+00	HEAT GEN.,W	0.00E+00	5,036
SpG	1.66	1.53	SpG	1.00	1.56

STREAM NUMBER RADIONUCLIDE	27 VITRIFICATION SYSTEM FEED	28 8D2 SLURRY TRANSFER	29 SBS RECYCLE	30 CANISTER DECON SOLN	31 HEME FLUSH/COND RECYCLE	32 LWTS CONCENTRATE	33 WASTE HEADER RECYCLE
CURIE	8D2 Ci	FLUSH Ci	Ci	Ci	Ci	Ci	Ci
225-Ac	2.10E-01		6.77E-04		2.26E-05		
227-Ac	8.22E+00		2.66E-02		8.86E-04		
228-Ac	1.52E+00		4.92E-03		1.64E-04		
227-Th	8.10E+00		2.62E-02		8.73E-04		
228-Th	8.97E+00		2.90E-02		9.66E-04		
229-Th	2.10E-01		6.77E-04		2.26E-05		
230-Th	5.84E-02		1.89E-04		6.29E-06		
231-Th	9.46E-02		3.06E-04		1.02E-05		
232-Th	1.64E+00		5.30E-03		1.77E-04		
234-Th	7.97E-01		2.58E-03		8.59E-05		
231-Pa	1.52E+01		4.91E-02		1.64E-03		
233-Pa	2.34E+01		7.55E-02		2.52E-03		
234m-Pa	7.97E-01		2.58E-C5		8.59E-05		
232-U	6.92E+00		2.24E-02		7.46E-04		
233-U	9.03E+00		2.92E-02		9.73E-04		
234-U	4.19E+00		1.35E-02		4.51E-04		
235-U	9.46E-02		3.06E-04		1.02E-05		
236-U	2.77E-01		8.95E-04		2.98E-05		
238-U	7.97E-01		2.58E-03		8.59E-05		
236-Np	9.47E+00		3.06E-02		1.02E-03		
237-Np	2.34E+01		7.55E-02		2.52E-03		
239-Np	3.47E+02		1.12E+00		3.74E-02		
236-Pu	8.39E-01		2.71E-03		9.04E-05		
238-Pu	8.29E+03		2.68E+01		8.93E-01		
239-Pu	1.63E+03		5.25E+00		1.75E-01		
240-Pu	1.19E+03		3.85E+00		1.28E-01		
241-Pu	8.06E+04		2.61E+02		8.69E+00		
242-Pu	1.62E+00		5.24E-03		1.75E-04		
241-Am	5.34E+04		1.73E+02		5.75E+00		
242-Am	2.95E+02		9.54E-01		3.18E-02		
242m-Am	2.97E+02		9.59E-01		3.20E-02		
243-Am	3.47E+02		1.12E+00		3.74E-02		
242-Cm	2.45E+02		7.92E-01		2.64E-02		
243-Cm	1.34E+02		4.33E-01		1.44E-02		
244-Cm	7.64E+03		2.47E+01		8.24E-01		
245-Cm	8.82E-01		2.85E-03		9.50E-05		
246-Cm	1.01E-01		3.26E-04		1.09E-05		

## TOTALS

WEIGHT, KG	1,546,229	13,029	570,138	0.00E+00	5,393	0.00E+00
VOLUME, L	1,402,728	13,029	566,956	0.00E+00	5,292	0.00E+00
ACTIVITY, Ci	27,903,948	0.00E+00	283,812	0.00E+00	47,699	In Matl. Bal.
ACTINIDES, Ci	154,480	0.00E+00	499	0.00E+00	16.65	In Matl. Bal.
HEAT GEN., W	83,141	0.00E+00	NEGLIGIBLE	0.00E+00	NEGLIGIBLE	Negligible
SpG	1.10	1.00	1.01	0.00	1.02	0.00E+00

STREAM NUMBER RADIONUCLIDE CURIE	34 NONROUTINE WASTE RECYCLE C1	35 DILUTE CFMUT WASTE FEED	36 CONCENTRATED CFMUT WASTE	37 CFMUT WASTE OVERHEADS	38 GLASS FORMERS Ci	39 MADE-UP MELTER FEED Ci	40 MELTER FEED Ci
225-Ac		2.10E-01	2.10E-01	3.14E-04		2.10E-01	2.10E-01
227-Ac		8.25E+00	8.25E+00	1.23E-02		8.25E+00	8.25E+00
228-Ac		1.53E+00	1.53E+00	2.28E-03		1.53E+00	1.53E+00
227-Th		8.13E+00	8.13E+00	1.22E-02		8.13E+00	8.13E+00
228-Th		9.00E+00	9.00E+00	1.34E-02		9.00E+00	9.00E+00
229-Th		2.10E-01	2.10E-01	3.14E-04		2.10E-01	2.10E-01
230-Th		5.86E-02	5.86E-02	8.76E-05		5.86E-02	5.86E-02
231-Th		9.49E-02	9.49E-02	1.42E-04		9.49E-02	9.49E-02
232-Th		1.65E+00	1.65E+00	2.46E-03		1.65E+00	1.65E+00
234-Th		8.00E-01	8.00E-01	1.20E-03		8.00E-01	8.00E-01
231-Pa		1.53E+01	1.53E+01	2.28E-02		1.53E+01	1.53E+01
233-Pa		2.34E+01	2.34E+01	3.50E-02		2.34E+01	2.34E+01
234m-Pa		8.00E-01	8.00E-01	1.20E-03		8.00E-01	8.00E-01
232-U		6.95E+00	6.95E+00	1.04E-02		6.95E+00	6.95E+00
233-U		9.06E+00	9.06E+00	1.35E-02		9.06E+00	9.06E+00
234-U		4.20E+00	4.20E+00	6.28E-03		4.20E+00	4.20E+00
235-U		9.49E-02	9.49E-02	1.42E-04		9.49E-02	9.49E-02
236-U		2.78E-01	2.78E-01	4.15E-04		2.78E-01	2.78E-01
238-U		8.00E-01	8.00E-01	1.20E-03		8.00E-01	8.00E-01
236-Np		9.50E+00	9.50E+00	1.42E-02		9.50E+00	9.50E+00
237-Np		2.34E+01	2.34E+01	3.50E-02		2.34E+01	2.34E+01
239-Np		3.48E+02	3.48E+02	5.20E-01		3.48E+02	3.48E+02
236-Pu		8.42E-01	8.42E-01	1.26E-03		8.42E-01	8.42E-01
238-Pu		8.32E+03	8.32E+03	1.24E+01		8.32E+03	8.32E+03
239-Pu		1.63E+03	1.63E+03	2.44E+00		1.63E+03	1.63E+03
240-Pu		1.19E+03	1.19E+03	1.78E+00		1.19E+03	1.19E+03
241-Pu		8.09E+04	8.09E+04	1.21E+02		8.09E+04	8.09E+04
242-Pu		1.63E+00	1.63E+00	2.43E-03		1.63E+00	1.63E+00
241-Am		5.36E+04	5.36E+04	8.01E+01		5.36E+04	5.36E+04
242-Am		2.96E+02	2.96E+02	4.43E-01		2.96E+02	2.96E+02
242m-Am		2.98E+02	2.98E+02	4.45E-01		2.98E+02	2.98E+02
243-Am		3.48E+02	3.48E+02	5.20E-01		3.48E+02	3.48E+02
242-Cm		2.46E+02	2.46E+02	3.67E-01		2.46E+02	2.46E+02
243-Cm		1.35E+02	1.35E+02	2.01E-01		1.35E+02	1.35E+02
244-Cm		7.67E+03	7.67E+03	1.15E+01		7.67E+03	7.67E+03
245-Cm		8.85E-01	8.85E-01	1.32E-03		8.85E-01	8.85E-01
246-Cm		1.01E-01	1.01E-01	1.51E-04		1.01E-01	1.01E-01

## TOTALS

WEIGHT, KG	WEIGHT, KG	2,134,790	469,956	1,665,074	986,180	1,439,235	1,535,473
VOLUME, L	VOLUME, L	1,988,005	240,163	1,664,731	689,636	962,372	1,058,609
ACTIVITY, Ci	ACTIVITY, Ci	28,235,459	28,235,458	42,193	0.00E+00	28,235,458	28,235,458
ACTINIDES, Ci	ACTINIDES, Ci	154,996	154,996	231.60	0.00E+00	154,996	154,996
HEAT GEN., W	HEAT GEN., W	83,141	83,141	124.23	0.00E+00	83,141	83,141
SpG	SpG	1.07	1.96	1.00	1.43	1.50	1.45

STREAM NUMBER RADIONUCLIDE CURIE	41 AIR INLEAKAGE TO SFCM Ci	42 GLASS PRODUCTION Ci	43 FILLED GLASS CANISTERS Ci	44 SFCM OFF GAS Ci	45 FILM COOLER AIR Ci	46 PRESSURE CONTROL AIR Ci
225-Ac		0.21	225-Ac	0.00	7.01E-04	
227-Ac		8.22	227-Ac	0.03	2.75E-02	
228-Ac		1.52	228-Ac	0.01	5.09E-03	
227-Th		8.10	227-Th	0.03	2.71E-02	
228-Th		8.97	228-Th	0.04	3.00E-02	
229-Th		0.21	229-Th	0.00	7.01E-04	
230-Th		0.06	230-Th	0.00	1.95E-04	
231-Th		0.09	231-Th	0.00	3.16E-04	
232-Th		1.64	232-Th	0.01	5.48E-03	
234-Th		0.80	234-Th	0.00	2.67E-03	
231-Pa		15.20	231-Pa	0.06	5.08E-02	
233-Pa		23.35	233-Pa	0.09	7.81E-02	
234m-Pa		0.80	234m-Pa	0.00	2.67E-03	
232-U		6.92	232-U	0.03	2.32E-02	
233-U		9.03	233-U	0.04	3.02E-02	
234-U		4.19	234-U	0.02	1.40E-02	
235-U		0.09	235-U	0.00	3.16E-04	
236-U		0.28	236-U	0.00	9.26E-04	
238-U		0.80	238-U	0.00	2.67E-03	
236-Np		9.47	236-Np	0.04	3.17E-02	
237-Np		23.35	237-Np	0.09	7.81E-02	
239-Np		346.73	239-Np	1.36	1.16E+00	
236-Pu		0.84	236-Pu	0.00	2.81E-03	
238-Pu		8,287.68	238-Pu	32.58	2.77E+01	
239-Pu		1,625.37	239-Pu	6.39	5.44E+00	
240-Pu		1,190.34	240-Pu	4.68	3.98E+00	
241-Pu		80,630.89	241-Pu	316.95	2.70E+02	
242-Pu		1.62	242-Pu	0.01	5.43E-03	
241-Am		53,401.61	241-Am	209.91	1.79E+02	
242-Am		295.22	242-Am	1.16	9.87E-01	
242m-Am		296.70	242m-Am	1.17	9.92E-01	
243-Am		346.73	243-Am	1.36	1.16E+00	
242-Cm		244.91	242-Cm	0.96	8.19E-01	
243-Cm		134.08	243-Cm	0.53	4.48E-01	
244-Cm		7,643.16	244-Cm	30.04	2.56E+01	
245-Cm		0.88	245-Cm	0.00	2.95E-03	
246-Cm		0.10	246-Cm	0.00	3.38E-04	
Totals		27,902,300.56		109,679.19		

## TOTALS

WEIGHT, KG	1,183,237	483,358.51		1,900.00	2,234,219	3,313,064	1,064,913
VOLUME, L	1,028,548,919	201,399.38		701.11	5,502,708,833	2,925,622,347	940,378,611
ACTIVITY,Ci	0.00E+00	27,902,300.56		109,679.19	333,156	0.00E+00	0.00E+00
ACTINIDES,Ci	0.00E+00	154,479.71		607.23	517	0.00E+00	0.00E+00
HEAT GEN.,W	0.00E+00	83,137.31		326.80	0	0.00E+00	0.00E+00
SpG	1.15E-03	2.40		2.71	4.06E-04	1.13E-03	1.13E-03

STREAM NUMBER RADIONUCLIDE	47 OFF GAS TO SBS	48 SBS CHEMICAL ADD	49 SBS AIR SPARGE	50 SBS OFF GAS	51 VESSEL VENT GAS	52 OGD CHEMICAL ADD	53 OGD OFF GAS
CURIE							
225-Ac	Ci 7.01E-04	Ci	Ci	Ci 2.34E-05	Ci	Ci	Ci 2.34E-05
227-Ac	2.75E-02			9.16E-04			9.16E-04
228-Ac	5.09E-03			1.70E-04			1.70E-04
227-Th	2.71E-02			9.03E-04			9.03E-04
228-Th	3.00E-02			1.00E-03			1.00E-03
229-Th	7.01E-04			2.34E-05			2.34E-05
230-Th	1.95E-04			6.51E-06			6.51E-06
231-Th	3.16E-04			1.05E-05			1.05E-05
232-Th	5.48E-03			1.83E-04			1.83E-04
234-Th	2.67E-03			8.89E-05			8.89E-05
231-Pa	5.08E-02			1.69E-03			1.69E-03
233-Pa	7.81E-02			2.60E-03			2.60E-03
234m-Pa	2.67E-03			8.89E-05			8.89E-05
232-U	2.32E-02			7.72E-04			7.72E-04
233-U	3.02E-02			1.01E-03			1.01E-03
234-U	1.40E-02			4.67E-04			4.67E-04
235-U	3.16E-04			1.05E-05			1.05E-05
236-U	9.26E-04			3.09E-05			3.09E-05
238-U	2.67E-03			8.89E-05			8.89E-05
236-Np	3.17E-02			1.06E-03			1.06E-03
237-Np	7.81E-02			2.60E-03			2.60E-03
239-Np	1.16E+00			3.87E-02			3.87E-02
236-Pu	2.81E-03			9.36E-05			9.36E-05
238-Pu	2.77E+01			9.24E-01			9.24E-01
239-Pu	5.44E+00			1.81E-01			1.81E-01
240-Pu	3.98E+00			1.33E-01			1.33E-01
241-Pu	2.70E+02			8.99E+00			8.99E+00
242-Pu	5.43E-03			1.81E-04			1.81E-04
241-Am	1.79E+02			5.95E+00			5.95E+00
242-Am	9.87E-01			3.29E-02			3.29E-02
242m-Am	9.92E-01			3.31E-02			3.31E-02
243-Am	1.16E+00			3.87E-02			3.87E-02
242-Cm	8.19E-01			2.73E-02			2.73E-02
243-Cm	4.48E-01			1.49E-02			1.49E-02
244-Cm	2.56E+01			8.52E-01			8.52E-01
245-Cm	2.95E-03			9.83E-05			9.83E-05
246-Cm	3.38E-04			1.13E-05			1.13E-05

## TOTALS

WEIGHT,KG	6,612,196	59,162	6,133,290	2,387,334	WEIGHT,KG	8,520,624
VOLUME,L	10,287,769,935	58,990,100	6,385,767,554	2,392,495,482	VOLUME,L	8,676,203,153
ACTIVITY,Ci	333,156	0.00E+00	49,344.9	0.00E+00	ACTIVITY,Ci	49,344.9
ACTINIDES,Ci	517	0.00E+00	17.2	0.00E+00	ACTINIDES,Ci	17.2
HEAT GEN.,W	0	0.00E+00	NEGLIGIBLE	0.00E+00	HEAT GEN.,W	NEGLIGIBLE
SpG	6.43E-04	1.00E-03	9.60E-04	9.98E-04	SpG	9.82E-04

STREAM NUMBER RADIONUCLIDE	54 HEME CHEMICAL CURIE	55 HEME OFF GAS ADD	56 FILTER PREHEATER OFF GAS	57 HEPA FILTER OFF GAS	58 TRENCH HEATER OFF GAS
	Ci	Ci	Ci	Ci	Ci
225-Ac		7.79E-07	7.79E-07	7.79E-13	7.79E-13
227-Ac		3.05E-05	3.05E-05	3.05E-11	3.05E-11
228-Ac		5.66E-06	5.66E-06	5.66E-12	5.66E-12
227-Th		3.01E-05	3.01E-05	3.01E-11	3.01E-11
228-Th		3.33E-05	3.33E-05	3.33E-11	3.33E-11
229-Th		7.79E-07	7.79E-07	7.79E-13	7.79E-13
230-Th		2.17E-07	2.17E-07	2.17E-13	2.17E-13
231-Th		3.52E-07	3.52E-07	3.52E-13	3.52E-13
232-Th		6.09E-06	6.09E-06	6.09E-12	6.09E-12
234-Th		2.96E-06	2.96E-06	2.96E-12	2.96E-12
231-Pa		5.65E-05	5.65E-05	5.65E-11	5.65E-11
233-Pa		8.68E-05	8.68E-05	8.68E-11	8.68E-11
234m-Pa		2.96E-06	2.96E-06	2.96E-12	2.96E-12
232-U		2.57E-05	2.57E-05	2.57E-11	2.57E-11
233-U		3.36E-05	3.36E-05	3.36E-11	3.36E-11
234-U		1.56E-05	1.56E-05	1.56E-11	1.56E-11
235-U		3.52E-07	3.52E-07	3.52E-13	3.52E-13
236-U		1.03E-06	1.03E-06	1.03E-12	1.03E-12
238-U		2.96E-06	2.96E-06	2.96E-12	2.96E-12
236-Np		3.52E-05	3.52E-05	3.52E-11	3.52E-11
237-Np		8.68E-05	8.68E-05	8.68E-11	8.68E-11
239-Np		1.29E-03	1.29E-03	1.29E-09	1.29E-09
236-Pu		3.12E-06	3.12E-06	3.12E-12	3.12E-12
238-Pu		3.08E-02	3.08E-02	3.08E-08	3.08E-08
239-Pu		6.04E-03	6.04E-03	6.04E-09	6.04E-09
240-Pu		4.42E-03	4.42E-03	4.42E-09	4.42E-09
241-Pu		3.00E-01	3.00E-01	3.00E-07	3.00E-07
242-Pu		6.03E-06	6.03E-06	6.03E-12	6.03E-12
241-Am		1.98E-01	1.98E-01	1.98E-07	1.98E-07
242-Am		1.10E-03	1.10E-03	1.10E-09	1.10E-09
242m-Am		1.10E-03	1.10E-03	1.10E-09	1.10E-09
243-Am		1.29E-03	1.29E-03	1.29E-09	1.29E-09
242-Cm		9.10E-04	9.10E-04	9.10E-10	9.10E-10
243-Cm		4.98E-04	4.98E-04	4.98E-10	4.98E-10
244-Cm		2.84E-02	2.84E-02	2.84E-08	2.84E-08
245-Cm		3.28E-06	3.28E-06	3.28E-12	3.28E-12
246-Cm		3.75E-07	3.75E-07	3.75E-13	3.75E-13

#### TOTALS

WEIGHT,KG	4,992	8,520,522	8,520,522	8,520,519	8,520,519
VOLUME,L	4,992	8,757,192,564	10,214,192,390	9,971,433,984	10,856,313,218
ACTIVITY,Ci	0.00E+00	1,646	1,646	0.762	0.762
ACTINIDES,Ci	0.00E+00	5.74E-01	5.74E-01	5.74E-07	5.74E-07
HEAT GEN.,W	0.00E+00	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE
SpG	1.00E+00	9.73E-04	8.34E-04	8.54E-04	7.85E-04

STREAM NUMBER STREAM NAME	COMPONENT	MOLECULAR KG	OXIDE WEIGHT	1		2		3		4		5	
				THOREX SUPERNATANT		THOREX SLUDGE		THOREX WASTE		PUREX SUPERNATANT		PUREX SLUDGE	
				2/26/87		2/26/87		2/26/87		9/26/82		9/26/82	
Ag		107.87	1.0743	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
AgNO <sub>3</sub>		169.89	0.6821	5.46E-02		0.00E+00		5.46E-02		0.00E+00		0.00E+00	
Ag <sub>2</sub> O		231.76	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
AgOH		124.88	0.9279	0.00E+00		0.00E+00		0.00E+00		0.00E+00		6.50E-01	
AlF <sub>3</sub>		83.98	2.1070	0.00E+00		0.00E+00		0.00E+00		1.62E+02		1.13E+03	
Al(NO <sub>3</sub> ) <sub>3</sub>		213.00	0.2393	9.99E+02		0.00E+00		9.99E+02		0.00E+00		0.00E+00	
Al <sub>2</sub> O <sub>3</sub>		101.96	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Al(OH) <sub>3</sub>		78.00	0.6536	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Am(OH) <sub>3</sub>		294.00	0.9087	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Am(NO <sub>3</sub> ) <sub>3</sub>		429.00	0.6227	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Am <sub>2</sub> O <sub>3</sub>		534.30	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		2.70E+01	
B <sub>2</sub> O <sub>3</sub>		69.62	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Ba(NO <sub>3</sub> ) <sub>2</sub>		261.35	0.5866	1.58E+01		0.00E+00		1.58E+01		0.00E+00		0.00E+00	
BaO		153.32	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
BasO <sub>4</sub>		233.40	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		3.03E+02	
C		12.00	0.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
(CH <sub>2</sub> ) <sub>10</sub>		140.00	0.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
CaCO <sub>3</sub>		100.09	0.5603	0.00E+00		0.00E+00		0.00E+00		0.00E+00		1.80E+03	
CaC <sub>2</sub> O <sub>4</sub>		128.12	0.4377	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
CaF <sub>2</sub>		78.08	1.7938	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Ca(NO <sub>3</sub> ) <sub>2</sub>		164.09	0.3418	1.03E+01		0.00E+00		1.03E+01		0.00E+00		0.00E+00	
CaO		56.08	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Ca(OH) <sub>2</sub>		74.09	0.7569	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>		310.18	1.0002	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
CasO <sub>4</sub>		136.14	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cd(NO <sub>3</sub> ) <sub>2</sub>		236.41	0.5431	1.63E-01		0.00E+00		1.63E-01		0.00E+00		0.00E+00	
CdO		128.40	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cd(OH) <sub>2</sub>		146.11	0.5431	0.00E+00		0.00E+00		0.00E+00		0.00E+00		9.23E-01	
Ce(NO <sub>3</sub> ) <sub>3</sub>		326.23	0.5031	2.16E+01		0.00E+00		2.16E+01		0.00E+00		0.00E+00	
Ce <sub>2</sub> O <sub>3</sub>		328.24	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Ce(OH) <sub>3</sub>		191.14	0.8586	0.00E+00		0.00E+00		0.00E+00		0.00E+00		3.04E+02	
Cm(NO <sub>3</sub> ) <sub>3</sub>		433.00	0.6259	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cm <sub>2</sub> O <sub>3</sub>		542.00	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E-01	
Cm(OH) <sub>3</sub>		298.00	0.9094	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Co		58.93	1.2715	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Co(NO <sub>3</sub> ) <sub>2</sub>		183.04	0.4094	1.23E+00		0.00E+00		1.23E+00		0.00E+00		0.00E+00	
CoO		74.93	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Co(OH) <sub>2</sub>		92.95	0.8061	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cr(NO <sub>3</sub> ) <sub>3</sub>		238.15	0.3192	6.12E+02		0.00E+00		6.12E+02		0.00E+00		0.00E+00	
Cr <sub>2</sub> O <sub>3</sub>		152.02	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
CrO <sub>3</sub>		99.99	0.7602	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cr(OH) <sub>3</sub>		103.02	0.7378	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.80E+01	
CsNO <sub>3</sub>		194.91	0.7229	2.02E+01		0.00E+00		2.02E+01		3.86E+02		0.00E+00	
CsCl (SV)		168.36	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cs <sub>2</sub> O		281.81	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
spare		281.81	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cu		63.55	1.2516	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cu(NO <sub>3</sub> ) <sub>2</sub>		187.60	0.4240	3.39E-01		0.00E+00		3.39E-01		2.54E+00		0.00E+00	
CuO		79.54	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Cu(OH) <sub>2</sub>		97.55	0.8154	0.00E+00		0.00E+00		0.00E+00		0.00E+00		3.07E+02	
CuSO <sub>4</sub>		159.61	0.4983	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Dy(NO <sub>3</sub> ) <sub>3</sub>		348.58	0.5350	1.07E-03		0.00E+00		1.07E-03		0.00E+00		0.00E+00	
Dy <sub>2</sub> O <sub>3</sub>		373.00	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Dy(OH) <sub>3</sub>		213.52	0.8735	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Eu(NO <sub>3</sub> ) <sub>3</sub>		338.07	0.5205	5.20E-01		0.00E+00		5.20E-01		0.00E+00		0.00E+00	
Eu <sub>2</sub> O <sub>3</sub>		351.92	1.0000	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Eu(OH) <sub>3</sub>		202.96	0.9413	0.00E+00		0.00E+00		0.00E+00		0.00E+00		7.06E+00	
Fe		55.85	1.4296	0.00E+00		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Fe(NO <sub>3</sub> ) <sub>3</sub>		242.02	0.3299	2.79E+03		0.00E+00		2.79E+03		1.42E+01		0.00E+00	

STREAM NUMBER	6 PUREX WASTE	7 BD1 CONDENSATE	8 BD2 CHEMICAL ADD	9 BD2 WATER ADD	10 ADJUSTED PUREX WASTE	11 DECANTED PUREX SUPERNATANT	12 DECANTED PUREX SLUDGE
COMPONENT	KG	kg	kg	kg	kg	kg	kg
Ag	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
AgNO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ag2O	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
AgOH	6.50E-01	0.00E+00			6.50E-01	0.00E+00	6.50E-01
AlF3	1.29E+03	0.00E+00			1.29E+03	1.45E+02	1.15E+03
Al(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Al2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Al(OH)3	3.82E+03	0.00E+00			3.82E+03	0.00E+00	3.82E+03
Am(OH)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Am(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Am2O3	2.70E+01	0.00E+00			2.70E+01	0.00E+00	2.70E+01
B2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Be(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
BaO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
BaSO4	3.03E+02	0.00E+00			3.03E+02	0.00E+00	3.03E+02
C	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
(CH2)10	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
CaCO3	1.80E+03	0.00E+00			1.80E+03	0.00E+00	1.80E+03
CaCO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
CaF2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ca(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
CaO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ca(OH)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ca3(PO4)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
CaSO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cd(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
CdO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cd(CH)2	9.23E-01	0.00E+00			9.23E-01	0.00E+00	9.23E-01
Ce(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ce2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ce(OH)3	3.04E+02	0.00E+00			3.04E+02	0.00E+00	3.04E+02
Cm(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cm2O3	4.00E-01	0.00E+00			4.00E-01	0.00E+00	4.00E-01
Cm(OH)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Co	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Co(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
CoO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Co(OH)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cr(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cr2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
CrO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cr(OH)3	4.80E+01	0.00E+00			4.80E+01	0.00E+00	4.80E+01
CsNO3	3.86E+02	0.00E+00			3.86E+02	3.44E+02	4.20E+01
CsCl(SV)	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cs2O	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
spare	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cu	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cu(NO3)2	2.54E+00	0.00E+00			2.54E+00	2.27E+00	2.77E-01
CuO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Cu(OH)2	3.07E+02	0.00E+00			3.07E+02	0.00E+00	3.07E+02
CuSO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Dy(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Dy2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Dy(OH)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Eu(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Eu2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Eu(OH)3	7.06E+00	0.00E+00			7.06E+00	0.00E+00	7.06E+00
Fe	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Fe(NO3)3	1.42E+01	0.00E+00			1.42E+01	1.26E+01	1.54E+00

STREAM NUMBER	13	14	15	16	17	18	19
STREAM NAME	SLUDGE	IX ZEOLITE	SAND FILTER	SLUDGE	WASHED	BD1	BD1
	WASH	SLURRY	SLURRY	WASH	PUREX	WASTE BLEND	HEEL FLUSH
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Ag		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
AgNO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ag2O		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
AgOH		0.00E+00		0.00E+00	6.50E-01	0.00E+00	
AlF3		0.00E+00		1.71E+01	1.13E+03	0.00E+00	
Al(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Al2O3		8.67E+03		0.00E+00	0.00E+00	8.67E+03	
Al(OH)3		0.00E+00		0.00E+00	3.82E+03	0.00E+00	
Am(OH)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Am(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Am2O3		0.00E+00		0.00E+00	2.70E+01	0.00E+00	
B2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ba(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
BaO		5.03E+01		0.00E+00	0.00E+00	5.03E+01	
BaSO4		0.00E+00		0.00E+00	3.03E+02	0.00E+00	
C		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
(CH2)10		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
CaCO3		0.00E+00		0.00E+00	1.80E+03	0.00E+00	
CaC2O4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
CaF2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ca(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
CaO		6.15E+02		0.00E+00	0.00E+00	6.15E+02	
Ca(OH)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ca3(PO4)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
CaSO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cd(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
CdO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cd(OH)2		0.00E+00		0.00E+00	9.23E-01	0.00E+00	
Ce(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ce2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ce(OH)3		0.00E+00		0.00E+00	3.04E+02	0.00E+00	
Cm(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cm2O3		0.00E+00		0.00E+00	4.00E-01	0.00E+00	
Cm(OH)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Co		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Co(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
CoO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Co(OH)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cr(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cr2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
CrO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cr(OH)3		0.00E+00		0.00E+00	4.80E+01	0.00E+00	
CsNO3		0.00E+00		4.08E+01	1.18E+00	0.00E+00	
CsCl(SV)		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cs2O		3.84E+02		0.00E+00	0.00E+00	3.84E+02	
spare		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cu		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cu(NO3)2		0.00E+00		2.69E-01	7.79E-03	0.00E+00	
CuO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Cu(OH)2		0.00E+00		0.00E+00	3.07E+02	0.00E+00	
CuSO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Dy(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Dy2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Dy(OH)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Eu(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Eu2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Eu(OH)3		0.00E+00		0.00E+00	7.06E+00	0.00E+00	
Fe		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Fe(NO3)3		0.00E+00		1.50E+00	4.34E-02	0.00E+00	

STREAM NUMBER	20	21	22	23	24	25	26
STREAM NAME	8D4	8D4	ADJUSTED THOREX WAS1E	CAUSTIC ADDITION TO 8D2 (50%)	CAUSTIC WATER FLUSH TO 8D2	8D4 TANK FLUSH	NEUTRALIZED THOREX WASTE IN 8D2
COMPONENT							
	kg	kg	kg	kg	kg	kg	kg
Ag			0.00E+00	0.00E+00			0.00E+00
AgNO3			5.46E-02	0.00E+00			0.00E+00
Ag2O			0.00E+00	0.00E+00			0.00E+00
AgOH			0.00E+00	0.00E+00			5.46E-02
AlF3			0.00E+00	0.00E+00			0.00E+00
Al(NO3)3			9.99E+02	0.00E+00			0.00E+00
Al2O3			0.00E+00	0.00E+00			0.00E+00
Al(OH)3			0.00E+00	0.00E+00			9.99E+02
Am(OH)3			0.00E+00	0.00E+00			0.00E+00
Am(NO3)3			0.00E+00	0.00E+00			0.00E+00
Am2O3			0.00E+00	0.00E+00			0.00E+00
B2O3			0.00E+00	0.00E+00			0.00E+00
Ba(NO3)2			1.58E+01	0.00E+00			0.00E+00
BaO			0.00E+00	0.00E+00			0.00E+00
BaSO4			0.00E+00	0.00E+00			2.41E+01
C			0.00E+00	0.00E+00			0.00E+00
(CH2)10			0.00E+00	0.00E+00			0.00E+00
CaCO3			0.00E+00	0.00E+00			0.00E+00
CaC2O4			0.00E+00	0.00E+00			0.00E+00
CaF2			0.00E+00	0.00E+00			0.00E+00
Ca(NO3)2			1.03E+01	0.00E+00			0.00E+00
CaO			0.00E+00	0.00E+00			0.00E+00
Ca(OH)2			0.00E+00	0.00E+00			1.03E+01
Ca3(P04)2			0.00E+00	0.00E+00			0.00E+00
CaSO4			0.00E+00	0.00E+00			0.00E+00
Cd(NO3)2			1.63E-01	0.00E+00			0.00E+00
CdO			0.00E+00	0.00E+00			0.00E+00
Cd(OH)2			0.00E+00	0.00E+00			1.01E-01
Ce(NO3)3			2.16E+01	0.00E+00			0.00E+00
Ce2O3			0.00E+00	0.00E+00			0.00E+00
Ce(OH)3			0.00E+00	0.00E+00			0.00E+00
Cm(NO3)3			0.00E+00	0.00E+00			0.00E+00
Cm2O3			0.00E+00	0.00E+00			0.00E+00
Cm(OH)3			0.00E+00	0.00E+00			0.00E+00
Co			0.00E+00	0.00E+00			0.00E+00
Co(NO3)2			1.23E+00	0.00E+00			0.00E+00
CoO			0.00E+00	0.00E+00			0.00E+00
Co(OH)2			0.00E+00	0.00E+00			1.23E+00
Cr(NO3)3			6.12E+02	0.00E+00			0.00E+00
Cr2O3			0.00E+00	0.00E+00			0.00E+00
CrO3			0.00E+00	0.00E+00			0.00E+00
Cr(OH)3			0.00E+00	0.00E+00			6.12E+02
CsNO3			2.02E+01	0.00E+00			2.02E+01
CsCl(SV)			0.00E+00	0.00E+00			0.00E+00
Cs2O			0.00E+00	0.00E+00			0.00E+00
spare			0.00E+00	0.00E+00			0.00E+00
Cu			0.00E+00	0.00E+00			0.00E+00
Cu(NO3)2			3.39E-01	0.00E+00			0.00E+00
CuO			0.00E+00	0.00E+00			0.00E+00
Cu(OH)2			0.00E+00	0.00E+00			3.39E-01
CuSO4			0.00E+00	0.00E+00			0.00E+00
Dy(NO3)3			1.07E-03	0.00E+00			0.00E+00
Dy2O3			0.00E+00	0.00E+00			0.00E+00
Dy(OH)3			0.00E+00	0.00E+00			1.07E-03
Eu(NO3)3			5.20E-01	0.00E+00			0.00E+00
Eu2O3			0.00E+00	0.00E+00			0.00E+00
Eu(OH)3			0.00E+00	0.00E+00			5.65E-01
Fe			0.00E+00	0.00E+00			0.00E+00
Fe(NO3)3			2.79E+03	0.00E+00			0.00E+00

STREAM NUMBER	STREAM NAME	27	28	29	30	31	32	33
		VITRIFICATION SYSTEM FEED	B02 SLURRY TRANSFER	SBS RECYCLE	CANISTER DECON SOLN	HEME FLUSH/COND	LWTS CONCENTRATE	WASTE HEADER RECYCLE
COMPONENT		kg	kg	kg	kg	kg	kg	kg
Ag		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
AgNO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ag2O		0.00E+00		2.28E-03	0.00E+00	7.59E-05		0.00E+00
AgOH		7.04E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
AlF3		1.13E+03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Al(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Al2O3		8.67E+03		1.00E+02	0.00E+00	3.35E+00		0.00E+00
Al(OH)3		4.82E+03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Am(OH)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Am(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Am2O3		2.70E+01		8.73E-02	0.00E+00	2.91E-03		0.00E+00
B2O3		0.00E+00		9.77E+02	0.00E+00	4.72E-01		0.00E+00
Ba(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
BaO		5.03E+01		1.63E-01	0.00E+00	5.42E-03		0.00E+00
BaSO4		3.27E+02		1.06E+00	0.00E+00	3.53E-02		0.00E+00
C		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
(CH2)10		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CaCO3		1.80E+03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CaC2O4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CaF2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ca(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CaO		6.15E+02		7.67E+00	0.00E+00	2.56E-01		0.00E+00
Ca(OH)2		1.03E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ca3(Po4)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CaSO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cd(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CdO		0.00E+00		9.48E-02	0.00E+00	1.83E-02		0.00E+00
Cd(OH)2		1.02E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ce(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ce2O3		0.00E+00		9.83E-01	0.00E+00	3.28E-02		0.00E+00
Ce(OH)3		3.04E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cm(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cm2O3		4.00E-01		1.29E-03	0.00E+00	4.31E-05		0.00E+00
Cm(OH)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Co		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Co(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CoO		0.00E+00		3.97E-03	0.00E+00	1.32E-04		0.00E+00
Co(OH)2		1.23E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cr(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cr2O3		0.00E+00		2.15E+00	0.00E+00	7.18E-02		0.00E+00
CrO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cr(OH)3		6.60E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CsNO3		2.14E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CsCl(SV)		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cs2O		3.84E+02		6.90E+00	0.00E+00	1.33E+00		0.00E+00
spare		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cu		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Cu(NO3)2		7.79E-03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CuO		0.00E+00		9.92E-01	0.00E+00	3.31E-02		0.00E+00
Cu(OH)2		3.07E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
CuSO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Dy(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Dy2O3		0.00E+00		3.46E-06	0.00E+00	1.15E-07		0.00E+00
Dy(OH)3		1.07E-03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Eu(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Eu2O3		0.00E+00		2.46E-02	0.00E+00	8.22E-04		0.00E+00
Eu(OH)3		7.62E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Fe		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Fe(NO3)3		4.34E-02		0.00E+00	0.00E+00	0.00E+00		0.00E+00

STREAM NUMBER	34 NONROUTINE WASTE RECYCLE	35 DILUTE CFMUT WASTE FEED	36 CONCENTRATED CFMUT WASTE	37 CFMUT OVERHEADS	38 GLASS FORMERS	39 MELTER FEED W/O GLASS FORMERS	40 MELTER FEED GLASS
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Ag		0.00E+00	0.00E+00	0.00E+00			
AgNO3		0.00E+00	0.00E+00	0.00E+00			
Ag2O		2.35E-03	2.35E-03	3.51E-06		7.06E-01	7.06E-01
AgOH		7.04E-01	7.04E-01	1.05E-03			
AlF3		1.13E+03	1.13E+03	1.69E+00		Al2O3, NaF	
Al(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Al2O3		8.77E+03	8.77E+03	1.31E+01	1.72E+04	1.39E+04	3.12E+04
Al(OH)3		4.82E+03	4.82E+03	7.21E+00			
Am(OH)3		0.00E+00	0.00E+00	0.00E+00			
Am(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Am2O3		2.71E+01	2.71E+01	4.05E-02		2.71E+01	2.71E+01
B2O3		9.78E+02	9.78E+02	1.46E+00	4.76E+04	1.25E+03	4.89E+04
Ba(NO3)2		0.00E+00	0.00E+00	0.00E+00			
BaO		5.05E+01	5.05E+01	7.55E-02		5.05E+01	5.05E+01
BaSO4		3.28E+02	3.28E+02	4.90E-01		3.28E+02	3.28E+02
C		0.00E+00	0.00E+00	0.00E+00			
(CH2)10		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
CaCO3		1.80E+03	1.80E+03	2.69E+00			
CaC2O4		0.00E+00	0.00E+00	0.00E+00			
CaF2		0.00E+00	0.00E+00	0.00E+00		CaO, NaF	
Ca(NO3)2		0.00E+00	0.00E+00	0.00E+00			
CaO		6.23E+02	6.23E+02	9.31E-01	-4.89E+01	2.43E+03	2.38E+03
Ca(OH)2		1.03E+01	1.03E+01	1.53E-02			
Ca3(PO4)2		0.00E+00	0.00E+00	0.00E+00		CaO, P2O5	
CaSO4		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Cd(NO3)2		0.00E+00	0.00E+00	0.00E+00			
CdO		1.13E-01	1.13E-01	1.69E-04		1.14E+00	1.14E+00
Cd(OH)2		1.02E+00	1.02E+00	1.53E-03			
Ce(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Ce2O3		1.02E+00	1.02E+00	1.52E-03		3.05E+02	3.05E+02
Ce(OH)3		3.04E+02	3.04E+02	4.54E-01			
Cm(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Cm2O3		4.01E-01	4.01E-01	6.00E-04		4.01E-01	4.01E-01
Cm(OH)3		0.00E+00	0.00E+00	0.00E+00			
Co		0.00E+00	0.00E+00	0.00E+00			
Co(NO3)2		0.00E+00	0.00E+00	0.00E+00			
CoO		4.10E-03	4.10E-03	6.13E-06		1.23E+00	1.23E+00
Co(OH)2		1.23E+00	1.23E+00	1.84E-03			
Cr(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Cr2O3		2.23E+00	2.23E+00	3.33E-03		6.68E+02	6.68E+02
CrO3		0.00E+00	0.00E+00	0.00E+00			
Cr(OH)3		6.60E+02	6.60E+02	9.86E-01			
CsNO3		2.14E+01	2.14E+01	3.20E-02			
CsCl(SV)		0.00E+00	0.00E+00	0.00E+00			
Cs2O		3.93E+02	3.93E+02	5.87E-01		4.14E+02	4.14E+02
spare		0.00E+00	0.00E+00	0.00E+00			
Cu		0.00E+00	0.00E+00	0.00E+00			
Cu(NO3)2		7.79E-03	7.79E-03	1.16E-05			
CuO		1.03E+00	1.03E+00	1.53E-03		3.08E+02	3.08E+02
Cu(OH)2		3.07E+02	3.07E+02	4.59E-01			
CuSO4		0.00E+00	0.00E+00	0.00E+00		CuO	
Dy(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Dy2O3		3.57E-06	3.57E-06	5.34E-09		1.07E-03	1.07E-03
Dy(OH)3		1.07E-03	1.07E-03	1.60E-06			
Eu(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Eu2O3		2.55E-02	2.55E-02	3.81E-05		7.65E+00	7.65E+00
Eu(OH)3		7.62E+00	7.62E+00	1.14E-02			
Fe		0.00E+00	0.00E+00	0.00E+00			
Fe(NO3)3		4.34E-02	4.34E-02	6.49E-05			

STREAM NUMBER STREAM NAME	COMPONENT	MOLECULAR KG	OXIDE WEIGHT	1	2	3	4	5
				THOREX SUPERNATANT	THOREX SLUDGE	THOREX WASTE	PUREX SUPERNATANT	PUREX SLUDGE
				2/26/87	2/26/87	2/26/87	9/26/82	
FeO		71.85	1.1113	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe(OH)3		106.86	0.7472	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.93E+04
Fe2O3		159.69	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FePO4		150.85	0.9999	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.35E+03
Gd(NO3)3		343.36	0.5279	2.11E-01	0.00E+00	2.11E-01	0.00E+00	0.00E+00
Gd2O3		362.50	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gd(OH)3		208.27	0.8703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E+00
Ge(NO3)4		320.59	0.1948	3.90E-03	0.00E+00	3.90E-03	0.00E+00	0.00E+00
GeO2		104.59	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ge(OH)4		140.59	0.7439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H3BO3		61.83	0.5630	2.70E+02	0.00E+00	2.70E+02	0.00E+00	0.00E+00
H2CO3		62.03	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H2C2O4		90.00	1.6031	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HCl		36.46	1.6031	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HF		20.01	2.0985	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HNO3		63.02	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H2SO4		98.07	1.4486	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg		200.59	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg2Cl2		472.09	1.0974	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg2I2		654.99	0.6125	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg(NO3)2		324.63	0.6179	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
HgO		216.61	0.9260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg(OH)2		234.59	0.8551	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E+01
In(NO3)3		300.88	0.4614	1.85E-02	0.00E+00	1.85E-02	0.00E+00	0.00E+00
In2O3		277.64	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
In(OH)3		165.84	0.8371	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-01
K2CrO4		194.20	0.8765	0.00E+00	0.00E+00	0.00E+00	4.48E+03	0.00E+00
KMnO4		197.12	0.6800	6.66E+01	0.00E+00	6.66E+01	0.00E+00	0.00E+00
KNO3		101.10	0.4659	8.90E+01	0.00E+00	8.90E+01	1.69E+04	0.00E+00
K2O		94.20	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
KOH		56.11	0.8394	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
La(NO3)3		325.02	0.5012	1.10E+01	0.00E+00	1.10E+01	0.00E+00	0.00E+00
La2O3		325.82	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
La(OH)3		189.93	0.8577	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E+02
LiOH		23.95	0.6238	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LiNO3		68.94	0.2167	0.00E+00	0.00E+00	0.00E+00	3.03E+00	0.00E+00
Li2O		29.88	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MgCO3		84.32	0.4782	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.95E+02
Mg(NO3)2		148.41	0.2717	1.55E+01	0.00E+00	1.55E+01	5.43E-01	0.00E+00
MgO		40.32	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mg(OH)2		58.33	0.6912	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mn(NO3)2		170.05	0.4172	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MnO		70.94	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MnO2		86.94	0.8160	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E+03
Mn(OH)2		88.95	0.7975	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MoO3		143.95	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na3BO3		127.78	1.0000	0.00E+00	0.00E+00	0.00E+00	5.97E+02	0.00E+00
Li3PO4		115.80	1.0001	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2B4O7		201.27	0.9998	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2C2O4		134.01	0.4625	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2CO3		106.00	0.5847	0.00E+00	0.00E+00	0.00E+00	1.48E+04	0.00E+00
NaCl		58.45	1.0000	5.00E+01	0.00E+00	5.00E+01	4.68E+03	0.00E+00
spare		58.45	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na2CrO4		161.97	0.8519	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaF		41.99	1.0000	1.00E+00	0.00E+00	1.00E+00	5.03E+02	0.00E+00
NaH2PO4		120.00	0.8499	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NaHCO3		84.01	0.3689	0.00E+00	0.00E+00	0.00E+00	1.57E+04	0.00E+00
NaI		149.92	0.2067	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H3PO4		98.00	0.7244	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

STREAM NUMBER	6	7	8	9	10	11	12
STREAM NAME	PUREX WASTE	BD1 CONDENSATE	BD2 CHEMICAL ADD	BD2 WATER ADD	ADJUSTED PUREX WASTE	DECANTED PUREX SUPERNATANT	DECANTED PUREX SLUDGE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
FeO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Fe(OH)3	4.93E+04	0.00E+00			4.93E+04	0.00E+00	4.93E+04
Fe2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
FePO4	6.35E+03	0.00E+00			6.35E+03	0.00E+00	6.35E+03
Gd(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Gd2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Gd(OH)3	1.48E+00	0.00E+00			1.48E+00	0.00E+00	1.48E+00
Ge(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
GeO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ge(OH)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
H7dU3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
H2CO7	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
H2CO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
H7	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
HF	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
HNO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
H2SO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Hg	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
HgCl2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
HgCl2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Hg(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
HgO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Hg(OH)2	1.97E+01	0.00E+00			1.97E+01	0.00E+00	1.97E+01
In(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
In2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
In(OH)3	2.51E-01	0.00E+00			2.51E-01	0.00E+00	2.51E-01
K2CrO4	4.48E+03	0.00E+00			4.48E+03	3.99E+03	4.87E+02
KMnO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
KNO3	1.69E+04	0.00E+00			1.69E+04	1.51E+04	1.84E+03
K2O	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
KOH	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
La(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
La2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
La(OH)3	1.59E+02	0.00E+00			1.59E+02	0.00E+00	1.59E+02
LiOH	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
LiNO3	3.03E+00	0.00E+00			3.03E+00	2.70E+00	3.30E-01
Li2O	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
MgCO3	3.95E+02	0.00E+00			3.95E+02	0.00E+00	3.95E+02
Mg(NO3)2	5.43E-01	0.00E+00			5.43E-01	4.84E-01	5.91E-02
MgO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Mg(OH)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Mn(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
MnO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
MnO2	3.74E+03	0.00E+00			3.74E+03	0.00E+00	3.74E+03
Mn(OH)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
MoO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na3BO3	5.97E+02	0.00E+00			5.97E+02	5.32E+02	6.49E+01
Li3PO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na2B4O7	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na2C2O4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na2CO3	1.48E+04	0.00E+00			1.48E+04	1.32E+04	1.60E+03
NaCl	4.68E+03	0.00E+00			4.68E+03	4.17E+03	5.09E+02
spare	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na2CrO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
NaF	5.03E+02	0.00E+00			5.03E+02	4.48E+02	5.47E+01
NaH2PO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
NaHCO3	1.57E+04	0.00E+00			1.57E+04	1.40E+04	1.71E+03
NaI	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
H3PO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00

STREAM NUMBER	13	14	15	16	17	18	19
STREAM NAME	SLUDGE	IX ZEOLITE	SAND FILTER	SLUDGE	WASHED	8D1	8D1
	WASH	SLURRY	SLURRY	WASH	PUREX	WASTE BLEND	HEEL FLUSH
COMPONENT	kg	kg	kg	kg	kg	kg	kg
FeO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Fe(OH)3		0.00E+00		0.00E+00	4.93E+04	0.00E+00	
Fe2O3		1.96E+03		0.00E+00	0.00E+00	1.96E+03	
FePO4		0.00E+00		0.00E+00	6.35E+03	0.00E+00	
Gd(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Gd2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Gd(OH)3		0.00E+00		0.00E+00	1.48E+00	0.00E+00	
Ge(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
GeO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ge(OH)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
H3BO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
H2CO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
H2C2O4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
HCl		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
HF		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
HNO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
H2SO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Hg		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Hg2Cl2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Hg2I2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Hg(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
HgO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Hg(OH)2		0.00E+00		0.00E+00	1.97E+01	0.00E+00	
In(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
In2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
In(OH)3		0.00E+00		0.00E+00	2.51E-01	0.00E+00	
K2CrO4		0.00E+00		4.73E+02	1.37E+01	0.00E+00	
KMnO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
KN03		0.00E+00		1.79E+03	5.17E+01	0.00E+00	
K2O		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
KOH		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
La(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
La2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
La(OH)3		0.00E+00		0.00E+00	1.59E+02	0.00E+00	
LiOH		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
LiNO3		0.00E+00		3.21E-01	9.29E-03	0.00E+00	
Li2O		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
MgCO3		0.00E+00		0.00E+00	3.95E+02	0.00E+00	
Mg(NO3)2		0.00E+00		5.74E-02	1.66E-03	0.00E+00	
MgO		3.91E+02		0.00E+00	0.00E+00	3.91E+02	
Mg(OH)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Mn(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
MnO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
MnO2		0.00E+00		0.00E+00	3.74E+03	0.00E+00	
Mn(OH)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
MoO3		1.68E+01		0.00E+00	0.00E+00	1.68E+01	
Na3BO3		0.00E+00		6.31E+01	1.83E+00	0.00E+00	
Li3PO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Na2B4O7		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Na2C2O4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Na2CO3		0.00E+00		1.56E+03	4.52E+01	0.00E+00	
NaCl		0.00E+00		4.95E+02	1.43E+01	0.00E+00	
spare		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Na2CrO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
NaF		0.00E+00		5.31E+01	1.54E+00	0.00E+00	
NaH2PO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
NaHCO3		0.00E+00		1.66E+03	4.80E+01	0.00E+00	
NaI		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
H3PO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	

STREAM NUMBER	20 BD4	21 BD4	22 ADJUSTED WATER ADD	23 CAUSTIC THOREX WASTE	24 CAUSTIC TO BD2 (50%)	25 WATER FLUSH TANK	26 NEUTRALIZED THOREX WASTE IN BD2
COMPONENT	kg	kg	kg	kg	kg	kg	kg
FeO				0.00E+00	0.00E+00		0.00E+00
Fe(OH)3				0.00E+00	0.00E+00		2.79E+03
Fe2O3				0.00E+00	0.00E+00		0.00E+00
FePO4				0.00E+00	0.00E+00		0.00E+00
Gd(NO3)3				2.11E-01	0.00E+00		0.00E+00
Gd2O3				0.00E+00	0.00E+00		0.00E+00
Gd(OH)3				0.00E+00	0.00E+00		2.11E-01
Ge(NO3)4				3.90E-03	0.00E+00		0.00E+00
GeO2				0.00E+00	0.00E+00		0.00E+00
Ge(OH)4				0.00E+00	0.00E+00		6.52E-03
H3BO3				2.70E+02	0.00E+00		0.00E+00
H2CO3				0.00E+00	0.00E+00		0.00E+00
H2C2O4				0.00E+00	0.00E+00		0.00E+00
HCl				0.00E+00	0.00E+00		0.00E+00
HF				0.00E+00	0.00E+00		0.00E+00
HNO3				0.00E+00	0.00E+00		0.00E+00
H2SO4				0.00E+00	0.00E+00		0.00E+00
Hg				0.00E+00	0.00E+00		0.00E+00
Hg2Cl2				0.00E+00	0.00E+00		0.00E+00
Hg2I2				0.00E+00	0.00E+00		0.00E+00
Hg(NO3)2				0.00E+00	0.00E+00		0.00E+00
HgO				0.00E+00	0.00E+00		0.00E+00
Hg(OH)2				0.00E+00	0.00E+00		0.00E+00
In(NO3)3				1.85E-02	0.00E+00		0.00E+00
In2O3				0.00E+00	0.00E+00		0.00E+00
In(OH)3				0.00E+00	0.00E+00		1.85E-02
K2CrO4				0.00E+00	0.00E+00		0.00E+00
KMnO4				6.66E+01	0.00E+00		6.66E+01
KNO3				8.90E+01	0.00E+00		8.90E+01
K2O				0.00E+00	0.00E+00		0.00E+00
KOH				0.00E+00	0.00E+00		0.00E+00
La(NO3)3				1.10E+01	0.00E+00		0.00E+00
La2O3				0.00E+00	0.00E+00		0.00E+00
La(OH)3				0.00E+00	0.00E+00		1.10E+01
LiOH				0.00E+00	0.00E+00		0.00E+00
LiNO3				0.00E+00	0.00E+00		0.00E+00
Li2O				0.00E+00	0.00E+00		0.00E+00
MgCO3				0.00E+00	0.00E+00		0.00E+00
Mg(NO3)2				1.55E+01	0.00E+00		0.00E+00
MgO				0.00E+00	0.00E+00		0.00E+00
Mg(OH)2				0.00E+00	0.00E+00		1.55E+01
Mn(NO3)2				0.00E+00	0.00E+00		0.00E+00
MnO				0.00E+00	0.00E+00		0.00E+00
MnO2				0.00E+00	0.00E+00		0.00E+00
Mn(OH)2				0.00E+00	0.00E+00		0.00E+00
MoO3				0.00E+00	0.00E+00		0.00E+00
Na3BO3				0.00E+00	0.00E+00		9.92E+02
Li3PO4				0.00E+00	0.00E+00		0.00E+00
Na2B4O7				0.00E+00	0.00E+00		0.00E+00
Na2C2O4				0.00E+00	0.00E+00		0.00E+00
Na2CO3				0.00E+00	0.00E+00		0.00E+00
NaCl				5.00E+01	0.00E+00		5.00E+01
spare				0.00E+00	0.00E+00		0.00E+00
Na2CrO4				0.00E+00	0.00E+00		0.00E+00
NaF				1.00E+00	0.00E+00		1.00E+00
NaH2PO4				0.00E+00	0.00E+00		0.00E+00
NaKCO3				0.00E+00	0.00E+00		0.00E+00
Nal				0.00E+00	0.00E+00		0.00E+00
H3PO4				0.00E+00	0.00E+00		0.00E+00

STREAM NUMBER	27	28	29	30	31	32	33
STREAM NAME	VITRIFICATION SYSTEM FEED	BD2 SLURRY TRANSFER	SBS RECYCLE	CANISTER DECON SOLN RECYCLE	HEME FLUSH/COND RECYCLE	LWTS CONCENTRATE RECYCLE	WASTE HEADER RECYCLE
COMPONENT		BD2	FLUSH				
	kg	kg	kg	kg	kg	kg	kg
FeO	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Fe(OH)3	5.21E+04		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Fe2O3	1.96E+03		1.86E+02	0.00E+00	6.20E+00		0.00E+00
FePO4	6.35E+03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Gd(NO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Gd2O3	0.00E+00		5.47E-03	0.00E+00	1.82E-04		0.00E+00
Gd(OH)3	1.69E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ge(NO3)4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
GeO2	0.00E+00		2.11E-05	0.00E+00	7.03E-07		0.00E+00
Ge(OH)4	6.52E-03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
H3BO3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
H2CO3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
H2C2O4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
HCl	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
HF	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
HNO3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
H2SO4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Hg	0.00E+00		5.45E+00	0.00E+00	1.05E+00		0.00E+00
Hg2Cl2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
HgCl2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Hg(NO3)2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
HgO	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Hg(OH)2	1.97E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
In(NO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
In2O3	0.00E+00		8.72E-04	0.00E+00	2.91E-05		0.00E+00
In(OH)3	2.70E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
K2CrO4	1.37E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
KMnO4	6.66E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
KN03	1.41E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
K2O	0.00E+00		5.73E+01	0.00E+00	1.91E+00		0.00E+00
KOH	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
La(NO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
La2O3	0.00E+00		5.49E-01	0.00E+00	1.83E-02		0.00E+00
La(OH)3	1.70E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
LiOH	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
LiNO3	9.29E-03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Li2O	0.00E+00		4.84E+01	0.00E+00	1.61E+00		0.00E+00
MgCO3	3.95E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Mg(NO3)2	1.66E-03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
MgO	3.91E+02		1.38E+01	0.00E+00	4.60E-01		0.00E+00
Mg(OH)2	1.55E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Mn(NO3)2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
MnO	0.00E+00		1.53E+01	0.00E+00	5.12E-01		0.00E+00
MnO2	3.74E+03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Mn(OH)2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
MoO3	1.68E+01		5.37E-01	0.00E+00	2.73E-02		0.00E+00
Na3BO3	9.94E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Li3PO4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2B4O7	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2C2O4	0.00E+00		0.00E+00	1.00E+00	0.00E+00		0.00E+00
Na2CO3	4.52E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NaCl	6.43E+01		1.78E+01	0.00E+00	3.45E+00		0.00E+00
spare	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2CrO4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NaF	2.54E+00		2.24E+02	0.00E+00	4.33E+01		0.00E+00
NaH2PO4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NaHCO3	4.80E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NaI	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
H3PO4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00

STREAM NUMBER	34	.35	36	37	38	39	40
STREAM NAME	NONROUTINE WASTE RECYCLE	DILUTE CFMUT WASTE FEED	CONCENTRATED CFMUT WASTE	CFMUT OVERHEADS	GLASS FORMERS	MELTER FEED W/D GLASS FORMERS	MELTER FEED GLASS
COMPONENT	kg	kg	kg	kg	kg	kg	kg
FeO		0.00E+00	0.00E+00	0.00E+00			
Fe(OH)3		5.21E+04	5.21E+04	7.79E+01			
Fe2O3		2.15E+03	2.15E+03	3.21E+00	8.90E+01	5.76E+04	5.77E+04
FePO4		6.35E+03	6.35E+03	9.49E+00		Fe2O3, P2O5	
Gd(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Gd2O3		5.65E-03	5.65E-03	8.44E-06		1.70E+00	1.70E+00
Gd(OH)3		1.69E+00	1.69E+00	2.53E-03			
Ge(NO3)4		0.00E+00	0.00E+00	0.00E+00			
GeO2		2.18E-05	2.18E-05	3.26E-08		6.55E-03	6.55E-03
Ge(OH)4		6.52E-03	6.52E-03	9.75E-06			
H3BO3		0.00E+00	0.00E+00	0.00E+00		B2O3	
H2CO3		0.00E+00	0.00E+00	0.00E+00			
H2C2O4		0.00E+00	0.00E+00	0.00E+00			
HCl		0.00E+00	0.00E+00	0.00E+00		NaCl	
HF		0.00E+00	0.00E+00	0.00E+00		NaF	
HNO3		0.00E+00	0.00E+00	0.00E+00			
H2SO4		0.00E+00	0.00E+00	0.00E+00		0.6 Na2SO4	
Hg		6.51E+00	6.51E+00	9.72E-03		2.62E+01	2.62E+01
Hg2Cl2		0.00E+00	0.00E+00	0.00E+00		Hg, NaCl	
Hg2I2		0.00E+00	0.00E+00	0.00E+00		Hg, I2	
Hg(NO3)2		0.00E+00	0.00E+00	0.00E+00		Hg	
HgO		0.00E+00	0.00E+00	0.00E+00		Hg	
Hg(OH)2		1.97E+01	1.97E+01	2.94E-02		Hg, H2O, O2	
In(NO3)3		0.00E+00	0.00E+00	0.00E+00			
In2O3		9.01E-04	9.01E-04	1.35E-06		2.70E-01	2.70E-01
In(OH)3		2.70E-01	2.70E-01	4.03E-04			
K2CrO4		1.37E+01	1.37E+01	2.05E-02		K2O, Cr2O3	
KMnO4		6.66E+01	6.66E+01	9.96E-02		K2O, MnO2	
KN03		1.41E+02	1.41E+02	2.10E-01			
K2O		5.92E+01	5.92E+01	8.84E-02	1.75E+04	2.31E+02	1.78E+04
KOH		0.00E+00	0.00E+00	0.00E+00			
La(NO3)3		0.00E+00	0.00E+00	0.00E+00			
La2O3		5.67E-01	5.67E-01	8.47E-04		1.70E+02	1.70E+02
La(OH)3		1.70E+02	1.70E+02	2.54E-01			
LiOH		0.00E+00	0.00E+00	0.00E+00			
LiNO3		9.29E-03	9.29E-03	1.39E-05			
Li2O		5.00E+01	5.00E+01	7.47E-02	1.50E+04	5.00E+01	1.50E+04
MgCO3		3.95E+02	3.95E+02	5.90E-01			
Mg(NO3)2		1.66E-03	1.66E-03	2.48E-06			
MgO		4.06E+02	4.06E+02	6.06E-01	3.47E+03	8.16E+02	4.29E+03
Mg(OH)2		1.55E+01	1.55E+01	2.31E-02			
Mn(NO3)2		0.00E+00	0.00E+00	0.00E+00			
MnO		1.59E+01	1.59E+01	2.37E-02	1.67E+03	3.10E+03	4.76E+03
MnO2		3.74E+03	3.74E+03	5.59E+00			
Mn(OH)2		0.00E+00	0.00E+00	0.00E+00			
MoO3		1.73E+01	1.73E+01	2.59E-02		5.66E+01	5.66E+01
Na3BO3		9.94E+02	9.94E+02	1.49E+00		Na2O, B2O3	
Li3PO4		0.00E+00	0.00E+00	0.00E+00		Li2O, P2O5	
Na2BaO7		0.00E+00	0.00E+00	0.00E+00		Na2O, B2O3	
Na2C2O4		0.00E+00	0.00E+00	0.00E+00			
Na2CO3		4.52E+01	4.52E+01	6.75E-02			
NaCl		8.56E+01	8.56E+01	1.28E-01		8.56E+01	8.56E+01
spare		0.00E+00	0.00E+00	0.00E+00			
Na2CrO4		0.00E+00	0.00E+00	0.00E+00		Na2O, Cr2O3	
NaF		2.70E+02	2.70E+02	4.03E-01		1.07E+03	1.07E+03
NaH2PO4		0.00E+00	0.00E+00	0.00E+00			
NaHCO3		4.80E+01	4.80E+01	7.18E-02			
NaI		0.00E+00	0.00E+00	0.00E+00		Na2O, I2	
H3PO4		0.00E+00	0.00E+00	0.00E+00			

STREAM NUMBER STREAM NAME	COMPONENT KG	MOLECULAR WEIGHT	OXIDE EQUIVALENT	1	2	3	4	5
				THOREX SUPERNATANT 2/26/87	THOREX SLUDGE 2/26/87	THOREX WASTE 2/26/87	PUREX SUPERNATANT 9/26/82	PUREX SLUDGE
				kg	kg	kg	kg	kg
Na2MoO4	205.95	0.9999	5.40E+01	0.00E+00	5.40E+01	6.91E+02	0.00E+00	
NaNO2	69.00	0.4491	0.00E+00	0.00E+00	0.00E+00	1.40E+05	0.00E+00	
NaNO3	85.01	0.3645	8.28E+01	0.00E+00	8.28E+01	2.20E+05	0.00E+00	
Na2O	61.98	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NaOH	40.01	0.7746	0.00E+00	0.00E+00	0.00E+00	1.36E+04	0.00E+00	
Na3PO4	163.94	1.0102	1.20E+01	0.00E+00	1.20E+01	3.80E+03	0.00E+00	
Na2PuO2(OH)4	385.00	0.8650	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Na2RhO4	212.91	0.9247	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Na2RuO4	211.07	0.9241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Na2SO4	142.06	1.0000	1.80E+02	0.00E+00	1.80E+02	7.63E+04	0.00E+00	
Na2SeO4	188.96	0.9152	9.15E-01	0.00E+00	9.15E-01	1.37E+01	0.00E+00	
Na2SiO3	122.08	0.9998	1.26E+02	0.00E+00	1.26E+02	0.00E+00	0.00E+00	
NaTcO4	186.00	0.9994	1.10E+01	0.00E+00	1.10E+01	1.77E+02	0.00E+00	
Na2TeO4	237.58	0.9327	4.66E+00	0.00E+00	4.66E+00	7.65E+01	0.00E+00	
Na2U2O7	634.00	0.9497	0.00E+00	0.00E+00	0.00E+00	2.19E+02	0.00E+00	
Nd(NO3)3	330.35	0.5093	3.72E+01	0.00E+00	3.72E+01	0.00E+00	0.00E+00	
Nd2O3	336.48	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Nd(OH)3	234.26	0.7182	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E+02	
Ni	58.71	1.2725	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ni(NO3)2	182.81	0.4087	3.23E+02	0.00E+00	3.23E+02	0.00E+00	0.00E+00	
NiO	74.71	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ni(OH)2	92.74	0.8056	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.76E+02	
Np(NO3)4	485.00	0.5547	4.99E-01	0.00E+00	4.99E-01	0.00E+00	0.00E+00	
NpO2	269.05	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E+01	
Np(OH)4	301.00	0.8939	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
P2O5	141.99	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pa(NO3)4	279.04	0.9427	6.60E-01	0.00E+00	6.60E-01	0.00E+00	0.00E+00	
PaO2	263.04	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pa(OH)4	299.04	0.8796	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pd	106.40	1.1504	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pd(NO3)2	230.42	0.5312	4.25E+00	0.00E+00	4.25E+00	0.00E+00	0.00E+00	
PdO	122.40	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pd(OH)2	140.40	0.8718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E+01	
Pm(NO3)3	333.00	0.5132	5.13E-03	0.00E+00	5.13E-03	0.00E+00	0.00E+00	
Pm2O3	341.80	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pm(OH)3	197.90	0.8636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E+00	
Pr(NO3)3	326.91	0.5044	1.06E+01	0.00E+00	1.06E+01	0.00E+00	0.00E+00	
Pr2O3	329.81	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pr(OH)3	191.93	0.8592	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E+02	
Pu(NO3)4	488.16	0.5552	3.89E-01	0.00E+00	3.89E-01	0.00E+00	0.00E+00	
PuO2	271.05	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E+01	
RbNO3	147.47	0.6338	3.80E+00	0.00E+00	3.80E+00	7.54E+01	0.00E+00	
Rb2O	186.94	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Rh	102.91	1.3109	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Rh(NO3)4	350.91	0.3844	4.23E+00	0.00E+00	4.23E+00	0.00E+00	0.00E+00	
RhO2	134.90	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Rh(OH)4	170.91	0.7893	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.24E+01	
Ru	101.07	1.3166	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ru(NO3)4	349.07	0.3812	1.60E+01	0.00E+00	1.60E+01	0.00E+00	0.00E+00	
RuO2	133.07	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
spare	165.07	0.8061	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ru(OH)4	169.07	0.7871	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E+02	
S03	80.07	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Sb(NO3)3	307.75	0.3481	3.48E-02	0.00E+00	3.48E-02	0.00E+00	0.00E+00	
Sb2O3	291.50	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Sb(OH)3	172.75	0.8437	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.91E-01	
SeO2	110.96	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Si(NO3)4	276.10	0.2176	0.00E+00	0.00E+00	0.00E+00	5.00E+01	0.00E+00	
SiO2	60.08	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+03	

STREAM NUMBER	6	7	8	9	10	11	12
STREAM NAME	PUREX WASTE	BD1 CONDENSATE	BD2 CHEMICAL ADD	BD2 WATER ADD	ADJUSTED PUREX WASTE	DECANTED PUREX SUPERNATANT	DECANTED PUREX SLUDGE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Na2MoO4	6.91E+02	0.00E+00			6.91E+02	6.16E+02	7.51E+01
NaNO2	1.40E+05	0.00E+00			1.40E+05	1.25E+05	1.52E+04
NaNO3	2.20E+05	0.00E+00			2.20E+05	1.96E+05	2.39E+04
Na2O	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
NaOH	1.36E+04	0.00E+00			1.36E+04	1.21E+04	1.48E+03
Na3PO4	3.80E+03	0.00E+00			3.80E+03	3.39E+03	4.13E+02
Na2PuO2(OH)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na2RhO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na2RuO4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Na2SO4	7.63E+04	0.00E+00			7.63E+04	6.80E+04	8.29E+03
Na2SeO4	1.37E+01	0.00E+00			1.37E+01	1.22E+01	1.49E+00
Na2SiO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
NaTcO4	1.77E+02	0.00E+00			1.77E+02	1.58E+02	1.92E+01
Na2TeO4	7.65E+01	0.00E+00			7.65E+01	6.82E+01	8.31E+00
Na2U2O7	2.19E+02	0.00E+00			2.19E+02	1.96E+02	2.38E+01
Nd(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Nd2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Nd(OH)3	4.46E+02	0.00E+00			4.46E+02	0.00E+00	4.46E+02
Ni	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ni(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
NiO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ni(OH)2	8.76E+02	0.00E+00			8.76E+02	0.00E+00	8.76E+02
Np(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
NpO2	3.50E+01	0.00E+00			3.50E+01	0.00E+00	3.50E+01
Np(OH)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
P2O5	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pa(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
PaO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pa(OH)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pd	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pd(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
PdO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pd(OH)2	2.96E+01	0.00E+00			2.96E+01	0.00E+00	2.96E+01
Pm(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pm2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pm(OH)3	1.30E+00	0.00E+00			1.30E+00	0.00E+00	1.30E+00
Pr(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pr2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Pr(OH)3	1.46E+02	0.00E+00			1.46E+02	0.00E+00	1.46E+02
Pu(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
PuO2	3.70E+01	0.00E+00			3.70E+01	0.00E+00	3.70E+01
RbNO3	7.54E+01	0.00E+00			7.54E+01	6.72E+01	8.20E+00
Rb2O	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Rh	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Rh(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
RhO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Rh(OH)4	6.24E+01	0.00E+00			6.24E+01	0.00E+00	6.24E+01
Ru	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ru(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
RuO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
spare	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Ru(OH)4	3.60E+02	0.00E+00			3.60E+02	0.00E+00	3.60E+02
SO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sb(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sb2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sb(OH)3	5.91E-01	0.00E+00			5.91E-01	0.00E+00	5.91E-01
SeO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Si(NO3)4	5.00E+01	0.00E+00			5.00E+01	4.46E+01	5.44E+00
SiO2	1.26E+03	5.00E+03			1.26E+03	0.00E+00	1.26E+03

STREAM NUMBER	13	14	15	16	17	18	19
STREAM NAME	SLUDGE WASH WATER	IX ZEOLITE SLURRY 8D1	SAND FILTER SLURRY 8D1	SLUDGE WASH SUPERNATANT	WASHED PUREX SLUDGE	8D1 WASTE BLEND	8D1 HEEL FLUSH
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Na2MoO4		0.00E+00		7.30E+01	2.11E+00	0.00E+00	
NaNO2		0.00E+00		1.48E+04	4.28E+02	0.00E+00	
NaNO3		0.00E+00		2.32E+04	6.72E+02	0.00E+00	
Na2O		3.83E+03		0.00E+00	0.00E+00	3.83E+03	
NaOH		0.00E+00		1.43E+03	4.16E+01	0.00E+00	
Na3PO4		0.00E+00		4.01E+02	1.16E+01	0.00E+00	
Na2PuO2(CH)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Na2RhO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Na2RuO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Na2SO4		0.00E+00		8.06E+03	2.33E+02	0.00E+00	
Na2SeO4		0.00E+00		1.45E+00	4.20E-02	0.00E+00	
Na2SiO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
NaTcO4		0.00E+00		1.87E+01	5.41E-01	0.00E+00	
Na2TeO4		0.00E+00		8.08E+00	2.34E-01	0.00E+00	
Na2UO7		0.00E+00		2.32E+01	6.71E-01	0.00E+00	
Nd(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Nd2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Nd(OH)3		0.00E+00		0.00E+00	4.46E+02	0.00E+00	
Ni		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ni(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
NiO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ni(OH)2		0.00E+00		0.00E+00	8.76E+02	0.00E+00	
Np(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
NpO2		0.00E+00		0.00E+00	3.50E+01	0.00E+00	
Np(OH)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
P2O5		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pa(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
PaO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pa(OH)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pd		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pd(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
PdO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pd(OH)2		0.00E+00		0.00E+00	2.96E+01	0.00E+00	
Pm(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pm2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pm(OH)3		0.00E+00		0.00E+00	1.30E+00	0.00E+00	
Pr(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pr2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Pr(OH)3		0.00E+00		0.00E+00	1.46E+02	0.00E+00	
Pu(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
PuO2		0.00E+00		0.00E+00	3.70E+01	0.00E+00	
RbNO3		0.00E+00		7.97E+00	2.31E-01	0.00E+00	
Rb2O		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Rh		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Rh(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
RhO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Rh(OH)4		0.00E+00		0.00E+00	6.24E+01	0.00E+00	
Ru		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ru(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
RuO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
spare		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Ru(OH)4		0.00E+00		0.00E+00	3.60E+02	0.00E+00	
SO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Sb(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Sb2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Sb(OH)3		0.00E+00		0.00E+00	5.91E-01	0.00E+00	
SeO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Si(NO3)4		0.00E+00		5.29E+00	1.53E-01	0.00E+00	
SiO2		3.36E+04	4.55E+02	0.00E+00	1.26E+03	3.91E+04	

STREAM NUMBER	20 BD4	21 BD4	22 ADJUSTED THOREX WASTE	23 CAUSTIC ADDITION TO BD2 (50%)	24 CAUSTIC WATER FLUSH TO BD2	25 BD4 TANK FLUSH	26 NEUTRALIZED THOREX WASTE IN BD2
STREAM NAME	CHEMICAL ADD	WATER ADD					
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Na2MoO4			5.40E+01	0.00E+00			5.40E+01
NaNO2			0.00E+00	0.00E+00			0.00E+00
NaNO3			8.28E+01	0.00E+00			1.57E+04
Na2O			0.00E+00	0.00E+00			0.00E+00
NaOH			0.00E+00	1.63E+04			3.95E-13
Na3PO4			1.20E+01	0.00E+00			1.20E+01
Na2PuO2(OH)4			0.00E+00	0.00E+00			0.00E+00
Na2RhO4			0.00E+00	0.00E+00			0.00E+00
Na2RuO4			0.00E+00	0.00E+00			0.00E+00
Na2SO4			1.80E+02	0.00E+00			1.65E+02
Na2SeO4			9.15E-01	0.00E+00			9.15E-01
Na2SiO3			1.26E+02	0.00E+00			
NaTcO4			1.10E+01	0.00E+00			1.26E+02
Na2TeO4			4.66E+00	0.00E+00			1.10E+01
Na2U2O7			0.00E+00	0.00E+00			4.66E+00
Nd(NO3)3			3.72E+01	0.00E+00			0.00E+00
Nd2O3			0.00E+00	0.00E+00			0.00E+00
Nd(OH)3			0.00E+00	0.00E+00			3.72E+01
Ni			0.00E+00	0.00E+00			0.00E+00
Ni(NO3)2			3.23E+02	0.00E+00			0.00E+00
NiO			0.00E+00	0.00E+00			0.00E+00
Ni(OH)2			0.00E+00	0.00E+00			3.23E+02
Np(NO3)4			4.99E-01	0.00E+00			0.00E+00
NpO2			0.00E+00	0.00E+00			0.00E+00
Np(OH)4			0.00E+00	0.00E+00			4.99E-01
P2O5			0.00E+00	0.00E+00			0.00E+00
Pa(NO3)4			6.60E-01	0.00E+00			0.00E+00
PaO2			0.00E+00	0.00E+00			0.00E+00
Pa(OH)4			0.00E+00	0.00E+00			6.60E-01
Pd			0.00E+00	0.00E+00			0.00E+00
Pd(NO3)2			4.25E+00	0.00E+00			0.00E+00
PdO			0.00E+00	0.00E+00			0.00E+00
Pd(OH)2			0.00E+00	0.00E+00			4.25E+00
Fm(NO3)3			5.13E-03	0.00E+00			0.00E+00
Pm2O3			0.00E+00	0.00E+00			0.00E+00
Pm(OH)3			0.00E+00	0.00E+00			5.13E-03
Pr(NO3)3			1.06E+01	0.00E+00			0.00E+00
Pr2O3			0.00E+00	0.00E+00			0.00E+00
Pr(OH)3			0.00E+00	0.00E+00			1.06E+01
Pu(NO3)4			3.89E-01	0.00E+00			0.00E+00
PuO2			0.00E+00	0.00E+00			3.89E-01
RbNO3			3.80E+00	0.00E+00			3.80E+00
Rb2O			0.00E+00	0.00E+00			0.00E+00
Rh			0.00E+00	0.00E+00			0.00E+00
Rh(NO3)4			4.23E+00	0.00E+00			0.00E+00
RhO2			0.00E+00	0.00E+00			0.00E+00
Rh(OH)4			0.00E+00	0.00E+00			4.23E+00
Ru			0.00E+00	0.00E+00			0.00E+00
Ru(NO3)4			1.60E+01	0.00E+00			0.00E+00
RuO2			0.00E+00	0.00E+00			0.00E+00
spare			0.00E+00	0.00E+00			0.00E+00
Ru(OH)4			0.00E+00	0.00E+00			1.60E+01
S03			0.00E+00	0.00E+00			0.00E+00
Sb(NO3)3			3.48E-02	0.00E+00			0.00E+00
Sb2O3			0.00E+00	0.00E+00			0.00E+00
Sb(OH)3			0.00E+00	0.00E+00			4.74E-02
SeO2			0.00E+00	0.00E+00			0.00E+00
Si(NO3)4			0.00E+00	0.00E+00			0.00E+00
SiO2			0.00E+00	0.00E+00			0.00E+00

STREAM NUMBER	STREAM NAME	27	28	29	30	31	32	33
		VITRIFICATION SYSTEM FEED	8D2 SLURRY TRANSFER	S8S RECYCLE	CANISTER DECON SOLN	HEME FLUSH/COND	LWTS CONCENTRATE	WASTE HEADER RECYCLE
COMPONENT		kg	kg	kg	kg	kg	kg	kg
Na2MoO4		5.61E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NaNO2		4.28E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NaNO3		1.64E+04		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2O		3.83E+03		5.89E+01	0.00E+00	5.84E+00		0.00E+00
NaOH		4.16E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na3PO4		2.36E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2PuO2(OH)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2RhO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2RuO4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2SO4		3.99E+02		2.68E+02	0.00E+00	4.30E-02		0.00E+00
Na2SeO4		9.57E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2SiO3		1.26E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NaTcO4		1.15E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2TeO4		4.90E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Na2U2O7		6.71E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Nd(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Nd2O3		0.00E+00		1.56E+00	0.00E+00	5.21E-02		0.00E+00
Nd(OH)3		4.83E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ni		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ni(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NiO		0.00E+00		3.88E+00	0.00E+00	1.29E-01		0.00E+00
Ni(OH)2		1.20E+03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Np(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
NpO2		3.50E+01		1.15E-01	0.00E+00	3.83E-03		0.00E+00
Np(OH)4		4.99E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
P2O5		0.00E+00		3.62E+01	0.00E+00	1.21E+00		0.00E+00
Pa(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
PaO2		0.00E+00		2.13E-03	0.00E+00	7.11E-05		0.00E+00
Pa(OH)4		6.60E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Pd		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Pd(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
PdO		0.00E+00		1.10E-01	0.00E+00	3.65E-03		0.00E+00
Pd(OH)2		3.39E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Pm(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Pm2O3		0.00E+00		4.20E-03	0.00E+00	1.40E-04		0.00E+00
Pm(OH)3		1.30E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Pr(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Pr2O3		0.00E+00		5.06E-01	0.00E+00	1.69E-02		0.00E+00
Pr(OH)3		1.57E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Pu(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
PuO2		3.74E+01		1.21E-01	0.00E+00	4.03E-03		0.00E+00
RbNO3		4.03E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Rb2O		0.00E+00		1.30E-02	0.00E+00	4.35E-04		0.00E+00
Rh		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Rh(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
RhO2		0.00E+00		2.15E-01	0.00E+00	7.18E-03		0.00E+00
Rh(OH)4		6.66E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ru		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ru(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
RuO2		0.00E+00		3.97E+01	0.00E+00	2.02E+00		0.00E+00
spare		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ru(OH)4		3.76E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
S03		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Sb(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Sb2O3		0.00E+00		2.06E-03	0.00E+00	6.87E-05		0.00E+00
Sb(OH)3		6.38E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
SeO2		0.00E+00		2.69E-02	0.00E+00	5.21E-03		0.00E+00
S1(NO3)4		1.53E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
S1O2		4.03E+04		6.65E+02	0.00E+00	2.22E+01		0.00E+00

STREAM NUMBER	34	35	36	37	38	39	40
STREAM NAME	NONROUTINE WASTE RECYCLE	DILUTE CFMUT WASTE FEED	CONCENTRATED CFMUT WASTE	CFMUT WASTE OVERHEADS	GLASS FORMERS	MELTER FEED W/O GLASS FORMERS	MELTER FEED GLASS
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Ns2Mo04		5.61E+01	5.61E+01	8.38E-02			
NaNO2		4.28E+02	4.28E+02	6.39E-01			
NaNO3		1.64E+04	1.64E+04	2.45E+01			
Na2O		3.90E+03	3.90E+03	5.82E+00	3.32E+04	2.12E+04	5.44E+04
NaOH		4.16E+01	4.16E+01	6.21E-02			
Na3P04		2.36E+01	2.36E+01	3.53E-02			
Na2Pu02(OH)4		0.00E+00	0.00E+00	0.00E+00			
Na2Rh04		0.00E+00	0.00E+00	0.00E+00			
Na2Ru04		0.00E+00	0.00E+00	0.00E+00			
Na2SO4		6.67E+02	6.67E+02	9.96E-01			
Na2Se04		9.57E-01	9.57E-01	1.43E-03			
Na2Si03		1.26E+02	1.26E+02	1.88E-01			
NaTc04		1.15E+01	1.15E+01	1.72E-02			
Na2Te04		4.90E+00	4.90E+00	7.32E-03			
Na2U207		6.71E-01	6.71E-01	1.00E-03			
Nd(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Nd2O3		1.61E+00	1.61E+00	2.41E-03		4.85E+02	4.85E+02
Nd(OH)3		4.83E+02	4.83E+02	7.22E-01			
Ni		0.00E+00	0.00E+00	0.00E+00			
Ni(NO3)2		0.00E+00	0.00E+00	0.00E+00			
NiO		4.01E+00	4.01E+00	5.99E-03		1.20E+03	1.20E+03
Ni(OH)2		1.20E+03	1.20E+03	1.79E+00			
Np(NO3)4		0.00E+00	0.00E+00	0.00E+00			
NpO2		3.51E+01	3.51E+01	5.25E-02		3.56E+01	3.56E+01
Np(OH)4		4.99E-01	4.99E-01	7.46E-04			
P205		3.74E+01	3.74E+01	5.59E-02	8.21E+03	3.04E+03	1.12E+04
Pa(NO3)4		0.00E+00	0.00E+00	0.00E+00			
PaO2		2.20E-03	2.20E-03	3.29E-06		6.62E-01	6.62E-01
Pa(OH)4		6.60E-01	6.60E-01	9.86E-04			
Pd		0.00E+00	0.00E+00	0.00E+00			
Pd(NO3)2		0.00E+00	0.00E+00	0.00E+00			
PdO		1.13E-01	1.13E-01	1.69E-04		3.40E+01	3.40E+01
Pd(OH)2		3.39E+01	3.39E+01	5.06E-02			
Pm(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Pm2O3		4.34E-03	4.34E-03	6.49E-06		1.30E+00	1.30E+00
Pm(OH)3		1.30E+00	1.30E+00	1.94E-03			
Pr(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Pr2O3		5.23E-01	5.23E-01	7.82E-04		1.57E+02	1.57E+02
Pr(OH)3		1.57E+02	1.57E+02	2.34E-01			
Pu(NO3)4		0.00E+00	0.00E+00	0.00E+00			
PuO2		3.75E+01	3.75E+01	5.61E-02		3.75E+01	3.75E+01
RbNO3		4.03E+00	4.03E+00	6.03E-03			
Rb2O		1.35E-02	1.35E-02	2.01E-05		4.05E+00	4.05E+00
Rh		0.00E+00	0.00E+00	0.00E+00			
Rh(NO3)4		0.00E+00	0.00E+00	0.00E+00			
RhO2		2.22E-01	2.22E-01	3.32E-04		6.68E+01	6.68E+01
Rh(OH)4		6.66E+01	6.66E+01	9.95E-02			
Ru		0.00E+00	0.00E+00	0.00E+00			
Ru(NO3)4		0.00E+00	0.00E+00	0.00E+00			
RuO2		4.18E+01	4.18E+01	6.24E-02		4.18E+02	4.18E+02
spare		0.00E+00	0.00E+00	0.00E+00			
Ru(OH)4		3.76E+02	3.76E+02	5.63E-01			
S03		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Sb(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Sb2O3		2.13E-03	2.13E-03	3.18E-06		6.40E-01	6.40E-01
Sb(OH)3		6.38E-01	6.38E-01	9.53E-04			
SeO2		3.21E-02	3.21E-02	4.80E-05		6.46E-01	6.46E-01
Si(NO3)4		1.53E-01	1.53E-01	2.29E-04			
SiO2		4.10E+04	4.10E+04	6.13E+01	1.65E+05	4.11E+04	2.07E+05

STREAM NUMBER STREAM NAME	COMPONENT	MOLECULAR WEIGHT	OXIDE EQUIVALENT	1	2	3	4	5
				THOREX SUPERNATANT	THOREX SLUDGE	THOREX WASTE	PUREX SUPERNATANT	PUREX SLUDGE
				2/26/87	2/26/87	2/26/87	9/26/82	
KG			kg	kg	kg	kg	kg	kg
Sm(NO <sub>3</sub> ) <sub>3</sub>		336.46	0.5182	7.25E+00	0.00E+00	7.25E+00	0.00E+00	0.00E+00
Sn <sub>2</sub> O <sub>3</sub>		348.70	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sn(OH) <sub>3</sub>		201.37	0.8658	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E+02
Sn(NO <sub>3</sub> ) <sub>4</sub>		366.71	0.4110	2.88E-01	0.00E+00	2.88E-01	1.01E+02	0.00E+00
SnO <sub>2</sub>		150.70	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sn(OH) <sub>4</sub>		186.69	0.8072	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E+00
SrCO <sub>3</sub>		147.64	0.7019	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr(NO <sub>3</sub> ) <sub>2</sub>		211.69	0.4895	7.83E+00	0.00E+00	7.83E+00	1.96E+00	0.00E+00
SrO		103.63	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr(OH) <sub>2</sub>		121.64	0.8519	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SrSO <sub>4</sub>		183.70	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E+02
SUGAR(C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> )		342.30	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tb(NO <sub>3</sub> ) <sub>3</sub>		345.00	0.5302	2.12E-03	0.00E+00	2.12E-03	0.00E+00	0.00E+00
Tb <sub>2</sub> O <sub>3</sub>		365.85	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tb(OH) <sub>3</sub>		209.93	0.8714	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tc <sub>2</sub> O <sub>7</sub>		309.81	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TeO <sub>2</sub>		159.60	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Th(NO <sub>3</sub> ) <sub>4</sub>		480.06	0.5500	1.71E+04	0.00E+00	1.71E+04	0.00E+00	0.00E+00
ThO <sub>2</sub>		264.05	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Th(OH) <sub>4</sub>		300.04	0.8800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TiO <sub>2</sub>		79.90	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>		394.10	0.6853	4.11E+00	0.00E+00	4.11E+00	0.00E+00	0.00E+00
UO <sub>2</sub>		270.07	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UO <sub>3</sub>		286.07	0.9441	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
UO <sub>2</sub> (OH) <sub>2</sub>		304.07	0.8882	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E+03
Y <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub>		357.86	0.6310	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y(NO <sub>3</sub> ) <sub>3</sub>		275.00	0.4106	5.75E+00	0.00E+00	5.75E+00	0.00E+00	0.00E+00
Y <sub>2</sub> O <sub>3</sub>		225.81	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y(OH) <sub>3</sub>		139.93	0.8069	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.31E+01
spare		spare	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn(NO <sub>3</sub> ) <sub>2</sub>		189.47	0.4295	4.29E+00	0.00E+00	4.29E+00	0.00E+00	0.00E+00
ZnO		81.37	1.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn(OH) <sub>2</sub>		99.37	0.8189	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E+02
Zr(NO <sub>3</sub> ) <sub>4</sub>		339.23	0.3632	4.36E+00	0.00E+00	4.36E+00	0.00E+00	0.00E+00
ZrO <sub>2</sub>		123.22	1.0000	0.00E+00	3.50E+01	3.50E+01	0.00E+00	0.00E+00
Zr(OH) <sub>4</sub>		159.25	0.7738	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.46E+02
TOTAL OXIDES				22,964	35	22,999	512,767	75,034
TOTAL OXIDES				22,964	35	22,999	512,767	75,034
S03 Equivalent		kg		101.454	0.000	101.454	42,983.375	198.532
		wt% oxides		0.44%	0.00%	0.44%	8.38%	0.26%

STREAM NUMBER	6 PUREX WASTE	7 BD1 CONDENSATE	8 BD2 CHEMICAL ADD	9 BD2 WATER ADD	10 ADJUSTED PUREX WASTE	11 DECANTED PUREX SUPERNATANT	12 DECANTED PUREX SLUDGE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Sm(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sm2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sm(OH)3	1.24E+02	0.00E+00			1.24E+02	0.00E+00	1.24E+02
Sn(NO3)4	1.01E+02	0.00E+00			1.01E+02	8.97E+01	1.09E+01
SnO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sn(OH)4	2.02E+00	0.00E+00			2.02E+00	0.00E+00	2.02E+00
SrCO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sr(NO3)2	1.96E+00	0.00E+00			1.96E+00	1.75E+00	2.13E-01
SrO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Sr(OH)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Si_3O4	2.17E+02	0.00E+00			2.17E+02	0.00E+00	2.17E+02
SUGAR(C12H22O11)	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Tb(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Tb2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Tb(OH)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Tc207	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
TeO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Th(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
ThO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Th(OH)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
TiO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
UO2(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
UO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
UO3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
UO2(OH)2	2.74E+03	0.00E+00			2.74E+03	0.00E+00	2.74E+03
Y2(CO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Y(NO3)3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Y2O3	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Y(OH)3	8.31E+01	0.00E+00			8.31E+01	0.00E+00	8.31E+01
spare	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Zn(NO3)2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
ZnO	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Zn(OH)2	1.05E+02	0.00E+00			1.05E+02	0.00E+00	1.05E+02
Zr(NO3)4	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
ZrO2	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00
Zr(OH)4	7.46E+02	0.00E+00			7.46E+02	0.00E+00	7.46E+02
TOTAL OXIDES	587,801	5,000			587,801	457,028	99,852
TOTAL OXIDES	587,801	5,000			587,801	457,028	99,852
SO3 Equivalent	43,181.907	0.000	0.000	0.000	43,181.907	38,310.937	4,870.969
	7.35%	0.00%	0.00%	0.00%	7.35%	8.38%	4.88%

STREAM NUMBER	13	14	15	16	17	18	19
STREAM NAME	SLUDGE	IX ZEOLITE	SAND FILTER	SLUDGE	WASHED	BD1	BD1
	WASH	SLURRY	SLURRY	WASH	PUREX	WASTE BLEND	HEEL FLUSH
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Sm(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sm2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sm(OH)3		0.00E+00		0.00E+00	1.24E+02	0.00E+00	
Sn(NO3)4		0.00E+00		1.06E+01	3.08E-01	0.00E+00	
SnO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Sn(OH)4		0.00E+00		0.00E+00	2.02E+00	0.00E+00	
SrCO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Sr(NO3)2		0.00E+00		2.07E-01	5.99E-03	0.00E+00	
SrO		2.24E+01		0.00E+00	0.00E+00	2.24E+01	
Sr(OH)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
SrSO4		0.00E+00		0.00E+00	2.17E+02	0.00E+00	
SUGAR(C12H22O11)		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Tb(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Tb2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Tb(OH)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Tc2O7		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
TeO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Th(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
ThO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Th(OH)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
TiO2		1.68E+01		0.00E+00	0.00E+00	1.68E+01	
UO2(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
UO2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
UO3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
UO2(OH)2		0.00E+00		0.00E+00	2.74E+03	0.00E+00	
Y2(CO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Y(NO3)3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Y2O3		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Y(OH)3		0.00E+00		0.00E+00	8.31E+01	0.00E+00	
spare		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Zn(NO3)2		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
ZnO		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
Zn(OH)2		0.00E+00		0.00E+00	1.05E+02	0.00E+00	
Zr(NO3)4		0.00E+00		0.00E+00	0.00E+00	0.00E+00	
ZrO2		2.24E+01		0.00E+00	0.00E+00	2.24E+01	
Zr(OH)4		0.00E+00		0.00E+00	7.46E+02	0.00E+00	
TOTAL OXIDES	0	49,588	455	54,170	76,603	55,042	
TOTAL OXIDES	0	49,588	455	54,170	76,603	55,042	
SO3 Equivalent	0.000	0.000	0.000	4,540.890	330.080	0.000	0.000
	0.00%	0.00%	0.00%	8.38%	0.43%	0.00%	0.00%

STREAM NUMBER	20 BD4	21 BD4	22 ADJUSTED WATER ADD	23 CAUSTIC THOREX WASTE	24 CAUSTIC WATER FLUSH TO BD2 (50%)	25 BD4 TANK	26 NEUTRALIZED THOREX WASTE IN BD2
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Sm(NO3)3			7.25E+00	0.00E+00			0.00E+00
Sm2O3			0.00E+00	0.00E+00			0.00E+00
Sm(OH)3			0.00E+00	0.00E+00			7.25E+00
Sn(NO3)4			2.88E-01	0.00E+00			0.00E+00
SnO2			0.00E+00	0.00E+00			0.00E+00
Sn(OH)4			0.00E+00	0.00E+00			2.88E-01
SrCO3			0.00E+00	0.00E+00			0.00E+00
Sr(NO3)2			7.83E+00	0.00E+00			0.00E+00
SrO			0.00E+00	0.00E+00			0.00E+00
Sr(OH)2			3.00E+00	0.00E+00			0.00E+00
SrSO4			0.00E+00	0.00E+00			1.39E+01
SUGAR(C12H22O11)			0.00E+00	0.00E+00			0.00E+00
Tb(NO3)3			2.12E-03	0.00E+00			0.00E+00
Tb2O3			0.00E+00	0.00E+00			0.00E+00
Tb(OH)3			0.00E+00	0.00E+00			2.12E-03
Tc2O7			0.00E+00	0.00E+00			0.00E+00
TeO2			0.00E+00	0.00E+00			0.00E+00
Th(NO3)4			1.71E+04	0.00E+00			0.00E+00
ThO2			0.00E+00	0.00E+00			0.00E+00
Th(OH)4			0.00E+00	0.00E+00			1.71E+04
TiO2			0.00E+00	0.00E+00			0.00E+00
UO2(NO3)2			4.11E+00	0.00E+00			0.00E+00
UO2			0.00E+00	0.00E+00			0.00E+00
UO3			0.00E+00	0.00E+00			0.00E+00
UO2(OH)2			0.00E+00	0.00E+00			4.11E+00
Y2(CO3)3			0.00E+00	0.00E+00			0.00E+00
Y(NO3)3			5.75E+00	0.00E+00			0.00E+00
Y2O3			0.00E+00	0.00E+00			0.00E+00
Y(OH)3			0.00E+00	0.00E+00			5.75E+00
spare			0.00E+00	0.00E+00			0.00E+00
Zn(NO3)2			4.29E+00	0.00E+00			0.00E+00
ZnO			0.00E+00	0.00E+00			0.00E+00
Zn(OH)2			0.00E+00	0.00E+00			4.29E+00
Zr(NO3)4			4.36E+00	0.00E+00			0.00E+00
ZrO2			3.50E+01	0.00E+00			3.50E+01
Zr(OH)4			0.00E+00	0.00E+00			4.36E+00
TOTAL OXIDES			22,999	16,331		0	39,308
TOTAL OXIDES			22,999	16,331		0	39,308
SO3 Equivalent	0.000 0.00%	0.000 0.00%	101.454 0.44%	0.000 0.00%	0.000 0.00%	0.000 0.00%	107.506 0.27%

STREAM NUMBER	27	28	29	30	31	32	33
STREAM NAME	VITRIFICATION SYSTEM FEED BD2	BD2 SLURRY TRANSFER FLUSH	SBS RECYCLE	CANISTER DECON SOLN RECYCLE	EME FLUSH /COND RECYCLE	LWTS CONCENTRATE RECYCLE	WASTE HEADER RECYCLE
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Sm(NO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Sm2O3	0.00E+00		4.24E-01	0.00E+00	1.41E-02		0.00E+00
Sm(OH)3	1.31E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Sn(NO3)4	3.08E-01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
SnO2	0.00E+00		8.45E-03	0.00E+00	2.82E-04		0.00E+00
Sn(OH)4	2.31E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
SrCO3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Sr(NO3)2	5.99E-03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
SrO	2.24E+01		7.23E-02	0.00E+00	2.41E-03		0.00E+00
Sr(OH)2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
SrSO4	2.31E+02		7.46E-01	0.00E+00	2.49E-02		0.00E+00
SUGAR(C12H22O11)	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Tb(NO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Tb2O3	0.00E+00		6.86E-06	0.00E+00	2.29E-07		0.00E+00
Tb(OH)3	2.12E-03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Tc2O7	0.00E+00		8.89E-01	0.00E+00	1.72E-01		0.00E+00
TeO2	0.00E+00		1.55E-01	0.00E+00	2.99E-02		0.00E+00
Th(NO3)4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
ThO2	0.00E+00		5.52E+01	0.00E+00	1.84E+00		0.00E+00
Th(OH)4	1.71E+04		0.00E+00	0.00E+00	0.00E+00		0.00E+00
TiO2	1.68E+01		1.40E+01	0.00E+00	4.65E-01		0.00E+00
UO2(NO3)2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
UO2	0.00E+00		8.88E+00	0.00E+00	2.96E-01		0.00E+00
UO3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
UO2(OH)2	2.75E+03		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Y2(CO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Y(NO3)3	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Y2O3	0.00E+00		2.87E-01	0.00E+00	9.58E-03		0.00E+00
Y(OH)3	8.89E+01		0.00E+00	0.00E+00	0.00E+00		0.00E+00
spare	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Zn(NO3)2	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
ZnO	0.00E+00		3.53E-01	0.00E+00	1.18E-02		0.00E+00
Zn(OH)2	1.09E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
Zr(NO3)4	0.00E+00		0.00E+00	0.00E+00	0.00E+00		0.00E+00
ZrO2	5.74E+01		2.61E+00	0.00E+00	8.70E-02		0.00E+00
Zr(OH)4	7.50E+02		0.00E+00	0.00E+00	0.00E+00		0.00E+00
TOTAL OXIDES	170,953	0	2,825	0	99		0
TOTAL OXIDES	170,953	0	2,825	0	99		0
SO3 Equivalent	437.586	0.000	151.736	0.000	0.047	0.000	0.000
	0.26%	0.00%	5.37%	0.00%	0.05%	0.00%	0.00%

STREAM NUMBER	34	35	36	37	38	39	40
STREAM NAME	NONROUTINE WASTE RECYCLE	DILUTE CFMUT WASTE FEED	CONCENTRATED CFMUT WASTE	CFMUT OVERHEADS	GLASS FORMERS	MELTER FEED W/O GLASS FORMERS	MELTER FEED GLASS
COMPONENT	kg	kg	kg	kg	kg	kg	kg
Sm(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Sm2O3		4.38E-01	4.38E-01	6.54E-04		1.32E+02	1.32E+02
Sm(OH)3		1.31E+02	1.31E+02	1.96E-01			
Sn(NO3)4		3.08E-01	3.08E-01	4.60E-04			
SnO2		8.73E-03	8.73E-03	1.30E-05		2.62E+00	2.62E+00
Sn(OH)4		2.31E+00	2.31E+00	3.45E-03			
SrCO3		0.00E+00	0.00E+00	0.00E+00			
Sr(NO3)2		5.99E-03	5.99E-03	8.95E-06			
SrO		2.24E+01	2.24E+01	3.35E-02		2.25E+01	2.25E+01
Sr(OH)2		0.00E+00	0.00E+00	0.00E+00			
SrSO4		2.32E+02	2.32E+02	3.46E-01		2.32E+02	2.32E+02
SUGAR(C12H22O11)		0.00E+00	0.00E+00	0.00E+00		0.00E+00	
Tb(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Tb2O3		7.09E-06	7.09E-06	1.06E-08		2.13E-03	2.13E-03
Tb(OH)3		2.12E-03	2.12E-03	3.17E-06			
Tc2O7		1.06E+00	1.06E+00	1.59E-03		1.07E+01	1.07E+01
TeO2		1.85E-01	1.85E-01	2.76E-04		3.71E+00	3.71E+00
Th(NO3)4		0.00E+00	3.78E+02	0.00E+00			
ThO2		5.71E+01	5.71E+01	8.53E-02		1.71E+04	1.71E+04
Th(OH)4		1.71E+04	1.67E+04	2.55E+01			
TiO2		3.12E+01	3.12E+01	4.66E-02	4.30E+03	3.12E+01	4.33E+03
UO2(NO3)2		0.00E+00	0.00E+00	0.00E+00			
UO2		9.18E+00	9.18E+00	1.37E-02		2.76E+03	2.76E+03
UO3		0.00E+00	0.00E+00	0.00E+00			
UO2(OH)2		2.75E+03	2.75E+03	4.10E+00			
Y2(CO3)3		0.00E+00	0.00E+00	0.00E+00			
Y(NO3)3		0.00E+00	0.00E+00	0.00E+00			
Y2O3		2.97E-01	2.97E-01	4.44E-04		8.92E+01	8.92E+01
Y(OH)3		8.89E+01	8.89E+01	1.33E-01			
spare		0.00E+00	0.00E+00	0.00E+00		0.00E+00	
Zn(NO3)2		0.00E+00	0.00E+00	0.00E+00			
ZnO		3.65E-01	3.65E-01	5.45E-04		1.09E+02	1.09E+02
Zn(OH)2		1.09E+02	1.09E+02	1.63E-01			
Zr(NO3)4		0.00E+00	0.00E+00	0.00E+00			
ZrO2		6.01E+01	6.01E+01	8.98E-02		8.10E+02	8.10E+02
Zr(OH)4		7.50E+02	7.50E+02	1.12E+00			
TOTAL OXIDES		173,877	173,877	260	313,701	172,434	486,135
TOTAL OXIDES		173,877	173,877	260	313,701	172,434	476,374
							486,135
SO3 Equivalent	0.000	589.369	589.369	0.881	0.000	589.4	589.4
	0.00%	0.34%	0.34%	0.34%	0.00%	0.34%	0.12%

## WEST VALLEY HIGH LEVEL WASTE FLOW SHEET

## PARAMETER SELECTIONS

PARAMETER(COLUMN A-B) NUMBER(COLUMN C)

WEST VALLEY WASTE COMPOSITION

LOTUS COLUMNS D - I

YEAR RADIONUCLIDES 1990  
DECAYED TO, YrWEST VALLEY 801 SLUDGE WASHING  
LOTUS COLUMNS J - V

J/7 801 CONDENSATE

1. Water Level in 801 6.00 ft  
MAS,8/26/87 654,000 l2. Solids Composition  
per MASa. Rust(Fe2O3) 0 lb  
b. Dirt(SiO2) 11,000 lb3. Radionuclide Content  
per MAS as of 10/22/84a. 137-Cs 625 Ci  
b. 90-Sr 625 Ci

N/11 DECANTED PUREX SUPERNATANT

1. Supernatant Pump Heel 1.00 ft  
109,000 l

O/12 DECANTED PUREX SLUDGE

1. Prewashed Total 1.50 ft  
Sludge Height 163,500 l2. Postwash Total 3.00 ft  
Sludge Height 327,000 l

P/13 SLUDGE WASH WATER

1. Number of Washes 4.00

2. Water Volume / Wash 632,000 l  
5.80 ft3. Wash Supernatant Heel 1.00 ft  
109,000 l

Q/14 IX ZEOLITE SLURRY BD1 (See Q44 to Q86 for parameter explanation)

1. BD2 Supernatant Processed Per Cycle	36,000 l
2. BD2 Wash Solution Processed Per Cycle	292,368 l
3. Water Produced In BD1 Per IX Cycle	2,907 l
4. Zeolite (with hydration water) Produced In BD1 Per IX Cycle	1,200 l
5. Fraction Of Cesium Recovered	0.999

R/15 SAND FILTER SLURRY TO BD1

1. Total Number Of Sand Beds	1.000
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WEST VALLEY BD4 THOREX WASTE NEUTRALIZATION  
LOTUS COLUMNS W - AC

AB/25 BD4 TANK FLUSH

1. BD4 Water Flush	6,400 l
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WEST VALLEY VITRIFICATION FEED MAKEUP  
LOTUS COLUMNS AD - AP

BASIC VITRIFICATION PROCESS PARAMETERS

1. Waste Oxide Loading In Glass (Basis for trial glass formulation)	36.500 wt% 0.3650 fraction			
2. Melter Feed Concentration In FHT On Oxide Basis	450.00 g/l of TO			
3. Melter Feed Batch Size In FHT	325L.00 gal 12301.25 L			
4. Jet Dilution	10.00 vol%			
5. Vitrification Feed Water Dilution Factor	1.00			
6. Glass Per Canister	1900.00 kg			
7. Glass Production Rate	45.0 kg/hr			
8. Off Gas Decontamination Factors				
Equipment Row	Melter	SBS	HEME	FILTERS
Chemical Column				
Nonvolatile				
Particulates	300.0	30.0	30.0	1,000,000.0
Semivolatiles				
Cs	50.0	u.0	30.0	SAME
B	50.0	2,000.0	30.0	AS
Ru	10.0	20.0	30.0	PARTICULATES
Mo	100.0	20.0	30.0	
Cl	4.0	6.0	30.0	
Fl	4.0	6.0	30.0	
Se	20.0	6.0	30.0	
Te	20.0	6.0	30.0	
S	Amt. Rxn.	Amt. Rxn.	Not Present	
Tc	10.0	6.0	30.0	
Hg	4.0	6.0	30.0	
Cd	10.0	6.0	30.0	

Volatile	NOT APPLICABLE	1.0	1.0	1.0
	COx			
I2	1.0			
NO2		Amt. Rxn.	Amt. Rxn.	
N2	1.0			
O2	1.0			
H2				
NO				

SOx from melter quantitatively reacts in SBS.

8. Air Inleakages/Supplies (Bases: Dry Air)

See other bases in appropriate column notes

a. Melter	50.00 scfm
b. Film Cooler	140.00 scfm
c. Pressure Control	45.00 scfm
d. SBS Air Sparge	2.50 scfm
e. Vessel Vent	100.00 scfm

Total	337.50
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9. Glass Formulation

a. Waste Loading 36.50 wt%

Variable Location: C1325

b. Composition Scaling 1.0000

Factor

c. Glass Weight: Basis

Loading	476,374 kg
Calculated	486,135 kg
d. Critical Component	89 kg

Addition: Fe2O3 (= 0)

e. Glass Composition	Wt%	Wt Fraction
Ag <sub>2</sub> O		0.00E+00
Al <sub>2</sub> O <sub>3</sub>	6.5400	6.54E-02
Am <sub>2</sub> O <sub>3</sub>	0.0056	5.57E-05
B <sub>2</sub> O <sub>3</sub>	10.2600	1.03E-01
BaO	0.0104	1.04E-04
BaSO <sub>4</sub>		0.00E+00
(CH <sub>2</sub> ) <sub>10</sub>		0.00E+00
CaO	0.5000	5.00E-03
CaSO <sub>4</sub>		0.00E+00
CdO		0.00E+00
Ce <sub>2</sub> O <sub>3</sub>	0.0627	6.27E-04
Cm <sub>2</sub> O <sub>3</sub>		0.00E+00
CoO		0.00E+00
Cr <sub>2</sub> O <sub>3</sub>	0.1375	1.38E-03
Cs <sub>2</sub> O	0.0852	8.52E-04
CuO	0.0633	6.33E-04
Dy <sub>2</sub> O <sub>3</sub>		0.00E+00
Eu <sub>2</sub> O <sub>3</sub>		0.00E+00
Fe <sub>2</sub> O <sub>3</sub>	12.1200	1.21E-01
Gd <sub>2</sub> O <sub>3</sub>		0.00E+00
GeO <sub>2</sub>		0.00E+00
Hg		0.00E+00
In <sub>2</sub> O <sub>3</sub>		0.00E+00
K <sub>2</sub> O	3.7300	3.73E-02
La <sub>2</sub> O <sub>3</sub>	0.0350	3.50E-04
Li <sub>2</sub> O	3.1500	3.15E-02
MgO	0.9010	9.00E-03
MnO	1.0000	1.00E-02
MoO <sub>3</sub>	0.0116	1.16E-04
NaCl		0.00E+00
NaF		0.00E+00
Na <sub>2</sub> O	11.4200	1.14E-01
Na <sub>2</sub> SO <sub>4</sub>		0.00E+00
Nd <sub>2</sub> O <sub>3</sub>	0.0997	9.97E-04
NiO	0.2476	2.48E-03
NpO <sub>2</sub>	0.0073	7.33E-05
P <sub>2</sub> O <sub>5</sub>	2.3600	2.36E-02
PaO <sub>2</sub>		0.00E+00
PdO	0.0070	6.99E-05
Pm <sub>2</sub> O <sub>3</sub>		0.00E+00
Pr <sub>2</sub> O <sub>3</sub>	0.0323	3.23E-04
PuO <sub>2</sub>	0.0077	7.72E-05
Rb <sub>2</sub> O		0.00E+00
RhO <sub>2</sub>	0.0137	1.37E-04
RuO <sub>2</sub>	0.0860	8.60E-04
S <sub>2</sub> O <sub>3</sub>	0.0000	0.00E+00
Sb <sub>2</sub> O <sub>3</sub>		0.00E+00
SeO <sub>2</sub>		0.00E+00
SiO <sub>2</sub>	43.3500	4.33E-01
Sm <sub>2</sub> O <sub>3</sub>		0.00E+00
SnO <sub>2</sub>		0.00E+00
SrO		0.00E+00
SrSO <sub>4</sub>		0.00E+00
Tb <sub>2</sub> O <sub>3</sub>		0.00E+00
Tc <sub>2</sub> O <sub>7</sub>		0.00E+00
TeO <sub>2</sub>		0.00E+00
ThO <sub>2</sub>		0.00E+00
TiO <sub>2</sub>	0.9090	9.09E-03
UO <sub>2</sub>		0.00E+00
Y <sub>2</sub> O <sub>3</sub>		0.00E+00
ZnO		0.00E+00
ZrO <sub>2</sub>		0.00E+00
Total	97.1519	9.72E-01

AE/28 BD2 SLURRY TRANSFER FLUSH

1. Water Flush Volume                    40.00 gal  
Per Feed Makeup                        151.40 l

AF/29 SBS RECYCLE

1. Include In Recycle                    1.000  
No=0, Yes=1  
  
2. SBS Jet Dilution                    6.00 vol%

AG/30 CANISTER DECON SOLUTION RECYCLE

1. Flush/Jet Dilution Fctr            1.00  
2. Include In Recycle                    0.00E+00  
No=0, Yes=1

AH/31 HEME FLUSH CONDENSATE RECYCLE

1. Include In Recycle                    1.00  
No=0, Yes=1  
  
2. Water Flush                            720.0 hr  
Frequency  
  
3. Water Flush                            90.0 gal  
Volume

AJ/33 WASTE HEADER RECYCLE

1. Include In Recycle                    0.00E+00  
No=0, Yes=1

AN/37 CFMT WASTE OVERHEADS

1. Average Concentration              1,000  
Of Solids In Bottoms/  
Average Concentration  
Of Solids In Overheads

AP/39 MADE-UP MELTER FEED

1. Water Flush Per Batch              100 gal  
Of Glass Formers

BA/50 SBS OFF GAS

1. SBS Bed Temperature                45 C  
  
2. SBS Bed Pressure                    45 in H2O Vac.