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Revision 1

Benchmark for Fuel Shuffling and Depletion for Pebble-Bed Reactors

September 2020

R. Sonat Sen
Reactor Physics and Analysis

Changing the World's Energy Future

Idaho National Laboratory

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SUMMARY

Pebble-bed reactors (PBRs) have specific operational characteristics in terms of their fuel-cycle and fueling operations. They are specifically distinguished from other types of nuclear reactor designs by their online fuel recycling scheme, in which the fuel elements that have not yet reached discharge burnup can be reloaded and recycled continuously during normal operation.

The fuel in a PBR is not stationary, but stochastically moves through the core one or more times during its lifetime, allowing the reactor to operate without requiring a large excess reactivity hold for the burnup. However, this characteristic of PBRs introduces challenges for simulations, as each pebble can take many different trajectories through the core—its composition depending on the details of the irradiation history uniquely tied to its aggregated path through the core. For predicting safety performance characteristics such as the source term, maximum fuel temperatures and fuel failure rates, etc., it is important to accurately incorporate the movement of pebbles through the core throughout their lifetimes—along with other phenomena—in a multi-physics simulation.

Equilibrium core analyses for PBRs are performed with multi-physics tools, including fuel depletion in a multi pass reload coupled to the fuel movement. Currently, there are only a few legacy multi-physics simulation tools that can implement the pebble flow characteristics and perform equilibrium core analysis for PBRs. However, ongoing development efforts are being made under the Department of Energy's Nuclear Energy Advanced Modeling and Simulation program, as well as in private industry, to include these capabilities in their modeling and simulation tools.

Any new developments in these modeling and simulation tools must be validated through experiments and verified by analytical solutions or code-to-code benchmarks. This work develops a code-to-code benchmark for the equilibrium core analysis capability of PBRs. Multiple cases were identified in order to capture different fuel cycle strategies usable in PBRs. The results of each case are presented in terms of overall equilibrium core characteristics: discharge burnup, spatial burnup distribution, spatial isotopic distributions, axial and radial neutron flux distributions, and the power history of fuel elements per pass through the core for both a prototypical pebble-bed high-temperature gas-cooled reactor (HTGR) and a prototypical pebble-bed fluoride-salt-cooled high-temperature reactor (FHR).

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CONTENTS

FIGURES

TABLES

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ACRONYMS

AVR	Arbeitsgemeinschaft Versuchsreaktor
BISO	Bistructural Isotropic
DOE	Department of Energy
ENDF	Evaluated Nuclear Data File
EQ	Equilibrium
FHR	Fluoride-Salt-Cooled High-Temperature Reactor
HTGR	High-Temperature Gas-cooled Reactor
JEFF	Joint Evaluated Fission and Fusion File
LEU	Low Enriched Uranium
MEDUL	Mehfachdurchlauf (“multi-pass” in German)
NEA	Nuclear Energy Agency
OECD	Organisation for Economic Co-operation and Development
OTTO	Once-Trough-Then-Out
PBR	Pebble-Bed Reactor
PyC	Pyrolytic Carbon
THTR	Thorium High-Temperature Reactor
TRISO	Tristructural Isotropic
VTT	Technical Research Centre of Finland
VSOP	Very Superior Old Programs

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Benchmark for Fuel Shuffling and Depletion for Pebble-Bed Reactors

1. INTRODUCTION

Pebble-bed reactors (PBRs) have specific operational characteristics in terms of their fuel-cycle and fueling operations. They are specifically distinguished from other types of nuclear reactor designs by their online fuel recycling scheme, in which the fuel elements that have not yet reached discharge burnup can be reloaded and recycled continuously during normal operation. The continuous fueling scheme provides constant core conditions (i.e., equilibrium core conditions that exist for about 90% of the plant life, small excess reactivity for normal plant operations such as load follow, a small top-to-bottom mixture [burnup] difference) and removes the requirement of redesigning the core after every outage.

Online refueling also allows flexible fuel cycles to be used. The fuel cycle in PBRs can accommodate several different options, depending on the operational purpose of the reactor. The single-pass fuel cycle (also known as once-through-then-out [OTTO]) in which fuel elements move through the core once and are then discarded (i.e., no recycling of the fuel elements) eliminates the need for burnup measurement and sorting of the fuel elements in the fuel handling system. The MEDUL fuel cycle (also known as Mehrfachdurchlauf [MEDUL], which is "multi-pass" in German) in which fuel elements move through the core multiple times until they reach the discharge burnup threshold, allows for higher burnups and a more homogeneous distribution of the fission products within the core, lowering maximum fuel temperatures during transients. However, it requires burnup measurement and sorting in the fuel handling system. Depending on the design of the core, multiple enrichment or burnup zoning can be used in PBRs to allow for a flatter radial power profile, but this introduces even more complexity into the fuel handling system.

The fuel in a PBR is not stationary, but stochastically moves through the core once or several times during its lifetime, allowing PBRs to operate without requiring a large excess reactivity hold for the burnup. However, this characteristic of PBRs introduces challenges for simulations, as each pebble can take many different trajectories through the core—its composition depending on the details of the irradiation history uniquely tied to its aggregated path through the core. For predicting safety performance characteristics such as the source term, maximum fuel temperatures and fuel failure rates, etc., it is important to accurately incorporate the movement of pebbles through the core throughout their lifetimes—along with other phenomena—in a multi-physics simulation.

For PBRs, fuel movement through the core is commonly simulated using third-party codes that utilize discrete element modeling. The flow characteristics are then incorporated into the multi-physics tool for equilibrium core analysis, which performs fuel depletion in a multi pass reload coupled to the fuel movement. Currently, only a few multi-physics simulation tools can implement the pebble-flow characteristics and perform equilibrium core analysis for PBRs. The codes capable of depleting pebbles while shuffling through the core are legacy German codes (e.g., VSOP [1]), Idaho National Laboratory's PEBBED [2], and the Technical Research Centre of Finland (VTT)'s Serpent2 code [3]. Both VSOP and PEBBED are legacy codes and use limited depletion chains. Serpent2 is a continuous-energy Monte Carlo reactor physics burnup calculation code that utilizes all the nuclides and transmutation libraries available under ENDF data files but cannot perform fuel shuffling *per se*. However, ongoing development efforts are being made under the Department of Energy (DOE)'s Nuclear Energy Advanced Modeling and Simulation program, as well as in private industry, to include these capabilities in their modeling and simulation tools.

Any new developments in these modeling and simulation tools must be validated through experiments and verified by analytical solutions or code-to-code benchmarks. This work develops a code-to-code benchmark for the equilibrium core analysis capability of PBRs. Multiple cases were identified in

order to capture different fuel cycle strategies usable in PBRs. The results of each case are presented in terms of overall equilibrium core characteristics: discharge burnup, spatial burnup distribution, spatial isotopic distributions, axial and radial neutron flux distributions, and the power history of fuel elements per pass through the core for both a prototypical pebble-bed high-temperature gas-cooled reactor (HTGCR) and a prototypical pebble-bed fluoride-salt-cooled high-temperature reactor (FTR).

1.1 Need for Benchmarking

Although several PBRs have been built and operated, not many have reached significant burnups and equilibrium core conditions. Historically, only German PBRs (AVR [4] and THTR [5]) have been operated, circulated pebbles through the core, and achieved reasonable burnups. AVR was operated for 21 years, and THTR for only 3–4, with an availability factor of around 40% prior to decommissioning. AVR had a unique design, with the graphite noses intruding into the pebble-bed core for the control rod housing—something different from current PBR designs; it was also used as a test bed for pebble fuel and contained a significant amount of various fuel types inside its core over the course of its lifetime, as shown in Figure 1. The operation data is not publicly available, and, even if it was, would be difficult—if not impossible—to use for benchmarking purposes for the planned capabilities to be installed in the Nuclear Energy Advanced Modeling and Simulation tools.

The main focus of the available pebble-bed experimental benchmarks is criticality and the control rod worths—as in the case of the ASTRA critical facility in Russia [6], PROTEUS in Switzerland [7], and HTR-10 in China [6]. The HTR-10 test facility also performed experiments regarding temperature reactivity coefficients and an unprotected loss of forced cooling transient. Therefore, no real experimental benchmarks are available for testing new pebble shuffling and depletion algorithms. The only way to test the new developed capabilities is via code-to-code benchmarking.

The available code-to-code benchmarks on PBRs focus on steady-state and transient full-core equilibrium analysis with a given number densities, and do not include any depletion of the fuel elements as they move through the core—as in the case of the OECD PBMR400 benchmark [8]. The International Atomic Energy Agency's "Pebble Box" benchmark [9] focuses on double heterogeneity treatment of the pebbles in a cubic meter box. The Nuclear Energy Agency (NEA)'s HTGR fuel-element depletion benchmark [10] includes depletion but no shuffling of the pebbles through the core.

A PBR depletion benchmark was therefore developed for testing the newly developed capabilities in the modeling and simulation tools, and is described in this document for both a prototypical pebble-bed HTGR and a prototypical pebble-bed FHR.

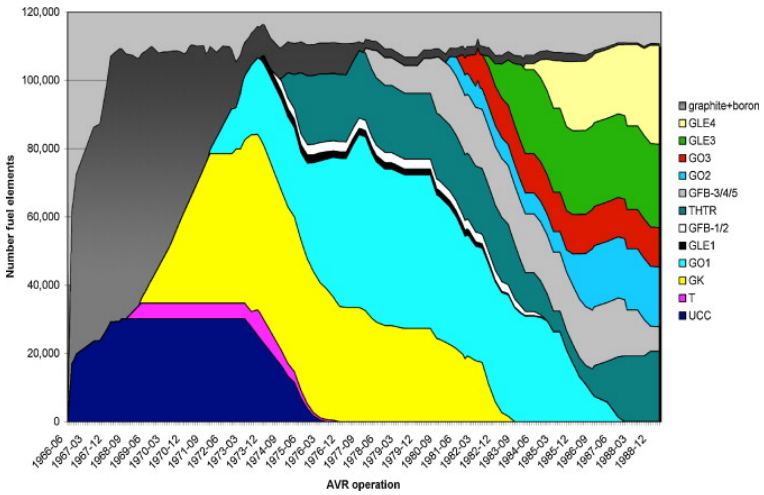

Figure 1. Number of different fuel elements inside the AVR core during its operation [10].

2. BENCHMARK DESCRIPTION

The main objective of the PBR equilibrium core depletion benchmark is to aid in the verification of modern tools planned for developing an equilibrium core analysis capability that includes pebble movement while performing depletion calculations. Therefore, the cases considered here should not be seen as representative of real PBR designs. Several cases were identified in consideration of those phenomena affecting the depletion of fuel elements while moving through the core:

1. Pebble-bed core configurations:

   Modern commercial pebble-bed HTGR designs have tall, slender cores (i.e., high aspect ratios), such as X-energy's Xe-100 [12] or the Chinese HTR-PM [13]. This configuration provides a shorter decay heat-removal path during transients and promotes lower maximum fuel temperatures along with a low average power density. However, they also have higher radial neutron leakage, and the thermalization effect of the graphite reflector is more pronounced in these configurations.

   Experimental HTGR designs such as HTR-10, and pebble-bed FHR designs such as Kairos Power's KP1 [14], have shorter cores with low aspect ratios. The lower radial neutron leakage of these configurations improves the fuel economy, and the shorter height reduces the pressure drop across the pebble-bed core, allowing for a simpler fuel-element injection system design in the case of pebble-bed FHRs.

2. Pebble refueling schemes:

   PBRs can operate under several different pebble refueling schemes, such as OTTO and MEDUL fuel cycles. The MEDUL fuel cycle can include burnup or enrichment zoning within the core. The radial power profile can be further flattened via burnup or enrichment zoning. Therefore, it is important that the new PBR codes be able to simulate zoning.

3. Neutron spectrum configurations:

   The outer and/or center graphite reflectors in PBR designs affect the neutron spectrum significantly (i.e., thermalize the neutron spectrum). Therefore, a fuel element that travels through the center of the pebble-bed core or next to the graphite reflector can be exposed to significantly different neutron spectra while being depleted.

4. Coolant configurations:

Traditionally, in terms of coolant, pebble-bed HTGRs use helium, which is transparent to the neutrons. However, pebble-bed FHRs such as the University of Berkeley's pebble-bed fluoride-salt-cooled high-temperature reactor (PB-FHR Mark-I) [15] or Kairos Power's KP1 use flibe salt ($2LiF\text{-}BeF_2$) as coolant in order to achieve a higher average power density. Flibe has significant neutron moderation and absorption characteristics and must be considered when analyzing the equilibrium core.

2.1 Summary of Case Definitions

The cases considered in the benchmark are summarized here in this section. A more detailed description of each case's geometry, fuel design, materials, fueling strategy, and various other characteristics needed for modeling are presented in the next section, along with the benchmark results.

Case 1: Tall, slender cores (typical commercial HTGRs):

- High aspect ratio: H/D ~3–4
- Xe-100 height is about 900 cm and diameter is about 250 cm
- Case 1A: Helium coolant – OTTO fueling scheme, single depletion zone in fuel kernel
- Case 1B: Helium coolant – OTTO fueling scheme including burnable poison (B_4C) kernels as dispersed BISO particles, single depletion zone in fuel kernel
- Note that this case only considers OTTO fueling schemes, due to memory restrictions in the simulation tool used.

Case 2: Short, fat cores (experimental HTGRs and/or FHRs)

- Small aspect ratio: H/D ~1–2
- HTR-10 height is about 200 cm and diameter is 180 cm
- Case 2A: Helium coolant – MEDUL fueling scheme, single depletion zone in fuel kernel
- Case 2B: Flibe coolant – MEDUL fueling scheme, single depletion zone in fuel kernel
- Case 2C: Helium coolant – MEDUL fueling scheme, two depletion zones in fuel kernel
- Case 2D: Flibe coolant – MEDUL fueling scheme, two depletion zones in fuel kernel
- Case 2E: Helium coolant – MEDUL fueling scheme, single depletion zone in fuel kernel and two burnup-dependent loading zones in the core

Case 3: Specified flow path for pebbles of interest (no random refueling)

- Case 3A: Flow path in the center of the core
- Case 3B: Flow path next to the graphite reflector

2.2 Simulation Code

The continuous-energy Monte Carlo reactor physics burnup calculation code Serpent2 [3] was used to generate the benchmark results. Serpent2 was developed at VTT, and its burnup calculation capability is entirely based on built-in calculation routines, without coupling to any external solvers. Although the number of depletion zones is not restricted in Serpent2, the physical memory might become limited when the number of burnable materials is large.

Fission and activation products and actinide daughter nuclides are automatically selected for the calculation, since the radioactive decay and fission yield data used in the calculation is read from standard ENDF-format data libraries. The concentrations of all included nuclides, along with decay data, are

tracked in the burnup calculation, and the number of nuclides with cross sections typically ranges from 200 to 300.

JEFF3.2 [16] evaluated data library was utilized for the neutron interaction cross sections, since the ACE-format data libraries are publicly available through the OECD/NEA Databank website, along with JEFF3.3-based, energy-dependent fission yields and decay data for generating the benchmark results. The Chebyshev Rational Approximation Method (CRAM), an advanced matrix exponential solution developed for Serpent at VTT [17], with a default order of 14 was used for solving the Bateman depletion equations.

2.3 General Features of Simulation Models

The simulation models in the benchmark cases are simplified as much as possible to prevent the inclusion of any effects or phenomena other than pebble movement and depletion:

- The defueling chutes are not modeled.
- The top and bottom of the pebble-bed core is considered flat.
- The temperature feedback is not considered; instead, an isothermal temperature profile is assumed.
- The pebbles flow at the same speed in each axial flow channel (i.e., no pebble flow velocity profile is considered).
- The axial pebble flow channels are considered to be of equal volume.
- Each flow channel is divided into the same number of depletion zones, resulting in an equal volume of depletion zones.
- Control rods and their channels in the graphite reflectors are not modeled.
- No mixing between the depletion zones is modeled.
- No decay of the isotopes is considered when the fuel elements are outside the core.
- In the MEDUL scheme, each pass of fuel elements from different flow channels are mixed together at the core outlet and redistributed equally to each flow channel at the inlet of the core.
- TRISO particles are randomly distributed in the fuel pebbles and explicitly modeled. However, the same particle distribution is used in each fuel pebble inside the pebble-bed core.

3. BENCHMARK RESULTS

The benchmark results are provided for each case in regard to the following:

- Overall equilibrium core characteristics
- U-235 and U-238 content per pass and per zone
- Pu vector per pass and per zone
- Fission product distribution per pass and per zone
- Fast fluence history per pass and per zone
- Power per pass, per particle, and per zone
- Burnup accumulation per pass and per zone
- Discharge burnup distribution
- Spatial flux distribution

3.1 Case-1: High Aspect Ratio

Case-1 considers gas-cooled PBRs with high aspect ratios and OTTO fueling scheme. The fuel element, TRISO details, and materials used in the model are presented in Table 1–Table 5. The geometry of the simulation model is illustrated in Figure 2. The overall equilibrium core characteristics are presented in Table 6 for both Case-1A and Case-1B. Other results from the simulations are also presented in this section.

Table 1. Model geometry.

Property	Value	Units
Thermal power	400.0	MW
Active core height	1100.0	cm
Active core radius	150.0	cm
Height of void above the core	50	cm
Side reflector thickness	125.0	cm
Helium gap thickness	7.5	cm
Core barrel thickness	10.0	cm
Top reflector height	150.0	cm
Bottom reflector height	150.0	cm
Isothermal temperature	900.0	K
Number of axial pebble flow channels	5	-
Outer radius of channel 1	67.082	cm
Outer radius of channel 2	94.868	cm
Outer radius of channel 3	116.189	cm
Outer radius of channel 4	134.164	cm
Outer radius of channel 5	150.000	cm
Number depletion zones in each flow channel	22	-
Height of depletion zones	50.0	cm
Pebble packing fraction in the core	0.61	-

Table 2. Fuel and TRISO particle geometry.

Property	Value	Units
Pebble diameter	6.0	cm

Property	Value	Units
Fuel zone radius	2.5	cm
Fuel-free graphite shell thickness	0.5	cm
Number of TRISO particles per pebble	15002	-
TRISO kernel radius	0.0250	cm
Buffer layer thickness	0.0095	cm
Inner PyC layer thickness	0.0040	cm
SiC layer thickness	0.0035	cm
Outer PyC layer thickness	0.0040	cm

Table 3. Fuel and TRISO particle material properties.

Property	Value	Units
Heavy metal loading per pebble	9.0	g
Fuel material	UO_2	-
U-235 enrichment	9.6	$^{a}/_{o}$
Fuel kernel density	10.40	g/cm^3
Buffer layer density	1.05	g/cm^3
Inner PyC layer density	1.90	g/cm^3
SiC layer density	3.18	g/cm^3
Si-28 abundance	92.2	%
Si-29 abundance	4.1	%
Si-30 abundance	3.7	%
Outer PyC layer density	1.90	g/cm^3
Matrix graphite density	1.70	g/cm^3
Fuel free graphite shell density	1.70	g/cm^3

Table 4. B_4C particle properties.

Property	Value	Units
Number of B_4C particles per pebble	5000	-

Property	Value	Units
B4C kernel radius	0.008	cm
Buffer layer thickness	0.001	cm
PyC layer thickness	0.001	cm
B_4C density	2.52	g/cm^3
B-10 enrichment	20	$^a/_o$
Buffer layer density	1.05	g/cm^3
PyC layer density	3.18	g/cm^3

Table 5. Material number densities in the model

Property	Value	Units
Top, bottom, and side reflector		
Graphite	8.925E-02	1/barn-cm
B-10 impurity	1.000E-09	1/barn-cm
Helium	1.50454E-02	1/barn-cm
Core barrel		
Fe-54	3.39885E-03	1/barn-cm
Fe-56	5.33068E-02	1/barn-cm
Fe-57	1.23172E-03	1/barn-cm
Fe-58	1.62680E-04	1/barn-cm
Cu-63	2.66988E-04	1/barn-cm
Cu-65	1.19112E-04	1/barn-cm
Co-59	1.54400E-04	1/barn-cm
Si-28	2.29394E-04	1/barn-cm
Si-29	1.16936E-05	1/barn-cm
Si-30	7.71280E-06	1/barn-cm
Ni-58	5.44344E-03	1/barn-cm
Ni-60	2.09679E-03	1/barn-cm
Ni-61	9.11544E-05	1/barn-cm

Property	Value	Units
Ni-62	2.68945E-04	1/barn-cm
Ni-64	7.40430E-05	1/barn-cm
Mo-92	2.53885E-04	1/barn-cm
Mo-94	1.59263E-04	1/barn-cm
Mo-95	2.75027E-04	1/barn-cm
Mo-96	2.88891E-04	1/barn-cm
Mo-97	1.66021E-04	1/barn-cm
Mo-98	4.20946E-04	1/barn-cm
Mo-100	1.68794E-04	1/barn-cm
Mn-55	1.27800E-03	1/barn-cm
Cr-50	6.90855E-04	1/barn-cm
Cr-52	1.33225E-02	1/barn-cm
Cr-53	1.51066E-03	1/barn-cm
Cr-54	3.76035E-04	1/barn-cm

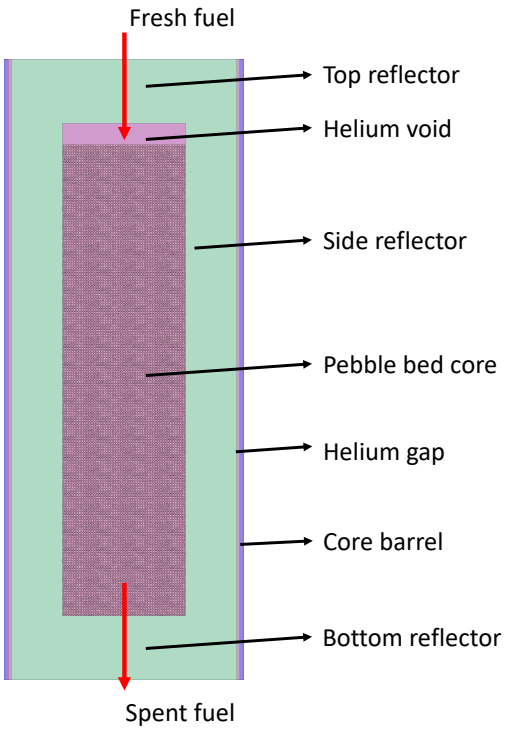

Figure 2. Case-1 simulation model.

Table 6. Equilibrium core characteristics.

	Case-1A	Case-1B	Unit
Fresh core k-eff	1.36733	1.25230	-
EQ core k-eff	1.00013	1.03248	-
Standard deviation in k-eff	4.1E-05	4.0E-05	-
Average power per particle	64.20	64.21	mW
Fresh fuel pebbles per day	457	554	-
Average residence time	909	749	days
Average discharge burnup	97.32	80.16	GWd/tHM
LEU requirement per year	1500	1821	kg
EQ core U235 content	85.7	251.3	kg
EQ core Pu239 + Pu241 content	30.2	27.4	kg

The power per particle for the axial flow channel at the center of the pebble-bed core is shown in Figure 3. Most of the power is produced in the top part of the core where fresh fuel is introduced. The peak power produced per particle is almost 500 mW per particle at the core inlet, and reduced to near-zero at the bottom half of the core after about 400 EFPD for Case-1A. The burnable poisons in Case-1B, which are loaded to the fuel elements as BISO particles, reduce the power peaking significantly. The peak power produced per TRISO particle is reduced to around 160 mW. The power peak is also shifted toward the center of the core. The burnable poisons capture most of the neutrons at the top part of the core.

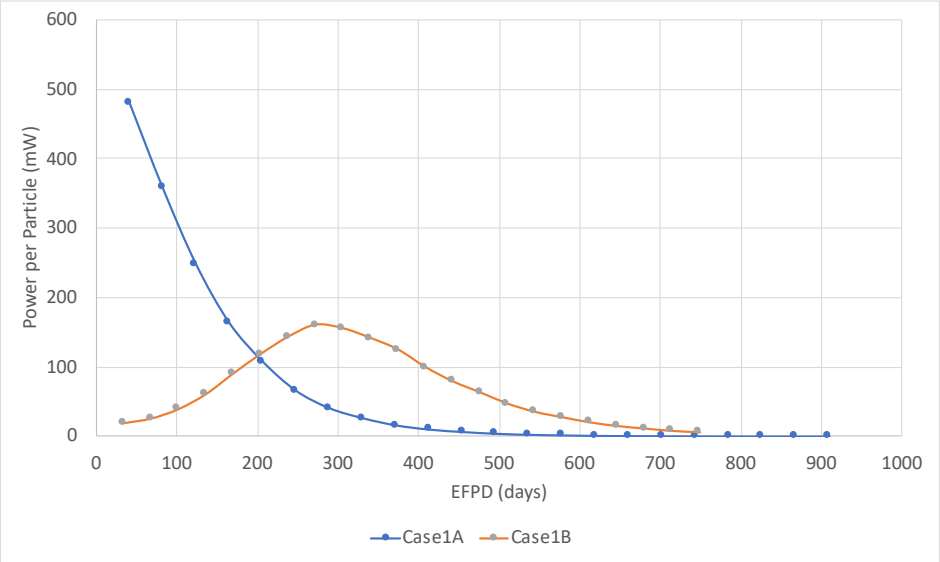

Figure 3. Power per particle as a function of equivalent full-power days.

Figure 4 shows the accumulated burnup distribution within the core per depletion zone. The accumulated burnup profile per axial channel shows a similar trend in all five channels; however, the

discharge burnup at the core outlet ranges between 90 and about 110 GWd/tHM for Case-1A, and between 80 and 85 GWd/tHM for Case-1B. For Case-1A, the initial burnup accumulation is very steep while the fuel elements travel in the top half of the pebble-bed core, matching the power produced per particle as shown in Figure 3. The burnup accumulation profile for Case-1B also matches the power produced per particle as shown in Figure 3. The initial burnup accumulation is slow at the top part of the core and rapidly increases as the fuel elements move through the center of the core, where the peak power is produced; the rate of burnup accumulation drops again at the bottom part of the core.

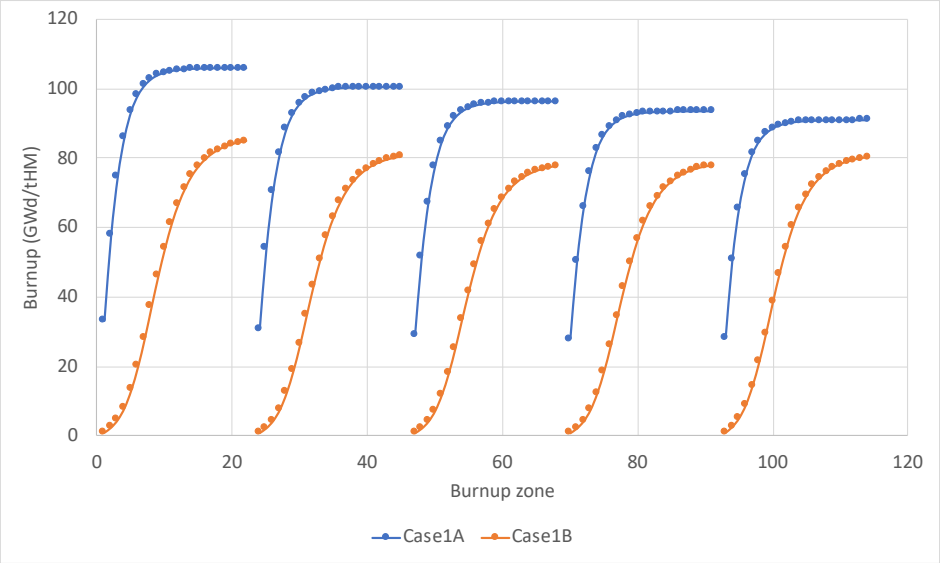

Figure 4. Burnup distribution in equilibrium core.

U-235 and Pu-239 mass distribution in the core per depletion zone is shown in Figure 5 and Figure 6, respectively. For Case-1A, U-235 is depleted significantly in the upper part of the core, while Pu-239 builds up rapidly. There is almost no change in U-235 mass in the bottom part of the core, whereas Pu-239 is slightly depleted before reaching a constant value—since there is almost no power production in this region of the core and the neutron flux is insignificant. U235 depletion is significantly slower for Case-1B at the top part of the core. For Case-1B, U-235 is mostly depleted in the center of the core, however; the rate is not as high as in Case-1A. The discharged fuel elements have much more U-235 content in Case1-B than in Case-1A, hence a significantly lower discharge burnup. The overall equilibrium core Pu-vector is shown in Table 7 for both Case-1A and Case-1B.

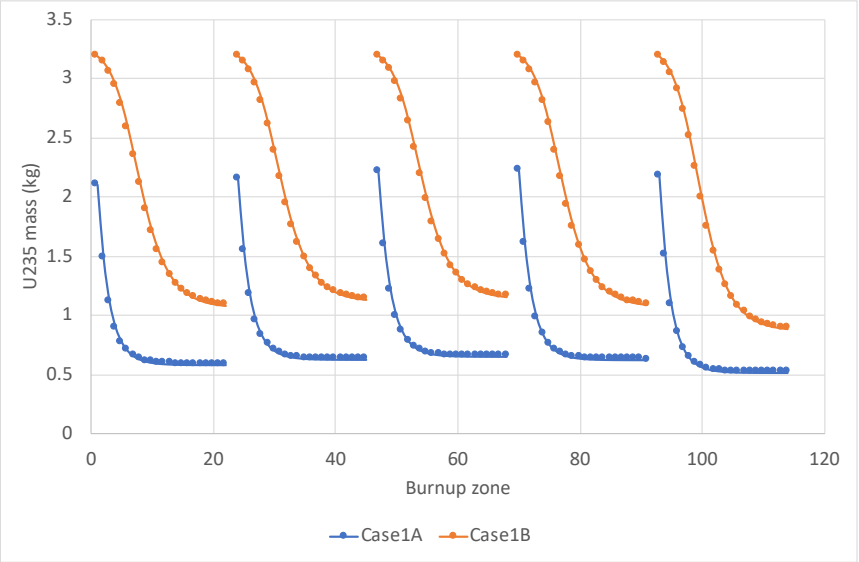

Figure 5. U-235 distribution in equilibrium core.

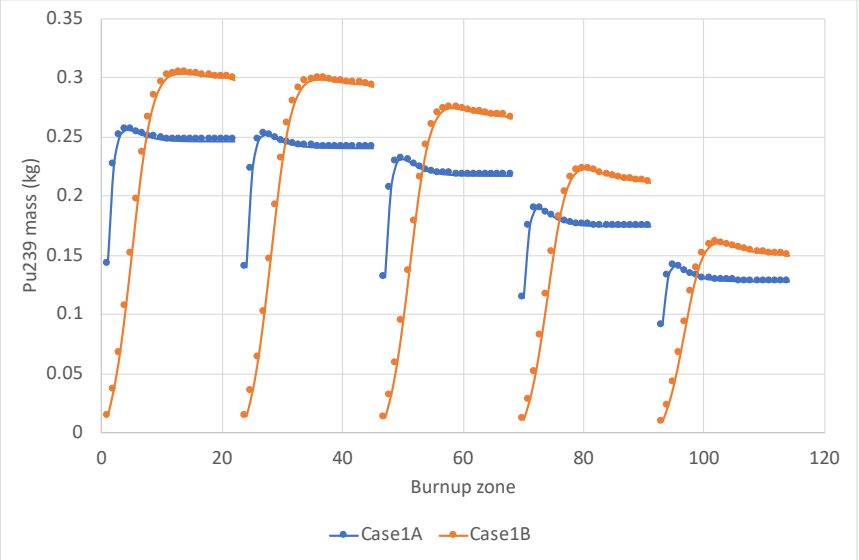

Figure 6. Pu-239 distribution in equilibrium core.

Table 7. Pu vector for equilibrium core.

	Pu238	**Pu239**	**Pu240**	**Pu241**	**Pu242**
Case-1A	2.04%	40.82%	27.83%	15.21%	14.10%
Case-1B	2.00%	43.55%	29.33%	11.19%	13.93%

Figure 7 and Figure 8 represent the radial and axial neutron flux profiles inside the pebble-bed core, respectively, for thermal (E < 1.86 eV) and fast neutrons (E > 1.86 eV). The radial thermal flux shows a flat profile inside the core, with a slight peak next to the graphite reflector. Although both Case-1A and Case-1B show similar radial neutron flux profiles, the absolute value of the axially averaged thermal neutron flux for Case-1A is higher than for Case-1B. The axial neutron flux profile is top-peaked due to

fresh fuel being loaded from the top. The burnable poisons in Case-1B significantly reduce the axial neutron flux peak.

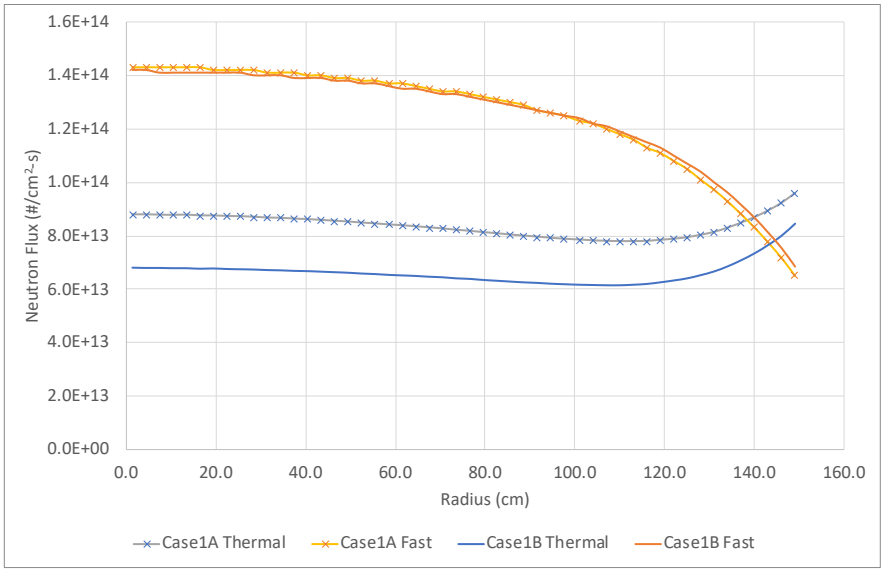

Figure 7. Radial neutron flux profile inside the core for Case-1A and Case-1B.

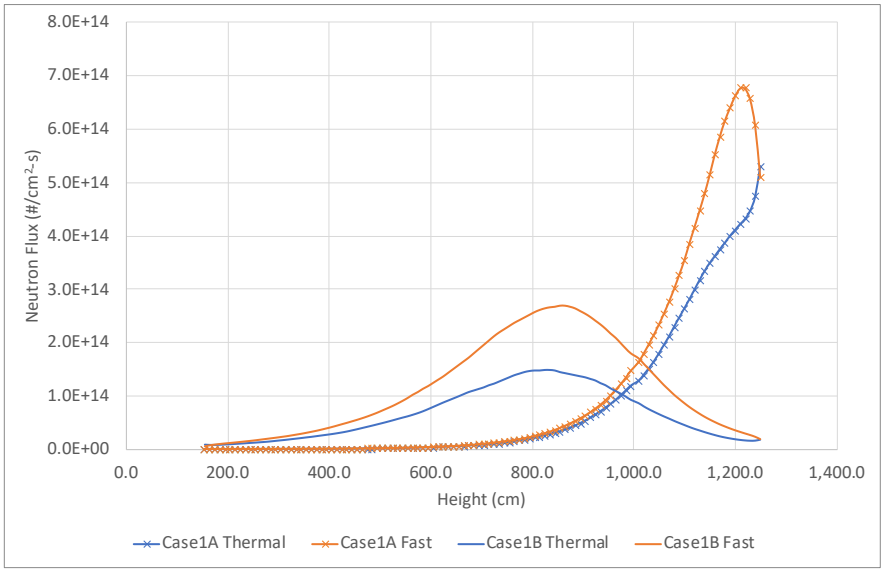

Figure 8. Axial neutron flux profile inside the core for Case-1A and Case-1B.

The detailed results of Case-1A and Case-1B are listed in Appendix A in regard to the number densities per depletion zone of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149), as well as isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag). The power per particle, per depletion zone, and per pass, as well as the fast neutron fluence per pass, are also presented in table form in Appendix A.

3.2 Case-2: Low Aspect Ratio

Case-2 considers both gas-cooled and fluoride-salt-cooled PBRs with low aspect ratios and MEDUL fueling schemes. The fuel element, TRISO design, and materials used in the HTGR and FHR models are presented in Sections 3.2.1 and 3.2.2, respectively. The overall equilibrium core characteristics for all cases considered are presented in Table 16. The remaining results of Cases 2A – 2E are presented in Sections 3.2.3 – 3.2.7, respectively.

3.2.1 Gas-Cooled Pebble-Bed Model Properties

The geometry and fuel design of the HTGR model used in the benchmark is based on the HTR-10 test reactor. Details on the model geometry are provided in Table 8. The fuel element, TRISO particle geometry, and material properties are given in Table 9 and Table 10, respectively. Table 11 provides the other material properties used in the simulation. Figure 9 illustrates the HTGR simulation model used in Case-2 of the benchmark.

Table 8. HTGR model geometry.

Property	Value	Units
Thermal power	20.0	MW
Active core height	250.0	cm
Active core radius	90.0	cm
Height of void above the core	50	cm
Side reflector thickness	80.0	cm
Top reflector height	50.0	cm
Bottom reflector height	50.0	cm
Isothermal temperature	900.0	K
Number of axial pebble flow channels	4	
Outer radius of channel 1	45.0000	cm
Outer radius of channel 2	63.6396	cm
Outer radius of channel 3	77.9423	cm
Outer radius of channel 4	90.0000	cm
Number depletion zones in each flow channel	5	
Height of depletion zones	50.0	cm
Pebble packing fraction in the core	0.61	-

Table 9. HTGR fuel and TRISO particle geometry.

Property	Value	Units
Pebble diameter	6.0	cm
Fuel zone radius	2.5	cm
Fuel-free graphite shell thickness	0.5	cm
Number of TRISO particles	8335	
TRISO kernel radius	0.0250	cm
Buffer layer thickness	0.0095	cm
Inner PyC layer thickness	0.0040	cm
SiC layer thickness	0.0035	cm
Outer PyC layer thickness	0.0040	cm

Table 10. HTGR fuel and TRISO particle material properties.

Property	Value	Units
Heavy metal loading per pebble	5.0	g
Fuel material	UO_2	
U-235 enrichment	17.0	$^{a}/_{o}$
Fuel kernel density	10.40	g/cm^3
Buffer layer density	1.05	g/cm^3
Inner PyC layer density	1.90	g/cm^3
SiC layer density	3.18	g/cm^3
Si-28 abundance	92.2	%
Si-29 abundance	4.7	%
Si-30 abundance	3.1	%
Outer PyC layer density	1.90	g/cm^3
Matrix graphite density	1.74	g/cm^3
Fuel-free graphite shell density	1.74	g/cm^3

Table 11. Other material properties in the HTGR model.

Property	Value	Units
Top, bottom, and side reflector		
Graphite	1.74	g/cm^3
Helium	3.61E-03	g/cm^3

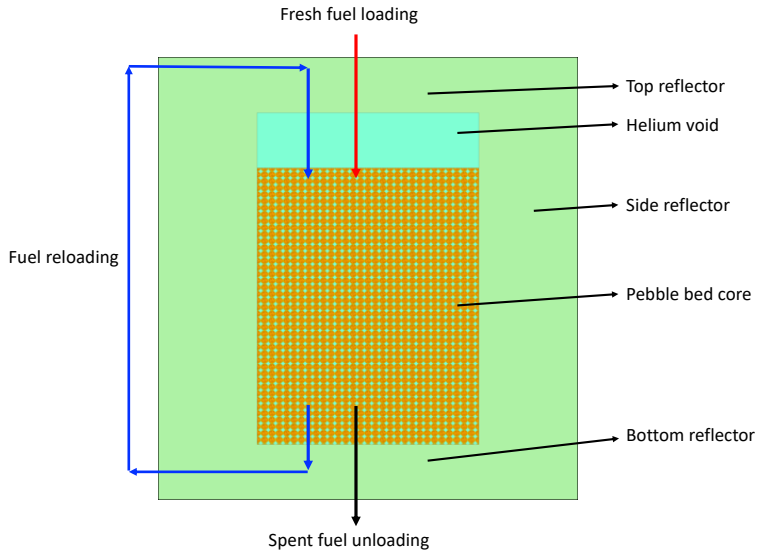

Figure 9. Case-2 HTGR simulation model.

3.2.2 Fluoride-Salt-Cooled Pebble-Bed Model Properties

The geometry and fuel design of the FHR model used in the benchmark is based on the University of Berkeley's PB-FHR Mark-I design. Details on the model geometry are provided in Table 12. The fuel element, TRISO particle geometry, and material properties are given in Table 13 and Table 14, respectively. Table 15 provides the other material properties used in the simulation. Figure 10 illustrates the FHR simulation model used in Case-2 of the benchmark.

Table 12. FHR model geometry.

Property	Value	Units
Thermal power	236.0	MW
Active core height	336.0	cm
Active core radius	105.0	cm
Central reflector radius	35.0	cm
Side reflector thickness	70.0	cm
Top reflector height	50.0	cm
Bottom reflector height	50.0	cm

Property	Value	Units
Isothermal temperature	900.0	K
Number of axial pebble flow channels	3	
Outer radius of channel 1	67.0199	cm
Outer radius of channel 2	88.0814	cm
Outer radius of channel 3	105.0000	cm
Number depletion zones in each flow channel	6	
Height of depletion zones	56.0	Cm
Pebble packing fraction in the core	0.60	-

Table 13. FHR fuel and TRISO particle geometry.

Property	Value	Units
Pebble diameter	3.0	cm
Low-density graphite core radius	1.25	cm
Fuel zone outer radius	1.4	cm
Fuel-free graphite shell thickness	0.1	cm
Number of TRISO particles	4730	
TRISO kernel radius	0.0200	cm
Buffer layer thickness	0.0100	cm
Inner PyC layer thickness	0.0035	cm
SiC layer thickness	0.0035	cm
Outer PyC layer thickness	0.0030	cm

Table 14. FHR fuel and TRISO particle material properties.

Property	Value	Units
Heavy metal loading per pebble	1.5	g
Fuel material	$UC_{1.5}O_{0.5}$	
U-235 enrichment	19.75	$^{a}/_{o}$
Fuel kernel density	10.50	g/cm^3

Property	Value	Units
Buffer layer density	1.05	g/cm^3
Inner PyC layer density	1.90	g/cm^3
SiC layer density	3.18	g/cm^3
Si-28 abundance	92.2	%
Si-29 abundance	4.7	%
Si-30 abundance	3.1	%
Outer PyC layer density	1.90	g/cm^3
Matrix graphite density	1.74	g/cm^3
Fuel-free graphite shell density	1.74	g/cm^3
Low-density graphite core density	1.5	g/cm^3

Table 15. Other material properties in the FHR model.

Property	Value	Units
Top, bottom and side reflector		
Density	1.81723	g/cm^3
Graphite number density	4.75694E-02	1/barn-cm
Li-6 number density	5.45801E-07	1/barn-cm
Li-7 number density	1.05705E-02	1/barn-cm
Be-9 number density	5.28545E-03	1/barn-cm
F-19 number density	2.11420E-02	1/barn-cm
Flibe		
Density	1.9723	g/cm^3
Li-7 enrichment	99.995	$^a/_o$
Chemical composition	$2LiF\text{-}BeF_2$	

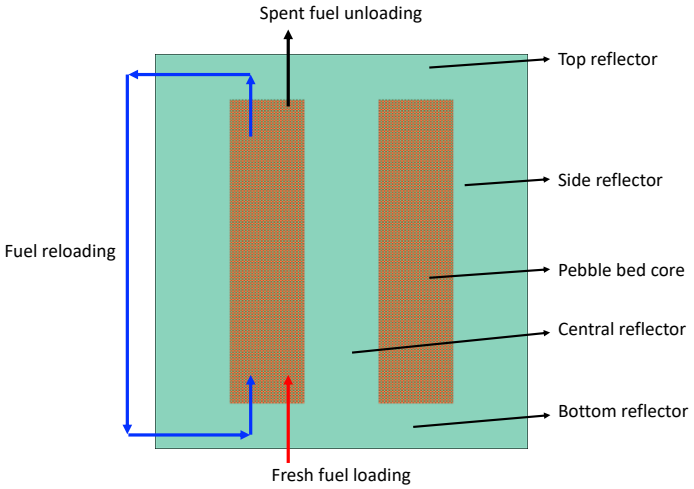

Figure 10. Case-2 FHR simulation model.

Table 16. Equilibrium core characteristics.

	Case2A	**Case2B**	**Case2C**	**Case2D**	**Case2E**
Fresh core k-eff	1.26276	1.23748	1.26235	1.23755	1.26247
EQ core k-eff	1.00710	0.99507	1.00046	1.00746	0.82641
Standard deviation in k-eff	4.0E-05	4.1E-05	4.0E-05	4.1E-05	4.8E-05
Number of passes	6	6	3	3	6
Average power per particle (mW)	70.6	112.9	70.6	112.9	70.6
Fresh fuel pebble per day	31	1114	31	1273	20
Average residence time (days)	1085	463	1085	210	1085
Average discharge burnup (GWd/tHM)	127.76	141.31	127.73	123.65	204.38
LEU required per year (kg)	57	610	57	697	36
EQ core U235 content (kg)	14.68	74.89	14.41	79.14	9.7
EQ core Pu239 + Pu241 content (kg)	0.92	8.19	0.93	7.43	0.31

3.2.3 Case-2A

Case-2A considers a low-aspect-ratio pebble-bed HTGR with a MEDUL fueling scheme. On average, the fuel goes through the core six times before reaching its discharge burnup. The power per particle and per pass is shown in Figure 11. The first pass of pebbles has the highest power production, with a maximum value of around 120 mW per particle. The power production per particle reduces as the number of passes through the core and the accumulated burnup increase, thus the fission product concentration increases. The power peaking will reduce as the number of passes through the core increase; however,

note that the change in the power produced per particle reduces as the number of passes increase, meaning that, after a certain number of passes, the change will no longer be significant.

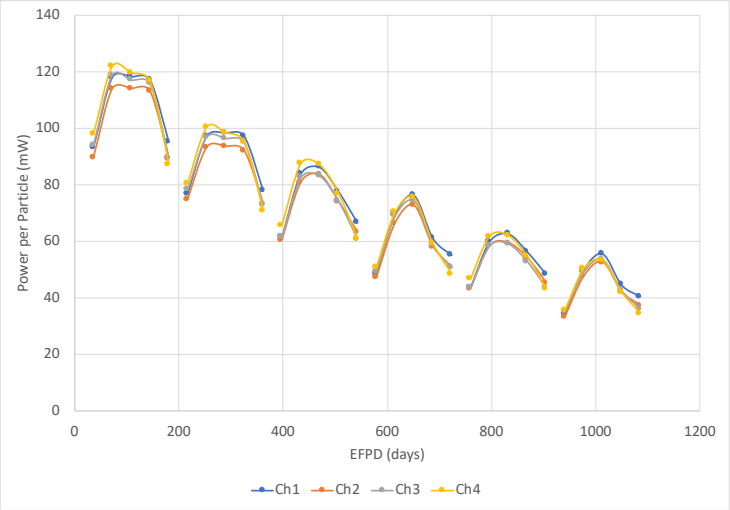

Figure 11. Power per particle per pass for Case-2A.

Figure 12 shows the accumulated burnup distribution per depletion zone in the core. Although each pebble flow channel shows a similar trend, the discharge burnup ranges from about 125 to 130 GWd/tHM. After each pass, the burnup accumulation per pass slows as the power produced per pass reduces (see Figure 11), becoming especially pronounced after the third pass. The reduction in the burnup accumulation when the fuel elements move through the core is higher in channel 1 (in the center of the core) than in the other channels.

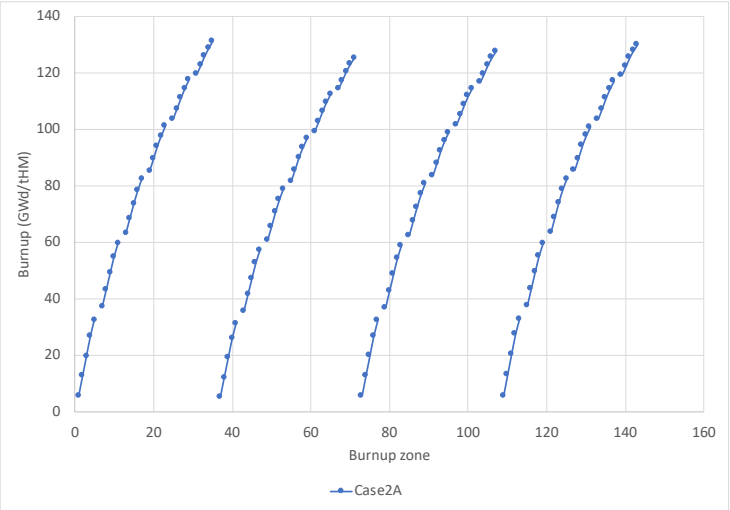

Figure 12. Accumulated burnup distribution in the core for Case-2A.

The equilibrium core U-235 and Pu-239 mass distributions as the fuel elements move through the pebble-bed core are shown in Figure 13 and Figure 14, respectively. Depletion of U-235 does not significantly differ from channel to channel; however, Pu-239 build-up and depletion shows significant differences. Pu-239 builds up significantly during the first pass of the fuel elements, as compared to the other passes. Since the fuel elements coming out of the core after each pass are mixed together, the Pu-239 content is the same at the core inlet for each channel for the second and subsequent passes of the fuel elements from the core. The effect of the neutron spectrum on the Pu-239 content can be seen in Figure

14, as the Pu-239 content diverges in each pass cycle before the fuel elements are reintroduced to the core.

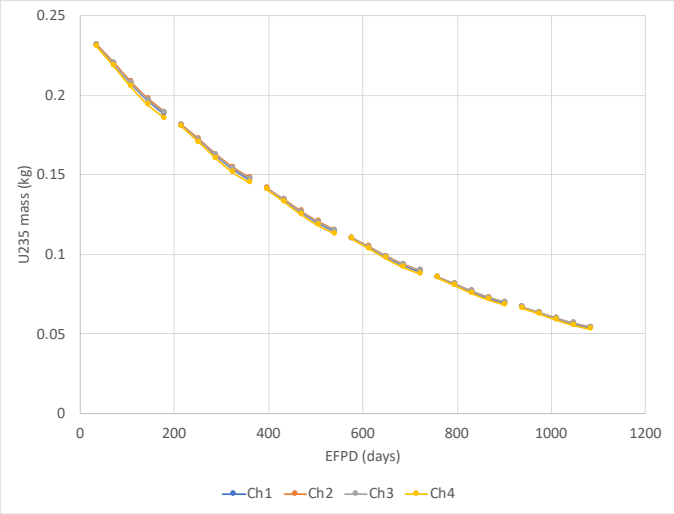

Figure 13. Equilibrium core U-235 mass distribution for Case-2A.

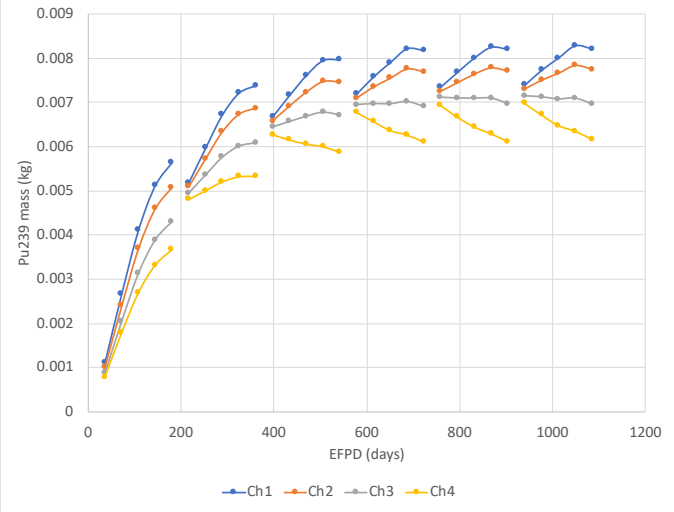

Figure 14. Equilibrium core Pu-239 mass distribution for Case-2A.

The gamma emission from Cs-137 is used to measure burnup in the HTGR fuel handling and storage system. Figure 15 shows the Cs-137 number density in the pebble-bed core per depletion zone as a function of the accumulated burnup. The slopes of the plot do not show significant differences when all

four channels are compared, though there are slight differences after the second pass through the core - a possible artifact of the mixing of fuel elements after each pass.

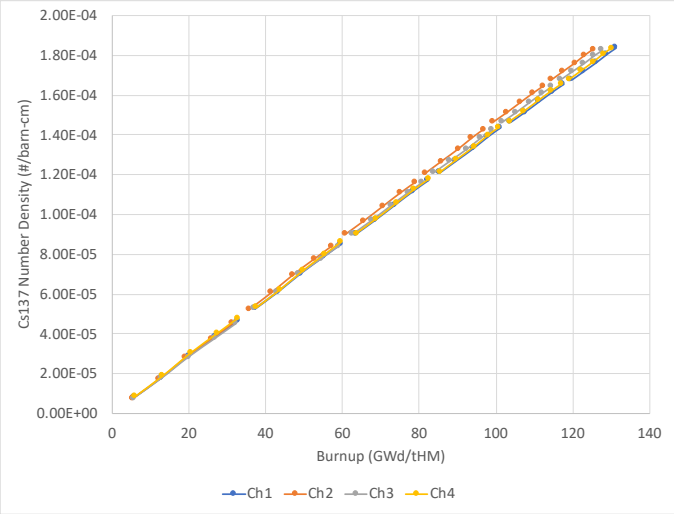

Figure 15. Equilibrium core Cs-137 number density distribution as a function of accumulated burnup for Case-2A.

Figure 16 and Figure 17 represent the radial and axial neutron flux profiles, respectively, inside the pebble-bed core for thermal (E < 1.86 eV) and fast neutrons (E > 1.86 eV). The radial thermal flux shows a flat profile inside the core, with a slight peak next to the graphite reflector. The axial neutron flux profile is top-peaked due to fresh fuel being loaded from the top. The axial thermal neutron flux shows slight peaks at the top and bottom due to the presence of the top and bottom reflectors.

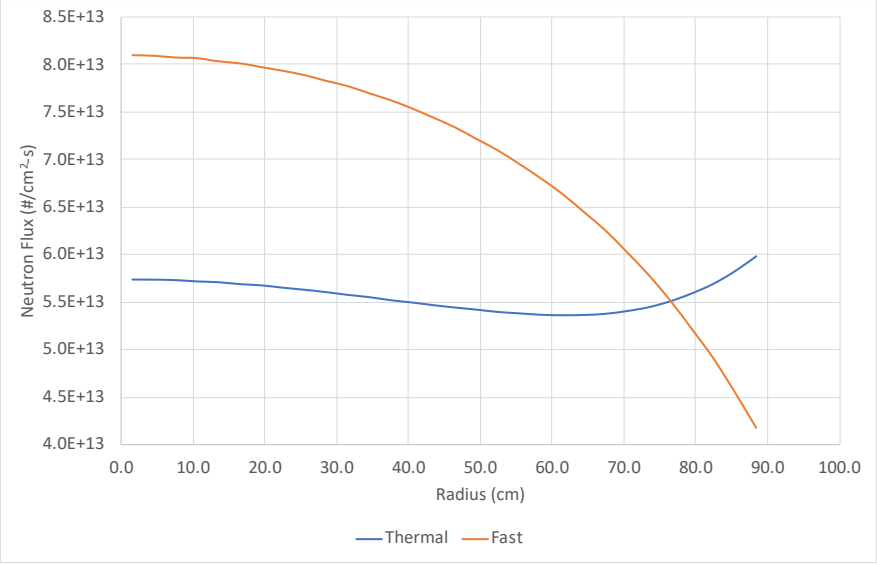

Figure 16. Radial neutron flux profile inside the core for Case-2A.

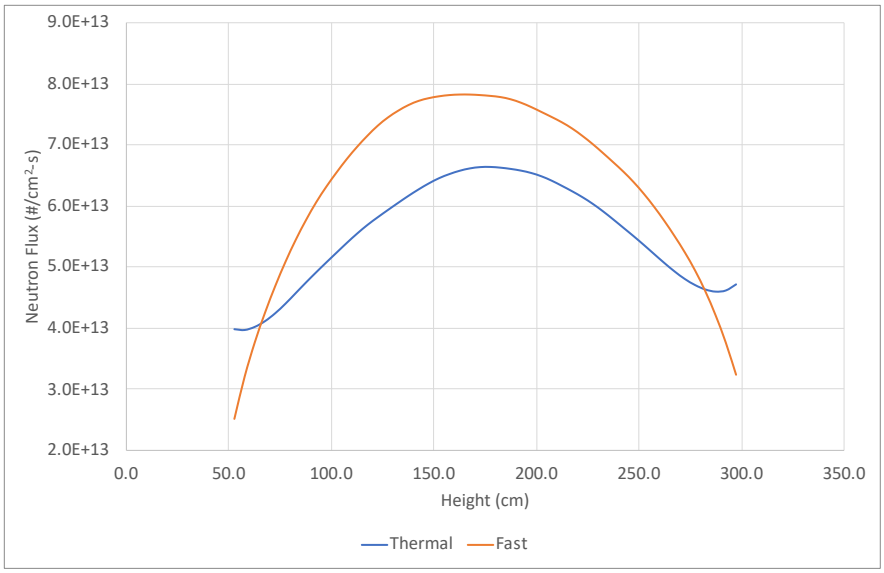

Figure 17. Axial neutron flux profile inside the core for Case-2A.

The detailed results of Case-2A are listed in Appendix B in regard to the number densities per depletion zone of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149) and isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag). The axial and radial neutron fluxes; power per particle, per depletion zone, per pass; and the fast neutron fluence per pass are also presented in table form in Appendix B.

3.2.4 Case-2B

Case-2B considers a low-aspect-ratio pebble-bed FHR with a MEDUL fueling scheme. On average, the fuel goes through the core six times before reaching its discharge burnup. The power per particle, per pass is shown in Figure 18; the first pass of pebbles has the highest power production, with a maximum of around 230 mW per particle. The power production is significantly higher in channel-1 fuel elements, due to the effect of the central reflector. The power production is almost 30% higher in channel 1 than in channels 2 and 3.

Figure 19 shows the accumulated burnup distribution per depletion zone in the core. Although each pebble flow channel shows a similar trend, the discharge burnup ranges from about 130 to 170 GWd/tHM. After each pass, the burnup accumulation per pass slows as the power produced per pass reduces (as was shown in Figure 18), becoming especially pronounced after the third pass. The reduction in the burnup accumulation when the fuel elements move through the core is higher in channel 3 (next to the side reflector) than in the other channels.

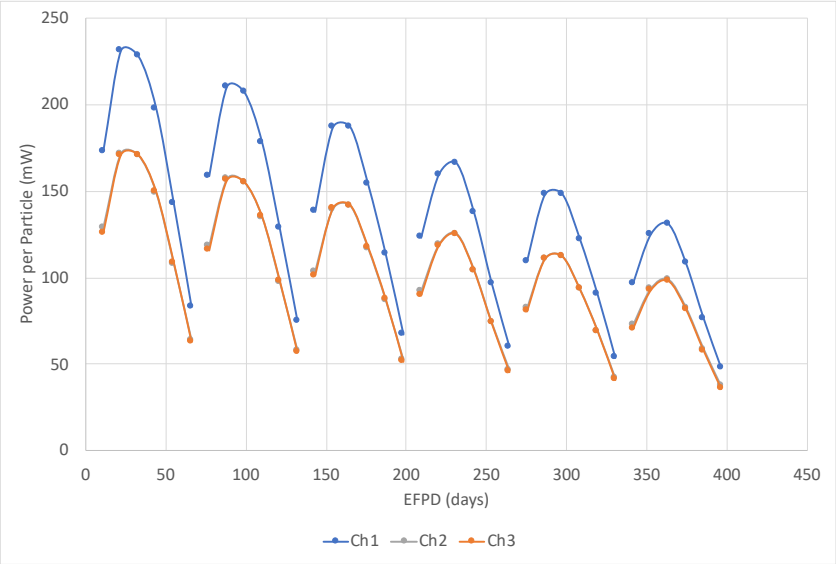

Figure 18. Power per particle, per pass for Case-2B.

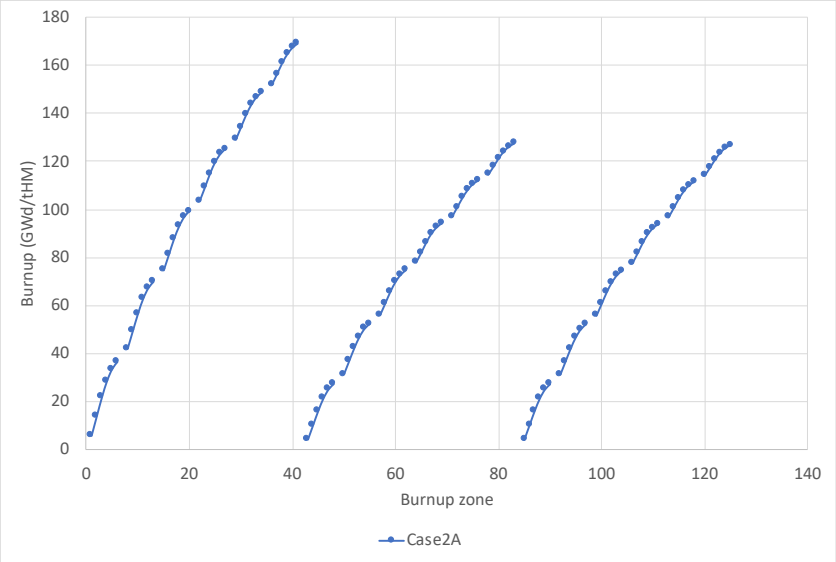

Figure 19. Accumulated burnup distribution in the core for Case-2B.

Equilibrium core U-235 and Pu-239 mass distributions as the fuel elements move through the pebble-bed core are shown in Figure 20 and Figure 21, respectively. U-235 content depletes at a higher rate in channel 1, as more power is produced there compared to the other channels. Pu-239 build-up and depletion shows similar behavior in each channel, but the values show significant differences in each channel. Pu-239 builds up significantly during the first pass of the fuel elements, as compared to the other passes—especially after the third pass. Since the fuel elements coming out of the core after each pass mix together, the Pu-239 content is the same at the core inlet for each channel for second and higher passes of the fuel elements from the core. The effects of the neutron spectrum and the power produced per channel

on the Pu-239 content can be seen in Figure 21, as the Pu-239 content, after being mixed, diverges in each pass prior to the fuel elements being reintroduced into the core.

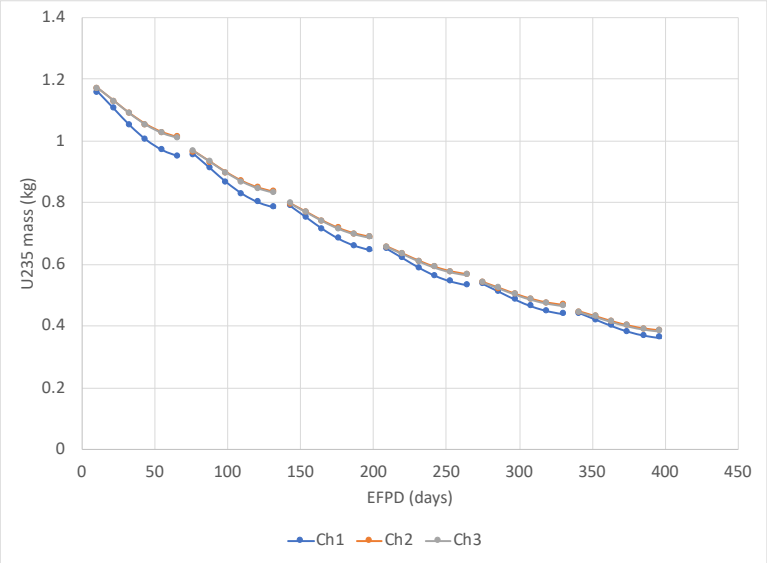

Figure 20. Equilibrium core U-235 mass distribution for Case-2B.

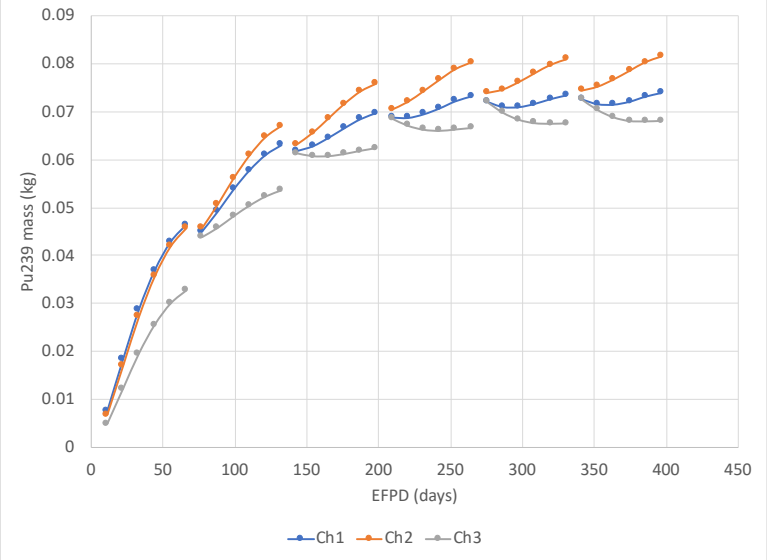

Figure 21. Equilibrium core Pu-239 mass distribution for Case-2B.

Figure 15 shows the Cs-137 number density in the pebble-bed core per depletion zone as a function of accumulated burnup. The slope of the plot does not show significant difference in the first pass when all three channels are compared. However, due to the mixing of the fuel elements after each pass, the Cs-137 number density shows significant differences after the second pass. It is important to note this artifact of this type of mixing so as to consider the stochastic behavior of pebble loading to the core, especially in

regard to whether Cs-137 number density will be used as a burnup indicator in algorithms/methods included—or to be included—in the simulation tools.

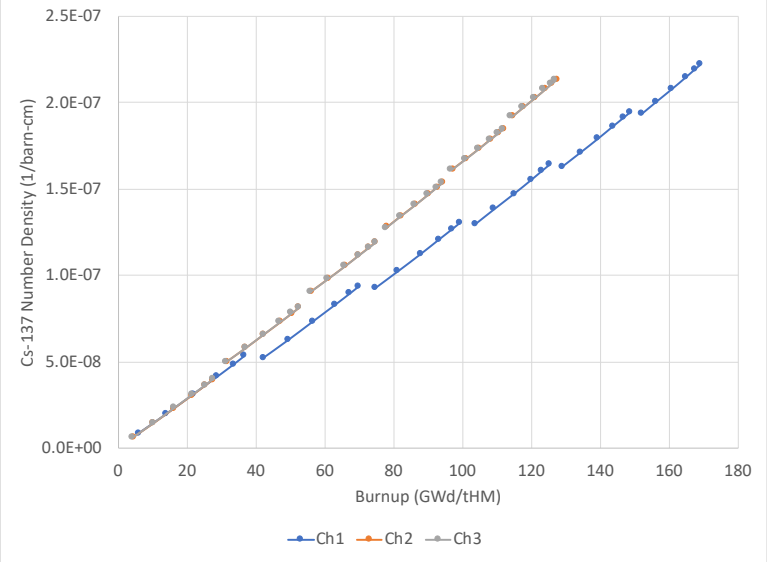

Figure 22. Equilibrium core Cs-137 number density distribution as a function of accumulated burnup for Case-2B.

Figure 23 and Figure 24 represent the radial and axial neutron flux profiles, respectively, inside the pebble-bed core for thermal (E < 1.86 eV) and fast neutrons (E > 1.86 eV). The radial thermal flux shows a peak next to the central reflector and decreases toward the side reflector, with a slight peak next to the graphite reflector. The axial neutron flux profile is bottom-peaked due to fresh fuel being loaded from the bottom. The axial thermal neutron flux shows slight peaks at the top and bottom due to the presence of the top and bottom reflectors.

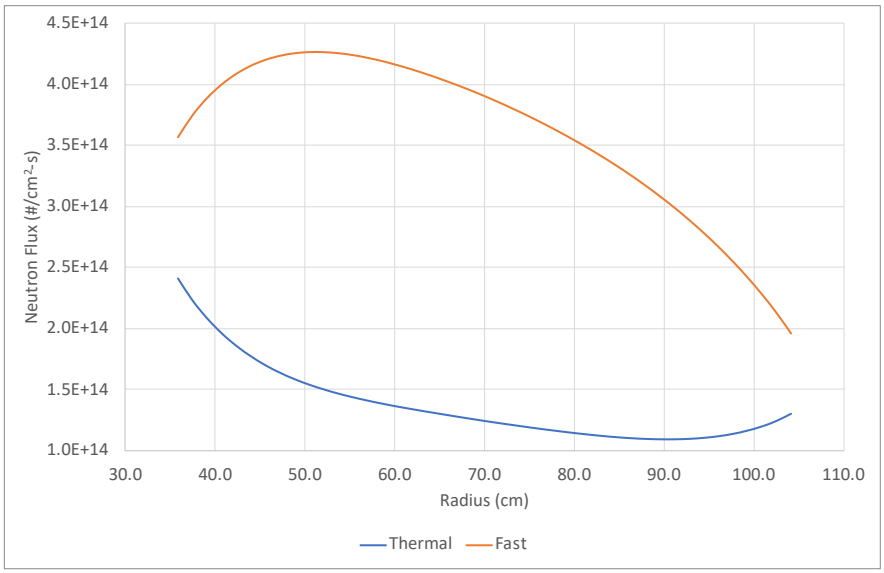

Figure 23. Radial neutron flux profile inside the core for Case-2B.

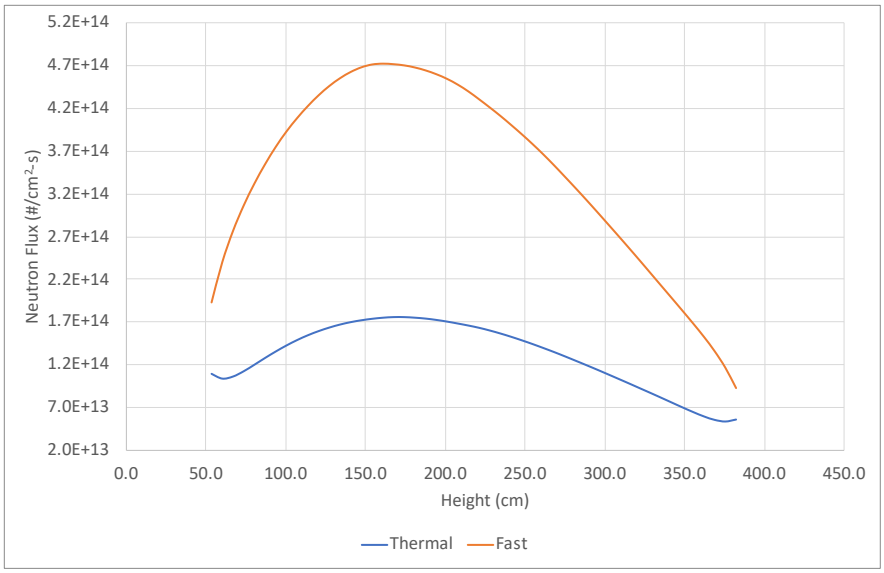

Figure 24. Axial neutron flux profile inside the core for Case-2B.

The detailed results of Case-2B are listed in Appendix B in regard to the number densities per depletion zone of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149) and isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag). The axial and radial neutron fluxes; power per particle, per depletion zone, per pass; and the fast neutron fluence per pass are also presented in table form in Appendix B.

3.2.5 Case-2C

Case-2C considers a low-aspect-ratio pebble-bed HTGR with a MEDUL fueling scheme and two depletion zones in the TRISO fuel kernel. In the simulation, the fuel kernel is subdivided into two equal-volume burnup zones to account for the self-shielding effect during depletion. On average, the fuel goes through the core three times before reaching its discharge burnup. The power per particle, per pass, per fuel kernel zone is shown in Figure 25; the first pass of pebbles has the highest power production, with a maximum of around 60 mW. Note that, since the fuel kernels are divided into two equal volumes, the power produced per particle, per fuel kernel zone is almost half the value given for Case-2A. Figure 26 shows that—for the total power produced per particle, per pass—the peak is around 120 mW for the first pass of fuel elements.

Figure 27 shows the accumulated burnup distribution per depletion zone in the core. Although each pebble flow channel shows a similar trend, the discharge burnup ranges from about 125 to 135 GWd/tHM. After each pass, the burnup accumulation per pass slows as the power produced per pass reduces (as shown in Figure 26), becoming especially more pronounced in the last pass of fuel elements. The accumulated burnup shows slight differences in the inner and outer zones of the fuel kernels and also in the last pass of the fuel elements.

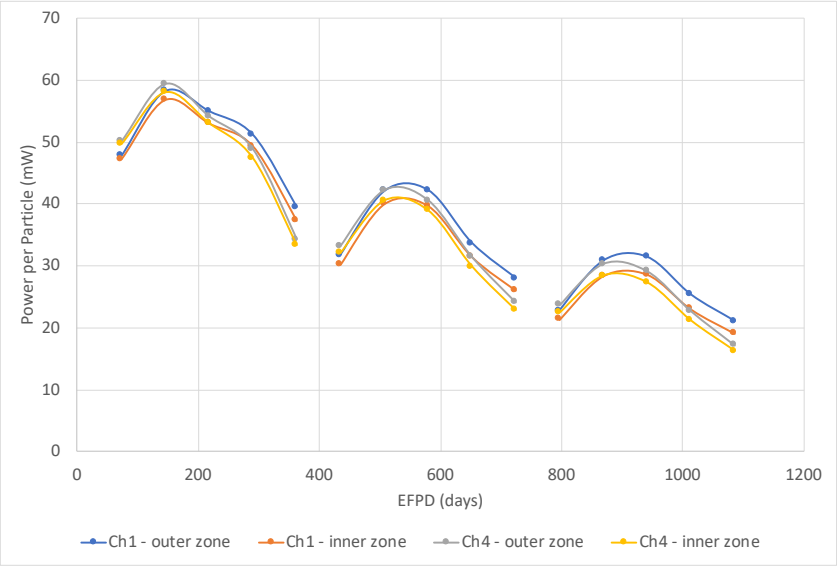

Figure 25. Power produced per particle, per pass, per fuel kernel zone for Case-2C.

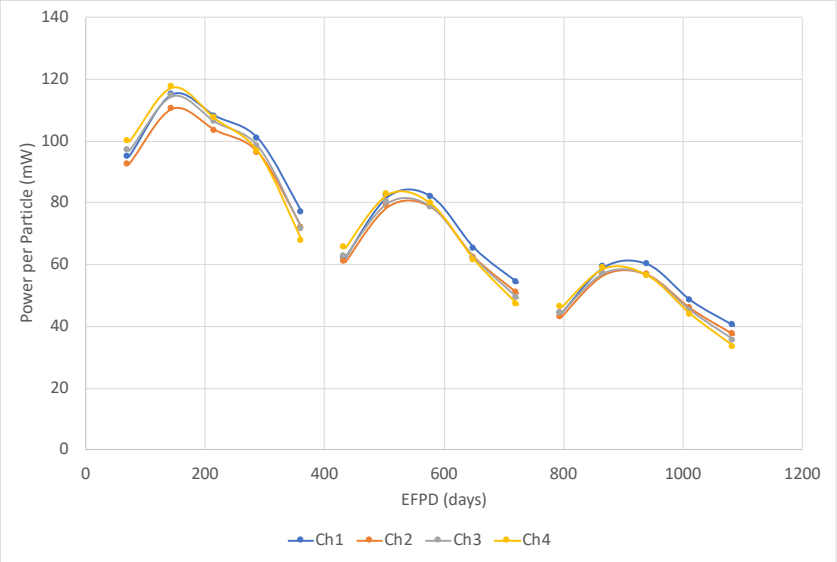

Figure 26. Power produced per particle, per pass for Case-2C.

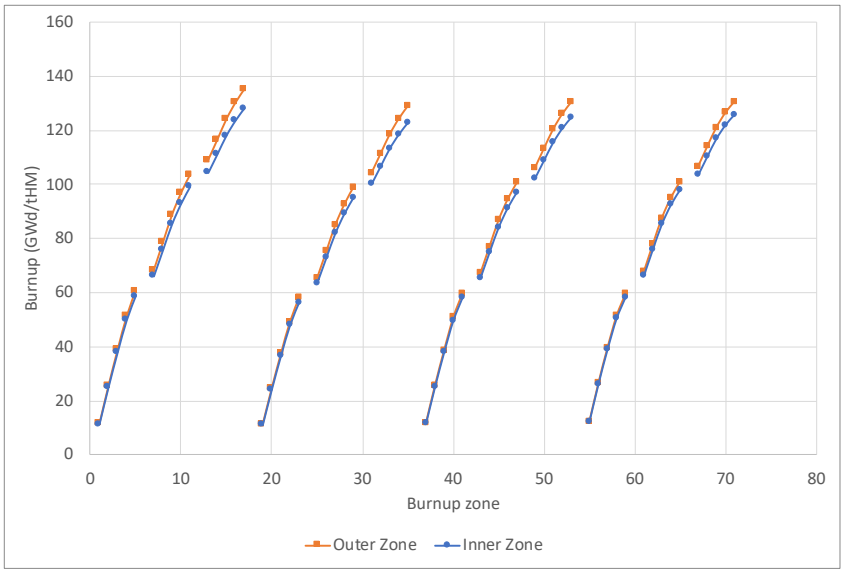

Figure 27. Accumulated burnup distribution in the core per fuel kernel zone for Case-2C.

Equilibrium core Pu-239 mass distributions per fuel kernel zone as the fuel elements move through the pebble-bed core are shown in Figure 28 for the central channel (Ch1) and the channel next to the side reflector (Ch4). Pu-239 build-up and depletion show similar behavior in each fuel kernel zone, despite the absolute values being different. For both channels, the Pu-239 content is higher in the outer zone than in the inner zone, due to the self-shielding. Figure 29 compares the total Pu-239 mass distributions for channels 1 and 4 for a case in which the fuel kernel is not subdivided. The results do not indicate any significant differences.

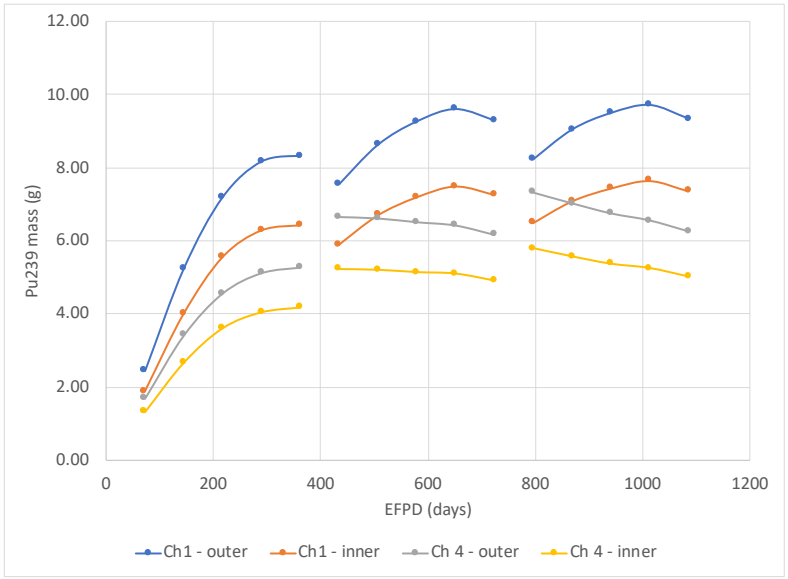

Figure 28. Equilibrium core Pu-239 mass distribution per fuel kernel zone for Case-2C

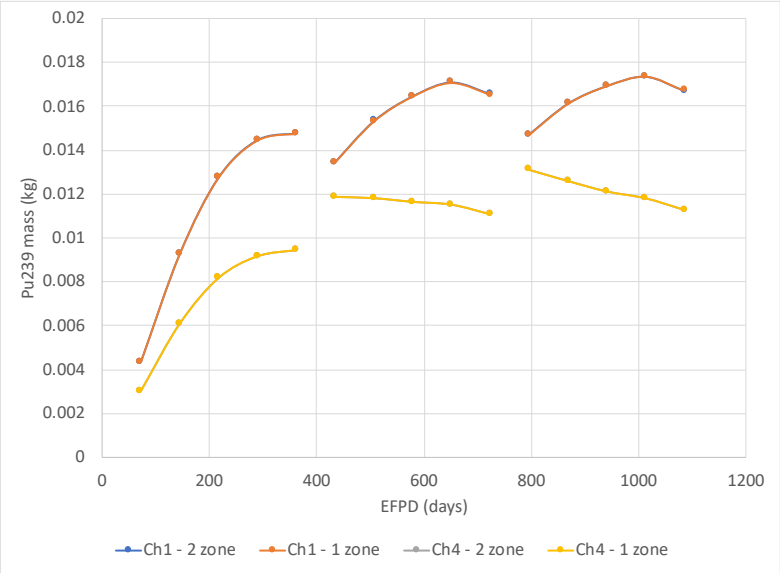

Figure 29. Equilibrium core Pu-239 mass distribution for Case-2C

The detailed results of Case-2C are listed in Appendix B in regard to the number densities per depletion zone of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149) and isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag). The axial and radial neutron fluxes; power per particle, per depletion zone, per pass; and the fast neutron fluence per pass are also presented in table form in Appendix B.

3.2.6 Case-2D

Case-2D considers a low-aspect-ratio pebble-bed FHR with a MEDUL fueling scheme and two depletion zones in the TRISO fuel kernel. In the simulation, the fuel kernel is subdivided into two equal-volume burnup zones to account for the self-shielding effects during depletion. On average, the fuel goes through the core three times before reaching its discharge burnup. The power per particle, per pass, per fuel kernel zone is shown in Figure 30; the first of pass pebbles has the highest power production, with a maximum of around 110 mW. Note that, since the fuel kernels are divided into two equal volumes, the power produced per particle, per fuel kernel zone is almost half the value given in Case-2B. Figure 31 shows that—for the total power produced per particle, per pass—the peak is around 220 mW for the first pass of fuel elements.

Figure 32 shows the accumulated burnup distribution per depletion zone in the core. Although each pebble flow channel shows a similar trend, the discharge burnup ranges from about 110 to 150 GWd/tHM. After each pass, the burnup accumulation per pass slows as the power produced per pass also reduces (as shown in Figure 30), becoming especially more pronounced in the last pass of fuel elements. The accumulated burnup shows slight differences in the inner and outer zones of the fuel kernels after the first pass of the fuel elements.

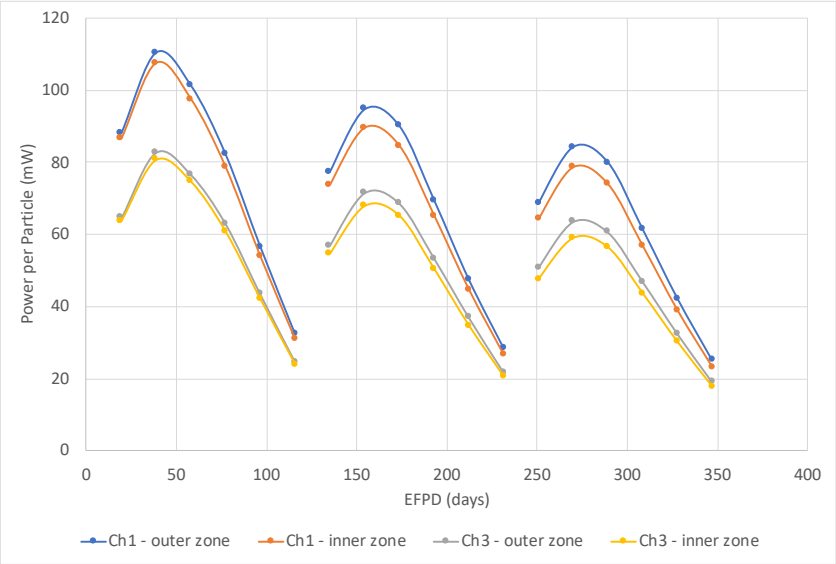

Figure 30. Power produced per particle, per pass, per fuel kernel zone for Case-2D.

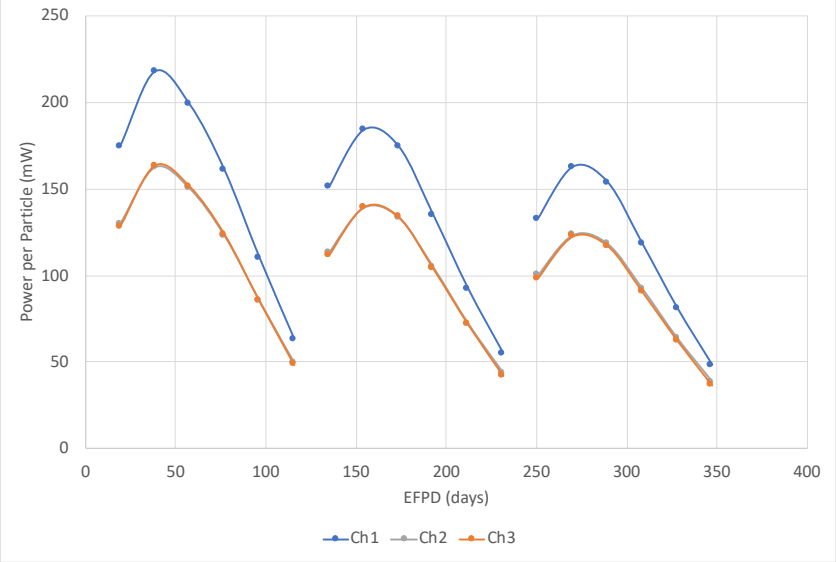

Figure 31. Power produced per particle, per pass for Case-2D.

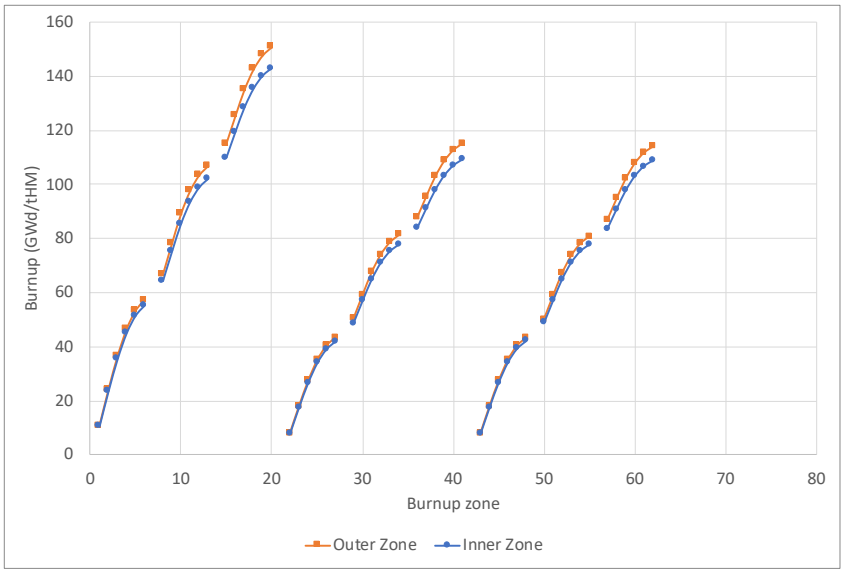

Figure 32. Accumulated burnup distribution in the core per fuel kernel zone for Case-2D.

Equilibrium core Pu-239 mass distributions per fuel kernel zone as the fuel elements move through the pebble-bed core are shown in Figure 33. Pu-239 build-up and depletion show similar behavior in each fuel kernel zone, even though the absolute values are different. For all channels, the Pu-239 content is higher in the outer zone than in the inner zone, due to the self-shielding. Figure 34 shows a comparison of the total Pu-239 mass distribution for channels 2 and 3 for a case in which the fuel kernel is not subdivided. The results do not indicate any significant differences.

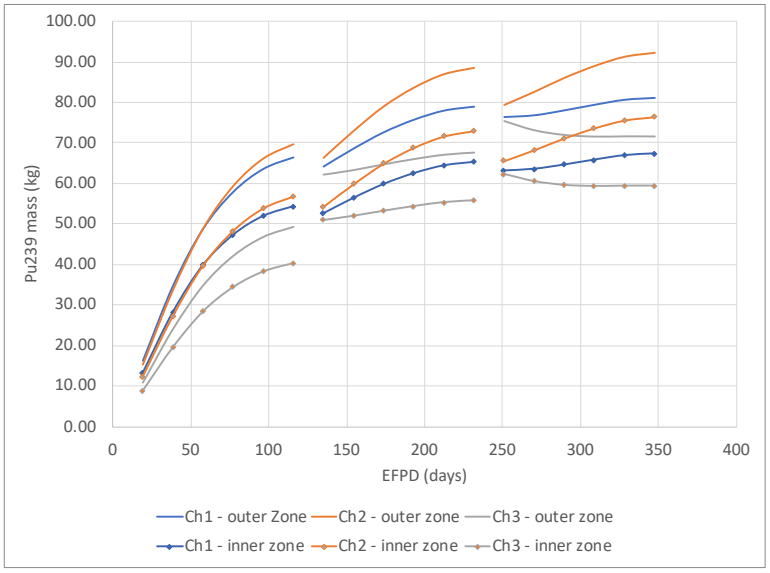

Figure 33. Equilibrium core Pu-239 mass distribution per fuel kernel zone for Case-2D.

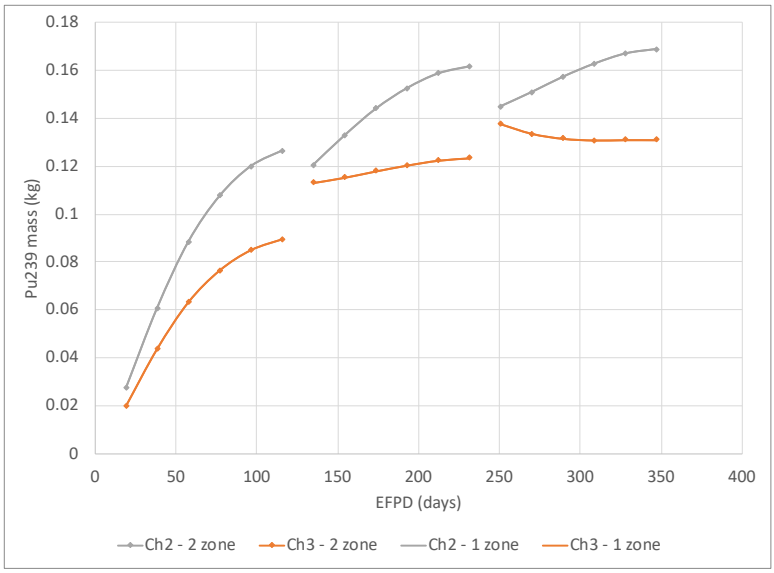

Figure 34. Equilibrium core Pu-239 mass distribution for Case-2D.

The detailed results of Case-2C are listed in Appendix B in regard to the number of densities per depletion zone of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149) and isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag). The axial and radial neutron fluxes; power per particle, per depletion zone, per pass; and the fast neutron fluence per pass are also presented in table form in Appendix B.

3.2.7 Case-2E

Case-2E considers a low-aspect-ratio pebble-bed HTGR with a MEDUL fueling scheme and burnup zoning. On average, the fuel goes through the core six times before reaching its discharge burnup; the initial three passes are through the inner (central) channels (channels 1 and 2), and the last three passes are through the outer (next to the side reflector) channels (channels 3 and 4). The power per particle, per pass is shown in Figure 35; the first pass of pebbles has the highest power production, with a maximum of around 110 mW per particle. The power production is significantly lower in fuel elements in channels 3 and 4 due to the higher burnup in these channels. Maximum power production in channels 3 and 4 is almost half the value of that for channels 1 and 2.

Figure 36 shows the accumulated burnup distribution per depletion zone in the core. The discharge burnup did not show a significant difference when the fuel elements completed their sixth pass through channels 3 and 4. The burnup accumulation per pass is reduced in channels 3 and 4, as the power produced per pass was also reduced, as shown in Figure 35.

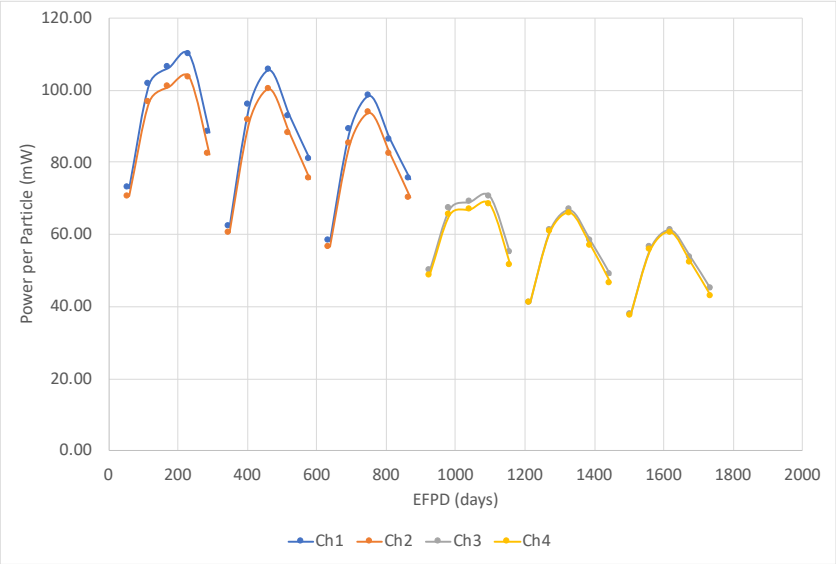

Figure 35. Power produced per particle, per pass for Case-2E.

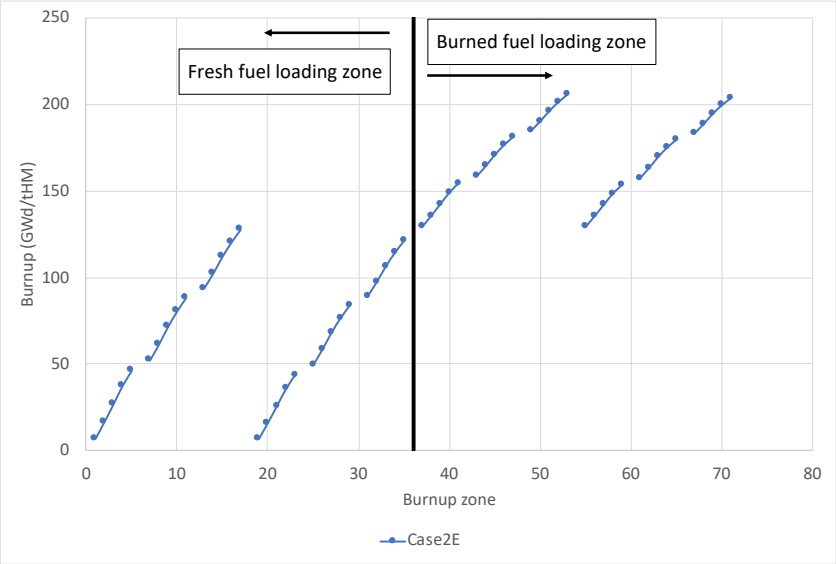

Figure 36. Accumulated burnup distribution in the core for Case-2E.

Equilibrium core U-235 and Pu-239 mass distributions as the fuel elements move through the pebble-bed core are shown in Figure 37 and Figure 38, respectively. Depletion of U-235 is not significantly different for each channel; however, Pu-239 build-up and depletion show some differences. Pu-239 builds up significantly during the first two passes of the fuel elements, compared to the other passes. Since the fuel elements coming out of the core after each pass are mixed together, the Pu-239 content is the same at the core inlet for each channel for the second and subsequent passes of the fuel elements through the core. There is no significant build-up of Pu-239 in channels 3 and 4, where the fuel elements are already burned, and at higher burnups.

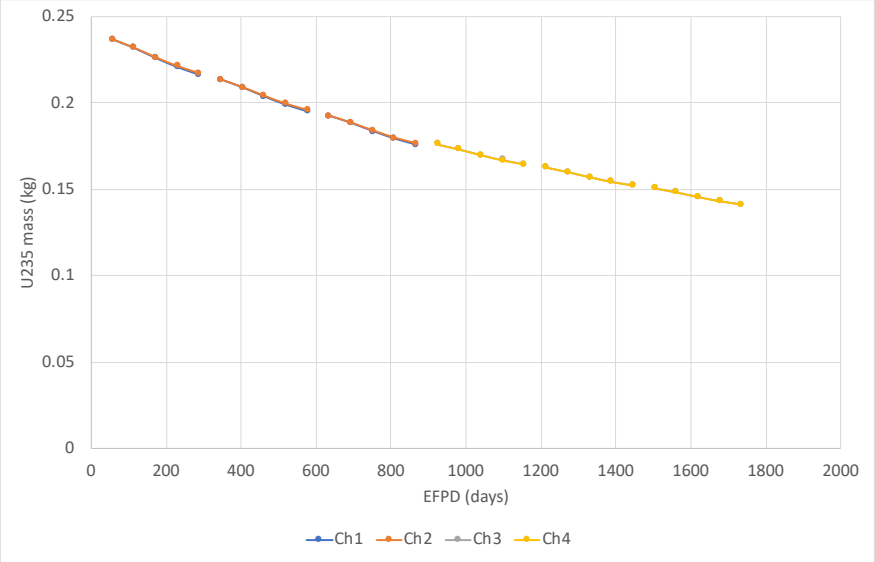

Figure 37. Equilibrium core U-235 mass distribution for Case-2E.

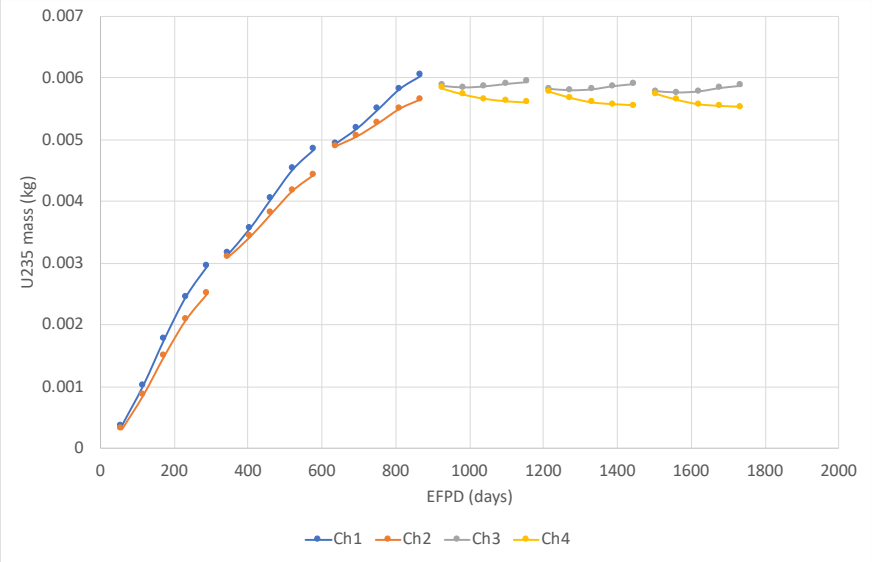

Figure 38. Equilibrium core Pu-239 mass distribution for Case-2E.

The detailed results of Case-2E are listed in Appendix B in regard to the number densities per depletion zone of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149) and isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag). The axial and radial neutron fluxes; power per particle, per depletion zone, per pass; and the fast neutron fluence per pass are also presented in table form in Appendix B.

3.3 Case-3: Specified Pebble Flow Path

Case-3 considers gas-cooled PBRs with low aspect ratios and MEDUL fueling schemes, as described in Case-2 (see Section 3.2.1). However, Case-3 allows for a certain number of fuel elements to go through the core via a specified path (i.e., no mixing of those specific fuel elements with the other fuel elements before they are reintroduced into the pebble bed core). Two different pebble flow paths are modeled in Case-3: (1) pebbles flow through the center of the core (i.e., through channel 1), and (2) pebbles flow through the core next to the side reflector (i.e., through channel 4). The rest of the core is assumed stationary in the model, and the number densities from Case-2A are used for those stationary pebbles.

3.3.1 Case-3A

Case-3A considers a low-aspect-ratio pebble-bed HTGR with a MEDUL fueling scheme. On average, the fuel goes through the core six times before reaching its discharge burnup. The power per particle, per pass is shown in Figure 39. The first pass of pebbles has the highest power production, with a maximum value of around 120 mW per particle. The power produced per particle is slightly lower for the initial pass and slightly higher for the last two passes for pebbles circulated through channel 1 only, compared to the power produced per particle for pebbles that go through channel 1 in Case-2A.

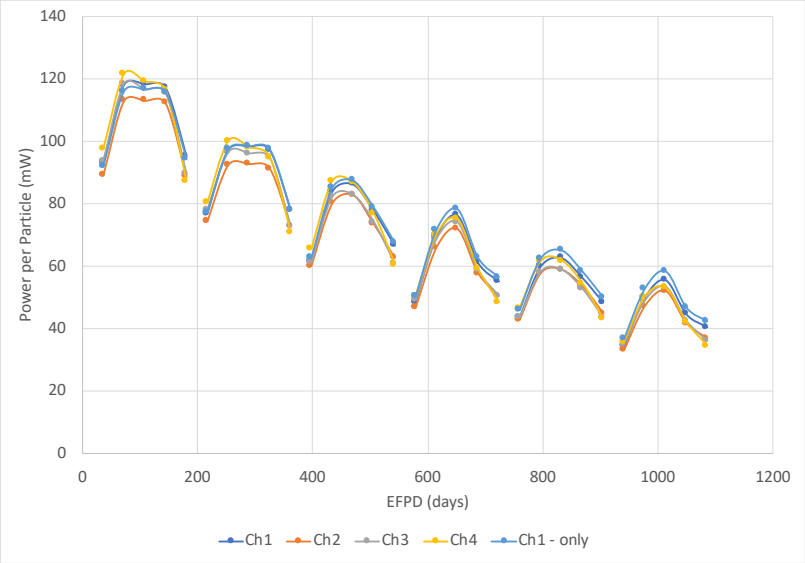

Figure 39. Power produced per particle, per pass for Case-3A.

Figure 40 shows the accumulated burnup distribution for pebbles circulated through channel 1 only, compared to the accumulated burnup for the pebbles going through the same channel in Case-2A. There does not appear to be a significant difference between the two. Fuel elements that go through channel 1 only accumulate a slightly higher burnup in their fifth and sixth passes.

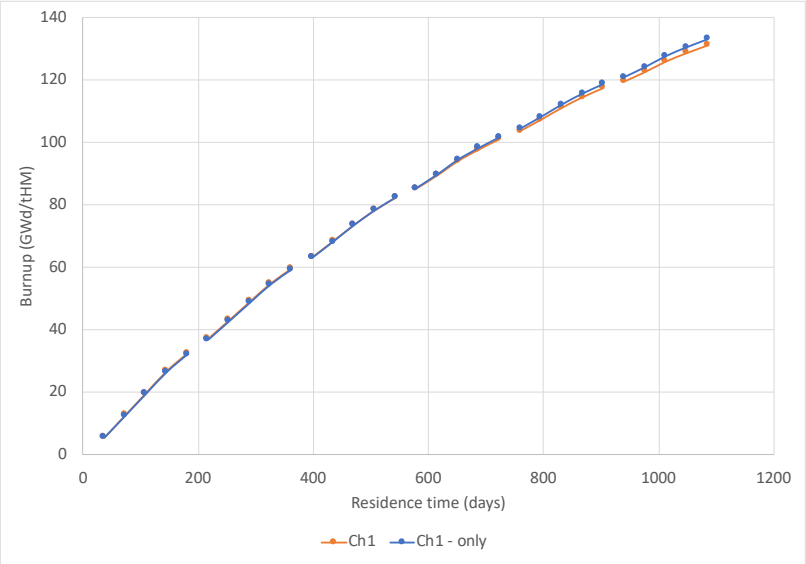

Figure 40. Accumulated burnup distribution in channel 1 of Case-3A compared to channel 1 of Case-2A.

Equilibrium core U-235 and Pu-239 mass distributions as the fuel elements move through the pebble-bed core are shown in Figure 41 and Figure 42, respectively. Depletion of U-235 does not show significant differences per channel; however, Pu-239 build-up and depletion show differences. Compared to fuel elements that are mixed, Pu-239 builds up significantly after the first pass of the fuel elements going through channel 1 only, without being mixed before reintroduction into the core. The artifact of the mixing methodology disappears, and the Pu-239 build-up continues after each pass. The build-up rate of Pu-239 per pass is reduced when the fuel elements are not mixed; however, the difference is insignificant.

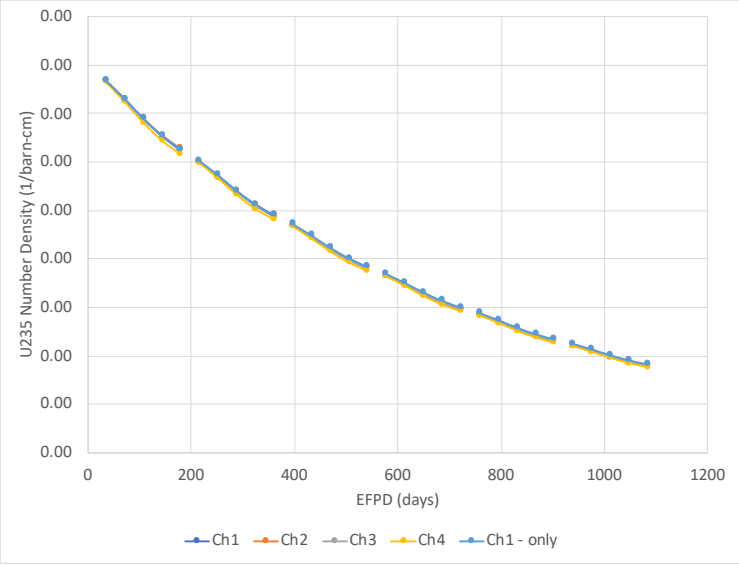

Figure 41.U-235 number density in the core for Case-3A.

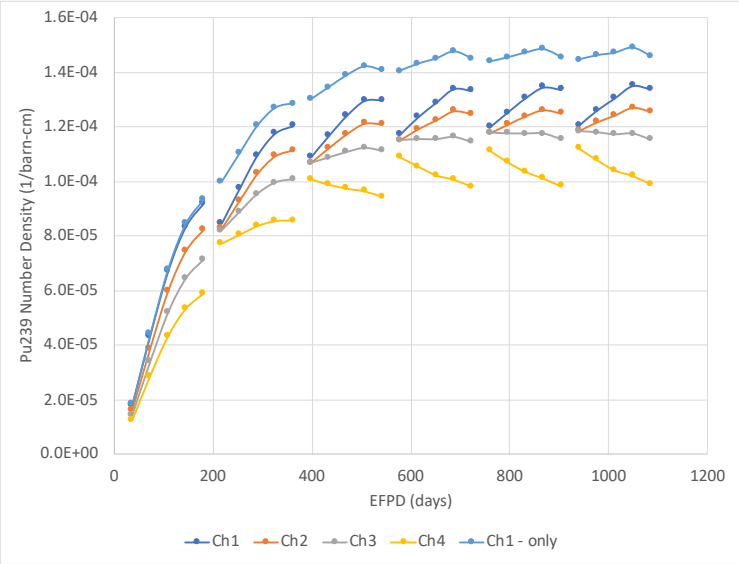

Figure 42. Pu-239 number density in the core for Case-3A.

The detailed results of Case-3A are listed in Appendix C in regard to the number densities per depletion zone in channel 1 of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149) and isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag.

3.3.2 Case-3B

Case-3B considers a low-aspect-ratio pebble-bed HTGR with a MEDUL fueling scheme. On average, the fuel goes through the core six times before reaching its discharge burnup. The power per particle, per pass is shown in Figure 43. The first pass of pebbles has the highest power production, with a maximum value of around 120 mW per particle. The power produced per particle is slightly lower for the initial pass and slightly higher after the second pass for pebbles circulated through channel 4 only, compared to the power produced per particle for pebbles that go through channel 4 in Case-2A.

Figure 44 shows the accumulated burnup distribution for pebbles circulated through channel 4 only, compared to the accumulated burnup for pebbles that go through the same channel in Case-2A. There does not appear to be a significant difference between the two. Fuel elements that go through channel 4 only accumulate a slightly lower burnup for the initial two passes and a slightly higher burnup in their fifth and sixth passes.

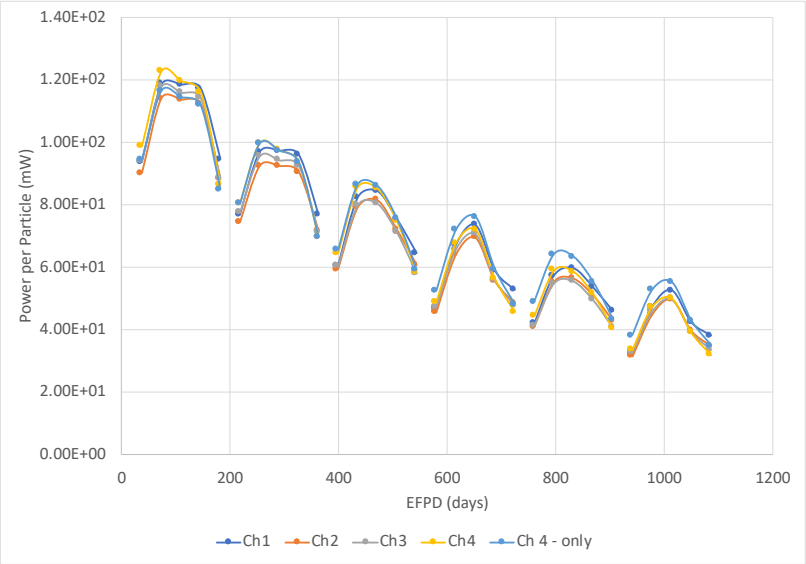

Figure 43. Power produced per particle, per pass for Case-3B.

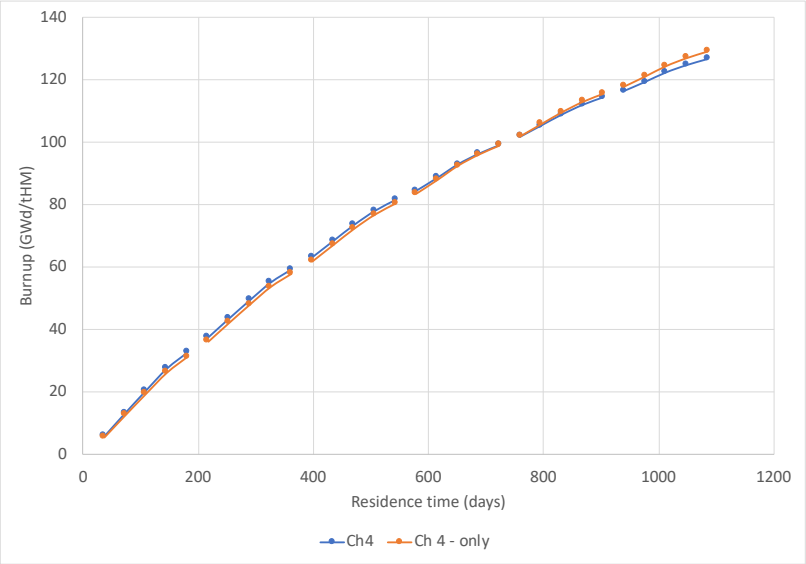

Figure 44. Accumulated burnup distribution in channel 4 of Case-3B compared to that in channel 4 of Case-2A.

Equilibrium core U-235 and Pu-239 mass distributions as the fuel elements move through the pebble-bed core are shown in Figure 45 and Figure 46, respectively. Depletion of U-235 does not appear to significantly differ for each channel; however, Pu-239 build-up and depletion show differences. Pu-239 builds up significantly during the second pass of fuel elements going through channel 4 only, without being mixed before reintroduction into the core, compared to fuel elements that are mixed. The artifact of the mixing methodology disappears, and the Pu-239 build-up continues after each pass, instead of being depleted when mixed. The build-up rate of Pu-239 per pass is reduced after the third pass of fuel elements if those elements are not mixed. Although the distribution and trend of the Pu-239 number density in channel 4 shows differences per pass when compared to results that involve mixing, the difference is

insignificant. The Pu-239 content in fuel elements for channel 4 of Case-3B at the core outlet converges to similar values for channel 4 of Case-2A after each pass through the core.

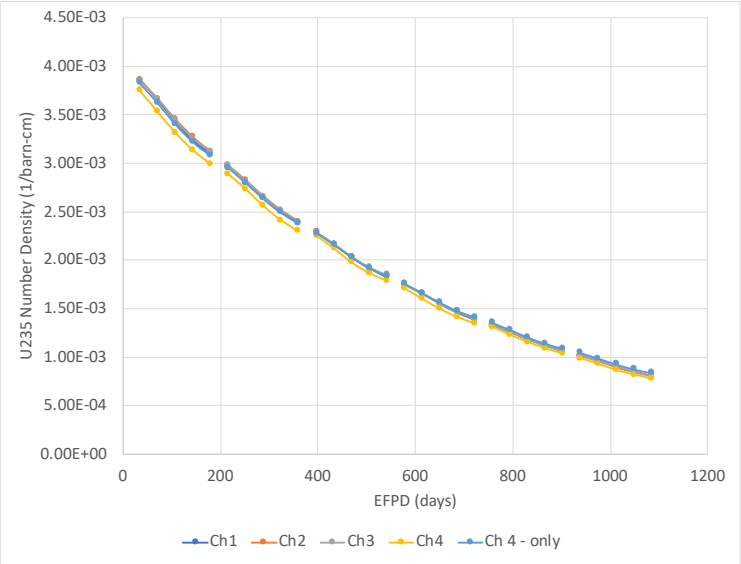

Figure 45. U-235 number density in the core for Case-3B.

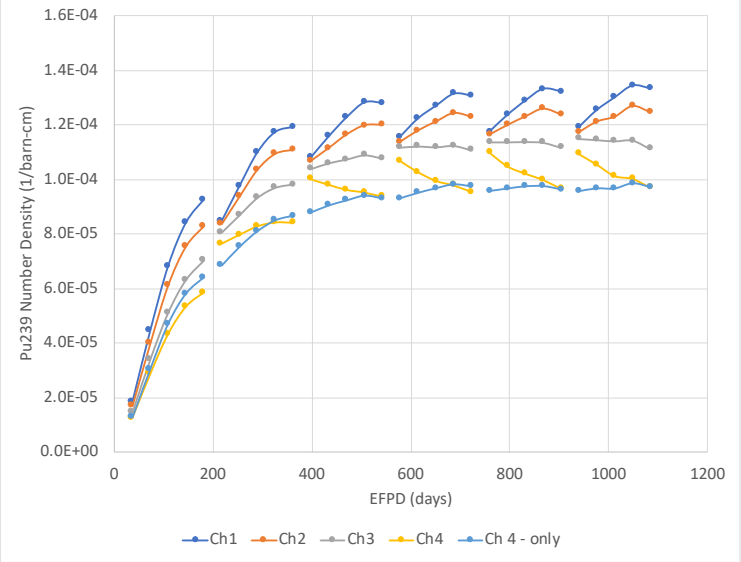

Figure 46. Pu-239 number density in the core for Case-3B.

The detailed results of Case-3B are listed in Appendix C in regard to the number densities per depletion zone in channel 4 of isotopes important for reactor physics (e.g., U-235, U-238, Pu-238, Pu-239, Pu-240, Pu-241, Pu-242, Xe-135, and Sm-149) and isotopes of elements important for fuel qualification (e.g., Kr, Xe, I, Sr, Cs, and Ag).

4. CONCLUSIONS

A code-to-code benchmark for the equilibrium core analysis capability of PBRs was developed. Multiple cases were identified to capture different fuel cycle strategies usable in PBRs. The identified cases were simulated using continuous-energy Monte Carlo code system Serpent2 and JEFF cross-section data files.

The results of each case are presented in terms of overall equilibrium core characteristics: discharge burnup, spatial burnup distribution, spatial isotopic distributions, axial and radial neutron flux distributions, and the power history of fuel elements per pass through the core for both a prototypical pebble-bed HTGR and a prototypical pebble-bed FHR.

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Appendix A
Case-1 Results

5.1 Case-1A

Table 17. Number densities for Case-1A, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1]	1.45072E-03	2.06291E-02	7.43766E-07	9.66580E-05	3.73808E-05	1.84153E-05	8.15993E-06	2.46876E-08	1.31705E-07
[2,1,1]	1.02269E-03	2.02861E-02	2.41105E-06	1.53232E-04	6.42540E-05	4.14226E-05	2.11085E-05	2.41108E-08	1.79904E-07
[3,1,1]	7.65774E-04	2.00224E-02	4.38980E-06	1.70534E-04	8.17140E-05	5.57074E-05	3.44673E-05	2.15559E-08	1.89910E-07
[4,1,1]	6.17882E-04	1.98433E-02	6.14929E-06	1.73970E-04	9.15387E-05	6.29832E-05	4.49229E-05	1.94183E-08	1.92184E-07
[5,1,1]	5.33428E-04	1.97288E-02	7.50839E-06	1.73756E-04	9.67246E-05	6.65997E-05	5.20240E-05	1.77004E-08	1.91541E-07
[6,1,1]	4.82419E-04	1.96542E-02	8.49820E-06	1.72315E-04	9.98384E-05	6.82448E-05	5.68560E-05	1.60320E-08	1.84897E-07
[7,1,1]	4.51870E-04	1.96077E-02	9.18721E-06	1.70901E-04	1.01747E-04	6.88654E-05	5.99538E-05	1.43003E-08	1.77992E-07
[8,1,1]	4.33593E-04	1.95791E-02	9.66567E-06	1.69942E-04	1.02829E-04	6.90993E-05	6.18700E-05	1.24008E-08	1.72224E-07
[9,1,1]	4.22057E-04	1.95607E-02	1.00036E-05	1.69162E-04	1.03537E-04	6.90727E-05	6.31149E-05	1.04218E-08	1.63602E-07
[10,1,1]	4.14848E-04	1.95492E-02	1.02463E-05	1.68553E-04	1.04002E-04	6.89084E-05	6.39071E-05	8.34029E-09	1.55664E-07
[11,1,1]	4.10362E-04	1.95420E-02	1.04247E-05	1.68188E-04	1.04286E-04	6.86901E-05	6.44034E-05	6.32325E-09	1.48855E-07
[12,1,1]	4.07451E-04	1.95372E-02	1.05601E-05	1.67933E-04	1.04492E-04	6.84161E-05	6.47287E-05	4.69835E-09	1.41937E-07
[13,1,1]	4.05588E-04	1.95342E-02	1.06645E-05	1.67769E-04	1.04639E-04	6.81124E-05	6.49362E-05	3.34118E-09	1.36280E-07
[14,1,1]	4.04424E-04	1.95323E-02	1.07461E-05	1.67674E-04	1.04745E-04	6.77902E-05	6.50658E-05	2.27510E-09	1.32132E-07
[15,1,1]	4.03659E-04	1.95311E-02	1.08111E-05	1.67609E-04	1.04820E-04	6.74610E-05	6.51500E-05	1.58243E-09	1.28410E-07
[16,1,1]	4.03175E-04	1.95303E-02	1.08631E-05	1.67568E-04	1.04883E-04	6.71204E-05	6.52012E-05	1.06184E-09	1.25863E-07
[17,1,1]	4.02872E-04	1.95298E-02	1.09045E-05	1.67546E-04	1.04933E-04	6.67773E-05	6.52321E-05	6.99551E-10	1.24133E-07
[18,1,1]	4.02675E-04	1.95295E-02	1.09375E-05	1.67529E-04	1.04983E-04	6.64241E-05	6.52528E-05	4.74708E-10	1.22838E-07
[19,1,1]	4.02546E-04	1.95293E-02	1.09636E-05	1.67516E-04	1.05031E-04	6.60667E-05	6.52661E-05	3.20259E-10	1.21929E-07
[20,1,1]	4.02466E-04	1.95291E-02	1.09839E-05	1.67507E-04	1.05075E-04	6.57098E-05	6.52744E-05	2.10879E-10	1.21336E-07
[21,1,1]	4.02415E-04	1.95290E-02	1.09996E-05	1.67504E-04	1.05116E-04	6.53538E-05	6.52795E-05	1.44377E-10	1.20865E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[22,1,1]	4.02381E-04	1.95290E-02	1.10112E-05	1.67489E-04	1.05159E-04	6.49960E-05	6.52832E-05	1.03818E-10	1.20408E-07
[1,2,1]	1.48939E-03	2.06543E-02	6.35891E-07	9.48154E-05	3.54363E-05	1.69652E-05	7.04097E-06	2.49468E-08	1.32076E-07
[2,2,1]	1.06770E-03	2.03320E-02	2.09907E-06	1.50796E-04	6.22518E-05	3.88509E-05	1.87279E-05	2.43175E-08	1.78192E-07
[3,2,1]	8.08526E-04	2.00827E-02	3.86802E-06	1.67942E-04	8.01869E-05	5.28477E-05	3.11402E-05	2.17055E-08	1.87089E-07
[4,2,1]	6.57108E-04	1.99131E-02	5.45687E-06	1.71108E-04	9.04798E-05	6.00716E-05	4.09857E-05	1.94762E-08	1.88401E-07
[5,2,1]	5.69833E-04	1.98047E-02	6.69278E-06	1.70593E-04	9.60054E-05	6.36879E-05	4.77384E-05	1.76885E-08	1.87287E-07
[6,2,1]	5.16806E-04	1.97341E-02	7.59416E-06	1.68859E-04	9.93587E-05	6.53324E-05	5.23622E-05	1.59831E-08	1.80525E-07
[7,2,1]	4.84973E-04	1.96902E-02	8.22340E-06	1.67291E-04	1.01378E-04	6.59960E-05	5.53482E-05	1.42187E-08	1.74008E-07
[8,2,1]	4.65888E-04	1.96631E-02	8.66036E-06	1.66238E-04	1.02531E-04	6.62568E-05	5.71974E-05	1.22921E-08	1.68177E-07
[9,2,1]	4.53832E-04	1.96458E-02	8.96981E-06	1.65409E-04	1.03268E-04	6.62621E-05	5.84028E-05	1.03081E-08	1.59939E-07
[10,2,1]	4.46317E-04	1.96349E-02	9.19210E-06	1.64813E-04	1.03763E-04	6.60995E-05	5.91616E-05	8.21825E-09	1.52365E-07
[11,2,1]	4.41649E-04	1.96282E-02	9.35630E-06	1.64426E-04	1.04069E-04	6.58777E-05	5.96338E-05	6.22152E-09	1.46218E-07
[12,2,1]	4.38613E-04	1.96238E-02	9.48089E-06	1.64157E-04	1.04279E-04	6.56088E-05	5.99437E-05	4.61604E-09	1.39608E-07
[13,2,1]	4.36669E-04	1.96210E-02	9.57743E-06	1.63973E-04	1.04428E-04	6.53070E-05	6.01472E-05	3.27655E-09	1.34113E-07
[14,2,1]	4.35450E-04	1.96193E-02	9.65302E-06	1.63866E-04	1.04527E-04	6.49953E-05	6.02721E-05	2.22145E-09	1.30085E-07
[15,2,1]	4.34642E-04	1.96181E-02	9.71347E-06	1.63780E-04	1.04606E-04	6.46711E-05	6.03549E-05	1.54200E-09	1.26433E-07
[16,2,1]	4.34121E-04	1.96174E-02	9.76199E-06	1.63732E-04	1.04672E-04	6.43373E-05	6.04088E-05	1.03237E-09	1.23869E-07
[17,2,1]	4.33791E-04	1.96169E-02	9.80123E-06	1.63694E-04	1.04729E-04	6.39986E-05	6.04419E-05	6.75426E-10	1.22128E-07
[18,2,1]	4.33569E-04	1.96165E-02	9.83287E-06	1.63659E-04	1.04778E-04	6.36595E-05	6.04649E-05	4.60772E-10	1.20802E-07
[19,2,1]	4.33421E-04	1.96163E-02	9.85823E-06	1.63627E-04	1.04822E-04	6.33190E-05	6.04785E-05	3.14293E-10	1.19912E-07
[20,2,1]	4.33328E-04	1.96162E-02	9.87834E-06	1.63610E-04	1.04864E-04	6.29770E-05	6.04862E-05	2.03995E-10	1.19342E-07
[21,2,1]	4.33270E-04	1.96161E-02	9.89411E-06	1.63601E-04	1.04900E-04	6.26383E-05	6.04915E-05	1.39458E-10	1.18987E-07
[22,2,1]	4.33230E-04	1.96160E-02	9.90619E-06	1.63583E-04	1.04940E-04	6.22963E-05	6.04957E-05	1.02358E-10	1.18611E-07
[1,3,1]	1.52410E-03	2.06888E-02	5.20662E-07	8.92081E-05	3.28816E-05	1.47582E-05	5.79529E-06	2.47767E-08	1.29784E-07
[2,3,1]	1.10355E-03	2.03976E-02	1.74475E-06	1.40577E-04	5.93981E-05	3.42456E-05	1.60106E-05	2.36380E-08	1.68909E-07
[3,3,1]	8.40389E-04	2.01726E-02	3.23973E-06	1.55524E-04	7.75640E-05	4.68390E-05	2.71222E-05	2.08276E-08	1.74621E-07
[4,3,1]	6.84391E-04	2.00194E-02	4.59235E-06	1.57204E-04	8.81769E-05	5.33331E-05	3.61051E-05	1.85070E-08	1.73990E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[5,3,1]	5.93539E-04	1.99214E-02	5.65069E-06	1.55749E-04	9.39746E-05	5.65402E-05	4.23709E-05	1.66774E-08	1.71657E-07
[6,3,1]	5.38303E-04	1.98576E-02	6.42699E-06	1.53676E-04	9.74757E-05	5.79882E-05	4.66560E-05	1.50192E-08	1.65243E-07
[7,3,1]	5.04962E-04	1.98178E-02	6.97191E-06	1.51755E-04	9.95976E-05	5.85510E-05	4.94413E-05	1.33545E-08	1.58850E-07
[8,3,1]	4.85000E-04	1.97934E-02	7.35081E-06	1.50512E-04	1.00813E-04	5.87595E-05	5.11660E-05	1.15417E-08	1.53297E-07
[9,3,1]	4.72405E-04	1.97778E-02	7.62078E-06	1.49583E-04	1.01585E-04	5.87527E-05	5.22892E-05	9.69813E-09	1.46004E-07
[10,3,1]	4.64550E-04	1.97680E-02	7.81596E-06	1.48912E-04	1.02096E-04	5.86046E-05	5.29998E-05	7.76310E-09	1.39222E-07
[11,3,1]	4.59698E-04	1.97619E-02	7.96032E-06	1.48507E-04	1.02404E-04	5.84068E-05	5.34367E-05	5.86864E-09	1.33207E-07
[12,3,1]	4.56545E-04	1.97580E-02	8.07023E-06	1.48201E-04	1.02625E-04	5.81563E-05	5.37245E-05	4.37225E-09	1.27166E-07
[13,3,1]	4.54533E-04	1.97555E-02	8.15529E-06	1.48000E-04	1.02779E-04	5.78793E-05	5.39084E-05	3.10613E-09	1.22238E-07
[14,3,1]	4.53271E-04	1.97539E-02	8.22222E-06	1.47880E-04	1.02874E-04	5.75980E-05	5.40233E-05	2.11035E-09	1.18547E-07
[15,3,1]	4.52440E-04	1.97529E-02	8.27570E-06	1.47789E-04	1.02944E-04	5.73114E-05	5.41007E-05	1.46739E-09	1.15495E-07
[16,3,1]	4.51899E-04	1.97522E-02	8.31858E-06	1.47747E-04	1.02992E-04	5.70197E-05	5.41512E-05	9.84275E-10	1.13322E-07
[17,3,1]	4.51553E-04	1.97517E-02	8.35330E-06	1.47721E-04	1.03026E-04	5.67290E-05	5.41840E-05	6.46609E-10	1.11938E-07
[18,3,1]	4.51319E-04	1.97515E-02	8.38159E-06	1.47701E-04	1.03053E-04	5.64373E-05	5.42065E-05	4.38209E-10	1.10847E-07
[19,3,1]	4.51157E-04	1.97513E-02	8.40434E-06	1.47686E-04	1.03079E-04	5.61396E-05	5.42221E-05	2.96862E-10	1.10018E-07
[20,3,1]	4.51047E-04	1.97511E-02	8.42252E-06	1.47673E-04	1.03105E-04	5.58393E-05	5.42326E-05	1.97140E-10	1.09455E-07
[21,3,1]	4.50971E-04	1.97510E-02	8.43685E-06	1.47661E-04	1.03130E-04	5.55391E-05	5.42394E-05	1.32226E-10	1.09015E-07
[22,3,1]	4.50912E-04	1.97510E-02	8.44799E-06	1.47636E-04	1.03161E-04	5.52330E-05	5.42450E-05	1.00321E-10	1.08629E-07
[1,4,1]	1.53918E-03	2.07339E-02	4.04889E-07	7.72377E-05	2.96000E-05	1.17426E-05	4.57620E-06	2.37298E-08	1.22339E-07
[2,4,1]	1.10650E-03	2.04848E-02	1.37907E-06	1.18324E-04	5.52015E-05	2.73998E-05	1.32961E-05	2.15153E-08	1.48991E-07
[3,4,1]	8.33080E-04	2.02917E-02	2.58782E-06	1.28583E-04	7.27977E-05	3.74704E-05	2.30297E-05	1.84154E-08	1.49980E-07
[4,4,1]	6.71347E-04	2.01606E-02	3.68852E-06	1.28484E-04	8.30624E-05	4.25482E-05	3.09735E-05	1.60656E-08	1.47199E-07
[5,4,1]	5.77545E-04	2.00767E-02	4.55055E-06	1.26276E-04	8.86829E-05	4.49825E-05	3.65427E-05	1.43401E-08	1.43909E-07
[6,4,1]	5.20550E-04	2.00221E-02	5.18613E-06	1.23985E-04	9.19983E-05	4.60746E-05	4.03744E-05	1.28706E-08	1.37873E-07
[7,4,1]	4.86419E-04	1.99881E-02	5.63133E-06	1.22190E-04	9.39542E-05	4.64926E-05	4.28461E-05	1.14568E-08	1.32521E-07
[8,4,1]	4.65890E-04	1.99672E-02	5.94203E-06	1.20943E-04	9.50886E-05	4.66290E-05	4.43912E-05	9.96670E-09	1.27563E-07
[9,4,1]	4.53002E-04	1.99539E-02	6.16276E-06	1.20068E-04	9.58007E-05	4.66062E-05	4.53896E-05	8.43213E-09	1.21528E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[10,4,1]	4.45014E-04	1.99456E-02	6.32226E-06	1.19493E-04	9.62706E-05	4.64738E-05	4.60158E-05	6.79599E-09	1.15889E-07
[11,4,1]	4.40066E-04	1.99404E-02	6.44009E-06	1.19111E-04	9.65532E-05	4.63149E-05	4.64059E-05	5.20224E-09	1.10910E-07
[12,4,1]	4.36874E-04	1.99370E-02	6.52968E-06	1.18862E-04	9.67470E-05	4.61249E-05	4.66624E-05	3.89772E-09	1.06196E-07
[13,4,1]	4.34845E-04	1.99348E-02	6.59897E-06	1.18689E-04	9.68824E-05	4.59128E-05	4.68258E-05	2.78622E-09	1.02088E-07
[14,4,1]	4.33562E-04	1.99335E-02	6.65340E-06	1.18583E-04	9.69689E-05	4.56942E-05	4.69277E-05	1.91419E-09	9.87529E-08
[15,4,1]	4.32728E-04	1.99325E-02	6.69666E-06	1.18529E-04	9.70338E-05	4.54655E-05	4.69927E-05	1.31918E-09	9.61378E-08
[16,4,1]	4.32180E-04	1.99319E-02	6.73140E-06	1.18491E-04	9.70826E-05	4.52296E-05	4.70348E-05	8.93832E-10	9.41370E-08
[17,4,1]	4.31823E-04	1.99316E-02	6.75935E-06	1.18467E-04	9.71153E-05	4.49942E-05	4.70624E-05	5.88494E-10	9.27597E-08
[18,4,1]	4.31577E-04	1.99313E-02	6.78178E-06	1.18448E-04	9.71406E-05	4.47571E-05	4.70814E-05	4.01631E-10	9.17933E-08
[19,4,1]	4.31405E-04	1.99311E-02	6.79981E-06	1.18432E-04	9.71626E-05	4.45176E-05	4.70947E-05	2.69593E-10	9.11156E-08
[20,4,1]	4.31287E-04	1.99310E-02	6.81419E-06	1.18421E-04	9.71801E-05	4.42785E-05	4.71040E-05	1.78988E-10	9.06101E-08
[21,4,1]	4.31203E-04	1.99309E-02	6.82540E-06	1.18413E-04	9.71955E-05	4.40394E-05	4.71107E-05	1.21418E-10	9.02534E-08
[22,4,1]	4.31141E-04	1.99309E-02	6.83398E-06	1.18399E-04	9.72121E-05	4.37984E-05	4.71159E-05	8.84901E-11	8.99385E-08
[1,5,1]	1.50492E-03	2.07757E-02	3.29409E-07	6.14990E-05	2.66380E-05	8.98546E-06	3.84580E-06	2.17387E-08	1.10317E-07
[2,5,1]	1.03870E-03	2.05657E-02	1.13145E-06	8.97644E-05	5.05540E-05	2.06945E-05	1.16892E-05	1.81893E-08	1.23199E-07
[3,5,1]	7.54033E-04	2.04032E-02	2.12212E-06	9.55658E-05	6.63921E-05	2.79817E-05	2.03714E-05	1.49219E-08	1.20413E-07
[4,5,1]	5.90538E-04	2.02927E-02	3.02273E-06	9.46516E-05	7.53717E-05	3.15582E-05	2.74169E-05	1.27055E-08	1.16410E-07
[5,5,1]	4.97214E-04	2.02217E-02	3.73174E-06	9.25029E-05	8.02019E-05	3.32358E-05	3.23696E-05	1.11906E-08	1.12590E-07
[6,5,1]	4.41892E-04	2.01757E-02	4.25023E-06	9.07327E-05	8.29850E-05	3.39634E-05	3.57229E-05	1.00088E-08	1.07528E-07
[7,5,1]	4.09129E-04	2.01472E-02	4.61277E-06	8.94135E-05	8.46065E-05	3.42328E-05	3.78769E-05	8.95195E-09	1.03195E-07
[8,5,1]	3.89526E-04	2.01295E-02	4.86425E-06	8.84826E-05	8.55286E-05	3.43230E-05	3.92299E-05	7.86940E-09	9.89744E-08
[9,5,1]	3.77350E-04	2.01183E-02	5.04203E-06	8.78817E-05	8.60940E-05	3.42984E-05	4.00946E-05	6.74151E-09	9.44536E-08
[10,5,1]	3.69832E-04	2.01113E-02	5.16923E-06	8.74873E-05	8.64450E-05	3.42083E-05	4.06372E-05	5.52358E-09	9.01526E-08
[11,5,1]	3.65160E-04	2.01070E-02	5.26304E-06	8.72239E-05	8.66712E-05	3.40799E-05	4.09765E-05	4.31388E-09	8.60095E-08
[12,5,1]	3.62160E-04	2.01042E-02	5.33421E-06	8.70518E-05	8.68054E-05	3.39457E-05	4.11968E-05	3.26582E-09	8.19107E-08
[13,5,1]	3.60253E-04	2.01024E-02	5.38909E-06	8.69229E-05	8.68997E-05	3.37925E-05	4.13381E-05	2.36343E-09	7.85724E-08
[14,5,1]	3.59052E-04	2.01012E-02	5.43204E-06	8.68476E-05	8.69592E-05	3.36340E-05	4.14275E-05	1.63681E-09	7.57326E-08

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[15,5,1]	3.58268E-04	2.01005E-02	5.46632E-06	8.68025E-05	8.70020E-05	3.34705E-05	4.14877E-05	1.13977E-09	7.34665E-08
[16,5,1]	3.57762E-04	2.01000E-02	5.49370E-06	8.67718E-05	8.70360E-05	3.33004E-05	4.15285E-05	7.75083E-10	7.17918E-08
[17,5,1]	3.57435E-04	2.00996E-02	5.51567E-06	8.67578E-05	8.70630E-05	3.31272E-05	4.15555E-05	5.17898E-10	7.05978E-08
[18,5,1]	3.57220E-04	2.00994E-02	5.53324E-06	8.67477E-05	8.70846E-05	3.29532E-05	4.15738E-05	3.47011E-10	6.98168E-08
[19,5,1]	3.57073E-04	2.00992E-02	5.54726E-06	8.67424E-05	8.71045E-05	3.27762E-05	4.15866E-05	2.35778E-10	6.91873E-08
[20,5,1]	3.56973E-04	2.00991E-02	5.55833E-06	8.67355E-05	8.71192E-05	3.26017E-05	4.15956E-05	1.57273E-10	6.87736E-08
[21,5,1]	3.56904E-04	2.00990E-02	5.56695E-06	8.67325E-05	8.71314E-05	3.24275E-05	4.16019E-05	1.04697E-10	6.84455E-08
[22,5,1]	3.56856E-04	2.00990E-02	5.57357E-06	8.67256E-05	8.71442E-05	3.22521E-05	4.16064E-05	7.46007E-11	6.82064E-08

Table 18. Number densities for Case-1A, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1]	2.85909E-06	2.16887E-06	5.02749E-05	2.09565E-06	6.03093E-08	1.01368E-07	2.36564E-09	2.48600E-05	2.11912E-05
[2,1,1]	7.60553E-06	4.62212E-06	8.59620E-05	3.39261E-06	3.76646E-08	6.22540E-08	1.42825E-09	4.01663E-05	2.64036E-05
[3,1,1]	1.21087E-05	7.06166E-06	1.11965E-04	4.24234E-06	2.50535E-08	4.10408E-08	9.34525E-10	5.02701E-05	2.53145E-05
[4,1,1]	1.53897E-05	9.26240E-06	1.29040E-04	4.75654E-06	1.56037E-08	2.53951E-08	5.74772E-10	5.65278E-05	2.13778E-05
[5,1,1]	1.74511E-05	1.11459E-05	1.39599E-04	5.05103E-06	9.41648E-09	1.52594E-08	3.43990E-10	6.02898E-05	1.67756E-05
[6,1,1]	1.85777E-05	1.27429E-05	1.46248E-04	5.22089E-06	5.90911E-09	9.55135E-09	2.14826E-10	6.26450E-05	1.26653E-05
[7,1,1]	1.90304E-05	1.40734E-05	1.50238E-04	5.30980E-06	3.62707E-09	5.85253E-09	1.31408E-10	6.40886E-05	9.28263E-06
[8,1,1]	1.90612E-05	1.51637E-05	1.52524E-04	5.34832E-06	2.20226E-09	3.54937E-09	7.96125E-11	6.49645E-05	6.65148E-06
[9,1,1]	1.88340E-05	1.60478E-05	1.53844E-04	5.35862E-06	1.40236E-09	2.25926E-09	5.06601E-11	6.55223E-05	4.70794E-06
[10,1,1]	1.84422E-05	1.67369E-05	1.54528E-04	5.35067E-06	8.81572E-10	1.41955E-09	3.18161E-11	6.58732E-05	3.29544E-06
[11,1,1]	1.79602E-05	1.72498E-05	1.54803E-04	5.33118E-06	5.49604E-10	8.84750E-10	1.98256E-11	6.60921E-05	2.28442E-06
[12,1,1]	1.74267E-05	1.76265E-05	1.54841E-04	5.30509E-06	3.57556E-10	5.75617E-10	1.29001E-11	6.62344E-05	1.57587E-06
[13,1,1]	1.68704E-05	1.78918E-05	1.54720E-04	5.27469E-06	2.29751E-10	3.69803E-10	8.28651E-12	6.63256E-05	1.08148E-06
[14,1,1]	1.63055E-05	1.80707E-05	1.54494E-04	5.24151E-06	1.45129E-10	2.33572E-10	5.23306E-12	6.63826E-05	7.37995E-07
[15,1,1]	1.57420E-05	1.81939E-05	1.54208E-04	5.20684E-06	9.68198E-11	1.55854E-10	3.49337E-12	6.64200E-05	5.02824E-07

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[16,1,1]	1.51876E-05	1.82756E-05	1.53879E-04	5.17122E-06	6.28210E-11	1.01110E-10	2.26588E-12	6.64437E-05	3.41492E-07
[17,1,1]	1.46459E-05	1.83289E-05	1.53525E-04	5.13508E-06	4.04414E-11	6.50838E-11	1.45838E-12	6.64585E-05	2.31153E-07
[18,1,1]	1.41188E-05	1.83649E-05	1.53155E-04	5.09874E-06	2.70993E-11	4.36143E-11	9.77527E-13	6.64682E-05	1.56360E-07
[19,1,1]	1.36078E-05	1.83892E-05	1.52776E-04	5.06237E-06	1.81306E-11	2.91832E-11	6.54134E-13	6.64745E-05	1.05699E-07
[20,1,1]	1.31133E-05	1.84055E-05	1.52390E-04	5.02606E-06	1.18281E-11	1.90310E-11	4.26414E-13	6.64784E-05	7.13116E-08
[21,1,1]	1.26357E-05	1.84169E-05	1.52001E-04	4.98988E-06	8.07818E-12	1.30033E-11	2.91464E-13	6.64809E-05	4.81492E-08
[22,1,1]	1.21741E-05	1.84253E-05	1.51611E-04	4.95390E-06	5.80438E-12	9.34258E-12	2.09470E-13	6.64826E-05	3.26270E-08
[1,2,1]	2.51264E-06	2.12852E-06	4.72158E-05	1.98141E-06	5.70253E-08	9.58998E-08	2.23904E-09	2.35176E-05	2.00527E-05
[2,2,1]	6.78331E-06	4.49345E-06	8.14502E-05	3.24273E-06	3.66215E-08	6.06126E-08	1.39236E-09	3.84186E-05	2.53466E-05
[3,2,1]	1.08899E-05	6.82684E-06	1.06695E-04	4.08313E-06	2.47573E-08	4.06317E-08	9.26784E-10	4.84207E-05	2.45633E-05
[4,2,1]	1.39189E-05	8.93487E-06	1.23364E-04	4.59650E-06	1.55476E-08	2.53613E-08	5.75191E-10	5.46696E-05	2.08971E-05
[5,2,1]	1.58336E-05	1.07488E-05	1.33702E-04	4.89236E-06	9.42295E-09	1.53089E-08	3.45901E-10	5.84438E-05	1.64829E-05
[6,2,1]	1.68868E-05	1.22954E-05	1.40225E-04	5.06400E-06	5.92753E-09	9.60745E-09	2.16622E-10	6.08126E-05	1.24927E-05
[7,2,1]	1.73210E-05	1.35895E-05	1.44138E-04	5.15445E-06	3.63928E-09	5.88902E-09	1.32568E-10	6.22648E-05	9.18177E-06
[8,2,1]	1.73582E-05	1.46531E-05	1.46385E-04	5.19436E-06	2.21170E-09	3.57509E-09	8.04014E-11	6.31464E-05	6.59355E-06
[9,2,1]	1.71545E-05	1.55168E-05	1.47684E-04	5.20594E-06	1.40912E-09	2.27681E-09	5.11906E-11	6.37076E-05	4.67530E-06
[10,2,1]	1.68004E-05	1.61890E-05	1.48353E-04	5.19904E-06	8.83204E-10	1.42639E-09	3.20561E-11	6.40590E-05	3.27641E-06
[11,2,1]	1.63635E-05	1.66892E-05	1.48624E-04	5.18055E-06	5.50086E-10	8.88139E-10	1.99544E-11	6.42776E-05	2.27314E-06
[12,2,1]	1.58784E-05	1.70559E-05	1.48664E-04	5.15550E-06	3.58424E-10	5.78715E-10	1.30048E-11	6.44198E-05	1.56936E-06
[13,2,1]	1.53712E-05	1.73137E-05	1.48550E-04	5.12613E-06	2.30298E-10	3.71820E-10	8.35430E-12	6.45108E-05	1.07773E-06
[14,2,1]	1.48553E-05	1.74869E-05	1.48335E-04	5.09401E-06	1.45063E-10	2.34138E-10	5.25991E-12	6.45679E-05	7.35715E-07
[15,2,1]	1.43416E-05	1.76064E-05	1.48062E-04	5.06043E-06	9.65749E-11	1.55920E-10	3.50410E-12	6.46057E-05	5.01417E-07
[16,2,1]	1.38350E-05	1.76859E-05	1.47750E-04	5.02592E-06	6.25743E-11	1.01031E-10	2.27020E-12	6.46302E-05	3.40633E-07
[17,2,1]	1.33403E-05	1.77378E-05	1.47413E-04	4.99089E-06	4.00035E-11	6.45637E-11	1.45048E-12	6.46458E-05	2.30555E-07
[18,2,1]	1.28595E-05	1.77733E-05	1.47061E-04	4.95567E-06	2.69890E-11	4.35783E-11	9.79401E-13	6.46564E-05	1.56023E-07
[19,2,1]	1.23937E-05	1.77977E-05	1.46700E-04	4.92041E-06	1.82686E-11	2.94945E-11	6.62951E-13	6.46635E-05	1.05585E-07
[20,2,1]	1.19435E-05	1.78137E-05	1.46332E-04	4.88518E-06	1.18016E-11	1.90491E-11	4.28159E-13	6.46681E-05	7.12655E-08

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[21,2,1]	1.15088E-05	1.78249E-05	1.45961E-04	4.85007E-06	8.02289E-12	1.29537E-11	2.91166E-13	6.46712E-05	4.81233E-08
[22,2,1]	1.10891E-05	1.78332E-05	1.45588E-04	4.81514E-06	5.89565E-12	9.52506E-12	2.14240E-13	6.46734E-05	3.26595E-08
[1,3,1]	2.15617E-06	2.06336E-06	4.41788E-05	1.87431E-06	5.39573E-08	9.08238E-08	2.12209E-09	2.22696E-05	1.89975E-05
[2,3,1]	5.87963E-06	4.28789E-06	7.69656E-05	3.10870E-06	3.58480E-08	5.94611E-08	1.36856E-09	3.68818E-05	2.44467E-05
[3,3,1]	9.49323E-06	6.45090E-06	1.01171E-04	3.93776E-06	2.44260E-08	4.02029E-08	9.19308E-10	4.67732E-05	2.39102E-05
[4,3,1]	1.21828E-05	8.40009E-06	1.17200E-04	4.44773E-06	1.54352E-08	2.52638E-08	5.74707E-10	5.29948E-05	2.04675E-05
[5,3,1]	1.38903E-05	1.00791E-05	1.27169E-04	4.74343E-06	9.39610E-09	1.53228E-08	3.47374E-10	5.67707E-05	1.62164E-05
[6,3,1]	1.48289E-05	1.15115E-05	1.33432E-04	4.91469E-06	5.89027E-09	9.58463E-09	2.16862E-10	5.91336E-05	1.23211E-05
[7,3,1]	1.52251E-05	1.27147E-05	1.37202E-04	5.00571E-06	3.62627E-09	5.89173E-09	1.33113E-10	6.05865E-05	9.07491E-06
[8,3,1]	1.52643E-05	1.37057E-05	1.39361E-04	5.04617E-06	2.19730E-09	3.56655E-09	8.05054E-11	6.14662E-05	6.52488E-06
[9,3,1]	1.50897E-05	1.45131E-05	1.40607E-04	5.05839E-06	1.39786E-09	2.26812E-09	5.11864E-11	6.20253E-05	4.63052E-06
[10,3,1]	1.47779E-05	1.51447E-05	1.41253E-04	5.05235E-06	8.78071E-10	1.42416E-09	3.21268E-11	6.23758E-05	3.24790E-06
[11,3,1]	1.43911E-05	1.56143E-05	1.41512E-04	5.03469E-06	5.44764E-10	8.83308E-10	1.99215E-11	6.25927E-05	2.25425E-06
[12,3,1]	1.39623E-05	1.59604E-05	1.41553E-04	5.01054E-06	3.55802E-10	5.77026E-10	1.30169E-11	6.27338E-05	1.55715E-06
[13,3,1]	1.35153E-05	1.62041E-05	1.41445E-04	4.98212E-06	2.28292E-10	3.70188E-10	8.34971E-12	6.28239E-05	1.06971E-06
[14,3,1]	1.30628E-05	1.63682E-05	1.41240E-04	4.95096E-06	1.44092E-10	2.33633E-10	5.26951E-12	6.28803E-05	7.30558E-07
[15,3,1]	1.26108E-05	1.64814E-05	1.40980E-04	4.91836E-06	9.56204E-11	1.55030E-10	3.49697E-12	6.29176E-05	4.97963E-07
[16,3,1]	1.21666E-05	1.65567E-05	1.40682E-04	4.88484E-06	6.22058E-11	1.00877E-10	2.27567E-12	6.29417E-05	3.38398E-07
[17,3,1]	1.17329E-05	1.66058E-05	1.40361E-04	4.85081E-06	3.98671E-11	6.46207E-11	1.45738E-12	6.29571E-05	2.29122E-07
[18,3,1]	1.13114E-05	1.66389E-05	1.40025E-04	4.81658E-06	2.66823E-11	4.32610E-11	9.75940E-13	6.29675E-05	1.55017E-07
[19,3,1]	1.09030E-05	1.66615E-05	1.39681E-04	4.78231E-06	1.79331E-11	2.90767E-11	6.56007E-13	6.29746E-05	1.04836E-07
[20,3,1]	1.05077E-05	1.66768E-05	1.39331E-04	4.74809E-06	1.18401E-11	1.92034E-11	4.33265E-13	6.29794E-05	7.08059E-08
[21,3,1]	1.01260E-05	1.66874E-05	1.38977E-04	4.71398E-06	7.91592E-12	1.28370E-11	2.89652E-13	6.29826E-05	4.77979E-08
[22,3,1]	9.75688E-06	1.66957E-05	1.38623E-04	4.68006E-06	6.01158E-12	9.75188E-12	2.20200E-13	6.29852E-05	3.24929E-08
[1,4,1]	1.81872E-06	1.94791E-06	4.20844E-05	1.81592E-06	5.23044E-08	8.81726E-08	2.06255E-09	2.16148E-05	1.84518E-05
[2,4,1]	5.02072E-06	3.96009E-06	7.39598E-05	3.05458E-06	3.60000E-08	5.99044E-08	1.38253E-09	3.63280E-05	2.42059E-05
[3,4,1]	8.15581E-06	5.88672E-06	9.72585E-05	3.88441E-06	2.44765E-08	4.04478E-08	9.28017E-10	4.62724E-05	2.38190E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[4,4,1]	1.04866E-05	7.60683E-06	1.12480E-04	4.38938E-06	1.53103E-08	2.51717E-08	5.74785E-10	5.24662E-05	2.03986E-05
[5,4,1]	1.19581E-05	9.07758E-06	1.21851E-04	4.67927E-06	9.23632E-09	1.51333E-08	3.44464E-10	5.61925E-05	1.61388E-05
[6,4,1]	1.27818E-05	1.03272E-05	1.27710E-04	4.84623E-06	5.76560E-09	9.42738E-09	2.14207E-10	5.85149E-05	1.22429E-05
[7,4,1]	1.31228E-05	1.13730E-05	1.31196E-04	4.93359E-06	3.51484E-09	5.73871E-09	1.30207E-10	5.99293E-05	8.99581E-06
[8,4,1]	1.31586E-05	1.22374E-05	1.33196E-04	4.97232E-06	2.13750E-09	3.48667E-09	7.90464E-11	6.07886E-05	6.45948E-06
[9,4,1]	1.30073E-05	1.29442E-05	1.34337E-04	4.98336E-06	1.35184E-09	2.20436E-09	4.99634E-11	6.13314E-05	4.57665E-06
[10,4,1]	1.27384E-05	1.34998E-05	1.34916E-04	4.97657E-06	8.42950E-10	1.37397E-09	3.11297E-11	6.16692E-05	3.20385E-06
[11,4,1]	1.24034E-05	1.39178E-05	1.35143E-04	4.95872E-06	5.24877E-10	8.55354E-10	1.93764E-11	6.18790E-05	2.22085E-06
[12,4,1]	1.20361E-05	1.42275E-05	1.35166E-04	4.93457E-06	3.40459E-10	5.54815E-10	1.25697E-11	6.20146E-05	1.53157E-06
[13,4,1]	1.16500E-05	1.44468E-05	1.35053E-04	4.90634E-06	2.18155E-10	3.55450E-10	8.05181E-12	6.21011E-05	1.05057E-06
[14,4,1]	1.12595E-05	1.45962E-05	1.34853E-04	4.87555E-06	1.38720E-10	2.26012E-10	5.11990E-12	6.21558E-05	7.16904E-07
[15,4,1]	1.08714E-05	1.46983E-05	1.34601E-04	4.84334E-06	9.08315E-11	1.48005E-10	3.35312E-12	6.21915E-05	4.87879E-07
[16,4,1]	1.04903E-05	1.47671E-05	1.34316E-04	4.81029E-06	5.94857E-11	9.69394E-11	2.19633E-12	6.22149E-05	3.31198E-07
[17,4,1]	1.01178E-05	1.48121E-05	1.34008E-04	4.77677E-06	3.82091E-11	6.22494E-11	1.41021E-12	6.22302E-05	2.24072E-07
[18,4,1]	9.75624E-06	1.48429E-05	1.33688E-04	4.74307E-06	2.56910E-11	4.18633E-11	9.48551E-13	6.22406E-05	1.51531E-07
[19,4,1]	9.40494E-06	1.48637E-05	1.33359E-04	4.70933E-06	1.70776E-11	2.78249E-11	6.30441E-13	6.22478E-05	1.02371E-07
[20,4,1]	9.06477E-06	1.48777E-05	1.33025E-04	4.67564E-06	1.12692E-11	1.83586E-11	4.15972E-13	6.22526E-05	6.90690E-08
[21,4,1]	8.73576E-06	1.48873E-05	1.32687E-04	4.64206E-06	7.61811E-12	1.24090E-11	2.81216E-13	6.22559E-05	4.66070E-08
[22,4,1]	8.41768E-06	1.48945E-05	1.32348E-04	4.60864E-06	5.56320E-12	9.07549E-12	2.05826E-13	6.22583E-05	3.15979E-08
[1,5,1]	1.65203E-06	1.79655E-06	4.29506E-05	1.88826E-06	5.44263E-08	9.19053E-08	2.15266E-09	2.25249E-05	1.92425E-05
[2,5,1]	4.59522E-06	3.58682E-06	7.54248E-05	3.19200E-06	3.79415E-08	6.33425E-08	1.46573E-09	3.80757E-05	2.54380E-05
[3,5,1]	7.44293E-06	5.28754E-06	9.80452E-05	4.02736E-06	2.47125E-08	4.09891E-08	9.43126E-10	4.81483E-05	2.47260E-05
[4,5,1]	9.53347E-06	6.78635E-06	1.12340E-04	4.51765E-06	1.49524E-08	2.46771E-08	5.65204E-10	5.42175E-05	2.08813E-05
[5,5,1]	1.08490E-05	8.04574E-06	1.21000E-04	4.79301E-06	8.86748E-09	1.45841E-08	3.32995E-10	5.78070E-05	1.63375E-05
[6,5,1]	1.15604E-05	9.09429E-06	1.26278E-04	4.94597E-06	5.40048E-09	8.86233E-09	2.01965E-10	5.99898E-05	1.22555E-05
[7,5,1]	1.18504E-05	9.96055E-06	1.29378E-04	5.02337E-06	3.25723E-09	5.33669E-09	1.21443E-10	6.13050E-05	8.92249E-06
[8,5,1]	1.18705E-05	1.06731E-05	1.31138E-04	5.05552E-06	1.97214E-09	3.22798E-09	7.33941E-11	6.21005E-05	6.36026E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[9,5,1]	1.17294E-05	1.12560E-05	1.32115E-04	5.06177E-06	1.23484E-09	2.02024E-09	4.59186E-11	6.25978E-05	4.47589E-06
[10,5,1]	1.14846E-05	1.17179E-05	1.32592E-04	5.05168E-06	7.67432E-10	1.25499E-09	2.85136E-11	6.29060E-05	3.11532E-06
[11,5,1]	1.11830E-05	1.20705E-05	1.32758E-04	5.03164E-06	4.79379E-10	7.83760E-10	1.78040E-11	6.30978E-05	2.14977E-06
[12,5,1]	1.08515E-05	1.23336E-05	1.32742E-04	5.00583E-06	3.09004E-10	5.05203E-10	1.14775E-11	6.32212E-05	1.47611E-06
[13,5,1]	1.05047E-05	1.25221E-05	1.32606E-04	4.97635E-06	1.97440E-10	3.22757E-10	7.33139E-12	6.32997E-05	1.00854E-06
[14,5,1]	1.01540E-05	1.26515E-05	1.32394E-04	4.94459E-06	1.25164E-10	2.04618E-10	4.64791E-12	6.33493E-05	6.85769E-07
[15,5,1]	9.80388E-06	1.27410E-05	1.32137E-04	4.91158E-06	8.24008E-11	1.34705E-10	3.06061E-12	6.33818E-05	4.65346E-07
[16,5,1]	9.45923E-06	1.28014E-05	1.31850E-04	4.87783E-06	5.38195E-11	8.79852E-11	1.99902E-12	6.34029E-05	3.15025E-07
[17,5,1]	9.12213E-06	1.28414E-05	1.31544E-04	4.84368E-06	3.49524E-11	5.71359E-11	1.29804E-12	6.34167E-05	2.12730E-07
[18,5,1]	8.79440E-06	1.28682E-05	1.31227E-04	4.80939E-06	2.29668E-11	3.75364E-11	8.52696E-13	6.34259E-05	1.43418E-07
[19,5,1]	8.47685E-06	1.28864E-05	1.30903E-04	4.77510E-06	1.54639E-11	2.52839E-11	5.74540E-13	6.34322E-05	9.66796E-08
[20,5,1]	8.16969E-06	1.28987E-05	1.30574E-04	4.74089E-06	1.02084E-11	1.66833E-11	3.78993E-13	6.34365E-05	6.50985E-08
[21,5,1]	7.87283E-06	1.29071E-05	1.30243E-04	4.70681E-06	6.78241E-12	1.10867E-11	2.51931E-13	6.34395E-05	4.38072E-08
[22,5,1]	7.58643E-06	1.29132E-05	1.29909E-04	4.67290E-06	4.81319E-12	7.86908E-12	1.78851E-13	6.34416E-05	2.95685E-08

Table 19. Number densities for Case-1A, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1]	3.98028E-05	5.75527E-07	5.35979E-06	4.75918E-07	2.08477E-06	4.19371E-11	2.15930E-08
[2,1,1]	6.39061E-05	3.62252E-07	5.13377E-06	3.43983E-07	4.62373E-06	5.85596E-11	6.42256E-08
[3,1,1]	7.96615E-05	2.40166E-07	4.07113E-06	2.52080E-07	6.91550E-06	5.72961E-11	1.08599E-07
[4,1,1]	8.92782E-05	1.49394E-07	2.86694E-06	1.67272E-07	8.58870E-06	4.44194E-11	1.40760E-07
[5,1,1]	9.49338E-05	9.00678E-08	1.87775E-06	1.05093E-07	9.68743E-06	3.05599E-11	1.58114E-07
[6,1,1]	9.83646E-05	5.64448E-08	1.21959E-06	6.76563E-08	1.04146E-05	2.06717E-11	1.64036E-07
[7,1,1]	1.00356E-04	3.46373E-08	7.72637E-07	4.21855E-08	1.08772E-05	1.32823E-11	1.61662E-07
[8,1,1]	1.01453E-04	2.10254E-08	4.79692E-07	2.58568E-08	1.11605E-05	8.30155E-12	1.54403E-07
[9,1,1]	1.02049E-04	1.33790E-08	3.04126E-07	1.65589E-08	1.13451E-05	5.37373E-12	1.44599E-07

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[10,1,1]	1.02321E-04	8.41037E-09	1.92306E-07	1.04475E-08	1.14627E-05	3.41565E-12	1.33620E-07
[11,1,1]	1.02385E-04	5.24332E-09	1.20640E-07	6.52313E-09	1.15353E-05	2.13828E-12	1.22385E-07
[12,1,1]	1.02329E-04	3.40944E-09	7.75807E-08	4.24842E-09	1.15834E-05	1.39359E-12	1.11401E-07
[13,1,1]	1.02194E-04	2.19092E-09	4.98854E-08	2.73095E-09	1.16140E-05	8.94409E-13	1.00980E-07
[14,1,1]	1.02005E-04	1.38430E-09	3.17202E-08	1.72595E-09	1.16329E-05	5.70749E-13	9.12616E-08
[15,1,1]	1.01787E-04	9.22858E-10	2.08003E-08	1.14986E-09	1.16443E-05	3.75716E-13	8.23315E-08
[16,1,1]	1.01547E-04	5.98981E-10	1.35475E-08	7.46187E-10	1.16513E-05	2.45227E-13	7.41573E-08
[17,1,1]	1.01295E-04	3.85656E-10	8.75948E-09	4.80552E-10	1.16557E-05	1.60052E-13	6.67123E-08
[18,1,1]	1.01035E-04	2.58291E-10	5.79906E-09	3.21902E-10	1.16582E-05	1.04780E-13	5.99751E-08
[19,1,1]	1.00770E-04	1.72819E-10	3.86399E-09	2.15190E-10	1.16599E-05	7.12064E-14	5.38882E-08
[20,1,1]	1.00502E-04	1.12769E-10	2.54268E-09	1.40653E-10	1.16609E-05	4.62965E-14	4.83985E-08
[21,1,1]	1.00233E-04	7.69995E-11	1.71461E-09	9.59917E-11	1.16616E-05	3.16699E-14	4.34589E-08
[22,1,1]	9.99639E-05	5.52918E-11	1.20714E-09	6.89392E-11	1.16622E-05	2.19803E-14	3.90090E-08
[1,2,1]	3.76615E-05	5.44278E-07	5.03320E-06	4.46928E-07	1.88733E-06	3.73651E-11	1.81330E-08
[2,2,1]	6.11469E-05	3.52247E-07	4.89543E-06	3.29770E-07	4.24288E-06	5.30844E-11	5.49964E-08
[3,2,1]	7.67638E-05	2.37421E-07	3.92659E-06	2.44530E-07	6.41132E-06	5.26244E-11	9.39317E-08
[4,2,1]	8.63853E-05	1.48948E-07	2.78281E-06	1.63133E-07	8.01240E-06	4.10494E-11	1.22403E-07
[5,2,1]	9.20747E-05	9.01981E-08	1.82895E-06	1.02758E-07	9.06992E-06	2.83662E-11	1.38058E-07
[6,2,1]	9.55395E-05	5.66695E-08	1.19025E-06	6.62468E-08	9.77316E-06	1.92055E-11	1.43476E-07
[7,2,1]	9.75552E-05	3.47858E-08	7.54302E-07	4.12899E-08	1.02181E-05	1.23503E-11	1.41644E-07
[8,2,1]	9.86705E-05	2.11354E-08	4.68521E-07	2.53224E-08	1.04918E-05	7.74121E-12	1.35395E-07
[9,2,1]	9.92812E-05	1.34557E-08	2.97148E-07	1.62218E-08	1.06672E-05	4.99762E-12	1.26887E-07
[10,2,1]	9.95616E-05	8.43405E-09	1.87507E-07	1.02012E-08	1.07779E-05	3.16429E-12	1.17286E-07
[11,2,1]	9.96333E-05	5.25303E-09	1.17528E-07	6.36726E-09	1.08459E-05	1.98944E-12	1.07464E-07
[12,2,1]	9.95852E-05	3.42082E-09	7.56101E-08	4.15169E-09	1.08911E-05	1.29502E-12	9.78411E-08
[13,2,1]	9.94572E-05	2.19841E-09	4.86282E-08	2.66916E-09	1.09199E-05	8.28778E-13	8.87007E-08
[14,2,1]	9.92763E-05	1.38488E-09	3.08583E-08	1.68153E-09	1.09379E-05	5.21160E-13	8.01586E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[15,2,1]	9.90659E-05	9.21468E-10	2.02052E-08	1.11881E-09	1.09497E-05	3.48624E-13	7.23052E-08
[16,2,1]	9.88351E-05	5.97329E-10	1.31388E-08	7.24946E-10	1.09573E-05	2.23372E-13	6.51123E-08
[17,2,1]	9.85910E-05	3.81856E-10	8.45342E-09	4.63730E-10	1.09619E-05	1.44076E-13	5.85828E-08
[18,2,1]	9.83398E-05	2.57518E-10	5.61048E-09	3.12636E-10	1.09650E-05	9.53176E-14	5.26593E-08
[19,2,1]	9.80839E-05	1.74283E-10	3.77070E-09	2.11387E-10	1.09674E-05	6.58873E-14	4.73094E-08
[20,2,1]	9.78246E-05	1.12613E-10	2.46322E-09	1.36218E-10	1.09687E-05	4.18590E-14	4.24931E-08
[21,2,1]	9.75637E-05	7.65427E-11	1.65596E-09	9.28265E-11	1.09698E-05	2.96556E-14	3.81552E-08
[22,2,1]	9.73021E-05	5.62167E-11	1.18145E-09	6.80975E-11	1.09706E-05	2.03888E-14	3.42527E-08
[1,3,1]	3.56746E-05	5.15136E-07	4.70415E-06	4.18173E-07	1.65455E-06	3.21494E-11	1.43907E-08
[2,3,1]	5.87328E-05	3.44890E-07	4.65168E-06	3.15685E-07	3.78629E-06	4.65788E-11	4.43202E-08
[3,3,1]	7.42010E-05	2.34425E-07	3.74574E-06	2.34405E-07	5.76720E-06	4.63862E-11	7.63363E-08
[4,3,1]	8.38010E-05	1.48015E-07	2.66139E-06	1.56784E-07	7.24176E-06	3.63430E-11	1.00001E-07
[5,3,1]	8.95103E-05	9.00416E-08	1.75298E-06	9.89912E-08	8.22255E-06	2.52144E-11	1.13221E-07
[6,3,1]	9.29789E-05	5.63847E-08	1.13824E-06	6.35346E-08	8.87275E-06	1.70323E-11	1.17960E-07
[7,3,1]	9.50068E-05	3.47034E-08	7.21815E-07	3.96862E-08	9.28667E-06	1.09676E-11	1.16620E-07
[8,3,1]	9.61286E-05	2.10258E-08	4.47477E-07	2.42590E-08	9.54168E-06	6.86017E-12	1.11580E-07
[9,3,1]	9.67445E-05	1.33660E-08	2.83294E-07	1.55143E-08	9.70550E-06	4.42165E-12	1.04632E-07
[10,3,1]	9.70314E-05	8.39629E-09	1.78937E-07	9.77968E-09	9.80911E-06	2.79719E-12	9.67509E-08
[11,3,1]	9.71078E-05	5.20934E-09	1.11855E-07	6.07648E-09	9.87432E-06	1.75854E-12	8.86152E-08
[12,3,1]	9.70653E-05	3.40060E-09	7.20057E-08	3.97155E-09	9.91686E-06	1.14750E-12	8.06832E-08
[13,3,1]	9.69429E-05	2.18230E-09	4.62695E-08	2.54915E-09	9.94349E-06	7.34618E-13	7.31577E-08
[14,3,1]	9.67681E-05	1.37761E-09	2.93734E-08	1.60794E-09	9.95984E-06	4.67255E-13	6.61395E-08
[15,3,1]	9.65637E-05	9.13631E-10	1.92274E-08	1.06878E-09	9.97059E-06	3.08158E-13	5.96629E-08
[16,3,1]	9.63392E-05	5.94548E-10	1.25158E-08	6.93889E-10	9.97747E-06	1.99705E-13	5.37342E-08
[17,3,1]	9.61017E-05	3.81037E-10	8.07306E-09	4.45292E-10	9.98186E-06	1.29887E-13	4.83412E-08
[18,3,1]	9.58569E-05	2.54928E-10	5.33643E-09	2.97977E-10	9.98478E-06	8.53697E-14	4.34535E-08
[19,3,1]	9.56076E-05	1.71312E-10	3.56443E-09	2.00076E-10	9.98676E-06	5.69884E-14	3.90412E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[20,3,1]	9.53554E-05	1.13166E-10	2.36089E-09	1.31983E-10	9.98817E-06	3.77966E-14	3.50653E-08
[21,3,1]	9.51016E-05	7.56391E-11	1.57294E-09	8.81689E-11	9.98930E-06	2.53858E-14	3.14850E-08
[22,3,1]	9.48472E-05	5.73587E-11	1.14586E-09	6.69223E-11	9.99033E-06	1.83397E-14	2.82637E-08
[1,4,1]	3.46438E-05	4.99573E-07	4.46641E-06	3.98304E-07	1.40510E-06	2.66936E-11	1.06837E-08
[2,4,1]	5.78980E-05	3.46537E-07	4.47661E-06	3.06738E-07	3.27638E-06	3.94989E-11	3.36315E-08
[3,4,1]	7.34774E-05	2.35197E-07	3.58738E-06	2.25582E-07	5.02396E-06	3.94406E-11	5.87004E-08
[4,4,1]	8.30530E-05	1.47036E-07	2.52269E-06	1.48900E-07	6.32497E-06	3.08067E-11	7.73095E-08
[5,4,1]	8.86973E-05	8.86482E-08	1.64592E-06	9.30845E-08	7.19122E-06	2.13101E-11	8.77170E-08
[6,4,1]	9.21120E-05	5.52759E-08	1.06228E-06	5.94679E-08	7.76616E-06	1.44274E-11	9.15916E-08
[7,4,1]	9.40860E-05	3.36917E-08	6.68129E-07	3.67871E-08	8.13008E-06	9.23968E-12	9.06241E-08
[8,4,1]	9.51811E-05	2.04832E-08	4.14075E-07	2.25717E-08	8.35441E-06	5.79903E-12	8.67945E-08
[9,4,1]	9.57758E-05	1.29466E-08	2.61137E-07	1.43514E-08	8.49789E-06	3.72211E-12	8.14155E-08
[10,4,1]	9.60465E-05	8.07315E-09	1.63916E-07	8.97853E-09	8.58765E-06	2.34526E-12	7.53007E-08
[11,4,1]	9.61152E-05	5.02671E-09	1.02501E-07	5.60009E-09	8.64287E-06	1.46741E-12	6.90015E-08
[12,4,1]	9.60673E-05	3.25885E-09	6.57246E-08	3.63724E-09	8.67878E-06	9.59209E-13	6.28522E-08
[13,4,1]	9.59423E-05	2.08833E-09	4.21487E-08	2.33206E-09	8.70190E-06	6.15938E-13	5.69886E-08
[14,4,1]	9.57676E-05	1.32798E-09	2.68655E-08	1.48164E-09	8.71606E-06	3.91054E-13	5.15274E-08
[15,4,1]	9.55636E-05	8.69321E-10	1.74407E-08	9.70740E-10	8.72551E-06	2.57631E-13	4.64857E-08
[16,4,1]	9.53408E-05	5.69365E-10	1.13843E-08	6.35400E-10	8.73189E-06	1.67193E-13	4.18643E-08
[17,4,1]	9.51057E-05	3.65735E-10	7.35170E-09	4.08025E-10	8.73618E-06	1.07746E-13	3.76586E-08
[18,4,1]	9.48638E-05	2.45817E-10	4.88029E-09	2.74595E-10	8.73909E-06	7.22119E-14	3.38553E-08
[19,4,1]	9.46174E-05	1.63408E-10	3.24122E-09	1.82393E-10	8.74110E-06	4.83614E-14	3.04211E-08
[20,4,1]	9.43680E-05	1.07823E-10	2.14201E-09	1.20242E-10	8.74240E-06	3.12877E-14	2.73256E-08
[21,4,1]	9.41169E-05	7.28572E-11	1.43678E-09	8.12461E-11	8.74335E-06	2.14682E-14	2.45353E-08
[22,4,1]	9.38650E-05	5.32105E-11	1.01907E-09	5.91717E-11	8.74390E-06	1.45661E-14	2.20276E-08
[1,5,1]	3.61259E-05	5.20098E-07	4.53305E-06	4.06407E-07	1.23083E-06	2.30129E-11	8.39532E-09
[2,5,1]	6.07388E-05	3.65524E-07	4.52465E-06	3.12363E-07	2.90010E-06	3.44416E-11	2.68701E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[3,5,1]	7.65333E-05	2.37846E-07	3.50106E-06	2.19112E-07	4.42677E-06	3.36772E-11	4.69208E-08
[4,5,1]	8.59170E-05	1.43824E-07	2.38718E-06	1.39973E-07	5.55033E-06	2.60157E-11	6.17579E-08
[5,5,1]	9.13465E-05	8.52236E-08	1.52849E-06	8.61808E-08	6.29237E-06	1.79294E-11	7.02062E-08
[6,5,1]	9.45388E-05	5.18476E-08	9.66361E-07	5.38249E-08	6.77910E-06	1.19778E-11	7.32388E-08
[7,5,1]	9.63532E-05	3.12586E-08	6.00292E-07	3.29967E-08	7.08548E-06	7.65042E-12	7.24719E-08
[8,5,1]	9.73437E-05	1.89190E-08	3.69801E-07	2.01846E-08	7.27585E-06	4.80853E-12	6.93864E-08
[9,5,1]	9.78621E-05	1.18390E-08	2.31372E-07	1.27167E-08	7.39659E-06	3.06884E-12	6.50777E-08
[10,5,1]	9.80813E-05	7.35729E-09	1.44593E-07	7.93433E-09	7.47231E-06	1.92978E-12	6.01718E-08
[11,5,1]	9.81168E-05	4.59527E-09	9.05140E-08	4.96779E-09	7.51990E-06	1.22052E-12	5.51256E-08
[12,5,1]	9.80444E-05	2.96084E-09	5.78021E-08	3.20503E-09	7.55063E-06	7.89208E-13	5.01929E-08
[13,5,1]	9.79017E-05	1.89200E-09	3.69601E-08	2.05007E-09	7.56996E-06	5.01599E-13	4.55019E-08
[14,5,1]	9.77137E-05	1.19960E-09	2.34945E-08	1.29905E-09	7.58185E-06	3.18596E-13	4.11338E-08
[15,5,1]	9.74994E-05	7.89275E-10	1.52781E-08	8.54628E-10	7.58955E-06	2.08182E-13	3.71091E-08
[16,5,1]	9.72678E-05	5.15579E-10	9.96319E-09	5.58090E-10	7.59476E-06	1.37147E-13	3.34250E-08
[17,5,1]	9.70252E-05	3.34866E-10	6.48212E-09	3.62601E-10	7.59824E-06	8.97123E-14	3.00749E-08
[18,5,1]	9.67761E-05	2.19988E-10	4.24990E-09	2.38560E-10	7.60067E-06	5.81385E-14	2.70357E-08
[19,5,1]	9.65231E-05	1.48111E-10	2.83293E-09	1.60358E-10	7.60236E-06	3.93365E-14	2.42937E-08
[20,5,1]	9.62677E-05	9.77768E-11	1.87877E-09	1.06041E-10	7.60354E-06	2.62845E-14	2.18212E-08
[21,5,1]	9.60109E-05	6.49552E-11	1.24472E-09	7.02471E-11	7.60439E-06	1.68373E-14	1.95910E-08
[22,5,1]	9.57534E-05	4.60735E-11	8.65415E-10	4.99485E-11	7.60492E-06	1.19542E-14	1.75877E-08

Table 20. Number densities for Case-1A, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1]	6.14447E-08	7.99349E-06	3.80635E-09	4.55159E-09	1.68624E-08	6.10923E-10
[2,1,1]	7.69741E-08	7.16571E-06	2.85499E-09	3.21698E-09	1.14626E-08	4.03325E-10
[3,1,1]	6.93841E-08	5.45584E-06	2.13226E-09	2.34607E-09	8.16926E-09	2.82465E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[4,1,1]	5.33456E-08	3.74572E-06	1.42871E-09	1.55017E-09	5.32459E-09	1.82160E-10
[5,1,1]	3.72739E-08	2.41214E-06	9.02541E-10	9.71466E-10	3.30946E-09	1.12495E-10
[6,1,1]	2.49866E-08	1.55455E-06	5.83093E-10	6.24978E-10	2.11814E-09	7.17076E-11
[7,1,1]	1.62352E-08	9.79157E-07	3.64274E-10	3.89258E-10	1.31522E-09	4.44171E-11
[8,1,1]	1.02929E-08	6.05117E-07	2.23540E-10	2.38431E-10	8.04113E-10	2.71170E-11
[9,1,1]	6.52603E-09	3.83891E-07	1.43300E-10	1.52760E-10	5.14572E-10	1.73361E-11
[10,1,1]	4.13183E-09	2.42668E-07	9.04605E-11	9.63438E-11	3.24289E-10	1.09184E-11
[11,1,1]	2.60324E-09	1.52081E-07	5.64933E-11	6.01405E-11	2.02363E-10	6.81182E-12
[12,1,1]	1.65829E-09	9.79991E-08	3.68116E-11	3.91909E-11	1.31826E-10	4.43607E-12
[13,1,1]	1.06170E-09	6.30619E-08	2.36681E-11	2.51867E-11	8.47062E-11	2.84993E-12
[14,1,1]	6.77217E-10	4.00611E-08	1.49604E-11	1.59131E-11	5.35100E-11	1.80015E-12
[15,1,1]	4.38485E-10	2.63499E-08	9.96833E-12	1.06104E-11	3.56838E-11	1.20056E-12
[16,1,1]	2.84812E-10	1.71582E-08	6.47040E-12	6.88260E-12	2.31432E-11	7.78513E-13
[17,1,1]	1.84522E-10	1.10865E-08	4.16848E-12	4.43167E-12	1.48986E-11	5.01071E-13
[18,1,1]	1.20967E-10	7.35412E-09	2.79328E-12	2.97024E-12	9.98434E-12	3.35768E-13
[19,1,1]	8.00156E-11	4.90596E-09	1.86707E-12	1.98562E-12	6.67566E-12	2.24527E-13
[20,1,1]	5.27728E-11	3.22609E-09	1.22135E-12	1.29719E-12	4.35845E-12	1.46506E-13
[21,1,1]	3.52386E-11	2.17706E-09	8.33593E-13	8.85877E-13	2.97677E-12	1.00078E-13
[22,1,1]	2.42444E-11	1.54127E-09	5.99134E-13	6.36632E-13	2.13865E-12	7.18771E-14
[1,2,1]	5.76977E-08	7.52157E-06	3.56789E-09	4.27599E-09	1.58715E-08	5.75780E-10
[2,2,1]	7.31321E-08	6.85418E-06	2.72937E-09	3.08711E-09	1.10380E-08	3.89380E-10
[3,2,1]	6.65879E-08	5.28180E-06	2.06184E-09	2.27811E-09	7.96600E-09	2.76324E-10
[4,2,1]	5.15507E-08	3.64971E-06	1.38856E-09	1.51337E-09	5.22249E-09	1.79321E-10
[5,2,1]	3.61806E-08	2.35803E-06	8.79315E-10	9.50872E-10	3.25522E-09	1.11084E-10
[6,2,1]	2.43245E-08	1.52247E-06	5.68833E-10	6.12603E-10	2.08669E-09	7.09293E-11
[7,2,1]	1.58278E-08	9.59064E-07	3.55191E-10	3.81394E-10	1.29529E-09	4.39256E-11
[8,2,1]	1.00435E-08	5.92937E-07	2.18082E-10	2.33755E-10	7.92437E-10	2.68357E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[9,2,1]	6.37170E-09	3.76266E-07	1.39842E-10	1.49811E-10	5.07268E-10	1.71624E-11
[10,2,1]	4.03075E-09	2.37310E-07	8.79829E-11	9.41699E-11	3.18644E-10	1.07745E-11
[11,2,1]	2.53735E-09	1.48578E-07	5.49385E-11	5.87646E-11	1.98744E-10	6.71770E-12
[12,2,1]	1.61597E-09	9.58209E-08	3.58367E-11	3.83400E-11	1.29633E-10	4.38073E-12
[13,2,1]	1.03461E-09	6.16932E-08	2.30428E-11	2.46433E-11	8.33108E-11	2.81496E-12
[14,2,1]	6.59217E-10	3.90833E-08	1.45193E-11	1.55195E-11	5.24589E-11	1.77228E-12
[15,2,1]	4.26277E-10	2.56683E-08	9.66349E-12	1.03343E-11	3.49307E-11	1.18010E-12
[16,2,1]	2.76472E-10	1.66967E-08	6.26165E-12	6.69364E-12	2.26248E-11	7.64331E-13
[17,2,1]	1.78523E-10	1.07287E-08	4.00738E-12	4.28052E-12	1.44636E-11	4.88467E-13
[18,2,1]	1.17019E-10	7.14018E-09	2.70236E-12	2.88812E-12	9.75919E-12	3.29585E-13
[19,2,1]	7.77730E-11	4.80697E-09	1.82755E-12	1.95287E-12	6.59904E-12	2.22877E-13
[20,2,1]	5.11947E-11	3.13392E-09	1.17662E-12	1.25778E-12	4.25299E-12	1.43717E-13
[21,2,1]	3.40946E-11	2.11156E-09	8.02768E-13	8.57644E-13	2.89772E-12	9.78576E-14
[22,2,1]	2.36106E-11	1.51611E-09	5.88836E-13	6.29843E-13	2.12887E-12	7.19151E-14
[1,3,1]	5.39230E-08	7.05183E-06	3.32672E-09	4.00383E-09	1.49095E-08	5.42125E-10
[2,3,1]	6.92209E-08	6.54395E-06	2.59900E-09	2.96005E-09	1.06449E-08	3.77146E-10
[3,3,1]	6.33562E-08	5.06466E-06	1.96488E-09	2.18725E-09	7.70114E-09	2.68569E-10
[4,3,1]	4.92014E-08	3.50896E-06	1.32640E-09	1.45697E-09	5.06514E-09	1.74942E-10
[5,3,1]	3.46140E-08	2.27235E-06	8.41820E-10	9.17650E-10	3.16558E-09	1.08693E-10
[6,3,1]	2.32640E-08	1.46322E-06	5.42140E-10	5.88524E-10	2.02019E-09	6.91018E-11
[7,3,1]	1.51409E-08	9.22512E-07	3.39272E-10	3.67247E-10	1.25692E-09	4.28958E-11
[8,3,1]	9.59855E-09	5.69129E-07	2.07614E-10	2.24330E-10	7.66419E-10	2.61210E-11
[9,3,1]	6.08092E-09	3.60489E-07	1.32903E-10	1.43532E-10	4.89805E-10	1.66786E-11
[10,3,1]	3.84635E-09	2.27668E-07	8.38208E-11	9.04442E-11	3.08415E-10	1.04957E-11
[11,3,1]	2.41767E-09	1.42108E-07	5.20925E-11	5.61801E-11	1.91509E-10	6.51559E-12
[12,3,1]	1.53918E-09	9.17317E-08	3.40618E-11	3.67453E-11	1.25226E-10	4.25966E-12
[13,3,1]	9.84807E-10	5.89850E-08	2.18659E-11	2.35781E-11	8.03432E-11	2.73255E-12

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[14,3,1]	6.27445E-10	3.74083E-08	1.37897E-11	1.48690E-11	5.06734E-11	1.72375E-12
[15,3,1]	4.05643E-10	2.45545E-08	9.17473E-12	9.88950E-12	3.36824E-11	1.14512E-12
[16,3,1]	2.63221E-10	1.59896E-08	5.95392E-12	6.41916E-12	2.18735E-11	7.43892E-13
[17,3,1]	1.70238E-10	1.03024E-08	3.82314E-12	4.11811E-12	1.40257E-11	4.76815E-13
[18,3,1]	1.11418E-10	6.82379E-09	2.55913E-12	2.75738E-12	9.39040E-12	3.19222E-13
[19,3,1]	7.37433E-11	4.56809E-09	1.71822E-12	1.85161E-12	6.30679E-12	2.14410E-13
[20,3,1]	4.88256E-11	3.02385E-09	1.13319E-12	1.22119E-12	4.16049E-12	1.41475E-13
[21,3,1]	3.24379E-11	2.01386E-09	7.57358E-13	8.15936E-13	2.77946E-12	9.45009E-14
[22,3,1]	2.27101E-11	1.48051E-09	5.75117E-13	6.20378E-13	2.11314E-12	7.18404E-14
[1,4,1]	5.11963E-08	6.72723E-06	3.14922E-09	3.81867E-09	1.42955E-08	5.21756E-10
[2,4,1]	6.64094E-08	6.34160E-06	2.50237E-09	2.88335E-09	1.04628E-08	3.73214E-10
[3,4,1]	6.07118E-08	4.88527E-06	1.87249E-09	2.11003E-09	7.50587E-09	2.63856E-10
[4,4,1]	4.68320E-08	3.34785E-06	1.24766E-09	1.38708E-09	4.87289E-09	1.69711E-10
[5,4,1]	3.26885E-08	2.14662E-06	7.84294E-10	8.65021E-10	3.01493E-09	1.04387E-10
[6,4,1]	2.18263E-08	1.37413E-06	5.02873E-10	5.52253E-10	1.91504E-09	6.60534E-11
[7,4,1]	1.41023E-08	8.59051E-07	3.11714E-10	3.41250E-10	1.17968E-09	4.05937E-11
[8,4,1]	8.91003E-09	5.30208E-07	1.91503E-10	2.09277E-10	7.22077E-10	2.48125E-11
[9,4,1]	5.62430E-09	3.34477E-07	1.21880E-10	1.33103E-10	4.58699E-10	1.57477E-11
[10,4,1]	3.53972E-09	2.09840E-07	7.62910E-11	8.32397E-11	2.86648E-10	9.83512E-12
[11,4,1]	2.22021E-09	1.31126E-07	4.75978E-11	5.19117E-11	1.78695E-10	6.12957E-12
[12,4,1]	1.40908E-09	8.42826E-08	3.09316E-11	3.37341E-11	1.16075E-10	3.98021E-12
[13,4,1]	8.99291E-10	5.40918E-08	1.98364E-11	2.16240E-11	7.43905E-11	2.55041E-12
[14,4,1]	5.73538E-10	3.44637E-08	1.26010E-11	1.37371E-11	4.72649E-11	1.62071E-12
[15,4,1]	3.69299E-10	2.24059E-08	8.26052E-12	9.00376E-12	3.09702E-11	1.06165E-12
[16,4,1]	2.39554E-10	1.46481E-08	5.40685E-12	5.89350E-12	2.02736E-11	6.95017E-13
[17,4,1]	1.55003E-10	9.45360E-09	3.47242E-12	3.78344E-12	1.30142E-11	4.46138E-13
[18,4,1]	1.01707E-10	6.29075E-09	2.33803E-12	2.54774E-12	8.76114E-12	3.00262E-13

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[19,4,1]	6.71791E-11	4.17933E-09	1.55330E-12	1.69195E-12	5.81830E-12	1.99394E-13
[20,4,1]	4.43841E-11	2.76001E-09	1.02392E-12	1.11535E-12	3.83597E-12	1.31475E-13
[21,4,1]	2.95709E-11	1.85660E-09	6.91905E-13	7.53903E-13	2.59289E-12	8.88694E-14
[22,4,1]	2.04124E-11	1.32502E-09	5.03707E-13	5.49730E-13	1.89202E-12	6.48864E-14
[1,5,1]	5.19602E-08	6.86183E-06	3.18909E-09	3.90297E-09	1.47008E-08	5.38839E-10
[2,5,1]	6.71897E-08	6.45273E-06	2.52045E-09	2.94415E-09	1.07893E-08	3.87680E-10
[3,5,1]	5.99609E-08	4.79233E-06	1.79899E-09	2.05419E-09	7.38313E-09	2.61613E-10
[4,5,1]	4.50671E-08	3.18009E-06	1.16137E-09	1.30696E-09	4.63565E-09	1.62685E-10
[5,5,1]	3.08308E-08	2.00097E-06	7.19754E-10	8.02839E-10	2.82268E-09	9.84297E-11
[6,5,1]	2.01855E-08	1.25409E-06	4.51516E-10	5.00966E-10	1.75107E-09	6.07998E-11
[7,5,1]	1.28454E-08	7.74608E-07	2.77543E-10	3.06805E-10	1.06844E-09	3.69961E-11
[8,5,1]	8.03491E-09	4.75531E-07	1.70068E-10	1.87586E-10	6.51736E-10	2.25289E-11
[9,5,1]	5.02700E-09	2.97603E-07	1.07275E-10	1.18205E-10	4.10081E-10	1.41601E-11
[10,5,1]	3.14334E-09	1.85940E-07	6.69812E-11	7.37275E-11	2.55543E-10	8.81750E-12
[11,5,1]	1.96671E-09	1.16384E-07	4.19610E-11	4.61586E-11	1.59891E-10	5.51466E-12
[12,5,1]	1.24400E-09	7.44800E-08	2.70809E-11	2.97919E-11	1.03169E-10	3.55754E-12
[13,5,1]	7.91438E-10	4.76516E-08	1.73283E-11	1.90525E-11	6.59573E-11	2.27375E-12
[14,5,1]	5.03292E-10	3.02859E-08	1.09789E-11	1.20716E-11	4.17942E-11	1.44096E-12
[15,5,1]	3.23935E-10	1.97412E-08	7.22487E-12	7.94612E-12	2.75100E-11	9.48436E-13
[16,5,1]	2.09979E-10	1.28889E-08	4.71838E-12	5.18842E-12	1.79629E-11	6.19253E-13
[17,5,1]	1.36380E-10	8.38497E-09	3.06614E-12	3.37062E-12	1.16676E-11	4.02206E-13
[18,5,1]	8.90284E-11	5.49825E-09	2.01879E-12	2.21768E-12	7.67284E-12	2.64378E-13
[19,5,1]	5.87902E-11	3.67089E-09	1.35669E-12	1.49134E-12	5.16162E-12	1.77905E-13
[20,5,1]	3.89120E-11	2.43603E-09	8.97651E-13	9.85808E-13	3.41019E-12	1.17490E-13
[21,5,1]	2.57687E-11	1.61466E-09	5.94252E-13	6.53199E-13	2.26111E-12	7.79444E-14
[22,5,1]	1.75385E-11	1.12641E-09	4.23023E-13	4.64807E-13	1.60787E-12	5.53951E-14

Table 21. Axial flux distribution for Case-1A.

	Thermal flux (n/cm²-s)		Fast flux (n/cm²-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.55E+02	1.09E+11	2.08E-02	7.19E+10	2.19E-02
1.65E+02	1.06E+11	2.01E-02	9.27E+10	2.09E-02
1.75E+02	1.09E+11	1.95E-02	1.09E+11	2.04E-02
1.85E+02	1.15E+11	1.88E-02	1.23E+11	1.98E-02
1.95E+02	1.22E+11	1.82E-02	1.35E+11	1.92E-02
2.05E+02	1.31E+11	1.75E-02	1.48E+11	1.83E-02
2.15E+02	1.41E+11	1.70E-02	1.60E+11	1.76E-02
2.25E+02	1.52E+11	1.62E-02	1.73E+11	1.70E-02
2.35E+02	1.65E+11	1.55E-02	1.86E+11	1.65E-02
2.45E+02	1.77E+11	1.48E-02	2.03E+11	1.54E-02
2.55E+02	1.90E+11	1.41E-02	2.19E+11	1.50E-02
2.65E+02	2.05E+11	1.34E-02	2.37E+11	1.43E-02
2.75E+02	2.23E+11	1.30E-02	2.58E+11	1.37E-02
2.85E+02	2.43E+11	1.23E-02	2.79E+11	1.32E-02
2.95E+02	2.65E+11	1.18E-02	3.00E+11	1.26E-02
3.05E+02	2.90E+11	1.10E-02	3.23E+11	1.18E-02
3.15E+02	3.14E+11	1.05E-02	3.50E+11	1.12E-02
3.25E+02	3.43E+11	9.89E-03	3.77E+11	1.05E-02
3.35E+02	3.68E+11	9.37E-03	4.09E+11	9.86E-03
3.45E+02	3.98E+11	8.89E-03	4.41E+11	9.27E-03
3.55E+02	4.30E+11	8.35E-03	4.79E+11	8.84E-03
3.65E+02	4.66E+11	7.91E-03	5.22E+11	8.36E-03
3.75E+02	5.07E+11	7.47E-03	5.65E+11	7.90E-03
3.85E+02	5.48E+11	6.95E-03	6.13E+11	7.49E-03
3.95E+02	5.88E+11	6.55E-03	6.70E+11	6.98E-03

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
4.05E+02	6.37E+11	6.23E-03	7.31E+11	6.55E-03
4.15E+02	6.91E+11	5.81E-03	7.99E+11	6.13E-03
4.25E+02	7.51E+11	5.42E-03	8.67E+11	5.74E-03
4.35E+02	8.17E+11	5.11E-03	9.40E+11	5.36E-03
4.45E+02	8.98E+11	4.82E-03	1.02E+12	5.02E-03
4.55E+02	9.87E+11	4.53E-03	1.11E+12	4.69E-03
4.65E+02	1.08E+12	4.27E-03	1.20E+12	4.44E-03
4.75E+02	1.18E+12	4.02E-03	1.31E+12	4.16E-03
4.85E+02	1.28E+12	3.79E-03	1.41E+12	3.90E-03
4.95E+02	1.39E+12	3.59E-03	1.54E+12	3.69E-03
5.05E+02	1.51E+12	3.38E-03	1.68E+12	3.46E-03
5.15E+02	1.64E+12	3.17E-03	1.83E+12	3.21E-03
5.25E+02	1.79E+12	3.00E-03	1.99E+12	3.04E-03
5.35E+02	1.95E+12	2.82E-03	2.18E+12	2.88E-03
5.45E+02	2.11E+12	2.64E-03	2.39E+12	2.69E-03
5.55E+02	2.29E+12	2.50E-03	2.61E+12	2.54E-03
5.65E+02	2.49E+12	2.35E-03	2.86E+12	2.41E-03
5.75E+02	2.71E+12	2.22E-03	3.13E+12	2.26E-03
5.85E+02	2.97E+12	2.12E-03	3.41E+12	2.15E-03
5.95E+02	3.26E+12	2.01E-03	3.71E+12	2.04E-03
6.05E+02	3.58E+12	1.89E-03	4.03E+12	1.91E-03
6.15E+02	3.93E+12	1.80E-03	4.38E+12	1.81E-03
6.25E+02	4.31E+12	1.71E-03	4.78E+12	1.71E-03
6.35E+02	4.70E+12	1.61E-03	5.22E+12	1.62E-03
6.45E+02	5.14E+12	1.53E-03	5.71E+12	1.55E-03
6.55E+02	5.61E+12	1.45E-03	6.25E+12	1.47E-03

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
6.65E+02	6.11E+12	1.36E-03	6.84E+12	1.38E-03
6.75E+02	6.67E+12	1.30E-03	7.48E+12	1.31E-03
6.85E+02	7.28E+12	1.24E-03	8.21E+12	1.24E-03
6.95E+02	7.91E+12	1.18E-03	9.01E+12	1.17E-03
7.05E+02	8.59E+12	1.13E-03	9.89E+12	1.12E-03
7.15E+02	9.38E+12	1.07E-03	1.09E+13	1.06E-03
7.25E+02	1.03E+13	1.00E-03	1.19E+13	1.00E-03
7.35E+02	1.13E+13	9.60E-04	1.30E+13	9.60E-04
7.45E+02	1.24E+13	9.20E-04	1.43E+13	9.10E-04
7.55E+02	1.37E+13	8.70E-04	1.56E+13	8.60E-04
7.65E+02	1.50E+13	8.30E-04	1.70E+13	8.20E-04
7.75E+02	1.65E+13	7.90E-04	1.86E+13	7.80E-04
7.85E+02	1.81E+13	7.50E-04	2.04E+13	7.40E-04
7.95E+02	1.98E+13	7.20E-04	2.23E+13	7.10E-04
8.05E+02	2.17E+13	6.80E-04	2.46E+13	6.70E-04
8.15E+02	2.37E+13	6.40E-04	2.70E+13	6.40E-04
8.25E+02	2.59E+13	6.20E-04	2.96E+13	6.10E-04
8.35E+02	2.83E+13	5.90E-04	3.26E+13	5.80E-04
8.45E+02	3.08E+13	5.60E-04	3.59E+13	5.50E-04
8.55E+02	3.35E+13	5.30E-04	3.96E+13	5.20E-04
8.65E+02	3.67E+13	5.10E-04	4.37E+13	5.00E-04
8.75E+02	4.02E+13	4.80E-04	4.80E+13	4.70E-04
8.85E+02	4.41E+13	4.60E-04	5.26E+13	4.50E-04
8.95E+02	4.87E+13	4.40E-04	5.77E+13	4.30E-04
9.05E+02	5.36E+13	4.10E-04	6.31E+13	4.00E-04
9.15E+02	5.90E+13	3.90E-04	6.91E+13	3.90E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
9.25E+02	6.49E+13	3.70E-04	7.59E+13	3.70E-04
9.35E+02	7.10E+13	3.50E-04	8.33E+13	3.50E-04
9.45E+02	7.77E+13	3.40E-04	9.15E+13	3.30E-04
9.55E+02	8.49E+13	3.20E-04	1.01E+14	3.20E-04
9.65E+02	9.24E+13	3.00E-04	1.11E+14	3.00E-04
9.75E+02	1.01E+14	2.90E-04	1.22E+14	2.80E-04
9.85E+02	1.10E+14	2.80E-04	1.34E+14	2.70E-04
9.95E+02	1.19E+14	2.60E-04	1.47E+14	2.50E-04
1.01E+03	1.28E+14	2.50E-04	1.63E+14	2.40E-04
1.02E+03	1.39E+14	2.40E-04	1.79E+14	2.30E-04
1.03E+03	1.51E+14	2.20E-04	1.96E+14	2.20E-04
1.04E+03	1.64E+14	2.10E-04	2.14E+14	2.10E-04
1.05E+03	1.79E+14	2.00E-04	2.33E+14	2.00E-04
1.06E+03	1.95E+14	1.90E-04	2.54E+14	1.80E-04
1.07E+03	2.11E+14	1.80E-04	2.76E+14	1.80E-04
1.08E+03	2.29E+14	1.80E-04	3.00E+14	1.70E-04
1.09E+03	2.46E+14	1.70E-04	3.26E+14	1.60E-04
1.10E+03	2.63E+14	1.60E-04	3.53E+14	1.50E-04
1.11E+03	2.80E+14	1.50E-04	3.85E+14	1.40E-04
1.12E+03	2.98E+14	1.40E-04	4.15E+14	1.30E-04
1.13E+03	3.16E+14	1.40E-04	4.46E+14	1.30E-04
1.14E+03	3.33E+14	1.40E-04	4.78E+14	1.20E-04
1.15E+03	3.48E+14	1.30E-04	5.13E+14	1.20E-04
1.16E+03	3.61E+14	1.30E-04	5.51E+14	1.20E-04
1.17E+03	3.74E+14	1.30E-04	5.85E+14	1.10E-04
1.18E+03	3.86E+14	1.20E-04	6.15E+14	1.10E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.19E+03	3.99E+14	1.20E-04	6.39E+14	1.10E-04
1.20E+03	4.10E+14	1.20E-04	6.61E+14	1.10E-04
1.21E+03	4.21E+14	1.20E-04	6.76E+14	1.10E-04
1.22E+03	4.31E+14	1.20E-04	6.76E+14	1.10E-04
1.23E+03	4.46E+14	1.30E-04	6.56E+14	1.20E-04
1.24E+03	4.73E+14	1.30E-04	6.06E+14	1.20E-04
1.25E+03	5.30E+14	1.40E-04	5.10E+14	1.40E-04

Table 22. Radial flux distribution for Case-1A.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.50E+00	8.79E+13	5.30E-04	1.43E+14	4.30E-04
4.50E+00	8.79E+13	4.00E-04	1.43E+14	3.30E-04
7.50E+00	8.78E+13	3.30E-04	1.43E+14	2.70E-04
1.05E+01	8.77E+13	2.90E-04	1.43E+14	2.40E-04
1.35E+01	8.78E+13	2.60E-04	1.43E+14	2.20E-04
1.65E+01	8.75E+13	2.40E-04	1.43E+14	2.00E-04
1.95E+01	8.75E+13	2.20E-04	1.42E+14	1.90E-04
2.25E+01	8.73E+13	2.10E-04	1.42E+14	1.80E-04
2.55E+01	8.72E+13	1.90E-04	1.42E+14	1.70E-04
2.85E+01	8.70E+13	1.80E-04	1.42E+14	1.60E-04
3.15E+01	8.67E+13	1.70E-04	1.41E+14	1.50E-04
3.45E+01	8.66E+13	1.70E-04	1.41E+14	1.40E-04
3.75E+01	8.63E+13	1.60E-04	1.41E+14	1.40E-04
4.05E+01	8.61E+13	1.50E-04	1.40E+14	1.30E-04
4.35E+01	8.58E+13	1.50E-04	1.40E+14	1.30E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
4.65E+01	8.55E+13	1.40E-04	1.39E+14	1.20E-04
4.95E+01	8.52E+13	1.40E-04	1.39E+14	1.20E-04
5.25E+01	8.48E+13	1.30E-04	1.38E+14	1.10E-04
5.55E+01	8.45E+13	1.30E-04	1.38E+14	1.10E-04
5.85E+01	8.41E+13	1.20E-04	1.37E+14	1.00E-04
6.15E+01	8.38E+13	1.20E-04	1.37E+14	1.00E-04
6.45E+01	8.34E+13	1.20E-04	1.36E+14	1.00E-04
6.75E+01	8.30E+13	1.10E-04	1.35E+14	1.00E-04
7.05E+01	8.26E+13	1.10E-04	1.34E+14	9.00E-05
7.35E+01	8.21E+13	1.10E-04	1.34E+14	9.00E-05
7.65E+01	8.17E+13	1.10E-04	1.33E+14	9.00E-05
7.95E+01	8.12E+13	1.00E-04	1.32E+14	9.00E-05
8.25E+01	8.08E+13	1.00E-04	1.31E+14	9.00E-05
8.55E+01	8.03E+13	1.00E-04	1.30E+14	8.00E-05
8.85E+01	7.99E+13	1.00E-04	1.29E+14	8.00E-05
9.15E+01	7.95E+13	1.00E-04	1.27E+14	8.00E-05
9.45E+01	7.91E+13	9.00E-05	1.26E+14	8.00E-05
9.75E+01	7.87E+13	9.00E-05	1.25E+14	8.00E-05
1.01E+02	7.84E+13	9.00E-05	1.23E+14	8.00E-05
1.04E+02	7.81E+13	9.00E-05	1.22E+14	8.00E-05
1.07E+02	7.79E+13	9.00E-05	1.20E+14	8.00E-05
1.10E+02	7.78E+13	9.00E-05	1.18E+14	8.00E-05
1.13E+02	7.78E+13	9.00E-05	1.16E+14	8.00E-05
1.16E+02	7.79E+13	9.00E-05	1.13E+14	8.00E-05
1.19E+02	7.83E+13	9.00E-05	1.11E+14	8.00E-05
1.22E+02	7.87E+13	9.00E-05	1.08E+14	8.00E-05

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.25E+02	7.93E+13	9.00E-05	1.05E+14	8.00E-05
1.28E+02	8.02E+13	9.00E-05	1.01E+14	8.00E-05
1.31E+02	8.13E+13	9.00E-05	9.72E+13	8.00E-05
1.34E+02	8.29E+13	9.00E-05	9.29E+13	9.00E-05
1.37E+02	8.48E+13	9.00E-05	8.81E+13	9.00E-05
1.40E+02	8.69E+13	9.00E-05	8.31E+13	9.00E-05
1.43E+02	8.94E+13	9.00E-05	7.76E+13	9.00E-05
1.46E+02	9.23E+13	9.00E-05	7.18E+13	1.00E-04
1.49E+02	9.60E+13	1.00E-04	6.51E+13	1.00E-04

Table 23. Power produced per TRISO particle and fast neutron flux (E > 1MeV) for Case-1A. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	**Power Per Particle (mW)**	**Statistical error**	**Fast Flux (n/cm^2-s)**	**Statistical error**
[1,1,1]	4.81E+02	1.80E-04	2.36E+14	3.80E-04
[2,1,1]	3.58E+02	1.90E-04	2.07E+14	4.00E-04
[3,1,1]	2.48E+02	2.10E-04	1.49E+14	4.60E-04
[4,1,1]	1.64E+02	2.60E-04	9.98E+13	5.70E-04
[5,1,1]	1.08E+02	3.30E-04	6.57E+13	7.10E-04
[6,1,1]	6.60E+01	4.20E-04	4.09E+13	8.90E-04
[7,1,1]	4.10E+01	5.30E-04	2.53E+13	1.14E-03
[8,1,1]	2.65E+01	6.90E-04	1.63E+13	1.44E-03
[9,1,1]	1.62E+01	8.70E-04	1.01E+13	1.82E-03
[10,1,1]	1.01E+01	1.10E-03	6.28E+12	2.30E-03
[11,1,1]	6.65E+00	1.41E-03	4.06E+12	2.89E-03
[12,1,1]	4.11E+00	1.79E-03	2.56E+12	3.63E-03
[13,1,1]	2.61E+00	2.30E-03	1.62E+12	4.61E-03

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[14,1,1]	1.75E+00	2.95E-03	1.06E+12	5.80E-03
[15,1,1]	1.10E+00	3.81E-03	6.85E+11	7.32E-03
[16,1,1]	7.10E-01	5.01E-03	4.43E+11	9.19E-03
[17,1,1]	4.83E-01	6.71E-03	2.91E+11	1.20E-02
[18,1,1]	3.13E-01	8.61E-03	1.95E+11	1.48E-02
[19,1,1]	2.05E-01	1.15E-02	1.28E+11	1.85E-02
[20,1,1]	1.44E-01	1.45E-02	8.81E+10	2.34E-02
[21,1,1]	9.29E-02	1.78E-02	5.72E+10	2.81E-02
[22,1,1]	6.58E-02	2.11E-02	3.79E+10	3.42E-02
[1,2,1]	4.46E+02	1.60E-04	2.19E+14	3.80E-04
[2,2,1]	3.39E+02	1.70E-04	1.96E+14	3.90E-04
[3,2,1]	2.38E+02	2.00E-04	1.42E+14	4.60E-04
[4,2,1]	1.58E+02	2.40E-04	9.55E+13	5.60E-04
[5,2,1]	1.04E+02	3.10E-04	6.29E+13	7.00E-04
[6,2,1]	6.40E+01	3.90E-04	3.92E+13	8.80E-04
[7,2,1]	3.97E+01	5.00E-04	2.43E+13	1.12E-03
[8,2,1]	2.56E+01	6.50E-04	1.55E+13	1.42E-03
[9,2,1]	1.56E+01	8.10E-04	9.59E+12	1.81E-03
[10,2,1]	9.79E+00	1.04E-03	6.01E+12	2.29E-03
[11,2,1]	6.39E+00	1.33E-03	3.88E+12	2.85E-03
[12,2,1]	3.96E+00	1.69E-03	2.43E+12	3.61E-03
[13,2,1]	2.53E+00	2.17E-03	1.56E+12	4.56E-03
[14,2,1]	1.69E+00	2.79E-03	1.02E+12	5.65E-03
[15,2,1]	1.07E+00	3.61E-03	6.51E+11	7.17E-03
[16,2,1]	6.88E-01	4.81E-03	4.22E+11	9.09E-03
[17,2,1]	4.65E-01	6.34E-03	2.82E+11	1.13E-02
[18,2,1]	2.99E-01	8.58E-03	1.79E+11	1.47E-02

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[19,2,1]	1.99E-01	1.09E-02	1.20E+11	1.91E-02
[20,2,1]	1.38E-01	1.42E-02	8.27E+10	2.34E-02
[21,2,1]	8.99E-02	1.76E-02	5.74E+10	2.83E-02
[22,2,1]	6.69E-02	2.15E-02	3.60E+10	3.38E-02
[1,3,1]	4.21E+02	1.60E-04	2.05E+14	3.90E-04
[2,3,1]	3.28E+02	1.70E-04	1.86E+14	4.00E-04
[3,3,1]	2.29E+02	2.00E-04	1.34E+14	4.70E-04
[4,3,1]	1.52E+02	2.40E-04	9.00E+13	5.70E-04
[5,3,1]	1.01E+02	3.10E-04	5.94E+13	7.10E-04
[6,3,1]	6.19E+01	3.90E-04	3.69E+13	9.00E-04
[7,3,1]	3.85E+01	5.00E-04	2.29E+13	1.15E-03
[8,3,1]	2.47E+01	6.40E-04	1.45E+13	1.45E-03
[9,3,1]	1.51E+01	8.10E-04	9.02E+12	1.84E-03
[10,3,1]	9.43E+00	1.03E-03	5.63E+12	2.33E-03
[11,3,1]	6.14E+00	1.32E-03	3.61E+12	2.92E-03
[12,3,1]	3.81E+00	1.67E-03	2.26E+12	3.71E-03
[13,3,1]	2.42E+00	2.15E-03	1.44E+12	4.64E-03
[14,3,1]	1.62E+00	2.78E-03	9.53E+11	5.83E-03
[15,3,1]	1.02E+00	3.56E-03	6.06E+11	7.31E-03
[16,3,1]	6.60E-01	4.75E-03	3.96E+11	9.24E-03
[17,3,1]	4.47E-01	6.28E-03	2.65E+11	1.16E-02
[18,3,1]	2.85E-01	8.35E-03	1.72E+11	1.47E-02
[19,3,1]	1.90E-01	1.10E-02	1.13E+11	1.86E-02
[20,3,1]	1.31E-01	1.43E-02	7.85E+10	2.31E-02
[21,3,1]	8.61E-02	1.76E-02	5.45E+10	2.86E-02
[22,3,1]	6.38E-02	2.07E-02	3.31E+10	3.61E-02
[1,4,1]	4.06E+02	1.70E-04	1.87E+14	4.00E-04

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[2,4,1]	3.24E+02	1.80E-04	1.71E+14	4.20E-04
[3,4,1]	2.25E+02	2.00E-04	1.23E+14	4.90E-04
[4,4,1]	1.47E+02	2.40E-04	8.13E+13	6.00E-04
[5,4,1]	9.67E+01	3.10E-04	5.30E+13	7.50E-04
[6,4,1]	5.90E+01	3.90E-04	3.29E+13	9.50E-04
[7,4,1]	3.63E+01	5.00E-04	2.02E+13	1.21E-03
[8,4,1]	2.35E+01	6.40E-04	1.29E+13	1.53E-03
[9,4,1]	1.42E+01	8.10E-04	7.93E+12	1.95E-03
[10,4,1]	8.81E+00	1.04E-03	4.90E+12	2.47E-03
[11,4,1]	5.77E+00	1.33E-03	3.18E+12	3.09E-03
[12,4,1]	3.57E+00	1.67E-03	1.99E+12	3.91E-03
[13,4,1]	2.26E+00	2.16E-03	1.26E+12	4.94E-03
[14,4,1]	1.51E+00	2.77E-03	8.32E+11	6.17E-03
[15,4,1]	9.48E-01	3.62E-03	5.34E+11	7.76E-03
[16,4,1]	6.14E-01	4.72E-03	3.42E+11	9.82E-03
[17,4,1]	4.15E-01	6.31E-03	2.33E+11	1.24E-02
[18,4,1]	2.65E-01	8.31E-03	1.50E+11	1.54E-02
[19,4,1]	1.75E-01	1.08E-02	9.66E+10	1.96E-02
[20,4,1]	1.24E-01	1.43E-02	6.95E+10	2.38E-02
[21,4,1]	8.01E-02	1.76E-02	4.52E+10	2.97E-02
[22,4,1]	5.88E-02	2.15E-02	2.99E+10	3.71E-02
[1,5,1]	4.10E+02	1.70E-04	1.49E+14	4.50E-04
[2,5,1]	3.26E+02	1.80E-04	1.36E+14	4.70E-04
[3,5,1]	2.16E+02	2.00E-04	9.52E+13	5.60E-04
[4,5,1]	1.37E+02	2.50E-04	6.20E+13	6.90E-04
[5,5,1]	8.90E+01	3.20E-04	4.03E+13	8.60E-04
[6,5,1]	5.28E+01	4.00E-04	2.45E+13	1.10E-03

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[7,5,1]	3.22E+01	5.10E-04	1.50E+13	1.41E-03
[8,5,1]	2.07E+01	6.50E-04	9.58E+12	1.77E-03
[9,5,1]	1.24E+01	8.30E-04	5.84E+12	2.26E-03
[10,5,1]	7.72E+00	1.05E-03	3.63E+12	2.88E-03
[11,5,1]	5.07E+00	1.35E-03	2.35E+12	3.59E-03
[12,5,1]	3.11E+00	1.70E-03	1.46E+12	4.53E-03
[13,5,1]	1.97E+00	2.19E-03	9.38E+11	5.68E-03
[14,5,1]	1.32E+00	2.82E-03	6.06E+11	7.17E-03
[15,5,1]	8.23E-01	3.66E-03	3.91E+11	8.99E-03
[16,5,1]	5.30E-01	4.79E-03	2.53E+11	1.13E-02
[17,5,1]	3.64E-01	6.40E-03	1.73E+11	1.39E-02
[18,5,1]	2.29E-01	8.40E-03	1.08E+11	1.78E-02
[19,5,1]	1.52E-01	1.09E-02	7.34E+10	2.16E-02
[20,5,1]	1.07E-01	1.41E-02	4.83E+10	2.79E-02
[21,5,1]	6.98E-02	1.75E-02	3.40E+10	3.37E-02
[22,5,1]	4.91E-02	2.06E-02	2.13E+10	4.10E-02

5.2 Case-1B

Table 24. Number densities for Case-1B, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1]	2.19965E-03	2.09764E-02	6.30418E-11	9.64423E-06	2.12328E-07	9.34674E-09	1.10734E-10	1.38510E-08	8.69895E-08
[2,1,1]	2.16384E-03	2.09591E-02	4.48901E-10	2.43822E-05	8.53418E-07	6.59130E-08	1.07575E-09	1.66765E-08	1.37000E-07
[3,1,1]	2.10934E-03	2.09319E-02	2.27214E-09	4.50966E-05	2.58742E-06	3.21950E-07	8.48249E-09	2.08413E-08	1.58003E-07
[4,1,1]	2.02915E-03	2.08904E-02	9.68198E-09	7.21009E-05	6.42935E-06	1.23943E-06	5.20719E-08	2.47245E-08	1.69335E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[5,1,1]	1.92142E-03	2.08318E-02	3.43245E-08	1.02658E-04	1.31901E-05	3.69228E-06	2.34918E-07	2.76355E-08	1.80311E-07
[6,1,1]	1.78159E-03	2.07510E-02	1.03696E-07	1.33727E-04	2.36049E-05	8.87791E-06	8.43755E-07	2.93724E-08	1.88775E-07
[7,1,1]	1.62156E-03	2.06509E-02	2.60465E-07	1.60617E-04	3.64623E-05	1.72280E-05	2.30617E-06	3.00008E-08	1.99089E-07
[8,1,1]	1.46137E-03	2.05422E-02	5.39208E-07	1.80361E-04	4.93157E-05	2.75269E-05	4.84053E-06	2.97596E-08	2.10026E-07
[9,1,1]	1.30808E-03	2.04287E-02	9.56347E-07	1.92983E-04	6.14930E-05	3.81514E-05	8.53672E-06	2.87199E-08	2.14915E-07
[10,1,1]	1.17556E-03	2.03223E-02	1.48016E-06	2.00308E-04	7.15206E-05	4.75862E-05	1.28806E-05	2.74394E-08	2.19807E-07
[11,1,1]	1.07038E-03	2.02314E-02	2.05052E-06	2.04374E-04	7.88663E-05	5.51327E-05	1.71746E-05	2.61146E-08	2.24962E-07
[12,1,1]	9.86005E-04	2.01538E-02	2.62270E-06	2.05881E-04	8.47037E-05	6.06897E-05	2.12597E-05	2.46056E-08	2.23646E-07
[13,1,1]	9.21353E-04	2.00915E-02	3.15303E-06	2.06209E-04	8.89693E-05	6.46914E-05	2.47883E-05	2.31067E-08	2.22428E-07
[14,1,1]	8.73960E-04	2.00439E-02	3.61659E-06	2.06352E-04	9.18314E-05	6.75743E-05	2.75997E-05	2.15825E-08	2.22272E-07
[15,1,1]	8.37711E-04	2.00063E-02	4.01451E-06	2.05998E-04	9.40704E-05	6.95069E-05	2.99038E-05	2.00097E-08	2.17368E-07
[16,1,1]	8.10761E-04	1.99778E-02	4.34582E-06	2.05493E-04	9.57483E-05	7.07806E-05	3.16983E-05	1.83143E-08	2.12756E-07
[17,1,1]	7.91251E-04	1.99570E-02	4.61790E-06	2.05110E-04	9.68966E-05	7.16405E-05	3.30285E-05	1.64620E-08	2.09282E-07
[18,1,1]	7.76457E-04	1.99409E-02	4.84324E-06	2.04690E-04	9.77457E-05	7.22159E-05	3.40713E-05	1.47188E-08	2.03388E-07
[19,1,1]	7.65517E-04	1.99290E-02	5.02799E-06	2.04300E-04	9.84113E-05	7.25233E-05	3.48570E-05	1.28713E-08	1.97820E-07
[20,1,1]	7.57774E-04	1.99205E-02	5.17878E-06	2.04096E-04	9.88534E-05	7.26850E-05	3.54157E-05	1.08704E-08	1.93552E-07
[21,1,1]	7.52164E-04	1.99142E-02	5.30260E-06	2.03947E-04	9.92056E-05	7.27010E-05	3.58259E-05	9.09361E-09	1.88061E-07
[22,1,1]	7.47850E-04	1.99107E-02	5.39922E-06	2.02683E-04	9.98625E-05	7.22317E-05	3.61659E-05	7.61472E-09	1.76553E-07
[1,2,1]	2.20150E-03	2.09771E-02	5.26134E-11	9.07473E-06	1.87722E-07	7.71660E-09	8.56602E-11	1.33251E-08	8.47641E-08
[2,2,1]	2.16759E-03	2.09606E-02	3.76759E-10	2.31884E-05	7.65278E-07	5.59102E-08	8.58607E-10	1.61420E-08	1.34755E-07
[3,2,1]	2.11553E-03	2.09349E-02	1.92042E-09	4.30548E-05	2.35762E-06	2.75090E-07	6.88631E-09	2.03615E-08	1.56463E-07
[4,2,1]	2.03915E-03	2.08955E-02	8.18171E-09	6.91430E-05	5.90126E-06	1.06803E-06	4.25297E-08	2.42230E-08	1.67982E-07
[5,2,1]	1.93608E-03	2.08399E-02	2.91512E-08	9.90115E-05	1.22256E-05	3.22597E-06	1.94457E-07	2.71833E-08	1.78456E-07
[6,2,1]	1.80194E-03	2.07634E-02	8.85198E-08	1.29741E-04	2.21140E-05	7.86816E-06	7.08334E-07	2.90081E-08	1.86516E-07
[7,2,1]	1.64776E-03	2.06688E-02	2.22137E-07	1.56639E-04	3.45257E-05	1.54597E-05	1.95919E-06	2.96960E-08	1.96070E-07
[8,2,1]	1.49218E-03	2.05658E-02	4.62257E-07	1.76663E-04	4.71496E-05	2.50434E-05	4.16969E-06	2.95360E-08	2.06697E-07
[9,2,1]	1.34204E-03	2.04584E-02	8.24606E-07	1.89569E-04	5.93046E-05	3.51018E-05	7.44381E-06	2.85416E-08	2.11061E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[10,2,1]	1.21122E-03	2.03576E-02	1.28226E-06	1.97008E-04	6.94731E-05	4.41669E-05	1.13535E-05	2.72754E-08	2.15246E-07
[11,2,1]	1.10677E-03	2.02715E-02	1.78305E-06	2.01088E-04	7.70265E-05	5.14968E-05	1.52571E-05	2.59528E-08	2.20196E-07
[12,2,1]	1.02262E-03	2.01981E-02	2.28747E-06	2.02575E-04	8.30687E-05	5.69587E-05	1.89974E-05	2.44463E-08	2.18706E-07
[13,2,1]	9.57953E-04	2.01391E-02	2.75545E-06	2.02878E-04	8.75336E-05	6.09057E-05	2.22516E-05	2.29251E-08	2.17214E-07
[14,2,1]	9.10430E-04	2.00942E-02	3.16492E-06	2.02875E-04	9.05860E-05	6.37412E-05	2.48471E-05	2.13851E-08	2.16956E-07
[15,2,1]	8.73947E-04	2.00588E-02	3.51784E-06	2.02409E-04	9.29796E-05	6.56500E-05	2.69814E-05	1.97971E-08	2.11899E-07
[16,2,1]	8.46704E-04	2.00319E-02	3.81367E-06	2.01776E-04	9.47385E-05	6.69416E-05	2.86538E-05	1.81059E-08	2.07483E-07
[17,2,1]	8.27074E-04	2.00123E-02	4.05592E-06	2.01355E-04	9.59325E-05	6.78277E-05	2.98891E-05	1.62359E-08	2.04357E-07
[18,2,1]	8.12158E-04	1.99972E-02	4.25730E-06	2.00900E-04	9.68531E-05	6.83965E-05	3.08604E-05	1.44950E-08	1.98488E-07
[19,2,1]	8.01101E-04	1.99860E-02	4.42330E-06	2.00513E-04	9.75518E-05	6.87138E-05	3.15901E-05	1.26362E-08	1.92920E-07
[20,2,1]	7.93270E-04	1.99780E-02	4.55891E-06	2.00275E-04	9.80174E-05	6.88894E-05	3.21094E-05	1.06581E-08	1.88866E-07
[21,2,1]	7.87544E-04	1.99721E-02	4.67014E-06	2.00072E-04	9.83848E-05	6.89202E-05	3.24943E-05	8.93159E-09	1.83558E-07
[22,2,1]	7.83072E-04	1.99687E-02	4.75799E-06	1.98786E-04	9.90449E-05	6.84862E-05	3.28182E-05	7.54342E-09	1.72642E-07
[1,3,1]	2.20318E-03	2.09781E-02	4.20833E-11	8.30087E-06	1.61404E-07	5.93657E-09	6.18967E-11	1.27860E-08	8.22043E-08
[2,3,1]	2.17076E-03	2.09630E-02	3.07378E-10	2.12801E-05	6.70670E-07	4.41074E-08	6.45485E-10	1.56138E-08	1.31505E-07
[3,3,1]	2.12095E-03	2.09393E-02	1.57195E-09	3.97165E-05	2.08288E-06	2.22056E-07	5.29454E-09	1.97171E-08	1.52974E-07
[4,3,1]	2.04751E-03	2.09031E-02	6.69584E-09	6.40484E-05	5.28138E-06	8.71772E-07	3.32040E-08	2.34957E-08	1.63740E-07
[5,3,1]	1.94778E-03	2.08522E-02	2.39390E-08	9.20091E-05	1.10833E-05	2.67532E-06	1.54836E-07	2.63671E-08	1.73065E-07
[6,3,1]	1.81749E-03	2.07823E-02	7.26649E-08	1.20823E-04	2.03131E-05	6.60383E-06	5.72583E-07	2.80888E-08	1.79751E-07
[7,3,1]	1.66636E-03	2.06958E-02	1.83602E-07	1.46110E-04	3.21448E-05	1.31668E-05	1.61285E-06	2.86866E-08	1.87438E-07
[8,3,1]	1.51240E-03	2.06018E-02	3.83467E-07	1.64648E-04	4.44917E-05	2.15668E-05	3.49311E-06	2.84247E-08	1.95640E-07
[9,3,1]	1.36337E-03	2.05042E-02	6.84992E-07	1.76310E-04	5.65241E-05	3.04398E-05	6.31084E-06	2.73432E-08	1.98436E-07
[10,3,1]	1.23279E-03	2.04129E-02	1.06720E-06	1.82687E-04	6.67694E-05	3.84747E-05	9.71603E-06	2.60153E-08	2.01029E-07
[11,3,1]	1.12771E-03	2.03349E-02	1.48769E-06	1.85798E-04	7.45078E-05	4.50246E-05	1.31578E-05	2.46560E-08	2.04410E-07
[12,3,1]	1.04265E-03	2.02684E-02	1.91258E-06	1.86535E-04	8.06626E-05	4.99514E-05	1.64873E-05	2.31448E-08	2.02002E-07
[13,3,1]	9.77074E-04	2.02153E-02	2.30747E-06	1.86200E-04	8.52648E-05	5.34860E-05	1.93988E-05	2.16556E-08	1.99939E-07
[14,3,1]	9.28730E-04	2.01747E-02	2.65334E-06	1.85659E-04	8.84448E-05	5.60159E-05	2.17368E-05	2.01531E-08	1.98856E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[15,3,1]	8.91644E-04	2.01429E-02	2.95164E-06	1.84799E-04	9.08624E-05	5.77677E-05	2.36671E-05	1.86554E-08	1.94299E-07
[16,3,1]	8.63952E-04	2.01187E-02	3.20153E-06	1.83988E-04	9.26776E-05	5.89170E-05	2.51777E-05	1.70436E-08	1.89934E-07
[17,3,1]	8.43896E-04	2.01010E-02	3.40803E-06	1.83380E-04	9.39152E-05	5.97176E-05	2.63031E-05	1.53086E-08	1.87070E-07
[18,3,1]	8.28712E-04	2.00873E-02	3.57953E-06	1.82834E-04	9.48840E-05	6.02130E-05	2.71769E-05	1.36619E-08	1.81661E-07
[19,3,1]	8.17457E-04	2.00772E-02	3.72111E-06	1.82337E-04	9.56253E-05	6.04897E-05	2.78400E-05	1.19532E-08	1.76858E-07
[20,3,1]	8.09477E-04	2.00700E-02	3.83702E-06	1.82037E-04	9.61229E-05	6.06443E-05	2.83156E-05	1.00956E-08	1.73030E-07
[21,3,1]	8.03635E-04	2.00647E-02	3.93227E-06	1.81773E-04	9.65026E-05	6.06771E-05	2.86661E-05	8.47412E-09	1.68339E-07
[22,3,1]	7.99022E-04	2.00616E-02	4.00855E-06	1.80553E-04	9.71202E-05	6.03132E-05	2.89620E-05	7.21290E-09	1.58817E-07
[1,4,1]	2.20354E-03	2.09794E-02	3.48298E-11	7.18154E-06	1.37838E-07	4.43049E-09	4.57770E-11	1.25397E-08	8.04171E-08
[2,4,1]	2.17033E-03	2.09662E-02	2.49852E-10	1.84391E-05	5.92685E-07	3.42215E-08	5.14015E-10	1.54432E-08	1.26941E-07
[3,4,1]	2.11937E-03	2.09456E-02	1.27607E-09	3.44181E-05	1.86380E-06	1.73627E-07	4.27566E-09	1.92536E-08	1.45862E-07
[4,4,1]	2.04378E-03	2.09141E-02	5.48989E-09	5.53681E-05	4.77534E-06	6.89909E-07	2.72987E-08	2.26410E-08	1.54181E-07
[5,4,1]	1.94121E-03	2.08699E-02	1.95914E-08	7.91572E-05	1.01092E-05	2.12504E-06	1.28302E-07	2.49884E-08	1.60502E-07
[6,4,1]	1.80683E-03	2.08093E-02	5.95427E-08	1.03252E-04	1.86942E-05	5.27155E-06	4.79608E-07	2.62383E-08	1.64376E-07
[7,4,1]	1.65034E-03	2.07346E-02	1.50833E-07	1.23673E-04	2.98277E-05	1.05571E-05	1.36801E-06	2.63775E-08	1.68545E-07
[8,4,1]	1.49066E-03	2.06534E-02	3.15658E-07	1.38012E-04	4.15576E-05	1.73193E-05	2.99139E-06	2.57045E-08	1.72818E-07
[9,4,1]	1.33550E-03	2.05692E-02	5.65745E-07	1.46249E-04	5.30582E-05	2.44557E-05	5.45054E-06	2.44191E-08	1.72776E-07
[10,4,1]	1.19998E-03	2.04906E-02	8.82099E-07	1.50128E-04	6.28251E-05	3.08732E-05	8.43767E-06	2.29537E-08	1.72918E-07
[11,4,1]	1.09089E-03	2.04235E-02	1.22997E-06	1.51403E-04	7.02947E-05	3.60260E-05	1.14847E-05	2.15305E-08	1.73562E-07
[12,4,1]	1.00301E-03	2.03665E-02	1.58159E-06	1.50994E-04	7.61612E-05	3.98679E-05	1.44256E-05	2.00821E-08	1.70450E-07
[13,4,1]	9.35528E-04	2.03210E-02	1.90814E-06	1.50003E-04	8.05395E-05	4.25823E-05	1.69945E-05	1.87169E-08	1.67696E-07
[14,4,1]	8.85756E-04	2.02863E-02	2.19509E-06	1.48959E-04	8.35783E-05	4.45162E-05	1.90645E-05	1.73918E-08	1.65781E-07
[15,4,1]	8.47818E-04	2.02591E-02	2.44266E-06	1.47878E-04	8.59328E-05	4.57943E-05	2.07641E-05	1.61218E-08	1.61940E-07
[16,4,1]	8.19575E-04	2.02384E-02	2.64958E-06	1.46918E-04	8.76502E-05	4.66569E-05	2.20965E-05	1.47799E-08	1.58304E-07
[17,4,1]	7.99166E-04	2.02233E-02	2.81949E-06	1.46175E-04	8.88202E-05	4.72606E-05	2.30903E-05	1.33353E-08	1.55532E-07
[18,4,1]	7.83668E-04	2.02117E-02	2.96079E-06	1.45529E-04	8.97298E-05	4.76300E-05	2.38666E-05	1.19828E-08	1.50901E-07
[19,4,1]	7.72256E-04	2.02030E-02	3.07711E-06	1.45052E-04	9.04073E-05	4.78368E-05	2.44471E-05	1.05301E-08	1.47088E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[20,4,1]	7.64131E-04	2.01969E-02	3.17216E-06	1.44731E-04	9.08773E-05	4.79418E-05	2.48651E-05	8.98053E-09	1.43801E-07
[21,4,1]	7.58187E-04	2.01923E-02	3.25055E-06	1.44468E-04	9.12476E-05	4.79460E-05	2.51720E-05	7.59609E-09	1.39710E-07
[22,4,1]	7.53594E-04	2.01896E-02	3.31403E-06	1.43557E-04	9.17401E-05	4.76857E-05	2.54212E-05	6.45156E-09	1.32817E-07
[1,5,1]	2.19977E-03	2.09806E-02	3.17453E-11	6.05889E-06	1.32677E-07	3.85474E-09	4.61106E-11	1.32712E-08	8.20912E-08
[2,5,1]	2.15944E-03	2.09694E-02	2.43017E-10	1.54833E-05	5.97090E-07	3.05867E-08	5.62784E-10	1.62698E-08	1.22737E-07
[3,5,1]	2.09798E-03	2.09518E-02	1.27275E-09	2.85412E-05	1.88102E-06	1.55412E-07	4.71340E-09	1.94511E-08	1.35788E-07
[4,5,1]	2.00742E-03	2.09248E-02	5.43234E-09	4.51773E-05	4.79997E-06	6.09490E-07	2.98637E-08	2.19356E-08	1.39830E-07
[5,5,1]	1.88563E-03	2.08869E-02	1.92511E-08	6.32713E-05	1.01007E-05	1.84309E-06	1.38681E-07	2.33021E-08	1.42401E-07
[6,5,1]	1.72972E-03	2.08353E-02	5.79002E-08	8.05708E-05	1.83709E-05	4.46797E-06	5.05399E-07	2.35704E-08	1.42796E-07
[7,5,1]	1.55186E-03	2.07719E-02	1.44661E-07	9.41988E-05	2.88903E-05	8.68694E-06	1.40458E-06	2.29058E-08	1.42852E-07
[8,5,1]	1.37342E-03	2.07028E-02	2.99452E-07	1.02801E-04	3.97901E-05	1.39096E-05	3.01953E-06	2.16443E-08	1.42834E-07
[9,5,1]	1.20566E-03	2.06316E-02	5.29321E-07	1.07191E-04	5.00961E-05	1.91984E-05	5.38423E-06	2.00517E-08	1.40526E-07
[10,5,1]	1.06215E-03	2.05652E-02	8.16929E-07	1.08752E-04	5.86742E-05	2.38118E-05	8.20379E-06	1.84629E-08	1.38391E-07
[11,5,1]	9.48414E-04	2.05085E-02	1.12955E-06	1.08625E-04	6.51374E-05	2.74206E-05	1.10576E-05	1.70386E-08	1.36826E-07
[12,5,1]	8.58875E-04	2.04605E-02	1.44178E-06	1.07764E-04	7.01229E-05	3.00114E-05	1.37566E-05	1.57361E-08	1.33426E-07
[13,5,1]	7.91308E-04	2.04223E-02	1.72926E-06	1.06700E-04	7.37832E-05	3.18013E-05	1.60866E-05	1.45849E-08	1.30506E-07
[14,5,1]	7.41719E-04	2.03930E-02	1.97989E-06	1.05629E-04	7.63371E-05	3.30516E-05	1.79673E-05	1.35440E-08	1.28196E-07
[15,5,1]	7.04348E-04	2.03701E-02	2.19447E-06	1.04728E-04	7.82364E-05	3.38881E-05	1.94968E-05	1.25627E-08	1.24641E-07
[16,5,1]	6.76792E-04	2.03527E-02	2.37282E-06	1.03999E-04	7.96287E-05	3.44265E-05	2.06862E-05	1.15797E-08	1.21556E-07
[17,5,1]	6.56842E-04	2.03400E-02	2.51917E-06	1.03398E-04	8.06076E-05	3.47771E-05	2.15782E-05	1.05548E-08	1.18982E-07
[18,5,1]	6.41921E-04	2.03302E-02	2.63986E-06	1.02947E-04	8.13211E-05	3.50022E-05	2.22654E-05	9.55688E-09	1.15556E-07
[19,5,1]	6.30977E-04	2.03230E-02	2.73856E-06	1.02609E-04	8.18584E-05	3.51132E-05	2.27803E-05	8.49256E-09	1.12361E-07
[20,5,1]	6.23115E-04	2.03178E-02	2.81954E-06	1.02358E-04	8.22217E-05	3.51696E-05	2.31546E-05	7.35697E-09	1.09481E-07
[21,5,1]	6.17377E-04	2.03140E-02	2.88605E-06	1.02157E-04	8.24909E-05	3.51719E-05	2.34292E-05	6.29907E-09	1.06319E-07
[22,5,1]	6.13081E-04	2.03116E-02	2.93990E-06	1.01599E-04	8.28169E-05	3.50092E-05	2.36407E-05	5.34428E-09	1.01960E-07

Table 25. Number densities for Case-1B, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1]	2.90808E-09	8.54274E-07	1.47649E-06	7.03630E-08	2.47921E-09	4.21787E-09	9.93771E-11	8.44903E-07	7.77750E-07
[2,1,1]	1.37832E-08	1.87141E-06	3.31635E-06	1.57035E-07	3.11643E-09	5.28226E-09	1.23847E-10	1.88692E-06	1.49709E-06
[3,1,1]	4.53669E-08	3.12605E-06	6.21894E-06	2.90698E-07	4.87230E-09	8.24600E-09	1.93225E-10	3.49350E-06	2.52690E-06
[4,1,1]	1.28731E-07	4.59637E-06	1.07009E-05	4.91376E-07	7.38026E-09	1.24568E-08	2.91324E-10	5.90096E-06	3.99434E-06
[5,1,1]	3.19511E-07	6.22313E-06	1.70871E-05	7.67821E-07	1.02453E-08	1.72340E-08	4.02000E-10	9.20968E-06	5.86189E-06
[6,1,1]	7.08486E-07	7.94063E-06	2.59938E-05	1.13855E-06	1.37929E-08	2.31151E-08	5.37659E-10	1.36341E-05	8.20543E-06
[7,1,1]	1.38464E-06	9.69347E-06	3.70092E-05	1.57789E-06	1.64576E-08	2.74665E-08	6.36641E-10	1.88673E-05	1.05930E-05
[8,1,1]	2.35882E-06	1.14424E-05	4.89072E-05	2.03239E-06	1.72349E-08	2.86479E-08	6.61618E-10	2.42830E-05	1.24327E-05
[9,1,1]	3.58274E-06	1.31534E-05	6.11947E-05	2.48214E-06	1.72438E-08	2.85599E-08	6.57470E-10	2.96513E-05	1.36743E-05
[10,1,1]	4.91416E-06	1.48133E-05	7.25654E-05	2.88182E-06	1.55884E-08	2.57302E-08	5.90383E-10	3.44478E-05	1.40108E-05
[11,1,1]	6.18791E-06	1.64081E-05	8.21073E-05	3.20450E-06	1.29140E-08	2.12535E-08	4.86260E-10	3.83644E-05	1.34332E-05
[12,1,1]	7.30836E-06	1.79218E-05	9.01366E-05	3.46627E-06	1.07295E-08	1.76201E-08	4.02325E-10	4.15891E-05	1.23894E-05
[13,1,1]	8.21327E-06	1.93427E-05	9.65039E-05	3.66635E-06	8.48273E-09	1.39037E-08	3.16855E-10	4.41129E-05	1.10103E-05
[14,1,1]	8.89607E-06	2.06606E-05	1.01266E-04	3.80970E-06	6.39826E-09	1.04706E-08	2.38242E-10	4.59925E-05	9.45160E-06
[15,1,1]	9.38222E-06	2.18756E-05	1.04956E-04	3.91570E-06	4.99078E-09	8.15985E-09	1.85519E-10	4.74496E-05	7.97178E-06
[16,1,1]	9.69379E-06	2.29784E-05	1.07699E-04	3.98973E-06	3.78526E-09	6.18315E-09	1.40444E-10	4.85445E-05	6.60281E-06
[17,1,1]	9.86389E-06	2.39600E-05	1.09649E-04	4.03753E-06	2.79623E-09	4.56443E-09	1.03604E-10	4.93421E-05	5.37229E-06
[18,1,1]	9.92770E-06	2.48320E-05	1.11093E-04	4.06864E-06	2.15235E-09	3.51238E-09	7.97120E-11	4.99505E-05	4.33798E-06
[19,1,1]	9.90322E-06	2.55892E-05	1.12112E-04	4.08598E-06	1.62396E-09	2.64910E-09	6.00936E-11	5.04023E-05	3.47092E-06
[20,1,1]	9.81481E-06	2.62231E-05	1.12772E-04	4.09181E-06	1.18446E-09	1.93144E-09	4.37959E-11	5.07228E-05	2.74435E-06
[21,1,1]	9.67913E-06	2.67495E-05	1.13192E-04	4.08999E-06	8.87198E-10	1.44659E-09	3.28022E-11	5.09555E-05	2.15624E-06
[22,1,1]	9.49016E-06	2.71888E-05	1.13465E-04	4.08360E-06	7.02707E-10	1.14658E-09	2.60144E-11	5.11355E-05	1.69664E-06
[1,2,1]	2.54354E-09	8.21840E-07	1.38153E-06	6.58730E-08	2.32082E-09	3.94861E-09	9.30363E-11	7.91041E-07	7.28123E-07
[2,2,1]	1.21737E-08	1.80642E-06	3.12016E-06	1.47874E-07	2.94709E-09	4.99593E-09	1.17148E-10	1.77702E-06	1.41100E-06
[3,2,1]	4.04613E-08	3.03240E-06	5.88360E-06	2.75395E-07	4.64466E-09	7.86243E-09	1.84268E-10	3.31004E-06	2.39846E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[4,2,1]	1.15201E-07	4.47306E-06	1.01302E-05	4.66145E-07	7.01247E-09	1.18396E-08	2.76948E-10	5.59922E-06	3.79450E-06
[5,2,1]	2.85451E-07	6.07294E-06	1.61939E-05	7.29781E-07	9.76822E-09	1.64385E-08	3.83568E-10	8.75609E-06	5.58112E-06
[6,2,1]	6.33360E-07	7.76792E-06	2.46533E-05	1.08388E-06	1.31742E-08	2.20900E-08	5.14027E-10	1.29845E-05	7.82760E-06
[7,2,1]	1.23642E-06	9.49961E-06	3.51283E-05	1.50472E-06	1.57665E-08	2.63308E-08	6.10650E-10	1.80007E-05	1.01289E-05
[8,2,1]	2.11413E-06	1.12296E-05	4.64980E-05	1.94292E-06	1.66158E-08	2.76409E-08	6.38809E-10	2.32256E-05	1.19334E-05
[9,2,1]	3.21820E-06	1.29202E-05	5.82967E-05	2.37943E-06	1.67305E-08	2.77360E-08	6.39051E-10	2.84392E-05	1.31844E-05
[10,2,1]	4.42699E-06	1.45572E-05	6.92635E-05	2.76973E-06	1.52122E-08	2.51371E-08	5.77358E-10	3.31259E-05	1.35690E-05
[11,2,1]	5.58388E-06	1.61279E-05	7.84936E-05	3.08625E-06	1.26537E-08	2.08510E-08	4.77595E-10	3.69691E-05	1.30586E-05
[12,2,1]	6.60583E-06	1.76169E-05	8.62715E-05	3.34375E-06	1.05381E-08	1.73292E-08	3.96178E-10	4.01414E-05	1.20807E-05
[13,2,1]	7.43531E-06	1.90131E-05	9.24427E-05	3.54093E-06	8.34291E-09	1.36947E-08	3.12514E-10	4.26280E-05	1.07614E-05
[14,2,1]	8.05534E-06	2.03073E-05	9.70607E-05	3.68251E-06	6.30073E-09	1.03271E-08	2.35314E-10	4.44823E-05	9.25514E-06
[15,2,1]	8.50213E-06	2.14995E-05	1.00645E-04	3.78757E-06	4.92649E-09	8.06798E-09	1.83708E-10	4.59232E-05	7.82048E-06
[16,2,1]	8.79218E-06	2.25818E-05	1.03317E-04	3.86134E-06	3.74850E-09	6.13373E-09	1.39543E-10	4.70092E-05	6.48998E-06
[17,2,1]	8.94776E-06	2.35435E-05	1.05207E-04	3.90882E-06	2.75856E-09	4.51063E-09	1.02542E-10	4.77966E-05	5.28487E-06
[18,2,1]	9.00430E-06	2.43969E-05	1.06608E-04	3.93991E-06	2.12586E-09	3.47530E-09	7.89987E-11	4.83979E-05	4.27105E-06
[19,2,1]	8.98467E-06	2.51358E-05	1.07598E-04	3.95747E-06	1.60521E-09	2.62329E-09	5.96089E-11	4.88452E-05	3.42014E-06
[20,2,1]	8.90508E-06	2.57539E-05	1.08240E-04	3.96366E-06	1.17036E-09	1.91195E-09	4.34264E-11	4.91624E-05	2.70581E-06
[21,2,1]	8.78328E-06	2.62686E-05	1.08655E-04	3.96247E-06	8.82380E-10	1.44144E-09	3.27422E-11	4.93949E-05	2.12875E-06
[22,2,1]	8.61381E-06	2.67024E-05	1.08935E-04	3.95697E-06	7.07199E-10	1.15607E-09	2.62752E-11	4.95776E-05	1.67940E-06
[1,3,1]	2.20352E-09	7.88545E-07	1.29631E-06	6.18572E-08	2.17938E-09	3.70823E-09	8.73768E-11	7.42884E-07	6.83807E-07
[2,3,1]	1.05761E-08	1.74080E-06	2.95620E-06	1.40289E-07	2.81807E-09	4.77829E-09	1.12066E-10	1.68610E-06	1.34107E-06
[3,3,1]	3.51414E-08	2.92778E-06	5.58908E-06	2.62201E-07	4.44016E-09	7.51872E-09	1.76252E-10	3.15223E-06	2.28809E-06
[4,3,1]	1.00771E-07	4.32513E-06	9.64255E-06	4.45226E-07	6.72800E-09	1.13651E-08	2.65947E-10	5.34997E-06	3.63296E-06
[5,3,1]	2.51042E-07	5.87731E-06	1.54439E-05	6.99334E-07	9.41391E-09	1.58539E-08	3.70126E-10	8.39526E-06	5.36500E-06
[6,3,1]	5.55550E-07	7.51899E-06	2.35294E-05	1.04118E-06	1.27187E-08	2.13470E-08	4.97101E-10	1.24818E-05	7.54571E-06
[7,3,1]	1.09070E-06	9.19175E-06	3.35805E-05	1.45013E-06	1.53197E-08	2.56164E-08	5.94664E-10	1.73629E-05	9.80811E-06
[8,3,1]	1.86944E-06	1.08551E-05	4.45352E-05	1.87890E-06	1.62515E-08	2.70754E-08	6.26502E-10	2.24831E-05	1.16140E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[9,3,1]	2.84867E-06	1.24711E-05	5.58693E-05	2.30597E-06	1.63679E-08	2.71825E-08	6.27207E-10	2.75932E-05	1.28682E-05
[10,3,1]	3.91115E-06	1.40267E-05	6.64030E-05	2.68876E-06	1.49200E-08	2.47039E-08	5.68379E-10	3.21989E-05	1.32771E-05
[11,3,1]	4.93620E-06	1.55129E-05	7.52916E-05	3.00072E-06	1.24669E-08	2.05895E-08	4.72527E-10	3.59941E-05	1.28144E-05
[12,3,1]	5.84157E-06	1.69171E-05	8.27841E-05	3.25509E-06	1.04051E-08	1.71526E-08	3.92977E-10	3.91339E-05	1.18841E-05
[13,3,1]	6.57363E-06	1.82312E-05	8.87260E-05	3.45008E-06	8.24566E-09	1.35704E-08	3.10385E-10	4.15971E-05	1.06062E-05
[14,3,1]	7.12472E-06	1.94472E-05	9.31760E-05	3.59041E-06	6.23820E-09	1.02528E-08	2.34185E-10	4.34372E-05	9.13691E-06
[15,3,1]	7.51751E-06	2.05681E-05	9.66199E-05	3.69436E-06	4.86857E-09	7.99578E-09	1.82516E-10	4.48641E-05	7.72756E-06
[16,3,1]	7.76725E-06	2.15854E-05	9.91828E-05	3.76732E-06	3.70028E-09	6.07250E-09	1.38505E-10	4.59385E-05	6.41618E-06
[17,3,1]	7.90711E-06	2.24915E-05	1.01004E-04	3.81464E-06	2.73300E-09	4.48226E-09	1.02168E-10	4.67207E-05	5.22992E-06
[18,3,1]	7.95900E-06	2.32958E-05	1.02347E-04	3.84552E-06	2.09894E-09	3.44167E-09	7.84414E-11	4.73158E-05	4.22782E-06
[19,3,1]	7.94285E-06	2.39955E-05	1.03297E-04	3.86306E-06	1.58581E-09	2.59940E-09	5.92224E-11	4.77585E-05	3.38652E-06
[20,3,1]	7.87459E-06	2.45817E-05	1.03915E-04	3.86943E-06	1.15803E-09	1.89749E-09	4.32141E-11	4.80731E-05	2.68036E-06
[21,3,1]	7.76558E-06	2.50710E-05	1.04314E-04	3.86852E-06	8.72706E-10	1.43005E-09	3.25718E-11	4.83038E-05	2.10939E-06
[22,3,1]	7.61790E-06	2.54869E-05	1.04589E-04	3.86352E-06	7.03946E-10	1.15423E-09	2.63046E-11	4.84870E-05	1.66597E-06
[1,4,1]	1.93622E-09	7.73418E-07	1.28164E-06	6.12251E-08	2.15722E-09	3.67089E-09	8.65037E-11	7.35385E-07	6.76939E-07
[2,4,1]	9.51205E-09	1.71573E-06	2.98522E-06	1.41937E-07	2.89807E-09	4.91564E-09	1.15327E-10	1.70624E-06	1.36184E-06
[3,4,1]	3.19823E-08	2.87581E-06	5.67340E-06	2.67047E-07	4.55429E-09	7.71566E-09	1.80930E-10	3.21164E-06	2.33861E-06
[4,4,1]	9.13168E-08	4.22406E-06	9.81370E-06	4.55532E-07	6.92514E-09	1.17075E-08	2.74119E-10	5.47708E-06	3.73073E-06
[5,4,1]	2.28135E-07	5.69756E-06	1.56957E-05	7.16252E-07	9.65714E-09	1.62825E-08	3.80450E-10	8.60622E-06	5.51122E-06
[6,4,1]	5.04583E-07	7.23472E-06	2.38474E-05	1.06648E-06	1.30305E-08	2.19055E-08	5.10708E-10	1.28016E-05	7.74998E-06
[7,4,1]	9.88888E-07	8.77785E-06	3.39272E-05	1.48514E-06	1.56827E-08	2.62780E-08	6.10979E-10	1.78119E-05	1.00728E-05
[8,4,1]	1.68978E-06	1.02890E-05	4.48340E-05	1.92277E-06	1.65871E-08	2.77042E-08	6.42297E-10	2.30550E-05	1.19158E-05
[9,4,1]	2.57414E-06	1.17423E-05	5.60634E-05	2.35810E-06	1.66808E-08	2.77833E-08	6.42545E-10	2.82838E-05	1.31922E-05
[10,4,1]	3.53012E-06	1.31281E-05	6.63904E-05	2.74526E-06	1.50932E-08	2.50714E-08	5.78321E-10	3.29631E-05	1.35745E-05
[11,4,1]	4.44865E-06	1.44415E-05	7.50605E-05	3.05977E-06	1.25707E-08	2.08335E-08	4.79480E-10	3.68087E-05	1.30710E-05
[12,4,1]	5.25645E-06	1.56762E-05	8.22956E-05	3.31396E-06	1.04101E-08	1.72240E-08	3.95799E-10	3.99652E-05	1.20805E-05
[13,4,1]	5.90518E-06	1.68276E-05	8.79894E-05	3.50740E-06	8.20009E-09	1.35469E-08	3.10823E-10	4.24263E-05	1.07431E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[14,4,1]	6.39441E-06	1.78919E-05	9.22443E-05	3.64629E-06	6.19559E-09	1.02230E-08	2.34273E-10	4.42628E-05	9.23052E-06
[15,4,1]	6.73763E-06	1.88737E-05	9.55094E-05	3.74814E-06	4.80353E-09	7.92027E-09	1.81392E-10	4.56763E-05	7.78196E-06
[16,4,1]	6.95623E-06	1.97670E-05	9.79271E-05	3.81910E-06	3.63819E-09	5.99462E-09	1.37191E-10	4.67365E-05	6.44227E-06
[17,4,1]	7.07426E-06	2.05659E-05	9.96384E-05	3.86473E-06	2.68153E-09	4.41574E-09	1.00996E-10	4.75066E-05	5.23786E-06
[18,4,1]	7.11691E-06	2.12796E-05	1.00901E-04	3.89438E-06	2.06247E-09	3.39577E-09	7.76645E-11	4.80938E-05	4.22654E-06
[19,4,1]	7.09982E-06	2.19027E-05	1.01785E-04	3.91068E-06	1.54817E-09	2.54812E-09	5.82555E-11	4.85275E-05	3.37751E-06
[20,4,1]	7.03516E-06	2.24300E-05	1.02358E-04	3.91619E-06	1.13335E-09	1.86478E-09	4.26185E-11	4.88369E-05	2.66911E-06
[21,4,1]	6.93704E-06	2.28736E-05	1.02725E-04	3.91457E-06	8.53345E-10	1.40405E-09	3.20911E-11	4.90635E-05	2.09758E-06
[22,4,1]	6.80691E-06	2.32497E-05	1.02964E-04	3.90857E-06	6.75422E-10	1.11183E-09	2.54226E-11	4.92392E-05	1.65062E-06
[1,5,1]	2.03769E-09	8.18938E-07	1.48257E-06	7.09161E-08	2.49840E-09	4.25190E-09	1.00207E-10	8.51895E-07	7.84184E-07
[2,5,1]	1.02295E-08	1.81347E-06	3.56601E-06	1.69918E-07	3.55008E-09	6.02390E-09	1.41392E-10	2.04299E-06	1.63866E-06
[3,5,1]	3.48631E-08	2.98889E-06	6.81426E-06	3.21982E-07	5.52911E-09	9.37196E-09	2.19857E-10	3.87381E-06	2.83107E-06
[4,5,1]	1.00418E-07	4.30042E-06	1.17495E-05	5.48762E-07	8.32476E-09	1.40860E-08	3.30022E-10	6.60276E-06	4.50256E-06
[5,5,1]	2.48651E-07	5.68227E-06	1.86431E-05	8.58486E-07	1.14638E-08	1.93541E-08	4.52653E-10	1.03272E-05	6.60138E-06
[6,5,1]	5.45824E-07	7.07467E-06	2.78796E-05	1.26268E-06	1.50406E-08	2.53307E-08	5.91320E-10	1.51831E-05	9.12434E-06
[7,5,1]	1.05176E-06	8.43224E-06	3.89538E-05	1.73331E-06	1.76416E-08	2.96297E-08	6.90061E-10	2.08376E-05	1.16316E-05
[8,5,1]	1.77355E-06	9.73114E-06	5.06337E-05	2.21447E-06	1.82547E-08	3.05746E-08	7.10278E-10	2.66311E-05	1.35170E-05
[9,5,1]	2.65906E-06	1.09614E-05	6.21828E-05	2.67508E-06	1.77014E-08	2.95732E-08	6.85452E-10	3.21991E-05	1.46283E-05
[10,5,1]	3.60348E-06	1.21221E-05	7.25343E-05	3.07450E-06	1.56381E-08	2.60616E-08	6.02624E-10	3.70648E-05	1.47539E-05
[11,5,1]	4.49317E-06	1.32123E-05	8.10689E-05	3.39286E-06	1.27981E-08	2.12821E-08	4.91061E-10	4.09957E-05	1.39763E-05
[12,5,1]	5.26852E-06	1.42312E-05	8.80138E-05	3.64316E-06	1.03476E-08	1.71780E-08	3.95750E-10	4.41440E-05	1.27067E-05
[13,5,1]	5.88262E-06	1.51765E-05	9.33789E-05	3.82942E-06	8.00710E-09	1.32722E-08	3.05306E-10	4.65549E-05	1.11346E-05
[14,5,1]	6.33901E-06	1.60477E-05	9.73655E-05	3.96175E-06	6.01335E-09	9.95529E-09	2.28736E-10	4.83448E-05	9.46051E-06
[15,5,1]	6.66032E-06	1.68494E-05	1.00383E-04	4.05679E-06	4.60835E-09	7.62326E-09	1.75040E-10	4.97064E-05	7.89370E-06
[16,5,1]	6.85812E-06	1.75802E-05	1.02590E-04	4.12140E-06	3.45808E-09	5.71616E-09	1.31152E-10	5.07179E-05	6.47434E-06
[17,5,1]	6.95831E-06	1.82384E-05	1.04150E-04	4.16213E-06	2.55135E-09	4.21479E-09	9.66501E-11	5.14542E-05	5.22776E-06
[18,5,1]	6.98915E-06	1.88293E-05	1.05274E-04	4.18693E-06	1.93510E-09	3.19594E-09	7.32748E-11	5.20069E-05	4.18630E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[19,5,1]	6.96240E-06	1.93502E-05	1.06050E-04	4.19910E-06	1.44544E-09	2.38634E-09	5.46921E-11	5.24137E-05	3.32258E-06
[20,5,1]	6.89441E-06	1.97980E-05	1.06550E-04	4.20145E-06	1.06269E-09	1.75401E-09	4.01896E-11	5.27063E-05	2.61274E-06
[21,5,1]	6.79571E-06	2.01797E-05	1.06859E-04	4.19705E-06	7.95276E-10	1.31254E-09	3.00738E-11	5.29201E-05	2.04325E-06
[22,5,1]	6.66814E-06	2.05029E-05	1.07040E-04	4.18811E-06	6.11195E-10	1.00895E-09	2.31218E-11	5.30805E-05	1.59525E-06

Table 26. Number densities for Case-1B, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1]	1.35964E-06	2.36996E-08	1.80209E-07	1.70410E-08	1.07781E-08	2.14343E-13	3.64563E-12
[2,1,1]	3.02572E-06	2.99893E-08	2.77113E-07	2.18132E-08	3.15783E-08	4.27174E-13	1.92786E-11
[3,1,1]	5.59383E-06	4.68014E-08	4.42031E-07	3.48194E-08	7.98353E-08	1.01665E-12	7.96513E-11
[4,1,1]	9.43708E-06	7.08547E-08	6.95898E-07	5.42734E-08	1.85876E-07	2.29248E-12	2.93822E-10
[5,1,1]	1.47092E-05	9.83290E-08	1.02257E-06	7.80097E-08	3.90479E-07	4.56769E-12	9.34073E-10
[6,1,1]	2.17465E-05	1.32273E-07	1.45462E-06	1.09303E-07	7.61307E-07	8.56914E-12	2.61541E-09
[7,1,1]	3.00462E-05	1.57788E-07	1.86965E-06	1.36211E-07	1.33309E-06	1.38130E-11	6.22935E-09
[8,1,1]	3.86020E-05	1.65236E-07	2.12468E-06	1.48859E-07	2.06802E-06	1.86981E-11	1.22963E-08
[9,1,1]	4.70509E-05	1.65218E-07	2.26727E-06	1.55077E-07	2.93944E-06	2.31615E-11	2.08764E-08
[10,1,1]	5.45592E-05	1.49355E-07	2.20240E-06	1.45371E-07	3.83396E-06	2.49349E-11	3.09981E-08
[11,1,1]	6.06453E-05	1.23740E-07	1.95383E-06	1.24154E-07	4.64522E-06	2.36947E-11	4.08976E-08
[12,1,1]	6.56192E-05	1.02736E-07	1.68761E-06	1.05747E-07	5.36976E-06	2.18101E-11	4.97151E-08
[13,1,1]	6.94700E-05	8.12209E-08	1.39170E-06	8.52713E-08	5.97121E-06	1.86488E-11	5.65878E-08
[14,1,1]	7.22924E-05	6.12673E-08	1.09261E-06	6.53057E-08	6.43727E-06	1.49568E-11	6.11900E-08
[15,1,1]	7.44424E-05	4.77557E-08	8.61617E-07	5.15279E-08	6.80954E-06	1.21404E-11	6.38625E-08
[16,1,1]	7.60160E-05	3.62223E-08	6.66377E-07	3.94326E-08	7.09795E-06	9.52279E-12	6.47257E-08
[17,1,1]	7.71172E-05	2.67610E-08	5.02192E-07	2.93083E-08	7.31033E-06	7.20908E-12	6.41764E-08
[18,1,1]	7.79186E-05	2.05858E-08	3.85184E-07	2.26644E-08	7.47368E-06	5.63012E-12	6.26922E-08
[19,1,1]	7.84718E-05	1.55343E-08	2.93013E-07	1.71617E-08	7.59602E-06	4.29829E-12	6.04670E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[20,1,1]	7.88169E-05	1.13337E-08	2.17154E-07	1.25450E-08	7.68273E-06	3.17265E-12	5.77168E-08
[21,1,1]	7.90236E-05	8.48620E-09	1.62280E-07	9.41238E-09	7.74642E-06	2.38242E-12	5.46246E-08
[22,1,1]	7.91473E-05	6.71904E-09	1.25870E-07	7.44166E-09	7.79838E-06	1.82787E-12	5.12070E-08
[1,2,1]	1.27298E-06	2.21858E-08	1.68574E-07	1.59432E-08	9.88508E-09	1.96365E-13	3.09864E-12
[2,2,1]	2.84961E-06	2.83585E-08	2.61220E-07	2.06004E-08	2.89749E-08	3.91269E-13	1.66504E-11
[3,2,1]	5.30039E-06	4.46152E-08	4.19650E-07	3.31199E-08	7.34453E-08	9.34169E-13	6.88370E-11
[4,2,1]	8.95513E-06	6.73305E-08	6.58828E-07	5.13973E-08	1.70467E-07	2.09090E-12	2.54433E-10
[5,2,1]	1.39860E-05	9.37587E-08	9.69260E-07	7.40354E-08	3.58177E-07	4.16960E-12	8.04953E-10
[6,2,1]	2.07129E-05	1.26356E-07	1.37958E-06	1.03788E-07	6.98704E-07	7.81858E-12	2.25592E-09
[7,2,1]	2.86708E-05	1.51188E-07	1.77521E-06	1.29509E-07	1.22443E-06	1.25854E-11	5.36085E-09
[8,2,1]	3.69288E-05	1.59329E-07	2.02518E-06	1.42202E-07	1.90435E-06	1.70939E-11	1.06041E-08
[9,2,1]	4.51389E-05	1.60335E-07	2.17052E-06	1.48831E-07	2.71520E-06	2.12621E-11	1.80961E-08
[10,2,1]	5.24809E-05	1.45793E-07	2.11706E-06	1.40109E-07	3.55359E-06	2.29498E-11	2.68874E-08
[11,2,1]	5.84589E-05	1.21288E-07	1.88364E-06	1.19991E-07	4.31577E-06	2.18740E-11	3.56361E-08
[12,2,1]	6.33577E-05	1.00944E-07	1.62979E-06	1.02338E-07	4.99814E-06	2.01533E-11	4.34409E-08
[13,2,1]	6.71571E-05	7.99185E-08	1.34504E-06	8.25599E-08	5.56574E-06	1.72410E-11	4.95263E-08
[14,2,1]	6.99466E-05	6.03626E-08	1.05656E-06	6.32637E-08	6.00553E-06	1.38155E-11	5.36033E-08
[15,2,1]	7.20776E-05	4.71640E-08	8.34308E-07	5.00067E-08	6.35913E-06	1.12514E-11	5.59591E-08
[16,2,1]	7.36436E-05	3.58893E-08	6.46654E-07	3.83709E-08	6.63285E-06	8.83555E-12	5.67507E-08
[17,2,1]	7.47345E-05	2.64162E-08	4.86426E-07	2.84096E-08	6.83483E-06	6.67352E-12	5.62470E-08
[18,2,1]	7.55305E-05	2.03439E-08	3.73072E-07	2.19887E-08	6.98964E-06	5.20794E-12	5.49523E-08
[19,2,1]	7.60819E-05	1.53636E-08	2.83798E-07	1.66523E-08	7.10625E-06	3.97550E-12	5.29845E-08
[20,2,1]	7.64273E-05	1.12057E-08	2.10306E-07	1.21707E-08	7.18916E-06	2.93202E-12	5.05592E-08
[21,2,1]	7.66388E-05	8.44444E-09	1.57802E-07	9.18880E-09	7.25034E-06	2.21382E-12	4.78580E-08
[22,2,1]	7.67718E-05	6.76513E-09	1.23579E-07	7.35353E-09	7.30129E-06	1.72759E-12	4.48746E-08
[1,3,1]	1.19550E-06	2.08341E-08	1.58138E-07	1.49595E-08	9.01011E-09	1.78797E-13	2.52581E-12
[2,3,1]	2.70399E-06	2.71149E-08	2.48468E-07	1.96583E-08	2.63947E-08	3.55614E-13	1.38536E-11

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[3,3,1]	5.04807E-06	4.26544E-08	3.99321E-07	3.15491E-08	6.64451E-08	8.39345E-13	5.73995E-11
[4,3,1]	8.55739E-06	6.46063E-08	6.27636E-07	4.90446E-08	1.53736E-07	1.87382E-12	2.10534E-10
[5,3,1]	1.34117E-05	9.03731E-08	9.24861E-07	7.07999E-08	3.22585E-07	3.73126E-12	6.69603E-10
[6,3,1]	1.99150E-05	1.22019E-07	1.31539E-06	9.91629E-08	6.28505E-07	6.96897E-12	1.86757E-09
[7,3,1]	2.76624E-05	1.46948E-07	1.69697E-06	1.24187E-07	1.10304E-06	1.12340E-11	4.43623E-09
[8,3,1]	3.57602E-05	1.55893E-07	1.94238E-06	1.36881E-07	1.72052E-06	1.52937E-11	8.78250E-09
[9,3,1]	4.38136E-05	1.56941E-07	2.07895E-06	1.42893E-07	2.45621E-06	1.89473E-11	1.49556E-08
[10,3,1]	5.10356E-05	1.43074E-07	2.02686E-06	1.34513E-07	3.21788E-06	2.04390E-11	2.22370E-08
[11,3,1]	5.69462E-05	1.19572E-07	1.80612E-06	1.15477E-07	3.91446E-06	1.95208E-11	2.94908E-08
[12,3,1]	6.18017E-05	9.97412E-08	1.56367E-06	9.85270E-08	4.54053E-06	1.79978E-11	3.59403E-08
[13,3,1]	6.55717E-05	7.90491E-08	1.29037E-06	7.94639E-08	5.06274E-06	1.54026E-11	4.09618E-08
[14,3,1]	6.83455E-05	5.98128E-08	1.01404E-06	6.09367E-08	5.46797E-06	1.23432E-11	4.43400E-08
[15,3,1]	7.04604E-05	4.66512E-08	7.99443E-07	4.80466E-08	5.79335E-06	1.00457E-11	4.63082E-08
[16,3,1]	7.20134E-05	3.54594E-08	6.18509E-07	3.67980E-08	6.04433E-06	7.86679E-12	4.69760E-08
[17,3,1]	7.31012E-05	2.61941E-08	4.65963E-07	2.73334E-08	6.22831E-06	5.94571E-12	4.66402E-08
[18,3,1]	7.38918E-05	2.01057E-08	3.56684E-07	2.10787E-08	6.37097E-06	4.64281E-12	4.55665E-08
[19,3,1]	7.44402E-05	1.51919E-08	2.71331E-07	1.59775E-08	6.47849E-06	3.54234E-12	4.39285E-08
[20,3,1]	7.47854E-05	1.10972E-08	2.01220E-07	1.16916E-08	6.55504E-06	2.61756E-12	4.19214E-08
[21,3,1]	7.49978E-05	8.35987E-09	1.50950E-07	8.82101E-09	6.61137E-06	1.97915E-12	3.96983E-08
[22,3,1]	7.51353E-05	6.73957E-09	1.18744E-07	7.10647E-09	6.65817E-06	1.55679E-12	3.72553E-08
[1,4,1]	1.18348E-06	2.06229E-08	1.56286E-07	1.47899E-08	8.52331E-09	1.68940E-13	2.14421E-12
[2,4,1]	2.73666E-06	2.78797E-08	2.53076E-07	2.01550E-08	2.50905E-08	3.37844E-13	1.17027E-11
[3,4,1]	5.14393E-06	4.37573E-08	4.06752E-07	3.21882E-08	6.24120E-08	7.79347E-13	4.81886E-11
[4,4,1]	8.76236E-06	6.65127E-08	6.38991E-07	5.00493E-08	1.42899E-07	1.71976E-12	1.75953E-10
[5,4,1]	1.37520E-05	9.27399E-08	9.35223E-07	7.17300E-08	2.96790E-07	3.37643E-12	5.49103E-10
[6,4,1]	2.04319E-05	1.25067E-07	1.32144E-06	9.98915E-08	5.73392E-07	6.24410E-12	1.52638E-09
[7,4,1]	2.83894E-05	1.50518E-07	1.69423E-06	1.24405E-07	1.00052E-06	9.98294E-12	3.59990E-09

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[8,4,1]	3.66883E-05	1.59230E-07	1.92502E-06	1.36108E-07	1.55339E-06	1.34858E-11	7.11901E-09
[9,4,1]	4.49368E-05	1.60077E-07	2.04820E-06	1.41333E-07	2.21229E-06	1.66483E-11	1.20926E-08
[10,4,1]	5.22814E-05	1.44881E-07	1.97872E-06	1.31677E-07	2.89145E-06	1.78367E-11	1.79408E-08
[11,4,1]	5.82769E-05	1.20695E-07	1.75235E-06	1.12437E-07	3.51317E-06	1.69906E-11	2.37482E-08
[12,4,1]	6.31626E-05	9.99056E-08	1.50440E-06	9.50332E-08	4.06864E-06	1.55747E-11	2.89146E-08
[13,4,1]	6.69318E-05	7.87055E-08	1.23244E-06	7.61065E-08	4.53129E-06	1.32622E-11	3.28598E-08
[14,4,1]	6.97014E-05	5.94746E-08	9.65060E-07	5.82439E-08	4.89177E-06	1.06453E-11	3.55186E-08
[15,4,1]	7.17958E-05	4.60854E-08	7.56452E-07	4.56073E-08	5.17836E-06	8.61055E-12	3.70748E-08
[16,4,1]	7.33260E-05	3.49072E-08	5.82747E-07	3.48019E-08	5.39823E-06	6.72454E-12	3.76107E-08
[17,4,1]	7.43939E-05	2.57326E-08	4.37782E-07	2.57939E-08	5.56038E-06	5.08308E-12	3.73151E-08
[18,4,1]	7.51707E-05	1.97799E-08	3.35061E-07	1.99158E-08	5.68642E-06	3.97158E-12	3.64345E-08
[19,4,1]	7.57035E-05	1.48504E-08	2.53724E-07	1.49944E-08	5.78069E-06	3.01375E-12	3.51099E-08
[20,4,1]	7.60386E-05	1.08738E-08	1.88210E-07	1.10015E-08	5.84814E-06	2.23209E-12	3.35000E-08
[21,4,1]	7.62426E-05	8.18431E-09	1.41136E-07	8.29392E-09	5.89775E-06	1.68742E-12	3.17178E-08
[22,4,1]	7.63661E-05	6.47526E-09	1.09633E-07	6.55882E-09	5.93717E-06	1.31177E-12	2.97876E-08
[1,5,1]	1.37119E-06	2.38859E-08	1.80634E-07	1.71048E-08	9.33879E-09	1.84855E-13	2.14133E-12
[2,5,1]	3.27776E-06	3.41436E-08	3.06038E-07	2.46033E-08	2.78345E-08	3.75926E-13	1.18564E-11
[3,5,1]	6.20624E-06	5.31349E-08	4.90089E-07	3.88395E-08	6.79719E-08	8.35343E-13	4.84801E-11
[4,5,1]	1.05665E-05	7.99816E-08	7.60053E-07	5.95731E-08	1.52000E-07	1.78760E-12	1.72454E-10
[5,5,1]	1.65078E-05	1.10142E-07	1.09345E-06	8.39304E-08	3.08591E-07	3.41908E-12	5.31521E-10
[6,5,1]	2.42421E-05	1.44464E-07	1.49764E-06	1.13065E-07	5.79945E-07	6.09364E-12	1.43778E-09
[7,5,1]	3.32264E-05	1.69467E-07	1.86159E-06	1.36545E-07	9.87926E-07	9.47418E-12	3.30470E-09
[8,5,1]	4.24004E-05	1.75413E-07	2.05973E-06	1.45572E-07	1.50707E-06	1.25532E-11	6.40222E-09
[9,5,1]	5.11847E-05	1.70079E-07	2.11473E-06	1.45361E-07	2.10687E-06	1.50563E-11	1.07200E-08
[10,5,1]	5.88203E-05	1.50290E-07	1.98863E-06	1.32031E-07	2.71696E-06	1.58938E-11	1.57006E-08
[11,5,1]	6.49444E-05	1.23022E-07	1.72694E-06	1.10725E-07	3.27112E-06	1.50089E-11	2.06046E-08
[12,5,1]	6.98085E-05	9.94284E-08	1.45044E-06	9.13977E-08	3.75743E-06	1.35397E-11	2.49030E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[13,5,1]	7.34885E-05	7.69430E-08	1.16707E-06	7.19475E-08	4.15744E-06	1.14174E-11	2.81764E-08
[14,5,1]	7.61742E-05	5.77840E-08	9.05788E-07	5.47692E-08	4.47001E-06	9.16171E-12	3.03521E-08
[15,5,1]	7.81754E-05	4.42598E-08	7.02764E-07	4.24127E-08	4.71668E-06	7.35725E-12	3.15908E-08
[16,5,1]	7.96173E-05	3.32132E-08	5.36604E-07	3.20877E-08	4.90587E-06	5.72565E-12	3.19537E-08
[17,5,1]	8.06201E-05	2.45047E-08	4.02376E-07	2.38169E-08	5.04633E-06	4.34362E-12	3.16354E-08
[18,5,1]	8.13308E-05	1.85777E-08	3.05053E-07	1.81439E-08	5.15281E-06	3.35044E-12	3.08599E-08
[19,5,1]	8.18088E-05	1.38777E-08	2.29632E-07	1.36009E-08	5.23242E-06	2.54061E-12	2.97156E-08
[20,5,1]	8.21054E-05	1.02042E-08	1.70460E-07	1.00201E-08	5.28958E-06	1.88903E-12	2.83511E-08
[21,5,1]	8.22771E-05	7.63454E-09	1.27375E-07	7.51071E-09	5.33166E-06	1.42200E-12	2.68365E-08
[22,5,1]	8.23641E-05	5.86605E-09	9.69689E-08	5.77246E-09	5.36396E-06	1.08096E-12	2.52030E-08

Table 27. Number densities for Case-1B, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1]	1.94224E-09	2.84219E-07	1.29092E-10	1.64988E-10	6.38610E-10	2.38548E-11
[2,1,1]	3.63944E-09	4.22757E-07	1.66425E-10	2.08999E-10	8.04654E-10	2.99352E-11
[3,1,1]	5.98651E-09	6.65802E-07	2.68671E-10	3.33540E-10	1.27433E-09	4.71574E-11
[4,1,1]	9.51016E-09	1.03673E-06	4.24623E-10	5.18460E-10	1.96120E-09	7.20633E-11
[5,1,1]	1.42144E-08	1.50233E-06	6.19607E-10	7.42548E-10	2.77651E-09	1.01176E-10
[6,1,1]	2.04541E-08	2.10820E-06	8.81393E-10	1.03698E-09	3.82894E-09	1.38252E-10
[7,1,1]	2.70316E-08	2.66764E-06	1.11316E-09	1.28705E-09	4.69291E-09	1.67887E-10
[8,1,1]	3.20029E-08	2.98258E-06	1.22935E-09	1.40103E-09	5.05105E-09	1.79198E-10
[9,1,1]	3.52250E-08	3.14183E-06	1.29144E-09	1.45551E-09	5.19522E-09	1.82946E-10
[10,1,1]	3.56206E-08	3.01239E-06	1.21807E-09	1.36021E-09	4.81451E-09	1.68478E-10
[11,1,1]	3.30799E-08	2.63832E-06	1.04497E-09	1.15859E-09	4.07349E-09	1.41835E-10
[12,1,1]	2.93570E-08	2.26046E-06	8.93283E-10	9.85652E-10	3.44687E-09	1.19529E-10
[13,1,1]	2.49127E-08	1.84996E-06	7.22125E-10	7.93502E-10	2.76354E-09	9.55344E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[14,1,1]	2.01888E-08	1.44116E-06	5.54054E-10	6.06842E-10	2.10689E-09	7.26634E-11
[15,1,1]	1.61046E-08	1.13313E-06	4.37883E-10	4.78787E-10	1.65830E-09	5.70870E-11
[16,1,1]	1.26210E-08	8.73525E-07	3.35467E-10	3.66093E-10	1.26568E-09	4.35091E-11
[17,1,1]	9.67470E-09	6.55749E-07	2.49497E-10	2.71906E-10	9.38916E-10	3.22472E-11
[18,1,1]	7.41875E-09	5.03004E-07	1.93087E-10	2.10352E-10	7.25638E-10	2.49031E-11
[19,1,1]	5.66341E-09	3.82311E-07	1.46272E-10	1.59206E-10	5.48809E-10	1.88235E-11
[20,1,1]	4.25285E-09	2.82465E-07	1.06936E-10	1.16303E-10	4.00753E-10	1.37412E-11
[21,1,1]	3.18507E-09	2.11012E-07	8.02700E-11	8.72886E-11	3.00646E-10	1.03050E-11
[22,1,1]	2.43210E-09	1.64286E-07	6.34278E-11	6.90781E-11	2.38063E-10	8.16345E-12
[1,2,1]	1.81686E-09	2.65932E-07	1.20737E-10	1.54368E-10	5.97627E-10	2.23272E-11
[2,2,1]	3.42603E-09	3.98783E-07	1.57065E-10	1.97420E-10	7.60431E-10	2.82993E-11
[3,2,1]	5.67366E-09	6.32755E-07	2.55279E-10	3.17340E-10	1.21338E-09	4.49259E-11
[4,2,1]	9.00569E-09	9.82570E-07	4.01499E-10	4.91114E-10	1.85989E-09	6.83958E-11
[5,2,1]	1.34706E-08	1.42607E-06	5.86935E-10	7.04995E-10	2.64005E-09	9.63070E-11
[6,2,1]	1.93952E-08	2.00271E-06	8.35228E-10	9.85084E-10	3.64381E-09	1.31737E-10
[7,2,1]	2.56569E-08	2.53749E-06	1.05617E-09	1.22435E-09	4.47369E-09	1.60289E-10
[8,2,1]	3.04665E-08	2.84874E-06	1.17192E-09	1.33917E-09	4.83945E-09	1.71988E-10
[9,2,1]	3.36629E-08	3.01443E-06	1.23679E-09	1.39779E-09	5.00239E-09	1.76499E-10
[10,2,1]	3.41723E-08	2.90238E-06	1.17142E-09	1.31187E-09	4.65690E-09	1.63314E-10
[11,2,1]	3.18332E-08	2.54955E-06	1.00764E-09	1.12054E-09	3.95197E-09	1.37925E-10
[12,2,1]	2.83118E-08	2.18810E-06	8.62474E-10	9.54562E-10	3.34907E-09	1.16425E-10
[13,2,1]	2.40558E-08	1.79204E-06	6.97481E-10	7.68838E-10	2.68684E-09	9.31242E-11
[14,2,1]	1.95099E-08	1.39676E-06	5.35409E-10	5.88315E-10	2.04981E-09	7.08855E-11
[15,2,1]	1.55802E-08	1.09982E-06	4.23879E-10	4.65025E-10	1.61651E-09	5.58040E-11
[16,2,1]	1.22308E-08	8.49867E-07	3.25568E-10	3.56537E-10	1.23729E-09	4.26570E-11
[17,2,1]	9.37253E-09	6.36555E-07	2.41206E-10	2.63763E-10	9.14225E-10	3.14902E-11
[18,2,1]	7.18579E-09	4.88278E-07	1.86837E-10	2.04248E-10	7.07261E-10	2.43435E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[19,2,1]	5.48512E-09	3.71170E-07	1.41532E-10	1.54610E-10	5.35077E-10	1.84088E-11
[20,2,1]	4.11861E-09	2.74195E-07	1.03465E-10	1.12926E-10	3.90628E-10	1.34343E-11
[21,2,1]	3.09130E-09	2.05764E-07	7.81451E-11	8.52951E-11	2.94944E-10	1.01406E-11
[22,2,1]	2.37562E-09	1.61867E-07	6.25091E-11	6.83282E-11	2.36389E-10	8.13044E-12
[1,3,1]	1.70437E-09	2.49548E-07	1.13238E-10	1.44854E-10	5.60959E-10	2.09615E-11
[2,3,1]	3.25081E-09	3.79728E-07	1.49727E-10	1.88456E-10	7.26425E-10	2.70474E-11
[3,3,1]	5.39581E-09	6.02911E-07	2.42730E-10	3.02387E-10	1.15767E-09	4.29015E-11
[4,3,1]	8.57645E-09	9.37811E-07	3.82125E-10	4.68870E-10	1.77900E-09	6.55095E-11
[5,3,1]	1.28483E-08	1.36414E-06	5.59398E-10	6.74643E-10	2.53292E-09	9.25723E-11
[6,3,1]	1.84950E-08	1.91517E-06	7.94837E-10	9.41961E-10	3.49578E-09	1.26690E-10
[7,3,1]	2.45119E-08	2.43407E-06	1.00833E-09	1.17520E-09	4.31105E-09	1.54914E-10
[8,3,1]	2.91902E-08	2.74271E-06	1.12288E-09	1.29050E-09	4.68451E-09	1.67042E-10
[9,3,1]	3.22477E-08	2.89834E-06	1.18170E-09	1.34358E-09	4.83256E-09	1.71154E-10
[10,3,1]	3.27251E-08	2.78987E-06	1.11903E-09	1.26110E-09	4.50113E-09	1.58509E-10
[11,3,1]	3.05118E-08	2.45509E-06	9.64770E-10	1.07989E-09	3.83077E-09	1.34293E-10
[12,3,1]	2.71554E-08	2.10863E-06	8.25951E-10	9.20337E-10	3.24880E-09	1.13476E-10
[13,3,1]	2.30780E-08	1.72690E-06	6.67700E-10	7.41095E-10	2.60629E-09	9.07784E-11
[14,3,1]	1.87229E-08	1.34671E-06	5.12877E-10	5.67539E-10	1.99029E-09	6.91781E-11
[15,3,1]	1.49398E-08	1.05861E-06	4.04988E-10	4.47468E-10	1.56577E-09	5.43336E-11
[16,3,1]	1.17120E-08	8.16511E-07	3.10455E-10	3.42448E-10	1.19641E-09	4.14667E-11
[17,3,1]	8.97738E-09	6.12727E-07	2.30745E-10	2.54185E-10	8.87026E-10	3.07180E-11
[18,3,1]	6.87607E-09	4.69003E-07	1.78074E-10	1.96096E-10	6.83682E-10	2.36597E-11
[19,3,1]	5.24637E-09	3.56530E-07	1.35037E-10	1.48579E-10	5.17667E-10	1.79048E-11
[20,3,1]	3.94018E-09	2.63621E-07	9.88295E-11	1.08654E-10	3.78409E-10	1.30843E-11
[21,3,1]	2.95727E-09	1.97757E-07	7.45864E-11	8.20113E-11	2.85539E-10	9.87099E-12
[22,3,1]	2.27829E-09	1.56338E-07	6.00694E-11	6.61432E-11	2.30381E-10	7.96645E-12
[1,4,1]	1.68443E-09	2.46743E-07	1.11883E-10	1.43229E-10	5.54902E-10	2.07410E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[2,4,1]	3.29385E-09	3.87486E-07	1.53275E-10	1.93334E-10	7.46015E-10	2.77971E-11
[3,4,1]	5.49070E-09	6.15380E-07	2.46966E-10	3.08661E-10	1.18394E-09	4.39326E-11
[4,4,1]	8.73165E-09	9.57547E-07	3.88314E-10	4.78862E-10	1.82238E-09	6.72495E-11
[5,4,1]	1.30142E-08	1.38458E-06	5.63521E-10	6.84235E-10	2.57987E-09	9.45750E-11
[6,4,1]	1.86200E-08	1.93307E-06	7.95017E-10	9.50210E-10	3.54602E-09	1.29032E-10
[7,4,1]	2.45312E-08	2.44380E-06	1.00181E-09	1.17928E-09	4.35558E-09	1.57306E-10
[8,4,1]	2.90188E-08	2.73500E-06	1.10650E-09	1.28569E-09	4.70386E-09	1.68725E-10
[9,4,1]	3.18698E-08	2.87444E-06	1.15776E-09	1.33175E-09	4.83157E-09	1.72248E-10
[10,4,1]	3.20904E-08	2.74173E-06	1.08484E-09	1.23721E-09	4.45649E-09	1.58047E-10
[11,4,1]	2.97286E-08	2.39829E-06	9.30263E-10	1.05389E-09	3.77409E-09	1.33281E-10
[12,4,1]	2.62607E-08	2.04238E-06	7.88913E-10	8.89754E-10	3.17136E-09	1.11612E-10
[13,4,1]	2.21581E-08	1.66050E-06	6.33320E-10	7.11461E-10	2.52658E-09	8.86806E-11
[14,4,1]	1.78892E-08	1.29068E-06	4.85512E-10	5.43791E-10	1.92578E-09	6.74576E-11
[15,4,1]	1.41981E-08	1.00863E-06	3.80793E-10	4.25760E-10	1.50441E-09	5.26104E-11
[16,4,1]	1.10783E-08	7.74710E-07	2.90864E-10	3.24655E-10	1.14532E-09	4.00051E-11
[17,4,1]	8.46117E-09	5.79757E-07	2.15724E-10	2.40454E-10	8.47282E-10	2.95699E-11
[18,4,1]	6.46974E-09	4.43870E-07	1.66687E-10	1.85741E-10	6.53900E-10	2.28057E-11
[19,4,1]	4.92010E-09	3.35771E-07	1.25544E-10	1.39771E-10	4.91752E-10	1.71422E-11
[20,4,1]	3.69028E-09	2.48434E-07	9.21351E-11	1.02499E-10	3.60450E-10	1.25608E-11
[21,4,1]	2.76745E-09	1.86306E-07	6.94869E-11	7.73003E-11	2.71740E-10	9.46691E-12
[22,4,1]	2.11622E-09	1.45265E-07	5.49369E-11	6.11786E-11	2.15128E-10	7.49602E-12
[1,5,1]	1.94687E-09	2.85368E-07	1.29314E-10	1.65675E-10	6.42179E-10	2.40076E-11
[2,5,1]	3.95309E-09	4.69723E-07	1.86813E-10	2.36197E-10	9.12474E-10	3.40214E-11
[3,5,1]	6.61125E-09	7.43177E-07	2.97091E-10	3.72649E-10	1.43248E-09	5.32266E-11
[4,5,1]	1.04154E-08	1.14230E-06	4.59961E-10	5.70491E-10	2.17865E-09	8.05808E-11
[5,5,1]	1.52912E-08	1.62523E-06	6.54861E-10	8.01625E-10	3.03761E-09	1.11737E-10
[6,5,1]	2.12957E-08	2.20105E-06	8.91890E-10	1.07720E-09	4.04675E-09	1.47947E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[7,5,1]	2.72529E-08	2.69994E-06	1.08809E-09	1.29686E-09	4.82882E-09	1.75426E-10
[8,5,1]	3.14107E-08	2.94431E-06	1.16999E-09	1.37815E-09	5.08831E-09	1.83748E-10
[9,5,1]	3.34194E-08	2.98490E-06	1.17680E-09	1.37274E-09	5.02860E-09	1.80578E-10
[10,5,1]	3.27458E-08	2.77154E-06	1.07518E-09	1.24351E-09	4.52321E-09	1.61616E-10
[11,5,1]	2.96986E-08	2.37776E-06	9.05845E-10	1.04042E-09	3.76195E-09	1.33848E-10
[12,5,1]	2.56870E-08	1.98015E-06	7.50629E-10	8.57726E-10	3.08583E-09	1.09398E-10
[13,5,1]	2.12731E-08	1.58099E-06	5.92641E-10	6.74173E-10	2.41567E-09	8.53908E-11
[14,5,1]	1.69613E-08	1.21868E-06	4.52149E-10	5.12617E-10	1.83103E-09	6.45796E-11
[15,5,1]	1.33131E-08	9.42580E-07	3.50804E-10	3.96871E-10	1.41408E-09	4.97851E-11
[16,5,1]	1.02870E-08	7.17524E-07	2.65765E-10	3.00036E-10	1.06703E-09	3.75147E-11
[17,5,1]	7.81577E-09	5.36294E-07	1.97452E-10	2.22572E-10	7.90449E-10	2.77634E-11
[18,5,1]	5.93069E-09	4.06453E-07	1.50552E-10	1.69590E-10	6.01646E-10	2.11156E-11
[19,5,1]	4.48000E-09	3.05660E-07	1.12930E-10	1.27073E-10	4.50434E-10	1.57984E-11
[20,5,1]	3.35149E-09	2.26481E-07	8.32197E-11	9.35846E-11	3.31577E-10	1.16261E-11
[21,5,1]	2.50552E-09	1.69212E-07	6.24058E-11	7.01603E-11	2.48475E-10	8.70944E-12
[22,5,1]	1.89182E-09	1.29062E-07	4.79623E-11	5.39448E-11	1.91052E-10	6.69655E-12

Table 28. Axial flux distribution for Case-1B.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	Value	Statistical error	Value	Statistical error
1.55E+02	8.26E+12	1.33E-03	6.76E+12	1.35E-03
1.65E+02	7.77E+12	1.29E-03	8.64E+12	1.28E-03
1.75E+02	7.80E+12	1.25E-03	1.00E+13	1.21E-03
1.85E+02	8.10E+12	1.20E-03	1.11E+13	1.16E-03
1.95E+02	8.57E+12	1.16E-03	1.21E+13	1.12E-03
2.05E+02	9.11E+12	1.13E-03	1.30E+13	1.08E-03
2.15E+02	9.68E+12	1.08E-03	1.39E+13	1.03E-03

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
2.25E+02	1.03E+13	1.05E-03	1.49E+13	1.01E-03
2.35E+02	1.09E+13	1.02E-03	1.59E+13	9.70E-04
2.45E+02	1.16E+13	9.80E-04	1.69E+13	9.30E-04
2.55E+02	1.22E+13	9.60E-04	1.80E+13	9.10E-04
2.65E+02	1.29E+13	9.30E-04	1.92E+13	8.80E-04
2.75E+02	1.36E+13	8.90E-04	2.04E+13	8.50E-04
2.85E+02	1.45E+13	8.70E-04	2.16E+13	8.30E-04
2.95E+02	1.55E+13	8.40E-04	2.28E+13	8.00E-04
3.05E+02	1.65E+13	8.10E-04	2.41E+13	7.70E-04
3.15E+02	1.75E+13	7.90E-04	2.54E+13	7.50E-04
3.25E+02	1.86E+13	7.60E-04	2.69E+13	7.30E-04
3.35E+02	1.97E+13	7.40E-04	2.85E+13	7.00E-04
3.45E+02	2.08E+13	7.20E-04	3.01E+13	6.80E-04
3.55E+02	2.20E+13	7.00E-04	3.19E+13	6.60E-04
3.65E+02	2.31E+13	6.70E-04	3.38E+13	6.40E-04
3.75E+02	2.44E+13	6.60E-04	3.57E+13	6.20E-04
3.85E+02	2.57E+13	6.40E-04	3.79E+13	6.10E-04
3.95E+02	2.70E+13	6.10E-04	4.02E+13	5.80E-04
4.05E+02	2.83E+13	6.00E-04	4.26E+13	5.70E-04
4.15E+02	2.98E+13	5.80E-04	4.52E+13	5.50E-04
4.25E+02	3.14E+13	5.60E-04	4.79E+13	5.30E-04
4.35E+02	3.32E+13	5.50E-04	5.05E+13	5.20E-04
4.45E+02	3.53E+13	5.30E-04	5.33E+13	5.00E-04
4.55E+02	3.75E+13	5.10E-04	5.61E+13	4.80E-04
4.65E+02	3.98E+13	5.00E-04	5.91E+13	4.70E-04
4.75E+02	4.21E+13	4.80E-04	6.23E+13	4.60E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
4.85E+02	4.44E+13	4.60E-04	6.58E+13	4.40E-04
4.95E+02	4.68E+13	4.50E-04	6.95E+13	4.30E-04
5.05E+02	4.92E+13	4.40E-04	7.36E+13	4.20E-04
5.15E+02	5.17E+13	4.20E-04	7.77E+13	4.00E-04
5.25E+02	5.43E+13	4.10E-04	8.19E+13	3.90E-04
5.35E+02	5.70E+13	4.00E-04	8.66E+13	3.80E-04
5.45E+02	5.96E+13	3.90E-04	9.16E+13	3.60E-04
5.55E+02	6.21E+13	3.80E-04	9.70E+13	3.50E-04
5.65E+02	6.50E+13	3.70E-04	1.03E+14	3.40E-04
5.75E+02	6.81E+13	3.50E-04	1.08E+14	3.30E-04
5.85E+02	7.16E+13	3.40E-04	1.14E+14	3.20E-04
5.95E+02	7.56E+13	3.30E-04	1.19E+14	3.10E-04
6.05E+02	7.98E+13	3.20E-04	1.25E+14	3.00E-04
6.15E+02	8.40E+13	3.20E-04	1.31E+14	2.90E-04
6.25E+02	8.82E+13	3.10E-04	1.37E+14	2.80E-04
6.35E+02	9.21E+13	3.00E-04	1.44E+14	2.70E-04
6.45E+02	9.60E+13	2.90E-04	1.51E+14	2.70E-04
6.55E+02	9.99E+13	2.80E-04	1.58E+14	2.60E-04
6.65E+02	1.04E+14	2.70E-04	1.65E+14	2.50E-04
6.75E+02	1.08E+14	2.70E-04	1.72E+14	2.50E-04
6.85E+02	1.11E+14	2.60E-04	1.80E+14	2.40E-04
6.95E+02	1.14E+14	2.50E-04	1.88E+14	2.30E-04
7.05E+02	1.17E+14	2.50E-04	1.96E+14	2.30E-04
7.15E+02	1.21E+14	2.40E-04	2.04E+14	2.20E-04
7.25E+02	1.24E+14	2.40E-04	2.12E+14	2.10E-04
7.35E+02	1.28E+14	2.30E-04	2.19E+14	2.10E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
7.45E+02	1.32E+14	2.30E-04	2.25E+14	2.10E-04
7.55E+02	1.36E+14	2.20E-04	2.31E+14	2.00E-04
7.65E+02	1.40E+14	2.20E-04	2.37E+14	2.00E-04
7.75E+02	1.43E+14	2.20E-04	2.42E+14	2.00E-04
7.85E+02	1.46E+14	2.10E-04	2.47E+14	1.90E-04
7.95E+02	1.48E+14	2.10E-04	2.52E+14	1.90E-04
8.05E+02	1.49E+14	2.10E-04	2.57E+14	1.90E-04
8.15E+02	1.49E+14	2.10E-04	2.61E+14	1.90E-04
8.25E+02	1.50E+14	2.10E-04	2.64E+14	1.90E-04
8.35E+02	1.50E+14	2.10E-04	2.66E+14	1.90E-04
8.45E+02	1.49E+14	2.10E-04	2.67E+14	1.80E-04
8.55E+02	1.46E+14	2.10E-04	2.69E+14	1.90E-04
8.65E+02	1.44E+14	2.10E-04	2.69E+14	1.90E-04
8.75E+02	1.42E+14	2.10E-04	2.67E+14	1.90E-04
8.85E+02	1.40E+14	2.10E-04	2.64E+14	1.90E-04
8.95E+02	1.38E+14	2.20E-04	2.59E+14	1.90E-04
9.05E+02	1.36E+14	2.20E-04	2.54E+14	1.90E-04
9.15E+02	1.33E+14	2.20E-04	2.48E+14	2.00E-04
9.25E+02	1.30E+14	2.30E-04	2.41E+14	2.00E-04
9.35E+02	1.25E+14	2.30E-04	2.34E+14	2.10E-04
9.45E+02	1.21E+14	2.40E-04	2.26E+14	2.10E-04
9.55E+02	1.15E+14	2.40E-04	2.17E+14	2.20E-04
9.65E+02	1.10E+14	2.50E-04	2.09E+14	2.20E-04
9.75E+02	1.05E+14	2.60E-04	1.99E+14	2.30E-04
9.85E+02	9.94E+13	2.60E-04	1.89E+14	2.40E-04
9.95E+02	9.33E+13	2.70E-04	1.80E+14	2.40E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.01E+03	8.71E+13	2.80E-04	1.71E+14	2.50E-04
1.02E+03	8.11E+13	2.90E-04	1.61E+14	2.60E-04
1.03E+03	7.57E+13	3.00E-04	1.51E+14	2.70E-04
1.04E+03	7.09E+13	3.10E-04	1.41E+14	2.80E-04
1.05E+03	6.63E+13	3.20E-04	1.31E+14	2.90E-04
1.06E+03	6.19E+13	3.30E-04	1.21E+14	3.00E-04
1.07E+03	5.78E+13	3.50E-04	1.12E+14	3.10E-04
1.08E+03	5.35E+13	3.60E-04	1.03E+14	3.30E-04
1.09E+03	4.95E+13	3.70E-04	9.51E+13	3.40E-04
1.10E+03	4.57E+13	3.90E-04	8.75E+13	3.50E-04
1.11E+03	4.19E+13	4.10E-04	8.03E+13	3.70E-04
1.12E+03	3.84E+13	4.20E-04	7.38E+13	3.80E-04
1.13E+03	3.53E+13	4.50E-04	6.77E+13	4.00E-04
1.14E+03	3.22E+13	4.60E-04	6.20E+13	4.20E-04
1.15E+03	2.93E+13	4.80E-04	5.69E+13	4.40E-04
1.16E+03	2.66E+13	5.10E-04	5.22E+13	4.60E-04
1.17E+03	2.41E+13	5.30E-04	4.78E+13	4.80E-04
1.18E+03	2.20E+13	5.50E-04	4.39E+13	5.00E-04
1.19E+03	2.02E+13	5.80E-04	4.02E+13	5.30E-04
1.20E+03	1.86E+13	6.10E-04	3.68E+13	5.50E-04
1.21E+03	1.73E+13	6.30E-04	3.37E+13	5.80E-04
1.22E+03	1.63E+13	6.70E-04	3.07E+13	6.10E-04
1.23E+03	1.57E+13	7.00E-04	2.78E+13	6.50E-04
1.24E+03	1.59E+13	7.20E-04	2.45E+13	6.90E-04
1.25E+03	1.77E+13	7.70E-04	2.01E+13	7.50E-04

Table 29. Radial flux distribution for Case-1B.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.50E+00	6.80E+13	5.90E-04	1.42E+14	4.20E-04
4.50E+00	6.79E+13	4.40E-04	1.42E+14	3.20E-04
7.50E+00	6.79E+13	3.60E-04	1.41E+14	2.70E-04
1.05E+01	6.78E+13	3.10E-04	1.41E+14	2.40E-04
1.35E+01	6.78E+13	2.90E-04	1.41E+14	2.20E-04
1.65E+01	6.76E+13	2.50E-04	1.41E+14	2.00E-04
1.95E+01	6.77E+13	2.40E-04	1.41E+14	1.90E-04
2.25E+01	6.75E+13	2.20E-04	1.41E+14	1.70E-04
2.55E+01	6.74E+13	2.10E-04	1.41E+14	1.70E-04
2.85E+01	6.73E+13	2.00E-04	1.40E+14	1.60E-04
3.15E+01	6.71E+13	1.80E-04	1.40E+14	1.50E-04
3.45E+01	6.70E+13	1.80E-04	1.40E+14	1.40E-04
3.75E+01	6.68E+13	1.70E-04	1.39E+14	1.30E-04
4.05E+01	6.67E+13	1.60E-04	1.39E+14	1.30E-04
4.35E+01	6.65E+13	1.60E-04	1.39E+14	1.20E-04
4.65E+01	6.63E+13	1.50E-04	1.38E+14	1.20E-04
4.95E+01	6.61E+13	1.50E-04	1.38E+14	1.20E-04
5.25E+01	6.58E+13	1.40E-04	1.37E+14	1.10E-04
5.55E+01	6.56E+13	1.40E-04	1.37E+14	1.10E-04
5.85E+01	6.53E+13	1.30E-04	1.36E+14	1.00E-04
6.15E+01	6.51E+13	1.30E-04	1.35E+14	1.00E-04
6.45E+01	6.49E+13	1.30E-04	1.35E+14	1.00E-04
6.75E+01	6.46E+13	1.20E-04	1.34E+14	9.00E-05
7.05E+01	6.44E+13	1.20E-04	1.33E+14	9.00E-05
7.35E+01	6.40E+13	1.20E-04	1.33E+14	9.00E-05

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
7.65E+01	6.38E+13	1.10E-04	1.32E+14	9.00E-05
7.95E+01	6.34E+13	1.10E-04	1.31E+14	9.00E-05
8.25E+01	6.31E+13	1.10E-04	1.30E+14	8.00E-05
8.55E+01	6.28E+13	1.10E-04	1.29E+14	8.00E-05
8.85E+01	6.25E+13	1.00E-04	1.28E+14	8.00E-05
9.15E+01	6.23E+13	1.00E-04	1.27E+14	8.00E-05
9.45E+01	6.20E+13	1.00E-04	1.26E+14	8.00E-05
9.75E+01	6.18E+13	1.00E-04	1.25E+14	8.00E-05
1.01E+02	6.16E+13	1.00E-04	1.24E+14	8.00E-05
1.04E+02	6.15E+13	1.00E-04	1.22E+14	8.00E-05
1.07E+02	6.14E+13	1.00E-04	1.21E+14	8.00E-05
1.10E+02	6.14E+13	1.00E-04	1.19E+14	7.00E-05
1.13E+02	6.16E+13	1.00E-04	1.17E+14	8.00E-05
1.16E+02	6.19E+13	9.00E-05	1.15E+14	8.00E-05
1.19E+02	6.25E+13	9.00E-05	1.13E+14	8.00E-05
1.22E+02	6.32E+13	9.00E-05	1.10E+14	8.00E-05
1.25E+02	6.40E+13	9.00E-05	1.07E+14	8.00E-05
1.28E+02	6.52E+13	9.00E-05	1.04E+14	8.00E-05
1.31E+02	6.66E+13	9.00E-05	1.00E+14	8.00E-05
1.34E+02	6.85E+13	9.00E-05	9.62E+13	8.00E-05
1.37E+02	7.08E+13	9.00E-05	9.16E+13	8.00E-05
1.40E+02	7.34E+13	9.00E-05	8.68E+13	9.00E-05
1.43E+02	7.65E+13	9.00E-05	8.13E+13	9.00E-05
1.46E+02	8.00E+13	9.00E-05	7.55E+13	9.00E-05
1.49E+02	8.45E+13	1.00E-04	6.86E+13	9.00E-05

Table 30. Power produced per TRISO particle and fast neutron flux (E > 1MeV) for Case-1B. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,1,1]	19.58176209	9.40E-04	9.50E+12	1.86E-03
[2,1,1]	26.14558094	7.80E-04	1.41E+13	1.52E-03
[3,1,1]	39.52695863	6.20E-04	2.17E+13	1.22E-03
[4,1,1]	60.85909775	5.00E-04	3.35E+13	9.80E-04
[5,1,1]	90.37413814	4.20E-04	4.92E+13	8.10E-04
[6,1,1]	118.3045392	3.50E-04	6.53E+13	7.00E-04
[7,1,1]	142.8504633	3.10E-04	7.94E+13	6.30E-04
[8,1,1]	160.1489965	3.00E-04	8.86E+13	6.00E-04
[9,1,1]	154.94343	2.90E-04	8.75E+13	6.00E-04
[10,1,1]	141.206481	3.00E-04	8.05E+13	6.30E-04
[11,1,1]	124.76306	3.30E-04	7.07E+13	6.80E-04
[12,1,1]	99.75424983	3.70E-04	5.76E+13	7.50E-04
[13,1,1]	79.28001724	4.20E-04	4.59E+13	8.40E-04
[14,1,1]	63.50480708	4.80E-04	3.65E+13	9.50E-04
[15,1,1]	47.47673164	5.50E-04	2.77E+13	1.08E-03
[16,1,1]	35.71342631	6.40E-04	2.09E+13	1.25E-03
[17,1,1]	28.00221748	7.40E-04	1.62E+13	1.44E-03
[18,1,1]	20.75007282	8.50E-04	1.21E+13	1.65E-03
[19,1,1]	15.51018304	9.90E-04	9.10E+12	1.91E-03
[20,1,1]	11.9683399	1.17E-03	6.93E+12	2.21E-03
[21,1,1]	8.586431638	1.35E-03	5.02E+12	2.58E-03
[22,1,1]	6.68596543	1.53E-03	3.46E+12	3.11E-03
[1,2,1]	18.12387938	9.00E-04	8.85E+12	1.87E-03
[2,2,1]	24.35108972	7.50E-04	1.33E+13	1.51E-03
[3,2,1]	37.18598565	5.90E-04	2.05E+13	1.21E-03

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[4,2,1]	56.72067224	4.80E-04	3.14E+13	9.80E-04
[5,2,1]	84.78882762	4.00E-04	4.64E+13	8.10E-04
[6,2,1]	110.9305894	3.30E-04	6.15E+13	7.00E-04
[7,2,1]	133.8053264	3.00E-04	7.49E+13	6.30E-04
[8,2,1]	151.1134882	2.80E-04	8.38E+13	6.00E-04
[9,2,1]	146.9802748	2.80E-04	8.30E+13	6.00E-04
[10,2,1]	134.5261409	2.90E-04	7.66E+13	6.20E-04
[11,2,1]	119.4034513	3.10E-04	6.75E+13	6.70E-04
[12,2,1]	95.55317245	3.50E-04	5.48E+13	7.40E-04
[13,2,1]	75.71784201	3.90E-04	4.38E+13	8.30E-04
[14,2,1]	60.53848907	4.50E-04	3.46E+13	9.40E-04
[15,2,1]	45.45265022	5.20E-04	2.63E+13	1.08E-03
[16,2,1]	34.52118749	6.00E-04	2.00E+13	1.24E-03
[17,2,1]	26.82181603	7.10E-04	1.54E+13	1.42E-03
[18,2,1]	19.86631902	8.10E-04	1.16E+13	1.64E-03
[19,2,1]	14.87946592	9.40E-04	8.65E+12	1.90E-03
[20,2,1]	11.48325946	1.11E-03	6.57E+12	2.19E-03
[21,2,1]	8.267827652	1.29E-03	4.83E+12	2.56E-03
[22,2,1]	6.565795921	1.48E-03	3.35E+12	3.06E-03
[1,3,1]	17.08540632	9.00E-04	8.37E+12	1.89E-03
[2,3,1]	23.34740287	7.50E-04	1.28E+13	1.53E-03
[3,3,1]	35.53891778	5.90E-04	1.96E+13	1.23E-03
[4,3,1]	54.51354203	4.70E-04	3.02E+13	9.90E-04
[5,3,1]	81.70104346	4.00E-04	4.45E+13	8.20E-04
[6,3,1]	106.7271686	3.30E-04	5.89E+13	7.10E-04
[7,3,1]	129.6677472	3.00E-04	7.17E+13	6.40E-04
[8,3,1]	146.7537803	2.80E-04	8.03E+13	6.00E-04

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[9,3,1]	141.7910346	2.70E-04	7.89E+13	6.10E-04
[10,3,1]	129.7934057	2.90E-04	7.26E+13	6.30E-04
[11,3,1]	115.6484773	3.10E-04	6.40E+13	6.80E-04
[12,3,1]	92.63231763	3.40E-04	5.21E+13	7.50E-04
[13,3,1]	73.44124692	3.90E-04	4.14E+13	8.40E-04
[14,3,1]	58.80930812	4.50E-04	3.28E+13	9.60E-04
[15,3,1]	43.98903295	5.20E-04	2.49E+13	1.10E-03
[16,3,1]	33.19416094	6.00E-04	1.88E+13	1.27E-03
[17,3,1]	26.11177021	7.00E-04	1.46E+13	1.44E-03
[18,3,1]	19.17709294	8.10E-04	1.09E+13	1.67E-03
[19,3,1]	14.38472505	9.40E-04	8.14E+12	1.94E-03
[20,3,1]	11.079891	1.10E-03	6.19E+12	2.23E-03
[21,3,1]	7.994003433	1.28E-03	4.52E+12	2.61E-03
[22,3,1]	6.397078165	1.47E-03	3.16E+12	3.12E-03
[1,4,1]	17.07261229	9.00E-04	7.97E+12	1.93E-03
[2,4,1]	24.39007448	7.40E-04	1.25E+13	1.54E-03
[3,4,1]	36.83796209	5.80E-04	1.91E+13	1.24E-03
[4,4,1]	56.63451792	4.70E-04	2.93E+13	1.00E-03
[5,4,1]	84.14203731	3.90E-04	4.28E+13	8.30E-04
[6,4,1]	109.4160354	3.30E-04	5.62E+13	7.20E-04
[7,4,1]	132.0851839	3.00E-04	6.80E+13	6.60E-04
[8,4,1]	148.4155298	2.80E-04	7.55E+13	6.20E-04
[9,4,1]	143.5829324	2.70E-04	7.40E+13	6.30E-04
[10,4,1]	129.6189768	2.90E-04	6.73E+13	6.60E-04
[11,4,1]	114.7463517	3.10E-04	5.91E+13	7.00E-04
[12,4,1]	91.11057714	3.40E-04	4.76E+13	7.80E-04
[13,4,1]	71.47694471	3.90E-04	3.75E+13	8.80E-04

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[14,4,1]	57.223243	4.50E-04	2.97E+13	1.00E-03
[15,4,1]	42.40053475	5.20E-04	2.24E+13	1.15E-03
[16,4,1]	31.91222551	6.00E-04	1.69E+13	1.33E-03
[17,4,1]	24.98658072	7.10E-04	1.30E+13	1.52E-03
[18,4,1]	18.46739918	8.10E-04	9.76E+12	1.75E-03
[19,4,1]	13.74829112	9.40E-04	7.26E+12	2.03E-03
[20,4,1]	10.61593676	1.11E-03	5.57E+12	2.34E-03
[21,4,1]	7.667296345	1.29E-03	4.05E+12	2.73E-03
[22,4,1]	6.000498421	1.49E-03	2.81E+12	3.29E-03
[1,5,1]	19.61487308	8.70E-04	6.81E+12	2.10E-03
[2,5,1]	29.40038315	7.10E-04	1.09E+13	1.66E-03
[3,5,1]	43.94437853	5.60E-04	1.65E+13	1.34E-03
[4,5,1]	66.67112448	4.50E-04	2.53E+13	1.08E-03
[5,5,1]	97.49853584	3.80E-04	3.67E+13	9.00E-04
[6,5,1]	122.3809658	3.20E-04	4.72E+13	7.90E-04
[7,5,1]	143.4308963	2.90E-04	5.63E+13	7.20E-04
[8,5,1]	156.75046	2.80E-04	6.17E+13	6.90E-04
[9,5,1]	145.4598689	2.70E-04	5.91E+13	7.00E-04
[10,5,1]	128.5502504	2.90E-04	5.32E+13	7.40E-04
[11,5,1]	111.6299279	3.20E-04	4.62E+13	7.90E-04
[12,5,1]	86.55035762	3.50E-04	3.68E+13	8.90E-04
[13,5,1]	66.70127641	4.00E-04	2.87E+13	1.01E-03
[14,5,1]	53.16045572	4.60E-04	2.27E+13	1.14E-03
[15,5,1]	39.04030851	5.30E-04	1.70E+13	1.31E-03
[16,5,1]	29.20035463	6.10E-04	1.28E+13	1.51E-03
[17,5,1]	22.84048099	7.10E-04	9.84E+12	1.74E-03
[18,5,1]	16.61034225	8.20E-04	7.32E+12	2.02E-03

Location	Power Per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[19,5,1]	12.34136376	9.60E-04	5.43E+12	2.34E-03
[20,5,1]	9.568761275	1.12E-03	4.16E+12	2.69E-03
[21,5,1]	6.878718143	1.30E-03	3.02E+12	3.14E-03
[22,5,1]	5.202992153	1.51E-03	2.10E+12	3.78E-03

Appendix B
Case-2 Results

5.3 Case-2A

Table 31. Number densities for Case-2A, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1]	3.83672E-03	1.94484E-02	1.35472E-09	1.80531E-05	1.11708E-06	9.62560E-08	3.68149E-09	3.60019E-08	1.91766E-07
[1,1,2]	2.99984E-03	1.93102E-02	1.29154E-07	8.45420E-05	2.07595E-05	4.83529E-06	5.69290E-07	3.09143E-08	2.44099E-07
[1,1,3]	2.34155E-03	1.91711E-02	6.34128E-07	1.08929E-04	4.37606E-05	1.47782E-05	3.07393E-06	2.60882E-08	2.28026E-07
[1,1,4]	1.82481E-03	1.90327E-02	1.67501E-06	1.17273E-04	6.17580E-05	2.54877E-05	8.02610E-06	2.19897E-08	2.09422E-07
[1,1,5]	1.41995E-03	1.88947E-02	3.31341E-06	1.19818E-04	7.42601E-05	3.45500E-05	1.50918E-05	1.86095E-08	1.91791E-07
[1,1,6]	1.10414E-03	1.87573E-02	5.52344E-06	1.20491E-04	8.21962E-05	4.14058E-05	2.36389E-05	1.59508E-08	1.75049E-07
[1,2,1]	3.83982E-03	1.94506E-02	1.11739E-09	1.63747E-05	9.97200E-07	7.72936E-08	2.89999E-09	3.54148E-08	1.88879E-07
[1,2,2]	3.00155E-03	1.93124E-02	1.26540E-07	8.30714E-05	2.07506E-05	4.67747E-06	5.61466E-07	3.04519E-08	2.40282E-07
[1,2,3]	2.34292E-03	1.91734E-02	6.27539E-07	1.07382E-04	4.38935E-05	1.44847E-05	3.05884E-06	2.56801E-08	2.23739E-07
[1,2,4]	1.82590E-03	1.90350E-02	1.66396E-06	1.15741E-04	6.20067E-05	2.51003E-05	8.00604E-06	2.16418E-08	2.05106E-07
[1,2,5]	1.42066E-03	1.88970E-02	3.29825E-06	1.18258E-04	7.45988E-05	3.41037E-05	1.50754E-05	1.83030E-08	1.87059E-07
[1,2,6]	1.10485E-03	1.87595E-02	5.50214E-06	1.19065E-04	8.26180E-05	4.08901E-05	2.36214E-05	1.56568E-08	1.70620E-07
[1,3,1]	3.83726E-03	1.94534E-02	9.71702E-10	1.42219E-05	8.87689E-07	6.24214E-08	2.39563E-09	3.51025E-08	1.86208E-07
[1,3,2]	2.99952E-03	1.93151E-02	1.24712E-07	8.07289E-05	2.08412E-05	4.52621E-06	5.60015E-07	3.01369E-08	2.34395E-07
[1,3,3]	2.34132E-03	1.91760E-02	6.23103E-07	1.05097E-04	4.41739E-05	1.41723E-05	3.06180E-06	2.54046E-08	2.17604E-07
[1,3,4]	1.82467E-03	1.90378E-02	1.65640E-06	1.13296E-04	6.24091E-05	2.46370E-05	8.01604E-06	2.13629E-08	1.98475E-07
[1,3,5]	1.41977E-03	1.88996E-02	3.28629E-06	1.15993E-04	7.51002E-05	3.35516E-05	1.50975E-05	1.80647E-08	1.80862E-07
[1,3,6]	1.10385E-03	1.87623E-02	5.48839E-06	1.16524E-04	8.31573E-05	4.02897E-05	2.36646E-05	1.54566E-08	1.64104E-07
[1,4,1]	3.82514E-03	1.94551E-02	9.27060E-10	1.27110E-05	8.59097E-07	5.60331E-08	2.33805E-09	3.52290E-08	1.84602E-07
[1,4,2]	2.99089E-03	1.93170E-02	1.24311E-07	7.84063E-05	2.11400E-05	4.41400E-06	5.69523E-07	3.01536E-08	2.26944E-07
[1,4,3]	2.33455E-03	1.91781E-02	6.22434E-07	1.02329E-04	4.46615E-05	1.38725E-05	3.09539E-06	2.53724E-08	2.09485E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,4,4]	1.81913E-03	1.90397E-02	1.65548E-06	1.10539E-04	6.30058E-05	2.41960E-05	8.08344E-06	2.13358E-08	1.90475E-07
[1,4,5]	1.41541E-03	1.89016E-02	3.28310E-06	1.13090E-04	7.57449E-05	3.29755E-05	1.51926E-05	1.80028E-08	1.72853E-07
[1,4,6]	1.10077E-03	1.87642E-02	5.48144E-06	1.13842E-04	8.38227E-05	3.96306E-05	2.37767E-05	1.53701E-08	1.56719E-07
[2,1,1]	3.64622E-03	1.94111E-02	1.02440E-08	4.34024E-05	4.35911E-06	6.37516E-07	3.55150E-08	3.93002E-08	2.42976E-07
[2,1,2]	2.85024E-03	1.92728E-02	2.06057E-07	9.73040E-05	2.56478E-05	7.27403E-06	9.26067E-07	3.35783E-08	2.45888E-07
[2,1,3]	2.22326E-03	1.91338E-02	8.22277E-07	1.16744E-04	4.73592E-05	1.82218E-05	3.95161E-06	2.83638E-08	2.32430E-07
[2,1,4]	1.73135E-03	1.89949E-02	1.99540E-06	1.23590E-04	6.37656E-05	2.91220E-05	9.39706E-06	2.40223E-08	2.16348E-07
[2,1,5]	1.34772E-03	1.88577E-02	3.75983E-06	1.25282E-04	7.48633E-05	3.79743E-05	1.67925E-05	2.03953E-08	1.99710E-07
[2,1,6]	1.04735E-03	1.87198E-02	6.09043E-06	1.26006E-04	8.19683E-05	4.45031E-05	2.55520E-05	1.75999E-08	1.83815E-07
[2,2,1]	3.65350E-03	1.94175E-02	8.31073E-09	3.90534E-05	3.88939E-06	5.08619E-07	2.78113E-08	3.84500E-08	2.37637E-07
[2,2,2]	2.85578E-03	1.92792E-02	1.94680E-07	9.33940E-05	2.54910E-05	6.78428E-06	8.86877E-07	3.27957E-08	2.38891E-07
[2,2,3]	2.22793E-03	1.91405E-02	7.97914E-07	1.12825E-04	4.75772E-05	1.74086E-05	3.87984E-06	2.76591E-08	2.24551E-07
[2,2,4]	1.73488E-03	1.90015E-02	1.95635E-06	1.19796E-04	6.43005E-05	2.80897E-05	9.30766E-06	2.33821E-08	2.07656E-07
[2,2,5]	1.35006E-03	1.88642E-02	3.70837E-06	1.21395E-04	7.56623E-05	3.67976E-05	1.67061E-05	1.98338E-08	1.91091E-07
[2,2,6]	1.04950E-03	1.87263E-02	6.02077E-06	1.22309E-04	8.29164E-05	4.32303E-05	2.54700E-05	1.70707E-08	1.75311E-07
[2,3,1]	3.64826E-03	1.94251E-02	6.92134E-09	3.34210E-05	3.44112E-06	3.99790E-07	2.24389E-08	3.76420E-08	2.30574E-07
[2,3,2]	2.85175E-03	1.92869E-02	1.86249E-07	8.74188E-05	2.55275E-05	6.32256E-06	8.70656E-07	3.20221E-08	2.28677E-07
[2,3,3]	2.22409E-03	1.91476E-02	7.80381E-07	1.07039E-04	4.81343E-05	1.65631E-05	3.86937E-06	2.69942E-08	2.13243E-07
[2,3,4]	1.73239E-03	1.90093E-02	1.92709E-06	1.13638E-04	6.51662E-05	2.68765E-05	9.30223E-06	2.27273E-08	1.95915E-07
[2,3,5]	1.34828E-03	1.88714E-02	3.66640E-06	1.15708E-04	7.67314E-05	3.54235E-05	1.67257E-05	1.92436E-08	1.79405E-07
[2,3,6]	1.04769E-03	1.87340E-02	5.96917E-06	1.16110E-04	8.41096E-05	4.16859E-05	2.55279E-05	1.64912E-08	1.63371E-07
[2,4,1]	3.62206E-03	1.94303E-02	6.36112E-09	2.91107E-05	3.27734E-06	3.44443E-07	2.11041E-08	3.70902E-08	2.23018E-07
[2,4,2]	2.83118E-03	1.92921E-02	1.83337E-07	8.16587E-05	2.60935E-05	5.99018E-06	8.92495E-07	3.15247E-08	2.17533E-07
[2,4,3]	2.20865E-03	1.91535E-02	7.73918E-07	1.00361E-04	4.90797E-05	1.57838E-05	3.93832E-06	2.64447E-08	2.00702E-07
[2,4,4]	1.71991E-03	1.90146E-02	1.91708E-06	1.07120E-04	6.63740E-05	2.57692E-05	9.44368E-06	2.22201E-08	1.83187E-07
[2,4,5]	1.33848E-03	1.88772E-02	3.64945E-06	1.08761E-04	7.81050E-05	3.39741E-05	1.69283E-05	1.87478E-08	1.66570E-07
[2,4,6]	1.04014E-03	1.87393E-02	5.94356E-06	1.09570E-04	8.55489E-05	4.00870E-05	2.57903E-05	1.60525E-08	1.51283E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[3,1,1]	3.44115E-03	1.93686E-02	3.44249E-08	6.69941E-05	9.58544E-06	1.84256E-06	1.39824E-07	3.92496E-08	2.52447E-07
[3,1,2]	2.68842E-03	1.92300E-02	3.24710E-07	1.09563E-04	3.16091E-05	1.02901E-05	1.50126E-06	3.34454E-08	2.48203E-07
[3,1,3]	2.09708E-03	1.90922E-02	1.07349E-06	1.24114E-04	5.16707E-05	2.18375E-05	5.13633E-06	2.81947E-08	2.35512E-07
[3,1,4]	1.63246E-03	1.89540E-02	2.39694E-06	1.28883E-04	6.64241E-05	3.25731E-05	1.11123E-05	2.38827E-08	2.19590E-07
[3,1,5]	1.27039E-03	1.88163E-02	4.30521E-06	1.30532E-04	7.61614E-05	4.11128E-05	1.88752E-05	2.04410E-08	2.03654E-07
[3,1,6]	9.87057E-04	1.86793E-02	6.76112E-06	1.30494E-04	8.24394E-05	4.71455E-05	2.78312E-05	1.76545E-08	1.87474E-07
[3,2,1]	3.45302E-03	1.93799E-02	2.77492E-08	6.01576E-05	8.57099E-06	1.47113E-06	1.09366E-07	3.83428E-08	2.45981E-07
[3,2,2]	2.69849E-03	1.92414E-02	2.97154E-07	1.03313E-04	3.11439E-05	9.36484E-06	1.39733E-06	3.25854E-08	2.39691E-07
[3,2,3]	2.10466E-03	1.91037E-02	1.02224E-06	1.17936E-04	5.18363E-05	2.04860E-05	4.97034E-06	2.74251E-08	2.25640E-07
[3,2,4]	1.63847E-03	1.89653E-02	2.31666E-06	1.23043E-04	6.70763E-05	3.09491E-05	1.09097E-05	2.31700E-08	2.09299E-07
[3,2,5]	1.27507E-03	1.88278E-02	4.19910E-06	1.24525E-04	7.71999E-05	3.92730E-05	1.86590E-05	1.97535E-08	1.93285E-07
[3,2,6]	9.90791E-04	1.86904E-02	6.62709E-06	1.24828E-04	8.37110E-05	4.52247E-05	2.76366E-05	1.70355E-08	1.77460E-07
[3,3,1]	3.44623E-03	1.93932E-02	2.27045E-08	5.11047E-05	7.55443E-06	1.14238E-06	8.68625E-08	3.72862E-08	2.36722E-07
[3,3,2]	2.69272E-03	1.92548E-02	2.76072E-07	9.39240E-05	3.09139E-05	8.49081E-06	1.34408E-06	3.16223E-08	2.27723E-07
[3,3,3]	2.09986E-03	1.91161E-02	9.81797E-07	1.09010E-04	5.24057E-05	1.90706E-05	4.90821E-06	2.65295E-08	2.12451E-07
[3,3,4]	1.63497E-03	1.89786E-02	2.25476E-06	1.13606E-04	6.81185E-05	2.90418E-05	1.08492E-05	2.23267E-08	1.95457E-07
[3,3,5]	1.27238E-03	1.88401E-02	4.11494E-06	1.15666E-04	7.85805E-05	3.71445E-05	1.86407E-05	1.89850E-08	1.79275E-07
[3,3,6]	9.88298E-04	1.87035E-02	6.52410E-06	1.15368E-04	8.52539E-05	4.28561E-05	2.76666E-05	1.62782E-08	1.63475E-07
[3,4,1]	3.40662E-03	1.94024E-02	2.06756E-08	4.39444E-05	7.12836E-06	9.70886E-07	8.04869E-08	3.64121E-08	2.26603E-07
[3,4,2]	2.66141E-03	1.92640E-02	2.67153E-07	8.49300E-05	3.14743E-05	7.88597E-06	1.37090E-06	3.07620E-08	2.14805E-07
[3,4,3]	2.07640E-03	1.91264E-02	9.63640E-07	9.88952E-05	5.34764E-05	1.78207E-05	4.99530E-06	2.56900E-08	1.98054E-07
[3,4,4]	1.61584E-03	1.89877E-02	2.22904E-06	1.03861E-04	6.96026E-05	2.73350E-05	1.10411E-05	2.15600E-08	1.80825E-07
[3,4,5]	1.25736E-03	1.88502E-02	4.07580E-06	1.05165E-04	8.03101E-05	3.49320E-05	1.89172E-05	1.82320E-08	1.64498E-07
[3,4,6]	9.77043E-04	1.87126E-02	6.46643E-06	1.05706E-04	8.70931E-05	4.04628E-05	2.80241E-05	1.55779E-08	1.49608E-07
[4,1,1]	3.26253E-03	1.93317E-02	7.31437E-08	8.34467E-05	1.50982E-05	3.43073E-06	3.17407E-07	3.73696E-08	2.57568E-07
[4,1,2]	2.54749E-03	1.91929E-02	4.64931E-07	1.17648E-04	3.71230E-05	1.31751E-05	2.17414E-06	3.17630E-08	2.50408E-07
[4,1,3]	1.98653E-03	1.90544E-02	1.34634E-06	1.29630E-04	5.57355E-05	2.49608E-05	6.38125E-06	2.68554E-08	2.36425E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[4,1,4]	1.54614E-03	1.89155E-02	2.81238E-06	1.33971E-04	6.90804E-05	3.54111E-05	1.28196E-05	2.28151E-08	2.20688E-07
[4,1,5]	1.20297E-03	1.87788E-02	4.85624E-06	1.34505E-04	7.77209E-05	4.34850E-05	2.08924E-05	1.95816E-08	2.04402E-07
[4,1,6]	9.34556E-04	1.86411E-02	7.42727E-06	1.35063E-04	8.32829E-05	4.91490E-05	3.00077E-05	1.70138E-08	1.88534E-07
[4,2,1]	3.27799E-03	1.93472E-02	5.89175E-08	7.49188E-05	1.35579E-05	2.74762E-06	2.48918E-07	3.64641E-08	2.49832E-07
[4,2,2]	2.56150E-03	1.92087E-02	4.16432E-07	1.09831E-04	3.63494E-05	1.18005E-05	1.98443E-06	3.08896E-08	2.41048E-07
[4,2,3]	1.99732E-03	1.90706E-02	1.26152E-06	1.21830E-04	5.57154E-05	2.31382E-05	6.09520E-06	2.60282E-08	2.26096E-07
[4,2,4]	1.55414E-03	1.89313E-02	2.68635E-06	1.26425E-04	6.96899E-05	3.33366E-05	1.24914E-05	2.20879E-08	2.09707E-07
[4,2,5]	1.20923E-03	1.87948E-02	4.69327E-06	1.26836E-04	7.87802E-05	4.12005E-05	2.05448E-05	1.88740E-08	1.93104E-07
[4,2,6]	9.39529E-04	1.86567E-02	7.22648E-06	1.27707E-04	8.46721E-05	4.67482E-05	2.96864E-05	1.63400E-08	1.77668E-07
[4,3,1]	3.27019E-03	1.93655E-02	4.78188E-08	6.34840E-05	1.19444E-05	2.12934E-06	1.96815E-07	3.53616E-08	2.39152E-07
[4,3,2]	2.55422E-03	1.92269E-02	3.79243E-07	9.80126E-05	3.57447E-05	1.05461E-05	1.88143E-06	2.98697E-08	2.27712E-07
[4,3,3]	1.99118E-03	1.90877E-02	1.19440E-06	1.10461E-04	5.61318E-05	2.12658E-05	5.97083E-06	2.50943E-08	2.11658E-07
[4,3,4]	1.55014E-03	1.89498E-02	2.58662E-06	1.14403E-04	7.06801E-05	3.08603E-05	1.23504E-05	2.11432E-08	1.94632E-07
[4,3,5]	1.20619E-03	1.88120E-02	4.56055E-06	1.15652E-04	8.02288E-05	3.84796E-05	2.04541E-05	1.80117E-08	1.78370E-07
[4,3,6]	9.36509E-04	1.86749E-02	7.06726E-06	1.15663E-04	8.62941E-05	4.37572E-05	2.96630E-05	1.55011E-08	1.62797E-07
[4,4,1]	3.22036E-03	1.93782E-02	4.32310E-08	5.41503E-05	1.12085E-05	1.79688E-06	1.80684E-07	3.43640E-08	2.27559E-07
[4,4,2]	2.51510E-03	1.92397E-02	3.61451E-07	8.67713E-05	3.61344E-05	9.64818E-06	1.90214E-06	2.88752E-08	2.13538E-07
[4,4,3]	1.96144E-03	1.91018E-02	1.16126E-06	9.78466E-05	5.71232E-05	1.95920E-05	6.05809E-06	2.41326E-08	1.96092E-07
[4,4,4]	1.52564E-03	1.89625E-02	2.54233E-06	1.02196E-04	7.22097E-05	2.86581E-05	1.25731E-05	2.02778E-08	1.79124E-07
[4,4,5]	1.18713E-03	1.88259E-02	4.49428E-06	1.02642E-04	8.20223E-05	3.56802E-05	2.07668E-05	1.71400E-08	1.62588E-07
[4,4,6]	9.22218E-04	1.86876E-02	6.97492E-06	1.03585E-04	8.82530E-05	4.07635E-05	3.00735E-05	1.46965E-08	1.47826E-07
[5,1,1]	3.11890E-03	1.93049E-02	1.16404E-07	9.19247E-05	2.00412E-05	4.83044E-06	5.28179E-07	3.41351E-08	2.52434E-07
[5,1,2]	2.43483E-03	1.91660E-02	5.97759E-07	1.20313E-04	4.19553E-05	1.51687E-05	2.82533E-06	2.89241E-08	2.41988E-07
[5,1,3]	1.89837E-03	1.90281E-02	1.58944E-06	1.29821E-04	5.95963E-05	2.67066E-05	7.50347E-06	2.43918E-08	2.25820E-07
[5,1,4]	1.47708E-03	1.88895E-02	3.17126E-06	1.33242E-04	7.20616E-05	3.66389E-05	1.43220E-05	2.07277E-08	2.08501E-07
[5,1,5]	1.14909E-03	1.87528E-02	5.32529E-06	1.33648E-04	7.99417E-05	4.42279E-05	2.26455E-05	1.78345E-08	1.92768E-07
[5,1,6]	8.92511E-04	1.86152E-02	7.98650E-06	1.33958E-04	8.51139E-05	4.94249E-05	3.19029E-05	1.55003E-08	1.76716E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[5,2,1]	3.14021E-03	1.93237E-02	9.31823E-08	8.27482E-05	1.79480E-05	3.86625E-06	4.10593E-07	3.32309E-08	2.46211E-07
[5,2,2]	2.45338E-03	1.91851E-02	5.28085E-07	1.11993E-04	4.07745E-05	1.35010E-05	2.53992E-06	2.81149E-08	2.34281E-07
[5,2,3]	1.91264E-03	1.90476E-02	1.47309E-06	1.21558E-04	5.92501E-05	2.46411E-05	7.08936E-06	2.36419E-08	2.17200E-07
[5,2,4]	1.48820E-03	1.89085E-02	3.00209E-06	1.25366E-04	7.24137E-05	3.43506E-05	1.38398E-05	2.00131E-08	2.00016E-07
[5,2,5]	1.15772E-03	1.87720E-02	5.11017E-06	1.25604E-04	8.07477E-05	4.18028E-05	2.21383E-05	1.71563E-08	1.84004E-07
[5,2,6]	8.99350E-04	1.86340E-02	7.72529E-06	1.26344E-04	8.63309E-05	4.68827E-05	3.14114E-05	1.48536E-08	1.68251E-07
[5,3,1]	3.13447E-03	1.93457E-02	7.51874E-08	7.02019E-05	1.57258E-05	2.99579E-06	3.21359E-07	3.21737E-08	2.36583E-07
[5,3,2]	2.44776E-03	1.92070E-02	4.73970E-07	9.91599E-05	3.96740E-05	1.19554E-05	2.37137E-06	2.71012E-08	2.22564E-07
[5,3,3]	1.90802E-03	1.90681E-02	1.37907E-06	1.09407E-04	5.93034E-05	2.24867E-05	6.87282E-06	2.27053E-08	2.04891E-07
[5,3,4]	1.48525E-03	1.89305E-02	2.86705E-06	1.12531E-04	7.30825E-05	3.16157E-05	1.35914E-05	1.91242E-08	1.87127E-07
[5,3,5]	1.15537E-03	1.87925E-02	4.93439E-06	1.13613E-04	8.19720E-05	3.88309E-05	2.19373E-05	1.63255E-08	1.71102E-07
[5,3,6]	8.97172E-04	1.86558E-02	7.51443E-06	1.13507E-04	8.77018E-05	4.36495E-05	3.12697E-05	1.40083E-08	1.55613E-07
[5,4,1]	3.08122E-03	1.93610E-02	6.72328E-08	5.98013E-05	1.46218E-05	2.50133E-06	2.89645E-07	3.11692E-08	2.25845E-07
[5,4,2]	2.40573E-03	1.92223E-02	4.46298E-07	8.69499E-05	3.97375E-05	1.08474E-05	2.36967E-06	2.61391E-08	2.09801E-07
[5,4,3]	1.87641E-03	1.90851E-02	1.32940E-06	9.58186E-05	5.99517E-05	2.05822E-05	6.92482E-06	2.17670E-08	1.91451E-07
[5,4,4]	1.45935E-03	1.89457E-02	2.80111E-06	9.95630E-05	7.43491E-05	2.91819E-05	1.37752E-05	1.82436E-08	1.73710E-07
[5,4,5]	1.13515E-03	1.88092E-02	4.84082E-06	9.97282E-05	8.35275E-05	3.57703E-05	2.22117E-05	1.54622E-08	1.57182E-07
[5,4,6]	8.81912E-04	1.86709E-02	7.38908E-06	1.00628E-04	8.94634E-05	4.04268E-05	3.16541E-05	1.32445E-08	1.42530E-07

Table 32. Number densities for Case-2A, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1]	3.49668E-08	2.36826E-06	7.77391E-06	3.70457E-07	1.22111E-08	2.07703E-08	4.89204E-10	4.44984E-06	3.99509E-06
[1,1,2]	1.04012E-06	1.39734E-05	5.26685E-05	2.42694E-06	9.92455E-09	1.68037E-08	3.94521E-10	2.96857E-05	8.50860E-06
[1,1,3]	3.00380E-06	2.38279E-05	9.01054E-05	4.01674E-06	8.06269E-09	1.36033E-08	3.18539E-10	5.00927E-05	7.33883E-06
[1,1,4]	5.47986E-06	3.21905E-05	1.21022E-04	5.22519E-06	6.54729E-09	1.10093E-08	2.57094E-10	6.65439E-05	5.95010E-06
[1,1,5]	8.17730E-06	3.93654E-05	1.46561E-04	6.12934E-06	5.25179E-09	8.79814E-09	2.04828E-10	7.98229E-05	4.77763E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,6]	1.08887E-05	4.56176E-05	1.67681E-04	6.79089E-06	4.29014E-09	7.15667E-09	1.66020E-10	9.05501E-05	3.85655E-06
[1,2,1]	3.12639E-08	2.32974E-06	7.61972E-06	3.63461E-07	1.19809E-08	2.03806E-08	4.80058E-10	4.36629E-06	3.92023E-06
[1,2,2]	1.01887E-06	1.39435E-05	5.25729E-05	2.42295E-06	9.79391E-09	1.65844E-08	3.89407E-10	2.96386E-05	8.46658E-06
[1,2,3]	2.96277E-06	2.38017E-05	9.00191E-05	4.01335E-06	7.95175E-09	1.34183E-08	3.14242E-10	5.00528E-05	7.30344E-06
[1,2,4]	5.42610E-06	3.21686E-05	1.20944E-04	5.22231E-06	6.45303E-09	1.08530E-08	2.53482E-10	6.65102E-05	5.92028E-06
[1,2,5]	8.11839E-06	3.93461E-05	1.46503E-04	6.12736E-06	5.18716E-09	8.69226E-09	2.02399E-10	7.98000E-05	4.75750E-06
[1,2,6]	1.08226E-05	4.55989E-05	1.67617E-04	6.78876E-06	4.22075E-09	7.04323E-09	1.63423E-10	9.05255E-05	3.83501E-06
[1,3,1]	2.91173E-08	2.30928E-06	7.75875E-06	3.70533E-07	1.22146E-08	2.07803E-08	4.89517E-10	4.45186E-06	3.99727E-06
[1,3,2]	9.95920E-07	1.39235E-05	5.26876E-05	2.42865E-06	9.98204E-09	1.69058E-08	3.97002E-10	2.97074E-05	8.52851E-06
[1,3,3]	2.92750E-06	2.37851E-05	9.01129E-05	4.01791E-06	8.10223E-09	1.36752E-08	3.20306E-10	5.01077E-05	7.35292E-06
[1,3,4]	5.37816E-06	3.21522E-05	1.21014E-04	5.22576E-06	6.56721E-09	1.10486E-08	2.58105E-10	6.65520E-05	5.95797E-06
[1,3,5]	8.05679E-06	3.93331E-05	1.46556E-04	6.12988E-06	5.27071E-09	8.83550E-09	2.05781E-10	7.98305E-05	4.78509E-06
[1,3,6]	1.07582E-05	4.55895E-05	1.67680E-04	6.79157E-06	4.31394E-09	7.20230E-09	1.67163E-10	9.05594E-05	3.86558E-06
[1,4,1]	2.97989E-08	2.31769E-06	8.39876E-06	4.01457E-07	1.32345E-08	2.25170E-08	5.30478E-10	4.82388E-06	4.33160E-06
[1,4,2]	9.83520E-07	1.39254E-05	5.31753E-05	2.45134E-06	1.07301E-08	1.81757E-08	4.26886E-10	2.99795E-05	8.77282E-06
[1,4,3]	2.90289E-06	2.37852E-05	9.05134E-05	4.03599E-06	8.69840E-09	1.46853E-08	3.44033E-10	5.03241E-05	7.54710E-06
[1,4,4]	5.34633E-06	3.21545E-05	1.21362E-04	5.24088E-06	7.06582E-09	1.18916E-08	2.77860E-10	6.67325E-05	6.11983E-06
[1,4,5]	8.02184E-06	3.93351E-05	1.46845E-04	6.14202E-06	5.67144E-09	9.51178E-09	2.21598E-10	7.99753E-05	4.91480E-06
[1,4,6]	1.07094E-05	4.55915E-05	1.67899E-04	6.80039E-06	4.60517E-09	7.69285E-09	1.78607E-10	9.06644E-05	3.95955E-06
[2,1,1]	1.64819E-07	4.95074E-06	1.77448E-05	8.39466E-07	1.55353E-08	2.63296E-08	6.17277E-10	1.00938E-05	7.71699E-06
[2,1,2]	1.49261E-06	1.61786E-05	6.10690E-05	2.79494E-06	1.26213E-08	2.12987E-08	4.97817E-10	3.42550E-05	9.76613E-06
[2,1,3]	3.67711E-06	2.57013E-05	9.71490E-05	4.30394E-06	1.02829E-08	1.72909E-08	4.03052E-10	5.38067E-05	8.21290E-06
[2,1,4]	6.29314E-06	3.37966E-05	1.26934E-04	5.44740E-06	8.39034E-09	1.40580E-08	3.26748E-10	6.95678E-05	6.66243E-06
[2,1,5]	9.05568E-06	4.07535E-05	1.51432E-04	6.29534E-06	6.72569E-09	1.12245E-08	2.60041E-10	8.22416E-05	5.33386E-06
[2,1,6]	1.18165E-05	4.68449E-05	1.71814E-04	6.91640E-06	5.52996E-09	9.18628E-09	2.12009E-10	9.25334E-05	4.32609E-06
[2,2,1]	1.46112E-07	4.85658E-06	1.73554E-05	8.22603E-07	1.52101E-08	2.57846E-08	6.04601E-10	9.89321E-06	7.56275E-06
[2,2,2]	1.42058E-06	1.60977E-05	6.07333E-05	2.78135E-06	1.23055E-08	2.07712E-08	4.85571E-10	3.40946E-05	9.63722E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[2,2,3]	3.55394E-06	2.56291E-05	9.68312E-05	4.29177E-06	9.99474E-09	1.68123E-08	3.91983E-10	5.36639E-05	8.09791E-06
[2,2,4]	6.13956E-06	3.37329E-05	1.26659E-04	5.43758E-06	8.16276E-09	1.36828E-08	3.18124E-10	6.94533E-05	6.57111E-06
[2,2,5]	8.88985E-06	4.06973E-05	1.51218E-04	6.28827E-06	6.55960E-09	1.09536E-08	2.53861E-10	8.21601E-05	5.26903E-06
[2,2,6]	1.16161E-05	4.67909E-05	1.71593E-04	6.90942E-06	5.37121E-09	8.92873E-09	2.06161E-10	9.24531E-05	4.26299E-06
[2,3,1]	1.33587E-07	4.78338E-06	1.76207E-05	8.37129E-07	1.54592E-08	2.62145E-08	6.14815E-10	1.00707E-05	7.69702E-06
[2,3,2]	1.35394E-06	1.60281E-05	6.09340E-05	2.79249E-06	1.24881E-08	2.10880E-08	4.93120E-10	3.42310E-05	9.73969E-06
[2,3,3]	3.44956E-06	2.55707E-05	9.70257E-05	4.30218E-06	1.01904E-08	1.71503E-08	4.00012E-10	5.37909E-05	8.19612E-06
[2,3,4]	5.99609E-06	3.36760E-05	1.26764E-04	5.44403E-06	8.26483E-09	1.38634E-08	3.22474E-10	6.95333E-05	6.63127E-06
[2,3,5]	8.71171E-06	4.06493E-05	1.51285E-04	6.29274E-06	6.62660E-09	1.10742E-08	2.56796E-10	8.22160E-05	5.31093E-06
[2,3,6]	1.14275E-05	4.67478E-05	1.71660E-04	6.91374E-06	5.42416E-09	9.02611E-09	2.08551E-10	9.25072E-05	4.30239E-06
[2,4,1]	1.33636E-07	4.75580E-06	1.90000E-05	9.04290E-07	1.66621E-08	2.82602E-08	6.62914E-10	1.08810E-05	8.31307E-06
[2,4,2]	1.31844E-06	1.59989E-05	6.20761E-05	2.84630E-06	1.35199E-08	2.28394E-08	5.34249E-10	3.48783E-05	1.02390E-05
[2,4,3]	3.37954E-06	2.55386E-05	9.79115E-05	4.34308E-06	1.09481E-08	1.84360E-08	4.30182E-10	5.42826E-05	8.57248E-06
[2,4,4]	5.90411E-06	3.36514E-05	1.27516E-04	5.47763E-06	8.87897E-09	1.49042E-08	3.46857E-10	6.99367E-05	6.93889E-06
[2,4,5]	8.59769E-06	4.06281E-05	1.51900E-04	6.31945E-06	7.11138E-09	1.18957E-08	2.76020E-10	8.25366E-05	5.55491E-06
[2,4,6]	1.12958E-05	4.67336E-05	1.72166E-04	6.93481E-06	5.83192E-09	9.71579E-09	2.24655E-10	9.27598E-05	4.49711E-06
[3,1,1]	4.01091E-07	7.52862E-06	2.87661E-05	1.34849E-06	1.69455E-08	2.86674E-08	6.71017E-10	1.62404E-05	1.06487E-05
[3,1,2]	2.05983E-06	1.83792E-05	7.03846E-05	3.19710E-06	1.38187E-08	2.32823E-08	5.43373E-10	3.92514E-05	1.09827E-05
[3,1,3]	4.45802E-06	2.75727E-05	1.04867E-04	4.61453E-06	1.11106E-08	1.86531E-08	4.34108E-10	5.78142E-05	9.05415E-06
[3,1,4]	7.21096E-06	3.54070E-05	1.33383E-04	5.68694E-06	9.00529E-09	1.50626E-08	3.49480E-10	7.28086E-05	7.32720E-06
[3,1,5]	1.00629E-05	4.21636E-05	1.56857E-04	6.47866E-06	7.32923E-09	1.22080E-08	2.82277E-10	8.48725E-05	5.89043E-06
[3,1,6]	1.28576E-05	4.80982E-05	1.76401E-04	7.05517E-06	5.99075E-09	9.93045E-09	2.28690E-10	9.46774E-05	4.77909E-06
[3,2,1]	3.54812E-07	7.37517E-06	2.80789E-05	1.32002E-06	1.65623E-08	2.80302E-08	6.56288E-10	1.59029E-05	1.04240E-05
[3,2,2]	1.92159E-06	1.82415E-05	6.97263E-05	3.17134E-06	1.34174E-08	2.26168E-08	5.28019E-10	3.89478E-05	1.07698E-05
[3,2,3]	4.24557E-06	2.74491E-05	1.04299E-04	4.59381E-06	1.08290E-08	1.81914E-08	4.23561E-10	5.75718E-05	8.88973E-06
[3,2,4]	6.94678E-06	3.52949E-05	1.32869E-04	5.66933E-06	8.74935E-09	1.46450E-08	3.39976E-10	7.26039E-05	7.18711E-06
[3,2,5]	9.75160E-06	4.20597E-05	1.56389E-04	6.46364E-06	7.06844E-09	1.17838E-08	2.72642E-10	8.46993E-05	5.76687E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[3,2,6]	1.25061E-05	4.80000E-05	1.75971E-04	7.04213E-06	5.79255E-09	9.61193E-09	2.21525E-10	9.45281E-05	4.67696E-06
[3,3,1]	3.21776E-07	7.23286E-06	2.83689E-05	1.33836E-06	1.66945E-08	2.82673E-08	6.62059E-10	1.61308E-05	1.05597E-05
[3,3,2]	1.80243E-06	1.81095E-05	6.99527E-05	3.18634E-06	1.35508E-08	2.28564E-08	5.33860E-10	3.91350E-05	1.08848E-05
[3,3,3]	4.05789E-06	2.73333E-05	1.04473E-04	4.60587E-06	1.08892E-08	1.83062E-08	4.26455E-10	5.77228E-05	8.97791E-06
[3,3,4]	6.69468E-06	3.51848E-05	1.32945E-04	5.67719E-06	8.80064E-09	1.47458E-08	3.42564E-10	7.27048E-05	7.24731E-06
[3,3,5]	9.45677E-06	4.19638E-05	1.56427E-04	6.46926E-06	7.11085E-09	1.18689E-08	2.74847E-10	8.47728E-05	5.81184E-06
[3,3,6]	1.21826E-05	4.79109E-05	1.75985E-04	7.04669E-06	5.80518E-09	9.64751E-09	2.22584E-10	9.45891E-05	4.71080E-06
[3,4,1]	3.19768E-07	7.14854E-06	3.04296E-05	1.43948E-06	1.78311E-08	3.02024E-08	7.07572E-10	1.73557E-05	1.13427E-05
[3,4,2]	1.73889E-06	1.80256E-05	7.16484E-05	3.26745E-06	1.44652E-08	2.44121E-08	5.70416E-10	4.01155E-05	1.15168E-05
[3,4,3]	3.93383E-06	2.72499E-05	1.05764E-04	4.66698E-06	1.15674E-08	1.94621E-08	4.53640E-10	5.84620E-05	9.45115E-06
[3,4,4]	6.54222E-06	3.51166E-05	1.34044E-04	5.72764E-06	9.36675E-09	1.57100E-08	3.65217E-10	7.33145E-05	7.63775E-06
[3,4,5]	9.26202E-06	4.19027E-05	1.57306E-04	6.50896E-06	7.54877E-09	1.26166E-08	2.92427E-10	8.52532E-05	6.11821E-06
[3,4,6]	1.19518E-05	4.78625E-05	1.76676E-04	7.07688E-06	6.11473E-09	1.01772E-08	2.35035E-10	9.49547E-05	4.94238E-06
[4,1,1]	6.90082E-07	9.98329E-06	3.85577E-05	1.79316E-06	1.49285E-08	2.52102E-08	5.89015E-10	2.16472E-05	1.19409E-05
[4,1,2]	2.61641E-06	2.04729E-05	7.86341E-05	3.54652E-06	1.21642E-08	2.04614E-08	4.76680E-10	4.36440E-05	1.12516E-05
[4,1,3]	5.18151E-06	2.93611E-05	1.11749E-04	4.88484E-06	9.84909E-09	1.65080E-08	3.83493E-10	6.13622E-05	9.20283E-06
[4,1,4]	8.03916E-06	3.69523E-05	1.39126E-04	5.89356E-06	7.97089E-09	1.33080E-08	3.08166E-10	7.56734E-05	7.43358E-06
[4,1,5]	1.09367E-05	4.35210E-05	1.61682E-04	6.63530E-06	6.48878E-09	1.07866E-08	2.48874E-10	8.71985E-05	5.98885E-06
[4,1,6]	1.37497E-05	4.93114E-05	1.80494E-04	7.17260E-06	5.31739E-09	8.79415E-09	2.02040E-10	9.65777E-05	4.86343E-06
[4,2,1]	6.09201E-07	9.77050E-06	3.76040E-05	1.75506E-06	1.46082E-08	2.46824E-08	5.76907E-10	2.11961E-05	1.16904E-05
[4,2,2]	2.40997E-06	2.02770E-05	7.76642E-05	3.50958E-06	1.17938E-08	1.98507E-08	4.62667E-10	4.32089E-05	1.09932E-05
[4,2,3]	4.87746E-06	2.91812E-05	1.10888E-04	4.85432E-06	9.52471E-09	1.59765E-08	3.71356E-10	6.10053E-05	8.99212E-06
[4,2,4]	7.66496E-06	3.67898E-05	1.38384E-04	5.86906E-06	7.74315E-09	1.29398E-08	2.99854E-10	7.53892E-05	7.27051E-06
[4,2,5]	1.05111E-05	4.33670E-05	1.60999E-04	6.61419E-06	6.28799E-09	1.04649E-08	2.41673E-10	8.69558E-05	5.84586E-06
[4,2,6]	1.32664E-05	4.91644E-05	1.79860E-04	7.15414E-06	5.13900E-09	8.51062E-09	1.95729E-10	9.63668E-05	4.74206E-06
[4,3,1]	5.49268E-07	9.55606E-06	3.78672E-05	1.77521E-06	1.46757E-08	2.48125E-08	5.80217E-10	2.14515E-05	1.18067E-05
[4,3,2]	2.24138E-06	2.00784E-05	7.78836E-05	3.52734E-06	1.18918E-08	2.00325E-08	4.67189E-10	4.34346E-05	1.11056E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[4,3,3]	4.61510E-06	2.90049E-05	1.11045E-04	4.86852E-06	9.60168E-09	1.61221E-08	3.75026E-10	6.11869E-05	9.07976E-06
[4,3,4]	7.31502E-06	3.66183E-05	1.38375E-04	5.87639E-06	7.73186E-09	1.29379E-08	3.00095E-10	7.54890E-05	7.31125E-06
[4,3,5]	1.00995E-05	4.32152E-05	1.60945E-04	6.61883E-06	6.26103E-09	1.04358E-08	2.41260E-10	8.70222E-05	5.87118E-06
[4,3,6]	1.28222E-05	4.90218E-05	1.79789E-04	7.15802E-06	5.12189E-09	8.49849E-09	1.95721E-10	9.64245E-05	4.76322E-06
[4,4,1]	5.43429E-07	9.40713E-06	4.04260E-05	1.90166E-06	1.55357E-08	2.62788E-08	6.14717E-10	2.29904E-05	1.26113E-05
[4,4,2]	2.14578E-06	1.99311E-05	7.99497E-05	3.62758E-06	1.25431E-08	2.11446E-08	4.93373E-10	4.46531E-05	1.17414E-05
[4,4,3]	4.44600E-06	2.88618E-05	1.12618E-04	4.94463E-06	1.01135E-08	1.69990E-08	3.95713E-10	6.21136E-05	9.56435E-06
[4,4,4]	7.10437E-06	3.64992E-05	1.39722E-04	5.93971E-06	8.17114E-09	1.36902E-08	3.17823E-10	7.62594E-05	7.71648E-06
[4,4,5]	9.83319E-06	4.31054E-05	1.61991E-04	6.66776E-06	6.57867E-09	1.09833E-08	2.54207E-10	8.76193E-05	6.18103E-06
[4,4,6]	1.25120E-05	4.89310E-05	1.80600E-04	7.19499E-06	5.35650E-09	8.90453E-09	2.05341E-10	9.68765E-05	4.99597E-06
[5,1,1]	9.45391E-07	1.22271E-05	4.65389E-05	2.15009E-06	1.21299E-08	2.04643E-08	4.77685E-10	2.60367E-05	1.18950E-05
[5,1,2]	3.03254E-06	2.23833E-05	8.52865E-05	3.82244E-06	9.81705E-09	1.64995E-08	3.84034E-10	4.71871E-05	1.06725E-05
[5,1,3]	5.68098E-06	3.09901E-05	1.17263E-04	5.09510E-06	7.92946E-09	1.32803E-08	3.08223E-10	6.42176E-05	8.68465E-06
[5,1,4]	8.56462E-06	3.83609E-05	1.43727E-04	6.05232E-06	6.44034E-09	1.07447E-08	2.48576E-10	7.79877E-05	7.01499E-06
[5,1,5]	1.14731E-05	4.47604E-05	1.65532E-04	6.75299E-06	5.24160E-09	8.70652E-09	2.00677E-10	8.90773E-05	5.65792E-06
[5,1,6]	1.42603E-05	5.04189E-05	1.83752E-04	7.25853E-06	4.30695E-09	7.11753E-09	1.63345E-10	9.81170E-05	4.60066E-06
[5,2,1]	8.29137E-07	1.19545E-05	4.51875E-05	2.09632E-06	1.16083E-08	1.95942E-08	4.57514E-10	2.53988E-05	1.15613E-05
[5,2,2]	2.77412E-06	2.21327E-05	8.39671E-05	3.77259E-06	9.38692E-09	1.57868E-08	3.67612E-10	4.65987E-05	1.03641E-05
[5,2,3]	5.31098E-06	3.07580E-05	1.16094E-04	5.05396E-06	7.57589E-09	1.26983E-08	2.94893E-10	6.37354E-05	8.43331E-06
[5,2,4]	8.11142E-06	3.81467E-05	1.42681E-04	6.01774E-06	6.10562E-09	1.01957E-08	2.36026E-10	7.75852E-05	6.80183E-06
[5,2,5]	1.09587E-05	4.45555E-05	1.64577E-04	6.72348E-06	4.96291E-09	8.25302E-09	1.90381E-10	8.87368E-05	5.47659E-06
[5,2,6]	1.36862E-05	5.02214E-05	1.82869E-04	7.23281E-06	4.06616E-09	6.72850E-09	1.54569E-10	9.78221E-05	4.44621E-06
[5,3,1]	7.47118E-07	1.16708E-05	4.52518E-05	2.11006E-06	1.14050E-08	1.92638E-08	4.49984E-10	2.55829E-05	1.15762E-05
[5,3,2]	2.56420E-06	2.18670E-05	8.39929E-05	3.78455E-06	9.20319E-09	1.54907E-08	3.60907E-10	4.67604E-05	1.03830E-05
[5,3,3]	4.98716E-06	3.05189E-05	1.16055E-04	5.06242E-06	7.39363E-09	1.24051E-08	2.88265E-10	6.38536E-05	8.43630E-06
[5,3,4]	7.69728E-06	3.79149E-05	1.42491E-04	6.02030E-06	5.95343E-09	9.95492E-09	2.30668E-10	7.76328E-05	6.78376E-06
[5,3,5]	1.04737E-05	4.43472E-05	1.64364E-04	6.72423E-06	4.83910E-09	8.05976E-09	1.86132E-10	8.87611E-05	5.45736E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[5,3,6]	1.31536E-05	5.00205E-05	1.82612E-04	7.23203E-06	3.91739E-09	6.49495E-09	1.49406E-10	9.78290E-05	4.41656E-06
[5,4,1]	7.31083E-07	1.14567E-05	4.79369E-05	2.24410E-06	1.16852E-08	1.97459E-08	4.61355E-10	2.72249E-05	1.22061E-05
[5,4,2]	2.44610E-06	2.16575E-05	8.61493E-05	3.89085E-06	9.42765E-09	1.58800E-08	3.70136E-10	4.80621E-05	1.08825E-05
[5,4,3]	4.78741E-06	3.03157E-05	1.17649E-04	5.14172E-06	7.51841E-09	1.26273E-08	2.93613E-10	6.48275E-05	8.80292E-06
[5,4,4]	7.44159E-06	3.77403E-05	1.43834E-04	6.08557E-06	6.03522E-09	1.01038E-08	2.34290E-10	7.84346E-05	7.08328E-06
[5,4,5]	1.01527E-05	4.41841E-05	1.65384E-04	6.77436E-06	4.89340E-09	8.16356E-09	1.88729E-10	8.93799E-05	5.68465E-06
[5,4,6]	1.27806E-05	4.98834E-05	1.83396E-04	7.26986E-06	3.95743E-09	6.57348E-09	1.51398E-10	9.82972E-05	4.58749E-06

Table 33. Number densities for Case-2A, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1]	7.15772E-06	1.16780E-07	9.00253E-07	8.39422E-08	5.73189E-08	1.06809E-12	4.29886E-11
[1,1,2]	4.71124E-05	9.48143E-08	8.59327E-07	7.18001E-08	7.56130E-07	2.70128E-12	1.62791E-09
[1,1,3]	7.87946E-05	7.69440E-08	7.34858E-07	6.08531E-08	1.79333E-06	3.74884E-12	5.61111E-09
[1,1,4]	1.03720E-04	6.24124E-08	6.26850E-07	5.15735E-08	3.01564E-06	4.54023E-12	1.16631E-08
[1,1,5]	1.23235E-04	4.99994E-08	5.30585E-07	4.33267E-08	4.34056E-06	5.10261E-12	1.92955E-08
[1,1,6]	1.38406E-04	4.07844E-08	4.58891E-07	3.72335E-08	5.70533E-06	5.58421E-12	2.79530E-08
[1,2,1]	7.02361E-06	1.14583E-07	8.82127E-07	8.22769E-08	5.42075E-08	1.00855E-12	3.69592E-11
[1,2,2]	4.70371E-05	9.35710E-08	8.47844E-07	7.07677E-08	7.52517E-07	2.61324E-12	1.57607E-09
[1,2,3]	7.87311E-05	7.58908E-08	7.24374E-07	5.99206E-08	1.78948E-06	3.63104E-12	5.49892E-09
[1,2,4]	1.03667E-04	6.15200E-08	6.17309E-07	5.07321E-08	3.01224E-06	4.39995E-12	1.14789E-08
[1,2,5]	1.23199E-04	4.93909E-08	5.23345E-07	4.26966E-08	4.33863E-06	4.95148E-12	1.90220E-08
[1,2,6]	1.38367E-04	4.01316E-08	4.50868E-07	3.65362E-08	5.70134E-06	5.38863E-12	2.76643E-08
[1,3,1]	7.16168E-06	1.16823E-07	8.97815E-07	8.37770E-08	5.26974E-08	9.79194E-13	3.29200E-11
[1,3,2]	4.71481E-05	9.53748E-08	8.60888E-07	7.20049E-08	7.52472E-07	2.59544E-12	1.53559E-09
[1,3,3]	7.88199E-05	7.73344E-08	7.35102E-07	6.09323E-08	1.79065E-06	3.61575E-12	5.41143E-09
[1,3,4]	1.03734E-04	6.26177E-08	6.25257E-07	5.14875E-08	3.01416E-06	4.36230E-12	1.13052E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,3,5]	1.23248E-04	5.01956E-08	5.29320E-07	4.32627E-08	4.34135E-06	4.90628E-12	1.87952E-08
[1,3,6]	1.38422E-04	4.10280E-08	4.58163E-07	3.72167E-08	5.70819E-06	5.37336E-12	2.73282E-08
[1,4,1]	7.76096E-06	1.26584E-07	9.71365E-07	9.06848E-08	5.49468E-08	1.02024E-12	3.25287E-11
[1,4,2]	4.75862E-05	1.02529E-07	9.17533E-07	7.72680E-08	7.59545E-07	2.71581E-12	1.51329E-09
[1,4,3]	7.91682E-05	8.30340E-08	7.81917E-07	6.52541E-08	1.80077E-06	3.77426E-12	5.34623E-09
[1,4,4]	1.04025E-04	6.73826E-08	6.66207E-07	5.52425E-08	3.02733E-06	4.57566E-12	1.12354E-08
[1,4,5]	1.23481E-04	5.40236E-08	5.63512E-07	4.63842E-08	4.35609E-06	5.12686E-12	1.86723E-08
[1,4,6]	1.38591E-04	4.38096E-08	4.84162E-07	3.95785E-08	5.72333E-06	5.56832E-12	2.71252E-08
[2,1,1]	1.61794E-05	1.49484E-07	1.38784E-06	1.08756E-07	1.72198E-07	2.18658E-12	2.34002E-10
[2,1,2]	5.43082E-05	1.21295E-07	1.21925E-06	9.27702E-08	9.59462E-07	4.17968E-12	2.55265E-09
[2,1,3]	8.45386E-05	9.87072E-08	1.04561E-06	7.89054E-08	2.04419E-06	5.57578E-12	7.40217E-09
[2,1,4]	1.08295E-04	8.04399E-08	8.97750E-07	6.73327E-08	3.29405E-06	6.68341E-12	1.43050E-08
[2,1,5]	1.26790E-04	6.43918E-08	7.60257E-07	5.66231E-08	4.62535E-06	7.41244E-12	2.26604E-08
[2,1,6]	1.41225E-04	5.28553E-08	6.62986E-07	4.90945E-08	5.99087E-06	8.10779E-12	3.21098E-08
[2,2,1]	1.58588E-05	1.46368E-07	1.35500E-06	1.06193E-07	1.59658E-07	2.00028E-12	1.96276E-10
[2,2,2]	5.40523E-05	1.18280E-07	1.18725E-06	9.01617E-08	9.44086E-07	3.91231E-12	2.38307E-09
[2,2,3]	8.43115E-05	9.59636E-08	1.01468E-06	7.63903E-08	2.02720E-06	5.22143E-12	7.03274E-09
[2,2,4]	1.08113E-04	7.82784E-08	8.71007E-07	6.51909E-08	3.27752E-06	6.27306E-12	1.37384E-08
[2,2,5]	1.26662E-04	6.28219E-08	7.38840E-07	5.49186E-08	4.61136E-06	6.98850E-12	2.19352E-08
[2,2,6]	1.41099E-04	5.13577E-08	6.41287E-07	4.73887E-08	5.97727E-06	7.63066E-12	3.11411E-08
[2,3,1]	1.61448E-05	1.48783E-07	1.37238E-06	1.07574E-07	1.51028E-07	1.85925E-12	1.67473E-10
[2,3,2]	5.42724E-05	1.20057E-07	1.19942E-06	9.11033E-08	9.37790E-07	3.74994E-12	2.23276E-09
[2,3,3]	8.45166E-05	9.78614E-08	1.02819E-06	7.74864E-08	2.02471E-06	5.06551E-12	6.74217E-09
[2,3,4]	1.08243E-04	7.92821E-08	8.76079E-07	6.55767E-08	3.27494E-06	6.05113E-12	1.32498E-08
[2,3,5]	1.26753E-04	6.34869E-08	7.41157E-07	5.50840E-08	4.61242E-06	6.73445E-12	2.11997E-08
[2,3,6]	1.41188E-04	5.18909E-08	6.42664E-07	4.74422E-08	5.98316E-06	7.34472E-12	3.01995E-08
[2,4,1]	1.74461E-05	1.60381E-07	1.47549E-06	1.15642E-07	1.53448E-07	1.85913E-12	1.59331E-10

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[2,4,2]	5.53118E-05	1.29990E-07	1.28921E-06	9.82328E-08	9.50929E-07	3.84414E-12	2.17157E-09
[2,4,3]	8.53061E-05	1.05161E-07	1.09606E-06	8.27800E-08	2.04254E-06	5.15514E-12	6.55844E-09
[2,4,4]	1.08891E-04	8.51997E-08	9.33338E-07	6.99885E-08	3.30020E-06	6.17661E-12	1.29542E-08
[2,4,5]	1.27268E-04	6.81602E-08	7.87584E-07	5.86344E-08	4.63975E-06	6.85124E-12	2.08102E-08
[2,4,6]	1.41593E-04	5.58170E-08	6.82783E-07	5.05669E-08	6.01509E-06	7.50230E-12	2.96482E-08
[3,1,1]	2.59747E-05	1.63183E-07	1.63908E-06	1.20609E-07	3.45558E-07	3.35935E-12	6.47084E-10
[3,1,2]	6.21618E-05	1.32907E-07	1.42220E-06	1.03082E-07	1.22118E-06	5.44280E-12	3.84493E-09
[3,1,3]	9.07304E-05	1.06751E-07	1.20751E-06	8.65658E-08	2.35052E-06	6.85579E-12	9.63990E-09
[3,1,4]	1.13198E-04	8.64186E-08	1.03320E-06	7.34623E-08	3.62562E-06	7.97837E-12	1.74418E-08
[3,1,5]	1.30669E-04	7.02227E-08	8.87492E-07	6.28773E-08	4.96662E-06	8.88046E-12	2.67079E-08
[3,1,6]	1.44288E-04	5.73046E-08	7.71974E-07	5.42526E-08	6.33003E-06	9.55055E-12	3.69303E-08
[3,2,1]	2.54370E-05	1.59514E-07	1.59440E-06	1.17355E-07	3.16131E-07	3.01626E-12	5.33075E-10
[3,2,2]	6.16790E-05	1.29071E-07	1.37456E-06	9.95589E-08	1.18540E-06	4.98007E-12	3.48204E-09
[3,2,3]	9.03466E-05	1.04064E-07	1.16847E-06	8.38202E-08	2.31288E-06	6.33141E-12	8.96202E-09
[3,2,4]	1.12875E-04	8.39845E-08	9.96433E-07	7.08379E-08	3.58851E-06	7.38572E-12	1.64227E-08
[3,2,5]	1.30397E-04	6.77517E-08	8.50234E-07	6.01061E-08	4.93088E-06	8.17219E-12	2.53257E-08
[3,2,6]	1.44054E-04	5.54329E-08	7.39910E-07	5.19575E-08	6.29720E-06	8.83304E-12	3.51990E-08
[3,3,1]	2.58043E-05	1.60822E-07	1.59952E-06	1.17639E-07	2.92475E-07	2.71542E-12	4.46327E-10
[3,3,2]	6.19817E-05	1.30388E-07	1.37857E-06	9.98471E-08	1.16435E-06	4.64454E-12	3.19126E-09
[3,3,3]	9.05914E-05	1.04682E-07	1.16754E-06	8.36063E-08	2.29658E-06	5.94497E-12	8.38307E-09
[3,3,4]	1.13040E-04	8.45122E-08	9.92431E-07	7.05297E-08	3.57206E-06	6.94939E-12	1.55495E-08
[3,3,5]	1.30518E-04	6.81920E-08	8.45672E-07	5.97905E-08	4.92130E-06	7.72733E-12	2.40688E-08
[3,3,6]	1.44156E-04	5.55886E-08	7.32166E-07	5.13795E-08	6.29333E-06	8.32744E-12	3.35734E-08
[3,4,1]	2.77674E-05	1.71806E-07	1.70285E-06	1.25111E-07	2.91183E-07	2.63703E-12	4.14093E-10
[3,4,2]	6.35530E-05	1.39230E-07	1.46421E-06	1.05923E-07	1.17709E-06	4.60258E-12	3.05282E-09
[3,4,3]	9.17762E-05	1.11244E-07	1.23052E-06	8.80574E-08	2.31399E-06	5.87343E-12	8.06228E-09
[3,4,4]	1.14017E-04	8.99889E-08	1.04623E-06	7.43321E-08	3.60079E-06	6.91449E-12	1.50429E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[3,4,5]	1.31288E-04	7.24342E-08	8.87222E-07	6.26984E-08	4.95218E-06	7.66206E-12	2.33985E-08
[3,4,6]	1.44742E-04	5.85977E-08	7.63057E-07	5.34249E-08	6.32995E-06	8.23269E-12	3.26350E-08
[4,1,1]	3.45506E-05	1.43978E-07	1.56498E-06	1.07732E-07	5.34129E-07	3.71125E-12	1.19462E-09
[4,1,2]	6.90217E-05	1.17180E-07	1.35183E-06	9.19087E-08	1.48167E-06	5.48452E-12	5.16776E-09
[4,1,3]	9.61665E-05	9.47612E-08	1.15227E-06	7.78071E-08	2.65084E-06	6.77269E-12	1.17299E-08
[4,1,4]	1.17484E-04	7.65906E-08	9.85676E-07	6.60553E-08	3.94611E-06	7.76516E-12	2.02607E-08
[4,1,5]	1.34049E-04	6.22551E-08	8.49764E-07	5.66038E-08	5.29336E-06	8.51977E-12	3.01547E-08
[4,1,6]	1.46952E-04	5.09252E-08	7.41624E-07	4.90736E-08	6.65402E-06	9.12505E-12	4.09554E-08
[4,2,1]	3.38341E-05	1.40909E-07	1.52057E-06	1.04800E-07	4.85185E-07	3.30584E-12	9.77978E-10
[4,2,2]	6.83318E-05	1.13636E-07	1.30119E-06	8.84843E-08	1.42231E-06	4.95005E-12	4.59713E-09
[4,2,3]	9.56025E-05	9.16704E-08	1.10587E-06	7.45985E-08	2.58827E-06	6.14125E-12	1.07060E-08
[4,2,4]	1.17036E-04	7.44252E-08	9.47462E-07	6.35425E-08	3.88635E-06	7.12263E-12	1.88042E-08
[4,2,5]	1.33669E-04	6.03494E-08	8.12862E-07	5.42292E-08	5.23451E-06	7.81772E-12	2.82522E-08
[4,2,6]	1.46623E-04	4.92404E-08	7.07453E-07	4.68365E-08	6.60087E-06	8.37953E-12	3.85152E-08
[4,3,1]	3.42462E-05	1.41593E-07	1.51631E-06	1.04518E-07	4.43078E-07	2.92925E-12	8.08023E-10
[4,3,2]	6.86971E-05	1.14613E-07	1.29903E-06	8.84125E-08	1.38338E-06	4.54403E-12	4.14841E-09
[4,3,3]	9.58978E-05	9.24402E-08	1.10144E-06	7.44069E-08	2.55482E-06	5.70437E-12	9.89156E-09
[4,3,4]	1.17202E-04	7.43558E-08	9.34065E-07	6.26097E-08	3.85000E-06	6.56318E-12	1.75536E-08
[4,3,5]	1.33781E-04	6.01297E-08	7.98720E-07	5.32240E-08	5.20808E-06	7.23881E-12	2.64765E-08
[4,3,6]	1.46721E-04	4.91123E-08	6.93240E-07	4.58983E-08	6.58094E-06	7.77839E-12	3.63188E-08
[4,4,1]	3.67081E-05	1.49928E-07	1.59848E-06	1.10020E-07	4.35046E-07	2.78930E-12	7.39481E-10
[4,4,2]	7.06466E-05	1.20934E-07	1.36208E-06	9.25134E-08	1.39008E-06	4.39095E-12	3.92110E-09
[4,4,3]	9.73811E-05	9.74107E-08	1.14852E-06	7.75298E-08	2.56527E-06	5.51081E-12	9.44205E-09
[4,4,4]	1.18435E-04	7.86208E-08	9.75226E-07	6.53543E-08	3.87565E-06	6.41572E-12	1.68735E-08
[4,4,5]	1.34737E-04	6.32234E-08	8.27105E-07	5.50670E-08	5.23430E-06	7.01845E-12	2.55412E-08
[4,4,6]	1.47445E-04	5.14008E-08	7.13670E-07	4.72216E-08	6.61483E-06	7.55539E-12	3.50481E-08
[5,1,1]	4.14765E-05	1.17064E-07	1.33859E-06	8.82871E-08	7.06912E-07	3.41755E-12	1.68047E-09

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[5,1,2]	7.45062E-05	9.46423E-08	1.14801E-06	7.47382E-08	1.70862E-06	4.76745E-12	6.12578E-09
[5,1,3]	1.00483E-04	7.63603E-08	9.77279E-07	6.30960E-08	2.90795E-06	5.73647E-12	1.30521E-08
[5,1,4]	1.20881E-04	6.19382E-08	8.38195E-07	5.37739E-08	4.22079E-06	6.50815E-12	2.18394E-08
[5,1,5]	1.36709E-04	5.03346E-08	7.23543E-07	4.61022E-08	5.57409E-06	7.10298E-12	3.19427E-08
[5,1,6]	1.49036E-04	4.12873E-08	6.33365E-07	4.00921E-08	6.93417E-06	7.54715E-12	4.28005E-08
[5,2,1]	4.04636E-05	1.12075E-07	1.27894E-06	8.39353E-08	6.36086E-07	2.96754E-12	1.36775E-09
[5,2,2]	7.35745E-05	9.05279E-08	1.09221E-06	7.08987E-08	1.62462E-06	4.22347E-12	5.39139E-09
[5,2,3]	9.97221E-05	7.29839E-08	9.27295E-07	5.97101E-08	2.81965E-06	5.12007E-12	1.17853E-08
[5,2,4]	1.20248E-04	5.87529E-08	7.90602E-07	5.04360E-08	4.13352E-06	5.80609E-12	2.00582E-08
[5,2,5]	1.36175E-04	4.76889E-08	6.80037E-07	4.31178E-08	5.48819E-06	6.34733E-12	2.96142E-08
[5,2,6]	1.48576E-04	3.90064E-08	5.93041E-07	3.73425E-08	6.85468E-06	6.76380E-12	3.98924E-08
[5,3,1]	4.07616E-05	1.10163E-07	1.25249E-06	8.17875E-08	5.74029E-07	2.56041E-12	1.11526E-09
[5,3,2]	7.38377E-05	8.88076E-08	1.06679E-06	6.88090E-08	1.56390E-06	3.74475E-12	4.79681E-09
[5,3,3]	9.99166E-05	7.12777E-08	9.01162E-07	5.75995E-08	2.76371E-06	4.59247E-12	1.07751E-08
[5,3,4]	1.20331E-04	5.73296E-08	7.63724E-07	4.84658E-08	4.07374E-06	5.21802E-12	1.85524E-08
[5,3,5]	1.36222E-04	4.65346E-08	6.55556E-07	4.13731E-08	5.43919E-06	5.74597E-12	2.75654E-08
[5,3,6]	1.48595E-04	3.76186E-08	5.65222E-07	3.53124E-08	6.81014E-06	6.06504E-12	3.73223E-08
[5,4,1]	4.33824E-05	1.12930E-07	1.28655E-06	8.32701E-08	5.55638E-07	2.35243E-12	1.00973E-09
[5,4,2]	7.59159E-05	9.10274E-08	1.09172E-06	6.98729E-08	1.55923E-06	3.50146E-12	4.50747E-09
[5,4,3]	1.01473E-04	7.25358E-08	9.13678E-07	5.78832E-08	2.76014E-06	4.27118E-12	1.02147E-08
[5,4,4]	1.21613E-04	5.81697E-08	7.72068E-07	4.84797E-08	4.08592E-06	4.88340E-12	1.77266E-08
[5,4,5]	1.37212E-04	4.71048E-08	6.58149E-07	4.11475E-08	5.45124E-06	5.36416E-12	2.64260E-08
[5,4,6]	1.49345E-04	3.80431E-08	5.65787E-07	3.50556E-08	6.83212E-06	5.69355E-12	3.58034E-08

Table 34. Number densities for Case-2A, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1]	9.89960E-09	1.41577E-06	6.36085E-10	8.12237E-10	3.14371E-09	1.17386E-10
[1,1,2]	1.29072E-08	1.27360E-06	5.57729E-10	6.91539E-10	2.62929E-09	9.69840E-11
[1,1,3]	1.10432E-08	1.07658E-06	4.80001E-10	5.84295E-10	2.19246E-09	8.01463E-11
[1,1,4]	9.40316E-09	9.10080E-07	4.11699E-10	4.93875E-10	1.83090E-09	6.63822E-11
[1,1,5]	7.97507E-09	7.63351E-07	3.49718E-10	4.13817E-10	1.51527E-09	5.44781E-11
[1,1,6]	6.88690E-09	6.54498E-07	3.03931E-10	3.54671E-10	1.28181E-09	4.56670E-11
[1,2,1]	9.70027E-09	1.38783E-06	6.23130E-10	7.96203E-10	3.08278E-09	1.15138E-10
[1,2,2]	1.27809E-08	1.25635E-06	5.49402E-10	6.81670E-10	2.59286E-09	9.56671E-11
[1,2,3]	1.09278E-08	1.06103E-06	4.72344E-10	5.75417E-10	2.16025E-09	7.89970E-11
[1,2,4]	9.29813E-09	8.96040E-07	4.04694E-10	4.85892E-10	1.80240E-09	6.53766E-11
[1,2,5]	7.89533E-09	7.52821E-07	3.44367E-10	4.07871E-10	1.49451E-09	5.37581E-11
[1,2,6]	6.79843E-09	6.42909E-07	2.97999E-10	3.48095E-10	1.25898E-09	4.48781E-11
[1,3,1]	9.87276E-09	1.41321E-06	6.34070E-10	8.10828E-10	3.14081E-09	1.17340E-10
[1,3,2]	1.29243E-08	1.27719E-06	5.58564E-10	6.93704E-10	2.64017E-09	9.74504E-11
[1,3,3]	1.10458E-08	1.07801E-06	4.79920E-10	5.85241E-10	2.19859E-09	8.04341E-11
[1,3,4]	9.38556E-09	9.08712E-07	4.10283E-10	4.93246E-10	1.83129E-09	6.64647E-11
[1,3,5]	7.96107E-09	7.62230E-07	3.48585E-10	4.13376E-10	1.51600E-09	5.45636E-11
[1,3,6]	6.87877E-09	6.54156E-07	3.03191E-10	3.54679E-10	1.28412E-09	4.58080E-11
[1,4,1]	1.06815E-08	1.52959E-06	6.86029E-10	8.77790E-10	3.40134E-09	1.27094E-10
[1,4,2]	1.35472E-08	1.36554E-06	5.98929E-10	7.44554E-10	2.83537E-09	1.04690E-10
[1,4,3]	1.15607E-08	1.15037E-06	5.13433E-10	6.26910E-10	2.35706E-09	8.62746E-11
[1,4,4]	9.83612E-09	9.71388E-07	4.39737E-10	5.29364E-10	1.96715E-09	7.14346E-11
[1,4,5]	8.33747E-09	8.14220E-07	3.73249E-10	4.43351E-10	1.62777E-09	5.86282E-11
[1,4,6]	7.16522E-09	6.93305E-07	3.22020E-10	3.77317E-10	1.36767E-09	4.88237E-11
[2,1,1]	1.84592E-08	2.11207E-06	8.30118E-10	1.04211E-09	4.01150E-09	1.49168E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[2,1,2]	1.75781E-08	1.80821E-06	7.23817E-10	8.85263E-10	3.35178E-09	1.23225E-10
[2,1,3]	1.50686E-08	1.53370E-06	6.24527E-10	7.50716E-10	2.80561E-09	1.02234E-10
[2,1,4]	1.29158E-08	1.30483E-06	5.39297E-10	6.38901E-10	2.35818E-09	8.52050E-11
[2,1,5]	1.09461E-08	1.09520E-06	4.58538E-10	5.35861E-10	1.95305E-09	6.99581E-11
[2,1,6]	9.52931E-09	9.46638E-07	4.02200E-10	4.63355E-10	1.66594E-09	5.91065E-11
[2,2,1]	1.80336E-08	2.06384E-06	8.09430E-10	1.01778E-09	3.92165E-09	1.45923E-10
[2,2,2]	1.71854E-08	1.76141E-06	7.02475E-10	8.60511E-10	3.26156E-09	1.19996E-10
[2,2,3]	1.46911E-08	1.48882E-06	6.03691E-10	7.26920E-10	2.72012E-09	9.92070E-11
[2,2,4]	1.25875E-08	1.26652E-06	5.21262E-10	6.18727E-10	2.28707E-09	8.27219E-11
[2,2,5]	1.06844E-08	1.06488E-06	4.43933E-10	5.19875E-10	1.89787E-09	6.80627E-11
[2,2,6]	9.26157E-09	9.16069E-07	3.87503E-10	4.47393E-10	1.61137E-09	5.72451E-11
[2,3,1]	1.82804E-08	2.09245E-06	8.18525E-10	1.03131E-09	3.97855E-09	1.48158E-10
[2,3,2]	1.73655E-08	1.78165E-06	7.08391E-10	8.69800E-10	3.30167E-09	1.21596E-10
[2,3,3]	1.48777E-08	1.51073E-06	6.11068E-10	7.37668E-10	2.76495E-09	1.00960E-10
[2,3,4]	1.26715E-08	1.27561E-06	5.23064E-10	6.22681E-10	2.30640E-09	8.35421E-11
[2,3,5]	1.07311E-08	1.06959E-06	4.44162E-10	5.21695E-10	1.90863E-09	6.85553E-11
[2,3,6]	9.30266E-09	9.19272E-07	3.86798E-10	4.48139E-10	1.61822E-09	5.75986E-11
[2,4,1]	1.96754E-08	2.25132E-06	8.78743E-10	1.10892E-09	4.28193E-09	1.59546E-10
[2,4,2]	1.85541E-08	1.91880E-06	7.62423E-10	9.38289E-10	3.56656E-09	1.31469E-10
[2,4,3]	1.57906E-08	1.61378E-06	6.51277E-10	7.88463E-10	2.96084E-09	1.08246E-10
[2,4,4]	1.34471E-08	1.36176E-06	5.56842E-10	6.64936E-10	2.46805E-09	8.95236E-11
[2,4,5]	1.13638E-08	1.13901E-06	4.71404E-10	5.55678E-10	2.03806E-09	7.33308E-11
[2,4,6]	9.83730E-09	9.78894E-07	4.11072E-10	4.78014E-10	1.73056E-09	6.17090E-11
[3,1,1]	2.39871E-08	2.44085E-06	9.27817E-10	1.15239E-09	4.41108E-09	1.63371E-10
[3,1,2]	2.13193E-08	2.08149E-06	8.08606E-10	9.81249E-10	3.69838E-09	1.35525E-10
[3,1,3]	1.81503E-08	1.74786E-06	6.88149E-10	8.21532E-10	3.05721E-09	1.11060E-10
[3,1,4]	1.55415E-08	1.48147E-06	5.90731E-10	6.95252E-10	2.55514E-09	9.20314E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[3,1,5]	1.33072E-08	1.26177E-06	5.11408E-10	5.93539E-10	2.15283E-09	7.68372E-11
[3,1,6]	1.15843E-08	1.08741E-06	4.46325E-10	5.10683E-10	1.82714E-09	6.45843E-11
[3,2,1]	2.33583E-08	2.37746E-06	9.00807E-10	1.12173E-09	4.30044E-09	1.59445E-10
[3,2,2]	2.06684E-08	2.01392E-06	7.79242E-10	9.48077E-10	3.57956E-09	1.31331E-10
[3,2,3]	1.75988E-08	1.69366E-06	6.64727E-10	7.95890E-10	2.96778E-09	1.07968E-10
[3,2,4]	1.50308E-08	1.43064E-06	5.68210E-10	6.70765E-10	2.47064E-09	8.91313E-11
[3,2,5]	1.28124E-08	1.21012E-06	4.87530E-10	5.67659E-10	2.06416E-09	7.38101E-11
[3,2,6]	1.11444E-08	1.04351E-06	4.26274E-10	4.89364E-10	1.75545E-09	6.21742E-11
[3,3,1]	2.34942E-08	2.38851E-06	9.00478E-10	1.12494E-09	4.32119E-09	1.60429E-10
[3,3,2]	2.07705E-08	2.02328E-06	7.79065E-10	9.51355E-10	3.60041E-09	1.32314E-10
[3,3,3]	1.76488E-08	1.69488E-06	6.60889E-10	7.94276E-10	2.96947E-09	1.08228E-10
[3,3,4]	1.50138E-08	1.42773E-06	5.63629E-10	6.68332E-10	2.46941E-09	8.92895E-11
[3,3,5]	1.27772E-08	1.20609E-06	4.83117E-10	5.65130E-10	2.06182E-09	7.39086E-11
[3,3,6]	1.10725E-08	1.03487E-06	4.19694E-10	4.84354E-10	1.74419E-09	6.19567E-11
[3,4,1]	2.50811E-08	2.54532E-06	9.55593E-10	1.19680E-09	4.60422E-09	1.71105E-10
[3,4,2]	2.20963E-08	2.15221E-06	8.24102E-10	1.00970E-09	3.82935E-09	1.40929E-10
[3,4,3]	1.86365E-08	1.78977E-06	6.93590E-10	8.37097E-10	3.13832E-09	1.14602E-10
[3,4,4]	1.58565E-08	1.50820E-06	5.91773E-10	7.04882E-10	2.61252E-09	9.46684E-11
[3,4,5]	1.34393E-08	1.26826E-06	5.04371E-10	5.93139E-10	2.17210E-09	7.80705E-11
[3,4,6]	1.15859E-08	1.08058E-06	4.34496E-10	5.04046E-10	1.82200E-09	6.49001E-11
[4,1,1]	2.49582E-08	2.28562E-06	8.33509E-10	1.02576E-09	3.90903E-09	1.44317E-10
[4,1,2]	2.17541E-08	1.94556E-06	7.23769E-10	8.72007E-10	3.27468E-09	1.19683E-10
[4,1,3]	1.85385E-08	1.64138E-06	6.20716E-10	7.36157E-10	2.72934E-09	9.88811E-11
[4,1,4]	1.58672E-08	1.39075E-06	5.33156E-10	6.23237E-10	2.28112E-09	8.19121E-11
[4,1,5]	1.36549E-08	1.18852E-06	4.62010E-10	5.32604E-10	1.92381E-09	6.84486E-11
[4,1,6]	1.19140E-08	1.02755E-06	4.05352E-10	4.60449E-10	1.63973E-09	5.77509E-11
[4,2,1]	2.42666E-08	2.22482E-06	8.08611E-10	9.98377E-10	3.81236E-09	1.40945E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[4,2,2]	2.09869E-08	1.87574E-06	6.94868E-10	8.39973E-10	3.16149E-09	1.15729E-10
[4,2,3]	1.78498E-08	1.57786E-06	5.93288E-10	7.06188E-10	2.62514E-09	9.52859E-11
[4,2,4]	1.52816E-08	1.33947E-06	5.11253E-10	5.99944E-10	2.20213E-09	7.92414E-11
[4,2,5]	1.30887E-08	1.13934E-06	4.41109E-10	5.10686E-10	1.85056E-09	6.60011E-11
[4,2,6]	1.13954E-08	9.82200E-07	3.85514E-10	4.39814E-10	1.57156E-09	5.54941E-11
[4,3,1]	2.42636E-08	2.22298E-06	8.03587E-10	9.96313E-10	3.81414E-09	1.41259E-10
[4,3,2]	2.09961E-08	1.87705E-06	6.91594E-10	8.39930E-10	3.17085E-09	1.16318E-10
[4,3,3]	1.78172E-08	1.57542E-06	5.89345E-10	7.05000E-10	2.62950E-09	9.56733E-11
[4,3,4]	1.51287E-08	1.32388E-06	5.01345E-10	5.91693E-10	2.18066E-09	7.87015E-11
[4,3,5]	1.29217E-08	1.12228E-06	4.30849E-10	5.01695E-10	1.82568E-09	6.53193E-11
[4,3,6]	1.12158E-08	9.65299E-07	3.75737E-10	4.31507E-10	1.54933E-09	5.49133E-11
[4,4,1]	2.56796E-08	2.34625E-06	8.43542E-10	1.04924E-09	4.02469E-09	1.49252E-10
[4,4,2]	2.21177E-08	1.97122E-06	7.21070E-10	8.79411E-10	3.32886E-09	1.22340E-10
[4,4,3]	1.86543E-08	1.64650E-06	6.11354E-10	7.35209E-10	2.75178E-09	1.00368E-10
[4,4,4]	1.58540E-08	1.38567E-06	5.20869E-10	6.18220E-10	2.28720E-09	8.27733E-11
[4,4,5]	1.34485E-08	1.16540E-06	4.43316E-10	5.19651E-10	1.89982E-09	6.82030E-11
[4,4,6]	1.16073E-08	9.96348E-07	3.84467E-10	4.44480E-10	1.60349E-09	5.70340E-11
[5,1,1]	2.27823E-08	1.92668E-06	6.85357E-10	8.39143E-10	3.18928E-09	1.17517E-10
[5,1,2]	1.96532E-08	1.62984E-06	5.89754E-10	7.07926E-10	2.65303E-09	9.68169E-11
[5,1,3]	1.67392E-08	1.37347E-06	5.04026E-10	5.95968E-10	2.20575E-09	7.98102E-11
[5,1,4]	1.43497E-08	1.16710E-06	4.34531E-10	5.06548E-10	1.85087E-09	6.63779E-11
[5,1,5]	1.23778E-08	9.98366E-07	3.76747E-10	4.33087E-10	1.56150E-09	5.54811E-11
[5,1,6]	1.08278E-08	8.65692E-07	3.31550E-10	3.75568E-10	1.33501E-09	4.69515E-11
[5,2,1]	2.19029E-08	1.84260E-06	6.49614E-10	7.98003E-10	3.03976E-09	1.12181E-10
[5,2,2]	1.87915E-08	1.55262E-06	5.57750E-10	6.71855E-10	2.52418E-09	9.22777E-11
[5,2,3]	1.59668E-08	1.30515E-06	4.75410E-10	5.64295E-10	2.09453E-09	7.59421E-11
[5,2,4]	1.36366E-08	1.10197E-06	4.06164E-10	4.75311E-10	1.74213E-09	6.26201E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[5,2,5]	1.17157E-08	9.39595E-07	3.51057E-10	4.05267E-10	1.46623E-09	5.22308E-11
[5,2,6]	1.02158E-08	8.11601E-07	3.07662E-10	3.50010E-10	1.24865E-09	4.40361E-11
[5,3,1]	2.16110E-08	1.80692E-06	6.30501E-10	7.77933E-10	2.97180E-09	1.09891E-10
[5,3,2]	1.85148E-08	1.51861E-06	5.38962E-10	6.52372E-10	2.45922E-09	9.01158E-11
[5,3,3]	1.56687E-08	1.27002E-06	4.56544E-10	5.44623E-10	2.02895E-09	7.37575E-11
[5,3,4]	1.32914E-08	1.06666E-06	3.88273E-10	4.57112E-10	1.68283E-09	6.06848E-11
[5,3,5]	1.13923E-08	9.07726E-07	3.35073E-10	3.89221E-10	1.41475E-09	5.05728E-11
[5,3,6]	9.85144E-09	7.75015E-07	2.89199E-10	3.31277E-10	1.18810E-09	4.20721E-11
[5,4,1]	2.24430E-08	1.85614E-06	6.39916E-10	7.92167E-10	3.03292E-09	1.12317E-10
[5,4,2]	1.91513E-08	1.55512E-06	5.45139E-10	6.62728E-10	2.50565E-09	9.20038E-11
[5,4,3]	1.60768E-08	1.28904E-06	4.56547E-10	5.47603E-10	2.04789E-09	7.46471E-11
[5,4,4]	1.36177E-08	1.07932E-06	3.86394E-10	4.57490E-10	1.69126E-09	6.11706E-11
[5,4,5]	1.15913E-08	9.12702E-07	3.31257E-10	3.87416E-10	1.41524E-09	5.07766E-11
[5,4,6]	9.98460E-09	7.77067E-07	2.85411E-10	3.29164E-10	1.18650E-09	4.21753E-11

Table 35. Axial flux distribution for Case-2A.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	Value	Statistical error	Value	Statistical error
5.25E+01	3.97E+13	1.90E-04	2.52E+13	2.00E-04
5.75E+01	3.96E+13	1.80E-04	3.21E+13	1.90E-04
6.25E+01	4.01E+13	1.70E-04	3.77E+13	1.70E-04
6.75E+01	4.11E+13	1.60E-04	4.26E+13	1.60E-04
7.25E+01	4.24E+13	1.60E-04	4.69E+13	1.60E-04
7.75E+01	4.39E+13	1.60E-04	5.09E+13	1.60E-04
8.25E+01	4.57E+13	1.60E-04	5.45E+13	1.50E-04
8.75E+01	4.74E+13	1.50E-04	5.77E+13	1.40E-04
9.25E+01	4.91E+13	1.40E-04	6.06E+13	1.30E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
9.75E+01	5.07E+13	1.40E-04	6.32E+13	1.30E-04
1.03E+02	5.23E+13	1.40E-04	6.55E+13	1.30E-04
1.08E+02	5.39E+13	1.40E-04	6.77E+13	1.30E-04
1.13E+02	5.54E+13	1.40E-04	6.97E+13	1.30E-04
1.18E+02	5.68E+13	1.30E-04	7.15E+13	1.20E-04
1.23E+02	5.81E+13	1.30E-04	7.31E+13	1.20E-04
1.28E+02	5.93E+13	1.20E-04	7.45E+13	1.10E-04
1.33E+02	6.05E+13	1.20E-04	7.56E+13	1.10E-04
1.38E+02	6.16E+13	1.20E-04	7.65E+13	1.10E-04
1.43E+02	6.27E+13	1.20E-04	7.72E+13	1.10E-04
1.48E+02	6.36E+13	1.20E-04	7.76E+13	1.10E-04
1.53E+02	6.45E+13	1.20E-04	7.79E+13	1.10E-04
1.58E+02	6.52E+13	1.20E-04	7.81E+13	1.10E-04
1.63E+02	6.57E+13	1.20E-04	7.82E+13	1.10E-04
1.68E+02	6.61E+13	1.20E-04	7.82E+13	1.10E-04
1.73E+02	6.63E+13	1.20E-04	7.81E+13	1.10E-04
1.78E+02	6.63E+13	1.20E-04	7.80E+13	1.10E-04
1.83E+02	6.62E+13	1.10E-04	7.78E+13	1.10E-04
1.88E+02	6.60E+13	1.10E-04	7.74E+13	1.10E-04
1.93E+02	6.57E+13	1.20E-04	7.69E+13	1.10E-04
1.98E+02	6.53E+13	1.20E-04	7.62E+13	1.10E-04
2.03E+02	6.48E+13	1.20E-04	7.54E+13	1.10E-04
2.08E+02	6.41E+13	1.20E-04	7.46E+13	1.10E-04
2.13E+02	6.32E+13	1.20E-04	7.37E+13	1.10E-04
2.18E+02	6.23E+13	1.20E-04	7.27E+13	1.20E-04
2.23E+02	6.14E+13	1.30E-04	7.15E+13	1.20E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
2.28E+02	6.03E+13	1.30E-04	7.01E+13	1.20E-04
2.33E+02	5.91E+13	1.30E-04	6.87E+13	1.30E-04
2.38E+02	5.77E+13	1.30E-04	6.72E+13	1.30E-04
2.43E+02	5.64E+13	1.30E-04	6.56E+13	1.30E-04
2.48E+02	5.50E+13	1.40E-04	])6.39E+13	1.30E-04
2.53E+02	5.35E+13	1.40E-04	6.20E+13	1.40E-04
2.58E+02	5.21E+13	1.50E-04	5.99E+13	1.40E-04
2.63E+02	5.06E+13	1.50E-04	5.75E+13	1.50E-04
2.68E+02	4.92E+13	1.50E-04	5.51E+13	1.50E-04
2.73E+02	4.80E+13	1.50E-04	5.24E+13	1.50E-04
2.78E+02	4.70E+13	1.60E-04	4.94E+13	1.60E-04
2.83E+02	4.63E+13	1.70E-04	4.60E+13	1.70E-04
2.88E+02	4.59E+13	1.70E-04	4.21E+13	1.80E-04
2.93E+02	4.61E+13	1.80E-04	3.76E+13	1.90E-04
2.98E+02	4.71E+13	1.90E-04	3.24E+13	2.00E-04

Table 36. Radial flux distribution for Case-2A.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.50E+00	5.74E+13	3.00E-04	8.10E+13	2.60E-04
4.50E+00	5.74E+13	2.30E-04	8.10E+13	1.90E-04
7.50E+00	5.73E+13	1.90E-04	8.08E+13	1.60E-04
1.05E+01	5.72E+13	1.60E-04	8.07E+13	1.40E-04
1.35E+01	5.71E+13	1.50E-04	8.04E+13	1.30E-04
1.65E+01	5.69E+13	1.30E-04	8.02E+13	1.10E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.95E+01	5.68E+13	1.20E-04	7.98E+13	1.10E-04
2.25E+01	5.65E+13	1.10E-04	7.94E+13	1.00E-04
2.55E+01	5.63E+13	1.10E-04	7.89E+13	9.00E-05
2.85E+01	5.60E+13	1.00E-04	7.83E+13	9.00E-05
3.15E+01	5.58E+13	9.00E-05	7.78E+13	8.00E-05
3.45E+01	5.55E+13	9.00E-05	7.70E+13	8.00E-05
3.75E+01	5.52E+13	8.00E-05	7.63E+13	7.00E-05
4.05E+01	5.49E+13	8.00E-05	7.54E+13	7.00E-05
4.35E+01	5.47E+13	8.00E-05	7.44E+13	7.00E-05
4.65E+01	5.44E+13	8.00E-05	7.34E+13	7.00E-05
4.95E+01	5.42E+13	7.00E-05	7.22E+13	7.00E-05
5.25E+01	5.39E+13	7.00E-05	7.10E+13	6.00E-05
5.55E+01	5.38E+13	7.00E-05	6.96E+13	6.00E-05
5.85E+01	5.36E+13	7.00E-05	6.80E+13	6.00E-05
6.15E+01	5.36E+13	7.00E-05	6.64E+13	6.00E-05
6.45E+01	5.36E+13	6.00E-05	6.45E+13	6.00E-05
6.75E+01	5.37E+13	6.00E-05	6.25E+13	6.00E-05
7.05E+01	5.40E+13	6.00E-05	6.03E+13	6.00E-05
7.35E+01	5.44E+13	6.00E-05	5.79E+13	6.00E-05
7.65E+01	5.51E+13	6.00E-05	5.52E+13	6.00E-05
7.95E+01	5.59E+13	6.00E-05	5.22E+13	6.00E-05
8.25E+01	5.69E+13	6.00E-05	4.91E+13	6.00E-05
8.55E+01	5.82E+13	6.00E-05	4.55E+13	7.00E-05
8.85E+01	5.98E+13	6.00E-05	4.18E+13	7.00E-05

Table 37. Power produced per TRISO particle and fast neutron flux (E > 1MeV) for Case-2A. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,1,1]	1.43E+02	3.90E-04	2.12E+13	1.21E-03
[2,1,1]	1.46E+02	3.30E-04	3.08E+13	1.00E-03
[3,1,1]	1.61E+02	3.10E-04	3.26E+13	9.70E-04
[4,1,1]	1.44E+02	3.30E-04	3.00E+13	1.01E-03
[5,1,1]	1.45E+02	3.70E-04	2.28E+13	1.16E-03
[1,1,2]	1.48E+02	4.00E-04	2.08E+13	1.21E-03
[2,1,2]	1.50E+02	3.50E-04	3.03E+13	1.01E-03
[3,1,2]	1.64E+02	3.30E-04	3.24E+13	9.70E-04
[4,1,2]	1.48E+02	3.50E-04	2.96E+13	1.01E-03
[5,1,2]	1.50E+02	3.90E-04	2.24E+13	1.17E-03
[1,1,3]	1.56E+02	4.20E-04	2.02E+13	1.22E-03
[2,1,3]	1.47E+02	3.60E-04	3.01E+13	1.00E-03
[3,1,3]	1.57E+02	3.40E-04	3.18E+13	9.70E-04
[4,1,3]	1.56E+02	3.60E-04	2.90E+13	1.02E-03
[5,1,3]	1.48E+02	4.10E-04	2.17E+13	1.18E-03
[1,1,4]	1.68E+02	4.40E-04	1.97E+13	1.23E-03
[2,1,4]	1.51E+02	3.80E-04	2.98E+13	1.00E-03
[3,1,4]	1.50E+02	3.60E-04	3.15E+13	9.70E-04
[4,1,4]	1.68E+02	3.80E-04	2.84E+13	1.02E-03
[5,1,4]	1.51E+02	4.30E-04	2.10E+13	1.20E-03
[1,1,5]	1.56E+02	4.60E-04	1.97E+13	1.23E-03
[2,1,5]	1.47E+02	4.00E-04	2.95E+13	1.00E-03
[3,1,5]	1.56E+02	3.70E-04	3.14E+13	9.70E-04
[4,1,5]	1.56E+02	3.90E-04	2.85E+13	1.02E-03
[5,1,5]	1.47E+02	4.40E-04	2.13E+13	1.19E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,1,6]	1.70E+02	4.80E-04	1.93E+13	1.24E-03
[2,1,6]	1.52E+02	4.10E-04	2.93E+13	1.00E-03
[3,1,6]	1.51E+02	3.90E-04	3.12E+13	9.70E-04
[4,1,6]	1.70E+02	4.10E-04	2.81E+13	1.02E-03
[5,1,6]	1.52E+02	4.60E-04	2.08E+13	1.20E-03
[1,2,1]	1.46E+02	3.90E-04	2.00E+13	1.24E-03
[2,2,1]	1.47E+02	3.30E-04	2.89E+13	1.03E-03
[3,2,1]	1.62E+02	3.10E-04	3.05E+13	1.00E-03
[4,2,1]	1.46E+02	3.30E-04	2.80E+13	1.04E-03
[5,2,1]	1.47E+02	3.80E-04	2.09E+13	1.21E-03
[1,2,2]	1.50E+02	4.00E-04	1.97E+13	1.24E-03
[2,2,2]	1.52E+02	3.50E-04	2.84E+13	1.03E-03
[3,2,2]	1.67E+02	3.30E-04	3.00E+13	1.00E-03
[4,2,2]	1.51E+02	3.50E-04	2.74E+13	1.05E-03
[5,2,2]	1.52E+02	3.90E-04	2.05E+13	1.22E-03
[1,2,3]	1.57E+02	4.20E-04	1.92E+13	1.26E-03
[2,2,3]	1.48E+02	3.70E-04	2.81E+13	1.03E-03
[3,2,3]	1.57E+02	3.50E-04	2.97E+13	1.00E-03
[4,2,3]	1.57E+02	3.70E-04	2.68E+13	1.05E-03
[5,2,3]	1.48E+02	4.20E-04	2.00E+13	1.22E-03
[1,2,4]	1.70E+02	4.40E-04	1.86E+13	1.27E-03
[2,2,4]	1.53E+02	3.80E-04	2.79E+13	1.03E-03
[3,2,4]	1.52E+02	3.60E-04	2.93E+13	1.01E-03
[4,2,4]	1.70E+02	3.80E-04	2.64E+13	1.06E-03
[5,2,4]	1.54E+02	4.40E-04	1.92E+13	1.25E-03
[1,2,5]	1.56E+02	4.60E-04	1.87E+13	1.26E-03
[2,2,5]	1.47E+02	4.00E-04	2.77E+13	1.03E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[3,2,5]	1.57E+02	3.80E-04	2.90E+13	1.01E-03
[4,2,5]	1.56E+02	4.00E-04	2.64E+13	1.05E-03
[5,2,5]	1.48E+02	4.50E-04	1.95E+13	1.23E-03
[1,2,6]	1.72E+02	4.80E-04	1.82E+13	1.27E-03
[2,2,6]	1.55E+02	4.20E-04	2.73E+13	1.03E-03
[3,2,6]	1.54E+02	3.90E-04	2.89E+13	1.00E-03
[4,2,6]	1.72E+02	4.10E-04	2.60E+13	1.06E-03
[5,2,6]	1.55E+02	4.70E-04	1.88E+13	1.25E-03
[1,3,1]	1.42E+02	3.80E-04	1.86E+13	1.29E-03
[2,3,1]	1.43E+02	3.30E-04	2.65E+13	1.08E-03
[3,3,1]	1.58E+02	3.10E-04	2.75E+13	1.05E-03
[4,3,1]	1.42E+02	3.30E-04	2.52E+13	1.10E-03
[5,3,1]	1.43E+02	3.80E-04	1.86E+13	1.28E-03
[1,3,2]	1.46E+02	4.00E-04	1.83E+13	1.30E-03
[2,3,2]	1.48E+02	3.50E-04	2.59E+13	1.08E-03
[3,3,2]	1.62E+02	3.30E-04	2.71E+13	1.06E-03
[4,3,2]	1.46E+02	3.50E-04	2.47E+13	1.11E-03
[5,3,2]	1.47E+02	4.00E-04	1.82E+13	1.29E-03
[1,3,3]	1.56E+02	4.20E-04	1.76E+13	1.31E-03
[2,3,3]	1.47E+02	3.70E-04	2.56E+13	1.08E-03
[3,3,3]	1.57E+02	3.50E-04	2.66E+13	1.06E-03
[4,3,3]	1.56E+02	3.70E-04	2.41E+13	1.11E-03
[5,3,3]	1.47E+02	4.20E-04	1.76E+13	1.31E-03
[1,3,4]	1.65E+02	4.40E-04	1.71E+13	1.33E-03
[2,3,4]	1.49E+02	3.80E-04	2.52E+13	1.09E-03
[3,3,4]	1.48E+02	3.70E-04	2.63E+13	1.06E-03
[4,3,4]	1.66E+02	3.90E-04	2.35E+13	1.12E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[5,3,4]	1.49E+02	4.40E-04	1.69E+13	1.33E-03
[1,3,5]	1.56E+02	4.60E-04	1.72E+13	1.31E-03
[2,3,5]	1.47E+02	4.00E-04	2.50E+13	1.09E-03
[3,3,5]	1.57E+02	3.80E-04	2.60E+13	1.06E-03
[4,3,5]	1.56E+02	4.00E-04	2.35E+13	1.12E-03
[5,3,5]	1.47E+02	4.60E-04	1.72E+13	1.31E-03
[1,3,6]	1.66E+02	4.80E-04	1.68E+13	1.33E-03
[2,3,6]	1.50E+02	4.10E-04	2.47E+13	1.09E-03
[3,3,6]	1.49E+02	3.90E-04	2.60E+13	1.06E-03
[4,3,6]	1.66E+02	4.10E-04	2.32E+13	1.13E-03
[5,3,6]	1.51E+02	4.80E-04	1.66E+13	1.34E-03
[1,4,1]	1.48E+02	3.70E-04	1.53E+13	1.43E-03
[2,4,1]	1.50E+02	3.20E-04	2.13E+13	1.20E-03
[3,4,1]	1.65E+02	3.10E-04	2.20E+13	1.18E-03
[4,4,1]	1.48E+02	3.30E-04	2.01E+13	1.24E-03
[5,4,1]	1.50E+02	3.80E-04	1.47E+13	1.45E-03
[1,4,2]	1.52E+02	3.90E-04	1.49E+13	1.44E-03
[2,4,2]	1.54E+02	3.40E-04	2.09E+13	1.21E-03
[3,4,2]	1.69E+02	3.20E-04	2.16E+13	1.19E-03
[4,4,2]	1.52E+02	3.40E-04	1.96E+13	1.25E-03
[5,4,2]	1.54E+02	4.00E-04	1.43E+13	1.46E-03
[1,4,3]	1.57E+02	4.10E-04	1.44E+13	1.45E-03
[2,4,3]	1.48E+02	3.60E-04	2.06E+13	1.21E-03
[3,4,3]	1.58E+02	3.40E-04	2.12E+13	1.20E-03
[4,4,3]	1.57E+02	3.60E-04	1.90E+13	1.26E-03
[5,4,3]	1.48E+02	4.20E-04	1.38E+13	1.48E-03
[1,4,4]	1.72E+02	4.30E-04	1.38E+13	1.47E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[2,4,4]	1.56E+02	3.70E-04	2.00E+13	1.22E-03
[3,4,4]	1.54E+02	3.60E-04	2.09E+13	1.20E-03
[4,4,4]	1.72E+02	3.80E-04	1.85E+13	1.27E-03
[5,4,4]	1.55E+02	4.40E-04	1.32E+13	1.51E-03
[1,4,5]	1.56E+02	4.50E-04	1.39E+13	1.46E-03
[2,4,5]	1.48E+02	3.90E-04	1.99E+13	1.22E-03
[3,4,5]	1.57E+02	3.70E-04	2.06E+13	1.20E-03
[4,4,5]	1.56E+02	3.90E-04	1.85E+13	1.27E-03
[5,4,5]	1.48E+02	4.60E-04	1.33E+13	1.49E-03
[1,4,6]	1.74E+02	4.60E-04	1.34E+13	1.49E-03
[2,4,6]	1.56E+02	4.00E-04	1.97E+13	1.23E-03
[3,4,6]	1.56E+02	3.90E-04	2.03E+13	1.21E-03
[4,4,6]	1.74E+02	4.10E-04	1.81E+13	1.27E-03
[5,4,6]	1.57E+02	4.80E-04	1.28E+13	1.52E-03

5.4 Case-2B

Table 38. Number densities for Case-2B, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1]	4.57305E-03	1.92147E-02	2.26530E-09	2.96223E-05	1.68212E-06	2.40358E-07	8.06423E-09	6.11136E-08	2.13485E-07
[1,1,2]	3.77183E-03	1.89581E-02	2.41974E-07	1.75283E-04	2.93557E-05	1.11176E-05	9.74785E-07	5.87482E-08	3.75865E-07
[1,1,3]	3.10994E-03	1.87034E-02	1.25019E-06	2.40383E-04	6.06790E-05	3.51537E-05	5.23792E-06	5.43534E-08	4.05867E-07
[1,1,4]	2.56402E-03	1.84533E-02	3.35448E-06	2.67500E-04	8.37551E-05	6.22220E-05	1.36225E-05	4.97530E-08	4.21395E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,5]	2.11243E-03	1.82017E-02	6.69105E-06	2.80386E-04	9.87961E-05	8.61453E-05	2.55315E-05	4.56086E-08	4.27344E-07
[1,1,6]	1.74047E-03	1.79575E-02	1.12462E-05	2.82276E-04	1.07406E-04	1.04230E-04	3.96864E-05	4.15971E-08	4.24337E-07
[1,2,1]	4.61523E-03	1.92208E-02	1.26035E-09	2.66507E-05	1.14396E-06	1.41480E-07	3.46994E-09	6.13391E-08	2.09857E-07
[1,2,2]	3.80669E-03	1.89641E-02	2.27189E-07	1.77950E-04	2.75642E-05	1.05773E-05	8.62499E-07	5.91945E-08	4.17677E-07
[1,2,3]	3.13887E-03	1.87094E-02	1.21147E-06	2.45627E-04	5.86706E-05	3.46854E-05	4.91737E-06	5.48291E-08	4.52964E-07
[1,2,4]	2.58773E-03	1.84592E-02	3.29010E-06	2.73746E-04	8.18921E-05	6.21160E-05	1.30937E-05	5.01976E-08	4.71249E-07
[1,2,5]	2.13193E-03	1.82076E-02	6.60335E-06	2.87179E-04	9.70986E-05	8.64517E-05	2.48224E-05	4.60834E-08	4.79431E-07
[1,2,6]	1.75647E-03	1.79632E-02	1.11425E-05	2.89101E-04	1.05825E-04	1.04978E-04	3.88671E-05	4.20696E-08	4.76968E-07
[1,3,1]	4.61764E-03	1.92317E-02	7.12431E-10	1.92458E-05	8.30732E-07	7.92349E-08	1.96995E-09	5.56027E-08	1.92488E-07
[1,3,2]	3.80858E-03	1.89750E-02	2.16017E-07	1.70554E-04	2.79475E-05	9.83655E-06	8.50823E-07	5.36734E-08	3.79576E-07
[1,3,3]	3.14070E-03	1.87201E-02	1.18018E-06	2.38387E-04	5.98069E-05	3.32054E-05	4.91003E-06	4.97387E-08	4.08972E-07
[1,3,4]	2.58899E-03	1.84697E-02	3.23409E-06	2.66552E-04	8.35847E-05	6.01224E-05	1.31171E-05	4.55520E-08	4.23104E-07
[1,3,5]	2.13312E-03	1.82180E-02	6.51890E-06	2.80128E-04	9.91524E-05	8.40960E-05	2.48917E-05	4.17554E-08	4.28266E-07
[1,3,6]	1.75739E-03	1.79737E-02	1.10293E-05	2.82044E-04	1.08105E-04	1.02401E-04	3.90014E-05	3.80889E-08	4.24314E-07
[2,1,1]	4.35788E-03	1.91494E-02	1.68888E-08	7.16880E-05	6.44342E-06	1.46917E-06	7.33623E-08	6.64958E-08	3.06135E-07
[2,1,2]	3.59442E-03	1.88931E-02	3.90952E-07	1.91520E-04	3.71507E-05	1.65987E-05	1.68603E-06	6.30301E-08	3.73060E-07
[2,1,3]	2.96305E-03	1.86395E-02	1.62669E-06	2.44269E-04	6.66896E-05	4.24379E-05	6.98614E-06	5.81643E-08	4.01528E-07
[2,1,4]	2.44240E-03	1.83882E-02	3.99742E-06	2.67178E-04	8.75033E-05	6.91822E-05	1.63370E-05	5.32453E-08	4.16074E-07
[2,1,5]	2.01214E-03	1.81393E-02	7.60398E-06	2.76046E-04	1.00763E-04	9.17973E-05	2.89268E-05	4.86522E-08	4.20996E-07
[2,1,6]	1.65783E-03	1.78942E-02	1.24018E-05	2.78327E-04	1.08105E-04	1.08507E-04	4.34372E-05	4.44854E-08	4.18375E-07
[2,2,1]	4.45426E-03	1.91642E-02	9.47404E-09	6.62430E-05	4.47934E-06	8.95944E-07	3.22167E-08	6.90679E-08	3.21252E-07
[2,2,2]	3.67374E-03	1.89077E-02	3.43459E-07	1.97183E-04	3.33222E-05	1.50050E-05	1.32424E-06	6.58326E-08	4.13624E-07
[2,2,3]	3.02909E-03	1.86540E-02	1.51528E-06	2.55043E-04	6.27114E-05	4.11010E-05	6.11939E-06	6.09221E-08	4.49347E-07
[2,2,4]	2.49684E-03	1.84027E-02	3.81804E-06	2.79995E-04	8.38486E-05	6.87787E-05	1.49937E-05	5.58707E-08	4.68087E-07
[2,2,5]	2.05716E-03	1.81536E-02	7.36235E-06	2.89974E-04	9.74488E-05	9.24294E-05	2.72015E-05	5.11715E-08	4.76348E-07
[2,2,6]	1.69472E-03	1.79083E-02	1.21180E-05	2.92299E-04	1.05056E-04	1.10086E-04	4.14864E-05	4.68294E-08	4.74767E-07
[2,3,1]	4.45557E-03	1.91905E-02	5.45905E-09	4.78027E-05	3.38761E-06	5.20781E-07	1.95062E-08	6.08224E-08	2.82184E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[2,3,2]	3.67481E-03	1.89342E-02	3.06065E-07	1.78179E-04	3.40084E-05	1.31347E-05	1.27785E-06	5.78838E-08	3.50460E-07
[2,3,3]	3.02997E-03	1.86800E-02	1.42401E-06	2.36086E-04	6.51576E-05	3.76557E-05	6.09272E-06	5.35020E-08	3.73551E-07
[2,3,4]	2.49728E-03	1.84288E-02	3.66011E-06	2.60769E-04	8.75292E-05	6.41793E-05	1.50546E-05	4.89472E-08	3.83675E-07
[2,3,5]	2.05782E-03	1.81789E-02	7.12980E-06	2.71385E-04	1.01934E-04	8.70336E-05	2.73812E-05	4.47465E-08	3.86644E-07
[2,3,6]	1.69511E-03	1.79338E-02	1.18088E-05	2.73487E-04	1.10006E-04	1.04191E-04	4.18325E-05	4.08290E-08	3.81804E-07
[3,1,1]	4.14307E-03	1.90807E-02	5.54007E-08	1.11899E-04	1.33505E-05	3.92266E-06	2.54515E-07	6.64048E-08	3.47153E-07
[3,1,2]	3.41669E-03	1.88247E-02	6.04861E-07	2.09413E-04	4.52057E-05	2.29540E-05	2.71001E-06	6.23401E-08	3.99025E-07
[3,1,3]	2.81644E-03	1.85730E-02	2.10492E-06	2.51172E-04	7.25702E-05	4.97994E-05	9.11033E-06	5.72956E-08	4.27797E-07
[3,1,4]	2.32150E-03	1.83217E-02	4.77355E-06	2.70142E-04	9.11814E-05	7.57844E-05	1.94068E-05	5.24331E-08	4.42474E-07
[3,1,5]	1.91229E-03	1.80745E-02	8.67744E-06	2.75937E-04	1.02671E-04	9.69432E-05	3.26266E-05	4.78508E-08	4.46617E-07
[3,1,6]	1.57543E-03	1.78294E-02	1.37455E-05	2.77991E-04	1.08980E-04	1.12169E-04	4.74316E-05	4.38187E-08	4.43975E-07
[3,2,1]	4.29177E-03	1.91044E-02	3.12681E-08	1.05947E-04	9.48773E-06	2.47384E-06	1.14574E-07	6.98644E-08	3.72985E-07
[3,2,2]	3.53958E-03	1.88484E-02	5.05587E-07	2.18347E-04	3.95425E-05	2.01157E-05	1.96612E-06	6.60941E-08	4.42722E-07
[3,2,3]	2.91826E-03	1.85964E-02	1.89678E-06	2.66836E-04	6.70066E-05	4.76634E-05	7.56681E-06	6.10265E-08	4.80611E-07
[3,2,4]	2.40543E-03	1.83449E-02	4.45319E-06	2.88697E-04	8.61688E-05	7.51818E-05	1.71427E-05	5.59612E-08	5.00730E-07
[3,2,5]	1.98180E-03	1.80973E-02	8.25571E-06	2.95929E-04	9.81805E-05	9.79843E-05	2.98131E-05	5.12113E-08	5.09078E-07
[3,2,6]	1.63244E-03	1.78519E-02	1.32518E-05	2.98111E-04	1.04868E-04	1.14607E-04	4.43099E-05	4.69593E-08	5.07752E-07
[3,3,1]	4.29048E-03	1.91471E-02	1.81819E-08	7.62576E-05	7.34174E-06	1.46604E-06	7.13977E-08	6.09057E-08	3.19910E-07
[3,3,2]	3.53855E-03	1.88910E-02	4.26765E-07	1.87541E-04	4.02027E-05	1.69400E-05	1.85675E-06	5.74649E-08	3.65302E-07
[3,3,3]	2.91756E-03	1.86381E-02	1.72201E-06	2.36160E-04	7.02410E-05	4.23044E-05	7.48341E-06	5.28859E-08	3.87256E-07
[3,3,4]	2.40424E-03	1.83867E-02	4.16353E-06	2.57519E-04	9.11919E-05	6.81937E-05	1.72032E-05	4.83234E-08	3.96865E-07
[3,3,5]	1.98129E-03	1.81381E-02	7.83941E-06	2.65667E-04	1.04337E-04	8.99092E-05	3.00660E-05	4.40616E-08	3.98236E-07
[3,3,6]	1.63183E-03	1.78928E-02	1.27067E-05	2.67594E-04	1.11688E-04	1.05814E-04	4.48345E-05	4.02545E-08	3.93324E-07
[4,1,1]	3.96253E-03	1.90214E-02	1.17860E-07	1.43678E-04	2.03930E-05	6.98716E-06	5.35842E-07	6.49202E-08	3.78729E-07
[4,1,2]	3.26795E-03	1.87660E-02	8.51514E-07	2.24838E-04	5.21532E-05	2.88043E-05	3.82362E-06	6.05542E-08	4.27224E-07
[4,1,3]	2.69309E-03	1.85146E-02	2.60794E-06	2.58981E-04	7.75061E-05	5.60580E-05	1.11918E-05	5.54802E-08	4.53417E-07
[4,1,4]	2.21950E-03	1.82632E-02	5.55820E-06	2.74925E-04	9.43370E-05	8.11597E-05	2.22704E-05	5.08253E-08	4.67152E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[4,1,5]	1.82830E-03	1.80175E-02	9.73663E-06	2.78536E-04	1.04401E-04	1.00932E-04	3.59743E-05	4.63873E-08	4.70407E-07
[4,1,6]	1.50608E-03	1.77725E-02	1.50571E-05	2.80322E-04	1.09887E-04	1.14942E-04	5.09866E-05	4.25532E-08	4.66785E-07
[4,2,1]	4.15401E-03	1.90530E-02	6.68519E-08	1.38605E-04	1.47458E-05	4.51003E-06	2.45212E-07	6.85503E-08	4.09548E-07
[4,2,2]	3.42578E-03	1.87972E-02	6.89215E-07	2.36793E-04	4.51001E-05	2.49127E-05	2.65764E-06	6.44784E-08	4.74716E-07
[4,2,3]	2.82430E-03	1.85458E-02	2.29266E-06	2.78548E-04	7.08270E-05	5.33156E-05	8.97581E-06	5.94296E-08	5.12452E-07
[4,2,4]	2.32756E-03	1.82940E-02	5.09061E-06	2.97862E-04	8.84105E-05	8.04819E-05	1.91512E-05	5.45357E-08	5.31812E-07
[4,2,5]	1.91776E-03	1.80479E-02	9.13318E-06	3.03056E-04	9.91330E-05	1.02391E-04	3.21887E-05	4.99316E-08	5.39922E-07
[4,2,6]	1.57941E-03	1.78024E-02	1.43547E-05	3.05033E-04	1.05081E-04	1.18118E-04	4.68435E-05	4.58595E-08	5.37543E-07
[4,3,1]	4.14959E-03	1.91096E-02	3.91292E-08	9.95087E-05	1.15805E-05	2.71184E-06	1.55736E-07	5.94521E-08	3.45877E-07
[4,3,2]	3.42233E-03	1.88538E-02	5.59125E-07	1.96128E-04	4.55175E-05	2.04900E-05	2.47142E-06	5.57165E-08	3.86002E-07
[4,3,3]	2.82151E-03	1.86013E-02	2.02475E-06	2.37929E-04	7.44202E-05	4.63183E-05	8.82119E-06	5.11143E-08	4.06502E-07
[4,3,4]	2.32463E-03	1.83495E-02	4.66133E-06	2.56672E-04	9.41113E-05	7.15820E-05	1.91879E-05	4.66718E-08	4.14976E-07
[4,3,5]	1.91579E-03	1.81020E-02	8.52938E-06	2.62901E-04	1.06230E-04	9.22250E-05	3.24849E-05	4.25379E-08	4.15030E-07
[4,3,6]	1.57756E-03	1.78566E-02	1.35739E-05	2.64655E-04	1.12958E-04	1.07104E-04	4.75076E-05	3.88745E-08	4.09397E-07
[5,1,1]	3.83215E-03	1.89774E-02	1.89841E-07	1.66625E-04	2.60451E-05	9.77816E-06	8.27870E-07	6.22738E-08	4.11597E-07
[5,1,2]	3.16035E-03	1.87222E-02	1.08601E-06	2.37109E-04	5.72953E-05	3.33247E-05	4.78013E-06	5.78776E-08	4.57400E-07
[5,1,3]	2.60447E-03	1.84719E-02	3.05405E-06	2.66197E-04	8.11271E-05	6.05537E-05	1.28460E-05	5.29355E-08	4.82008E-07
[5,1,4]	2.14623E-03	1.82196E-02	6.23423E-06	2.80710E-04	9.66591E-05	8.49511E-05	2.44697E-05	4.85141E-08	4.94590E-07
[5,1,5]	1.76794E-03	1.79757E-02	1.06364E-05	2.82419E-04	1.05723E-04	1.03636E-04	3.84895E-05	4.42357E-08	4.95467E-07
[5,1,6]	1.45619E-03	1.77300E-02	1.61614E-05	2.84423E-04	1.10674E-04	1.16787E-04	5.36376E-05	4.06425E-08	4.90446E-07
[5,2,1]	4.05386E-03	1.90146E-02	1.08005E-07	1.62785E-04	1.90509E-05	6.40286E-06	3.82541E-07	6.51378E-08	4.44948E-07
[5,2,2]	3.34300E-03	1.87591E-02	8.60432E-07	2.51382E-04	4.92792E-05	2.86600E-05	3.24689E-06	6.10382E-08	5.07555E-07
[5,2,3]	2.75627E-03	1.85087E-02	2.63960E-06	2.88438E-04	7.36954E-05	5.74498E-05	1.00903E-05	5.61899E-08	5.44852E-07
[5,2,4]	2.27114E-03	1.82560E-02	5.63446E-06	3.06484E-04	9.01368E-05	8.42984E-05	2.06996E-05	5.16838E-08	5.63559E-07
[5,2,5]	1.87149E-03	1.80116E-02	9.87235E-06	3.09892E-04	9.99658E-05	1.05455E-04	3.39845E-05	4.72776E-08	5.70277E-07
[5,2,6]	1.54097E-03	1.77653E-02	1.52797E-05	3.12104E-04	1.05419E-04	1.20539E-04	4.87481E-05	4.35387E-08	5.67146E-07
[5,3,1]	4.04657E-03	1.90816E-02	6.35349E-08	1.16655E-04	1.51249E-05	3.88229E-06	2.45916E-07	5.65812E-08	3.71454E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[5,3,2]	3.33715E-03	1.88259E-02	6.80387E-07	2.03392E-04	4.94253E-05	2.32633E-05	2.99286E-06	5.27851E-08	4.08871E-07
[5,3,3]	2.75158E-03	1.85742E-02	2.28645E-06	2.40488E-04	7.74002E-05	4.92470E-05	9.87380E-06	4.82987E-08	4.28286E-07
[5,3,4]	2.26670E-03	1.83218E-02	5.08247E-06	2.57772E-04	9.61780E-05	7.40000E-05	2.07070E-05	4.41033E-08	4.35562E-07
[5,3,5]	1.86818E-03	1.80756E-02	9.10733E-06	2.62410E-04	1.07571E-04	9.37985E-05	3.43027E-05	4.01744E-08	4.34527E-07
[5,3,6]	1.53815E-03	1.78296E-02	1.42979E-05	2.64357E-04	1.13815E-04	1.08002E-04	4.94942E-05	3.67541E-08	4.27939E-07
[6,1,1]	3.75307E-03	1.89519E-02	2.49201E-07	1.80576E-04	2.98382E-05	1.15152E-05	1.04242E-06	5.57414E-08	4.37720E-07
[6,1,2]	3.09503E-03	1.86969E-02	1.26000E-06	2.45037E-04	6.07869E-05	3.58281E-05	5.42270E-06	5.16744E-08	4.79300E-07
[6,1,3]	2.55065E-03	1.84471E-02	3.37357E-06	2.71169E-04	8.37609E-05	6.28566E-05	1.39229E-05	4.73762E-08	5.02174E-07
[6,1,4]	2.10187E-03	1.81949E-02	6.71001E-06	2.84615E-04	9.86349E-05	8.66401E-05	2.58794E-05	4.33592E-08	5.11806E-07
[6,1,5]	1.73120E-03	1.79514E-02	1.12671E-05	2.85458E-04	1.07090E-04	1.04665E-04	4.00995E-05	3.96147E-08	5.10370E-07
[6,1,6]	1.42602E-03	1.77060E-02	1.69303E-05	2.87408E-04	1.11767E-04	1.17231E-04	5.53264E-05	3.63747E-08	5.04144E-07
[6,2,1]	3.99212E-03	1.89924E-02	1.42004E-07	1.77607E-04	2.19988E-05	7.61502E-06	4.85906E-07	5.64670E-08	4.68264E-07
[6,2,2]	3.29193E-03	1.87370E-02	9.86234E-07	2.60529E-04	5.22036E-05	3.07738E-05	3.64810E-06	5.28373E-08	5.26646E-07
[6,2,3]	2.71417E-03	1.84871E-02	2.88635E-06	2.94773E-04	7.58750E-05	5.96262E-05	1.08286E-05	4.86605E-08	5.60849E-07
[6,2,4]	2.23651E-03	1.82344E-02	6.01481E-06	3.11936E-04	9.17335E-05	8.60832E-05	2.17072E-05	4.47598E-08	5.78907E-07
[6,2,5]	1.84285E-03	1.79905E-02	1.03868E-05	3.14378E-04	1.01063E-04	1.06717E-04	3.51565E-05	4.09454E-08	5.81541E-07
[6,2,6]	1.51738E-03	1.77443E-02	1.59195E-05	3.16602E-04	1.06254E-04	1.21353E-04	4.99898E-05	3.77643E-08	5.79137E-07
[6,3,1]	3.98424E-03	1.90654E-02	8.36542E-08	1.27265E-04	1.74814E-05	4.63300E-06	3.12367E-07	5.01162E-08	3.95687E-07
[6,3,2]	3.28562E-03	1.88097E-02	7.68371E-07	2.08332E-04	5.19950E-05	2.48007E-05	3.33712E-06	4.66037E-08	4.30047E-07
[6,3,3]	2.70910E-03	1.85585E-02	2.47052E-06	2.42630E-04	7.94270E-05	5.07762E-05	1.05503E-05	4.26681E-08	4.46834E-07
[6,3,4]	2.23175E-03	1.83061E-02	5.37488E-06	2.58987E-04	9.77113E-05	7.50994E-05	2.16636E-05	3.89148E-08	4.53141E-07
[6,3,5]	1.83918E-03	1.80602E-02	9.50975E-06	2.62754E-04	1.08675E-04	9.43795E-05	3.54497E-05	3.55029E-08	4.49767E-07
[6,3,6]	1.51434E-03	1.78143E-02	1.48000E-05	2.64739E-04	1.14701E-04	1.08082E-04	5.07347E-05	3.24372E-08	4.42504E-07

Table 39. Number densities for Case-2B, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1]	4.25613E-08	1.22491E-06	8.38845E-06	3.93147E-07	4.22849E-08	7.23520E-08	1.72137E-09	4.71961E-06	5.56258E-06
[1,1,2]	1.47909E-06	8.77921E-06	5.20512E-05	2.37318E-06	3.70819E-08	6.29615E-08	1.48990E-09	2.84330E-05	1.94657E-05
[1,1,3]	4.78702E-06	1.59110E-05	9.25624E-05	4.07168E-06	3.22345E-08	5.44299E-08	1.28257E-09	4.89574E-05	2.22758E-05
[1,1,4]	9.49662E-06	2.25917E-05	1.29428E-04	5.51249E-06	2.77295E-08	4.66048E-08	1.09390E-09	6.66068E-05	2.11804E-05
[1,1,5]	1.52332E-05	2.89015E-05	1.62981E-04	6.73525E-06	2.40258E-08	4.01928E-08	9.39602E-10	8.18439E-05	1.89796E-05
[1,1,6]	2.16483E-05	3.49062E-05	1.93298E-04	7.76548E-06	2.07708E-08	3.45916E-08	8.05462E-10	9.49586E-05	1.65900E-05
[1,2,1]	2.65749E-08	1.22945E-06	6.19358E-06	2.90721E-07	3.12696E-08	5.35127E-08	1.27321E-09	3.49061E-06	4.11410E-06
[1,2,2]	1.40826E-06	8.78661E-06	4.99749E-05	2.28341E-06	2.74502E-08	4.66027E-08	1.10269E-09	2.73648E-05	1.82100E-05
[1,2,3]	4.66600E-06	1.59135E-05	9.06428E-05	3.99357E-06	2.38645E-08	4.02871E-08	9.49181E-10	4.80333E-05	2.11921E-05
[1,2,4]	9.34309E-06	2.25852E-05	1.27691E-04	5.44559E-06	2.05655E-08	3.45522E-08	8.10866E-10	6.58188E-05	2.02586E-05
[1,2,5]	1.50489E-05	2.88847E-05	1.61398E-04	6.67751E-06	1.78464E-08	2.98416E-08	6.97490E-10	8.11666E-05	1.81896E-05
[1,2,6]	2.14496E-05	3.48777E-05	1.91868E-04	7.71586E-06	1.54630E-08	2.57376E-08	5.99165E-10	9.43790E-05	1.59156E-05
[1,3,1]	1.99800E-08	1.11475E-06	6.14544E-06	2.89437E-07	3.11357E-08	5.32990E-08	1.26851E-09	3.47652E-06	4.09831E-06
[1,3,2]	1.31997E-06	8.67774E-06	4.99359E-05	2.28252E-06	2.73588E-08	4.64647E-08	1.09977E-09	2.73554E-05	1.82001E-05
[1,3,3]	4.50487E-06	1.58146E-05	9.05841E-05	3.99186E-06	2.36853E-08	4.00033E-08	9.42802E-10	4.80141E-05	2.11710E-05
[1,3,4]	9.11630E-06	2.24966E-05	1.27652E-04	5.44467E-06	2.04717E-08	3.44155E-08	8.07954E-10	6.58090E-05	2.02488E-05
[1,3,5]	1.47766E-05	2.88037E-05	1.61348E-04	6.67617E-06	1.77072E-08	2.96317E-08	6.92854E-10	8.11519E-05	1.81741E-05
[1,3,6]	2.11252E-05	3.48049E-05	1.91824E-04	7.71476E-06	1.53506E-08	2.55748E-08	5.95631E-10	9.43672E-05	1.59037E-05
[2,1,1]	2.11850E-07	2.55655E-06	1.95444E-05	9.13613E-07	5.60835E-08	9.51363E-08	2.23468E-09	1.09340E-05	1.20680E-05
[2,1,2]	2.18186E-06	1.00470E-05	6.25085E-05	2.82378E-06	4.88729E-08	8.23319E-08	1.92434E-09	3.38165E-05	2.31613E-05
[2,1,3]	5.91901E-06	1.71063E-05	1.02177E-04	4.45929E-06	4.24118E-08	7.10737E-08	1.65437E-09	5.36089E-05	2.47382E-05
[2,1,4]	1.09734E-05	2.37284E-05	1.38203E-04	5.84463E-06	3.67339E-08	6.12759E-08	1.42085E-09	7.06205E-05	2.30353E-05
[2,1,5]	1.69662E-05	2.99966E-05	1.70952E-04	7.01874E-06	3.17576E-08	5.27338E-08	1.21791E-09	8.53011E-05	2.04689E-05
[2,1,6]	2.35471E-05	3.59754E-05	2.00536E-04	8.00744E-06	2.75099E-08	4.54686E-08	1.04588E-09	9.79424E-05	1.78371E-05
[2,2,1]	1.32942E-07	2.61200E-06	1.43963E-05	6.74761E-07	4.13860E-08	7.02269E-08	1.64982E-09	8.07767E-06	8.91519E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[2,2,2]	1.97645E-06	1.01057E-05	5.77087E-05	2.61626E-06	3.62083E-08	6.09953E-08	1.42562E-09	3.13534E-05	2.04506E-05
[2,2,3]	5.60453E-06	1.71498E-05	9.77430E-05	4.27846E-06	3.13741E-08	5.25624E-08	1.22331E-09	5.14738E-05	2.23938E-05
[2,2,4]	1.05723E-05	2.37471E-05	1.34175E-04	5.68900E-06	2.72058E-08	4.53619E-08	1.05162E-09	6.87907E-05	2.10307E-05
[2,2,5]	1.64913E-05	2.99868E-05	1.67275E-04	6.88400E-06	2.34899E-08	3.89801E-08	8.99976E-10	8.37230E-05	1.87441E-05
[2,2,6]	2.30438E-05	3.59331E-05	1.97214E-04	7.89165E-06	2.04079E-08	3.37047E-08	7.75013E-10	9.65917E-05	1.63650E-05
[2,3,1]	1.01217E-07	2.33298E-06	1.44519E-05	6.81419E-07	4.22529E-08	7.17642E-08	1.68749E-09	8.16332E-06	9.02128E-06
[2,3,2]	1.74659E-06	9.84027E-06	5.77506E-05	2.62170E-06	3.68997E-08	6.22264E-08	1.45581E-09	3.14234E-05	2.05381E-05
[2,3,3]	5.20232E-06	1.69069E-05	9.77626E-05	4.28253E-06	3.20051E-08	5.36888E-08	1.25094E-09	5.15270E-05	2.24635E-05
[2,3,4]	1.00186E-05	2.35267E-05	1.34196E-04	5.69278E-06	2.77215E-08	4.62909E-08	1.07442E-09	6.88402E-05	2.10947E-05
[2,3,5]	1.58115E-05	2.97865E-05	1.67254E-04	6.88581E-06	2.38408E-08	3.96311E-08	9.16169E-10	8.37491E-05	1.87820E-05
[2,3,6]	2.22581E-05	3.57521E-05	1.97193E-04	7.89319E-06	2.07039E-08	3.42633E-08	7.88942E-10	9.66146E-05	1.63987E-05
[3,1,1]	5.25555E-07	3.88714E-06	3.11071E-05	1.44378E-06	5.72166E-08	9.66593E-08	2.25963E-09	1.72517E-05	1.78094E-05
[3,1,2]	3.02818E-06	1.13081E-05	7.32929E-05	3.28282E-06	4.98718E-08	8.37211E-08	1.94820E-09	3.92939E-05	2.64553E-05
[3,1,3]	7.18859E-06	1.82973E-05	1.12020E-04	4.85213E-06	4.30597E-08	7.19241E-08	1.66690E-09	5.83185E-05	2.69223E-05
[3,1,4]	1.25675E-05	2.48676E-05	1.47152E-04	6.18019E-06	3.71780E-08	6.18116E-08	1.42684E-09	7.46714E-05	2.46699E-05
[3,1,5]	1.87996E-05	3.11001E-05	1.79088E-04	7.30566E-06	3.21918E-08	5.32823E-08	1.22514E-09	8.87961E-05	2.17891E-05
[3,1,6]	2.55599E-05	3.70606E-05	2.07948E-04	8.25314E-06	2.79684E-08	4.60741E-08	1.05507E-09	1.00967E-04	1.89533E-05
[3,2,1]	3.30229E-07	4.00959E-06	2.29639E-05	1.06962E-06	4.26150E-08	7.20327E-08	1.68464E-09	1.27854E-05	1.32052E-05
[3,2,2]	2.63503E-06	1.14329E-05	6.57284E-05	2.95754E-06	3.71803E-08	6.24192E-08	1.45268E-09	3.54372E-05	2.24894E-05
[3,2,3]	6.63382E-06	1.83950E-05	1.05095E-04	4.57062E-06	3.22143E-08	5.37977E-08	1.24686E-09	5.49968E-05	2.35176E-05
[3,2,4]	1.18854E-05	2.49213E-05	1.40870E-04	5.93801E-06	2.78581E-08	4.62979E-08	1.06867E-09	7.18255E-05	2.17598E-05
[3,2,5]	1.80222E-05	3.11039E-05	1.73356E-04	7.09585E-06	2.41108E-08	3.98828E-08	9.16914E-10	8.63398E-05	1.92836E-05
[3,2,6]	2.47239E-05	3.70088E-05	2.02763E-04	8.07264E-06	2.10032E-08	3.45736E-08	7.91550E-10	9.88627E-05	1.68118E-05
[3,3,1]	2.53450E-07	3.55246E-06	2.31299E-05	1.08669E-06	4.37597E-08	7.40639E-08	1.73399E-09	1.30028E-05	1.34539E-05
[3,3,2]	2.24929E-06	1.09971E-05	6.58469E-05	2.97122E-06	3.80873E-08	6.40395E-08	1.49218E-09	3.56119E-05	2.26906E-05
[3,3,3]	5.97290E-06	1.79928E-05	1.05149E-04	4.58069E-06	3.28804E-08	5.50059E-08	1.27650E-09	5.51275E-05	2.36718E-05
[3,3,4]	1.09973E-05	2.45538E-05	1.40918E-04	5.94710E-06	2.84495E-08	4.73794E-08	1.09528E-09	7.19439E-05	2.18994E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[3,3,5]	1.69238E-05	3.07681E-05	1.73324E-04	7.10109E-06	2.45003E-08	4.06246E-08	9.35511E-10	8.64125E-05	1.93745E-05
[3,3,6]	2.34656E-05	3.67038E-05	2.02712E-04	8.07656E-06	2.12809E-08	3.51269E-08	8.05661E-10	9.89196E-05	1.68846E-05
[4,1,1]	9.14562E-07	5.18964E-06	4.11414E-05	1.89667E-06	4.90005E-08	8.24943E-08	1.92068E-09	2.26464E-05	2.17049E-05
[4,1,2]	3.85255E-06	1.25381E-05	8.25543E-05	3.67186E-06	4.24494E-08	7.10393E-08	1.64652E-09	4.39438E-05	2.83406E-05
[4,1,3]	8.35614E-06	1.94566E-05	1.20498E-04	5.18605E-06	3.68255E-08	6.13358E-08	1.41617E-09	6.23366E-05	2.80063E-05
[4,1,4]	1.39980E-05	2.59764E-05	1.54883E-04	6.46581E-06	3.18985E-08	5.28855E-08	1.21628E-09	7.81388E-05	2.54054E-05
[4,1,5]	2.04193E-05	3.21714E-05	1.86089E-04	7.54869E-06	2.75543E-08	4.54770E-08	1.04172E-09	9.17806E-05	2.23388E-05
[4,1,6]	2.73140E-05	3.81117E-05	2.14337E-04	8.46120E-06	2.39919E-08	3.94067E-08	8.98896E-10	1.03556E-04	1.94136E-05
[4,2,1]	5.76445E-07	5.38106E-06	3.04447E-05	1.40950E-06	3.67741E-08	6.19525E-08	1.44315E-09	1.68363E-05	1.61541E-05
[4,2,2]	3.26768E-06	1.27303E-05	7.26971E-05	3.25040E-06	3.20498E-08	5.36453E-08	1.24375E-09	3.89485E-05	2.35847E-05
[4,2,3]	7.56872E-06	1.96106E-05	1.11469E-04	4.82057E-06	2.77505E-08	4.62095E-08	1.06695E-09	5.80243E-05	2.39104E-05
[4,2,4]	1.30448E-05	2.60674E-05	1.46704E-04	6.15173E-06	2.41303E-08	3.99887E-08	9.19630E-10	7.44479E-05	2.19090E-05
[4,2,5]	1.93581E-05	3.21923E-05	1.78639E-04	7.27686E-06	2.08537E-08	3.43962E-08	7.87791E-10	8.85977E-05	1.93319E-05
[4,2,6]	2.61775E-05	3.80555E-05	2.07599E-04	8.22735E-06	1.82285E-08	2.99172E-08	6.82314E-10	1.00829E-04	1.68437E-05
[4,3,1]	4.44738E-07	4.74310E-06	3.06988E-05	1.43666E-06	3.78882E-08	6.39386E-08	1.49142E-09	1.71826E-05	1.65228E-05
[4,3,2]	2.73233E-06	1.21207E-05	7.28574E-05	3.27155E-06	3.28804E-08	5.51445E-08	1.28044E-09	3.92200E-05	2.38751E-05
[4,3,3]	6.67639E-06	1.90443E-05	1.11536E-04	4.83649E-06	2.84036E-08	4.74072E-08	1.09652E-09	5.82318E-05	2.41372E-05
[4,3,4]	1.18635E-05	2.55464E-05	1.46732E-04	6.16505E-06	2.46100E-08	4.08938E-08	9.42266E-10	7.46237E-05	2.21007E-05
[4,3,5]	1.78975E-05	3.17143E-05	1.78567E-04	7.28506E-06	2.11960E-08	3.50678E-08	8.04910E-10	8.87124E-05	1.94636E-05
[4,3,6]	2.45037E-05	3.76183E-05	2.07486E-04	8.23313E-06	1.84539E-08	3.03936E-08	6.94842E-10	1.00915E-04	1.69449E-05
[5,1,1]	1.27550E-06	6.43999E-06	4.85578E-05	2.22723E-06	3.59363E-08	6.03114E-08	1.39870E-09	2.65922E-05	2.33992E-05
[5,1,2]	4.51795E-06	1.37137E-05	8.93797E-05	3.95481E-06	3.11421E-08	5.19697E-08	1.20008E-09	4.73470E-05	2.85287E-05
[5,1,3]	9.24952E-06	2.05580E-05	1.26689E-04	5.42618E-06	2.68384E-08	4.45734E-08	1.02513E-09	6.52579E-05	2.76753E-05
[5,1,4]	1.50615E-05	2.70223E-05	1.60521E-04	6.67028E-06	2.32642E-08	3.84580E-08	8.80950E-10	8.06616E-05	2.49510E-05
[5,1,5]	2.15927E-05	3.31704E-05	1.91187E-04	7.72171E-06	2.01079E-08	3.30925E-08	7.55070E-10	9.39533E-05	2.18798E-05
[5,1,6]	2.85592E-05	3.90819E-05	2.18996E-04	8.60874E-06	1.75563E-08	2.87499E-08	6.53191E-10	1.05446E-04	1.90093E-05
[5,2,1]	8.05521E-07	6.68469E-06	3.59977E-05	1.65897E-06	2.71189E-08	4.55475E-08	1.05691E-09	1.98159E-05	1.74658E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[5,2,2]	3.77131E-06	1.39588E-05	7.78504E-05	3.46424E-06	2.36299E-08	3.94398E-08	9.10968E-10	4.15312E-05	2.34556E-05
[5,2,3]	8.27199E-06	2.07575E-05	1.16148E-04	5.00118E-06	2.03691E-08	3.38234E-08	7.77976E-10	6.02412E-05	2.33110E-05
[5,2,4]	1.38991E-05	2.71460E-05	1.50987E-04	6.30542E-06	1.77451E-08	2.93221E-08	6.71668E-10	7.63716E-05	2.12299E-05
[5,2,5]	2.03109E-05	3.32086E-05	1.82497E-04	7.40558E-06	1.52942E-08	2.51525E-08	5.73789E-10	9.02496E-05	1.86745E-05
[5,2,6]	2.72044E-05	3.90274E-05	2.11141E-04	8.33695E-06	1.34356E-08	2.19847E-08	4.99376E-10	1.02274E-04	1.62726E-05
[5,3,1]	6.24451E-07	5.87665E-06	3.63194E-05	1.69443E-06	2.80389E-08	4.71881E-08	1.09670E-09	2.02685E-05	1.79119E-05
[5,3,2]	3.11760E-06	1.31851E-05	7.80469E-05	3.49186E-06	2.43514E-08	4.07414E-08	9.42772E-10	4.18868E-05	2.38081E-05
[5,3,3]	7.20492E-06	2.00347E-05	1.16215E-04	5.02170E-06	2.08880E-08	3.47800E-08	8.01623E-10	6.05101E-05	2.35820E-05
[5,3,4]	1.24950E-05	2.64760E-05	1.50984E-04	6.32184E-06	1.81017E-08	3.00064E-08	6.88935E-10	7.65908E-05	2.14498E-05
[5,3,5]	1.85879E-05	3.25925E-05	1.82385E-04	7.41613E-06	1.55689E-08	2.56964E-08	5.87707E-10	9.03983E-05	1.88316E-05
[5,3,6]	2.52232E-05	3.84594E-05	2.10955E-04	8.34365E-06	1.35569E-08	2.22725E-08	5.07313E-10	1.02377E-04	1.63837E-05
[6,1,1]	1.51042E-06	7.55947E-06	5.31312E-05	2.42920E-06	2.21831E-08	3.71107E-08	8.56776E-10	2.90213E-05	2.31129E-05
[6,1,2]	4.90750E-06	1.47611E-05	9.35720E-05	4.12619E-06	1.92281E-08	3.19908E-08	7.35457E-10	4.94428E-05	2.71807E-05
[6,1,3]	9.74616E-06	2.15354E-05	1.30478E-04	5.57006E-06	1.65669E-08	2.74349E-08	6.28260E-10	6.70567E-05	2.60941E-05
[6,1,4]	1.56226E-05	2.79404E-05	1.63951E-04	6.79096E-06	1.43271E-08	2.36145E-08	5.38560E-10	8.22111E-05	2.34380E-05
[6,1,5]	2.21925E-05	3.40384E-05	1.94292E-04	7.82290E-06	1.24511E-08	2.04324E-08	4.64210E-10	9.52953E-05	2.05294E-05
[6,1,6]	2.91579E-05	3.99113E-05	2.21804E-04	8.69293E-06	1.08080E-08	1.76470E-08	3.99134E-10	1.06606E-04	1.78252E-05
[6,2,1]	9.54346E-07	7.81564E-06	3.94798E-05	1.81405E-06	1.70226E-08	2.85054E-08	6.58709E-10	2.16814E-05	1.73138E-05
[6,2,2]	4.06029E-06	1.50222E-05	8.10682E-05	3.59574E-06	1.48386E-08	2.46969E-08	5.68111E-10	4.31491E-05	2.22281E-05
[6,2,3]	8.65662E-06	2.17476E-05	1.19061E-04	5.11094E-06	1.28124E-08	2.12190E-08	4.86149E-10	6.16325E-05	2.18388E-05
[6,2,4]	1.43421E-05	2.80723E-05	1.53622E-04	6.39659E-06	1.10809E-08	1.82594E-08	4.16519E-10	7.75699E-05	1.98063E-05
[6,2,5]	2.07825E-05	3.40754E-05	1.84878E-04	7.48111E-06	9.62858E-09	1.57948E-08	3.58913E-10	9.12871E-05	1.74001E-05
[6,2,6]	2.76789E-05	3.98493E-05	2.13300E-04	8.39923E-06	8.39793E-09	1.37037E-08	3.09955E-10	1.03175E-04	1.51551E-05
[6,3,1]	7.40497E-07	6.88114E-06	3.97560E-05	1.85109E-06	1.72167E-08	2.88837E-08	6.68176E-10	2.21583E-05	1.77299E-05
[6,3,2]	3.33899E-06	1.41240E-05	8.12005E-05	3.62410E-06	1.49396E-08	2.49201E-08	5.74007E-10	4.35186E-05	2.25514E-05
[6,3,3]	7.49461E-06	2.09051E-05	1.19055E-04	5.13169E-06	1.28566E-08	2.13477E-08	4.89894E-10	6.19091E-05	2.20844E-05
[6,3,4]	1.28108E-05	2.72855E-05	1.53532E-04	6.41268E-06	1.10652E-08	1.82901E-08	4.18041E-10	7.77903E-05	2.00004E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[6,3,5]	1.89153E-05	3.33512E-05	1.84683E-04	7.49129E-06	9.60579E-09	1.58122E-08	3.60110E-10	9.14361E-05	1.75386E-05
[6,3,6]	2.55287E-05	3.91755E-05	2.13013E-04	8.40487E-06	8.29926E-09	1.35970E-08	3.08332E-10	1.03271E-04	1.52445E-05

Table 40. Number densities for Case-2B, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1]	7.68900E-06	3.96878E-07	2.01114E-06	2.89654E-07	6.70808E-08	4.14504E-12	8.73729E-11
[1,1,2]	4.54878E-05	3.47665E-07	2.73167E-06	2.76082E-07	1.01001E-06	1.48669E-11	3.85372E-09
[1,1,3]	7.79384E-05	3.01706E-07	2.57616E-06	2.55846E-07	2.59699E-06	2.28767E-11	1.56807E-08
[1,1,4]	1.05587E-04	2.59135E-07	2.36941E-06	2.32958E-07	4.56847E-06	2.91211E-11	3.68230E-08
[1,1,5]	1.29208E-04	2.24161E-07	2.18508E-06	2.13397E-07	6.77474E-06	3.45111E-11	6.71625E-08
[1,1,6]	1.49295E-04	1.93475E-07	2.00097E-06	1.94265E-07	9.06272E-06	3.84257E-11	1.05556E-07
[1,2,1]	5.68650E-06	2.93492E-07	1.48543E-06	2.13879E-07	4.72382E-08	2.90721E-12	5.25185E-11
[1,2,2]	4.37507E-05	2.57435E-07	2.22478E-06	2.04385E-07	9.51491E-07	1.10129E-11	3.59745E-09
[1,2,3]	7.64383E-05	2.23413E-07	2.10192E-06	1.89525E-07	2.51446E-06	1.70886E-11	1.50587E-08
[1,2,4]	1.04310E-04	1.92214E-07	1.93691E-06	1.72923E-07	4.47039E-06	2.19137E-11	3.58511E-08
[1,2,5]	1.28113E-04	1.66515E-07	1.78811E-06	1.58639E-07	6.66539E-06	2.61190E-11	6.58342E-08
[1,2,6]	1.48360E-04	1.44031E-07	1.64040E-06	1.44770E-07	8.95141E-06	2.93334E-11	1.03822E-07
[1,3,1]	5.66492E-06	2.92281E-07	1.47213E-06	2.12206E-07	4.15252E-08	2.54134E-12	3.51129E-11
[1,3,2]	4.37371E-05	2.56640E-07	2.21387E-06	2.03023E-07	9.48226E-07	1.04914E-11	3.34657E-09
[1,3,3]	7.64092E-05	2.21812E-07	2.08624E-06	1.87481E-07	2.51478E-06	1.62695E-11	1.44141E-08
[1,3,4]	1.04296E-04	1.91425E-07	1.92599E-06	1.71543E-07	4.47646E-06	2.08277E-11	3.47386E-08
[1,3,5]	1.28092E-04	1.65316E-07	1.77443E-06	1.56875E-07	6.67809E-06	2.46286E-11	6.41106E-08
[1,3,6]	1.48343E-04	1.43092E-07	1.62841E-06	1.43246E-07	8.96918E-06	2.73939E-11	1.01528E-07
[2,1,1]	1.76762E-05	5.36395E-07	3.76682E-06	3.95340E-07	2.17968E-07	9.59801E-12	4.92363E-10
[2,1,2]	5.40929E-05	4.66573E-07	4.02337E-06	3.71905E-07	1.34768E-06	2.35397E-11	6.21799E-09
[2,1,3]	8.53297E-05	4.04231E-07	3.76911E-06	3.43280E-07	3.04722E-06	3.43808E-11	2.07591E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[2,1,4]	1.11923E-04	3.49510E-07	3.47583E-06	3.14570E-07	5.08524E-06	4.33127E-11	4.49355E-08
[2,1,5]	1.34625E-04	3.01684E-07	3.19669E-06	2.87098E-07	7.32042E-06	5.03945E-11	7.82898E-08
[2,1,6]	1.53931E-04	2.60873E-07	2.93113E-06	2.61993E-07	9.61233E-06	5.60325E-11	1.19447E-07
[2,2,1]	1.30582E-05	3.95859E-07	2.77414E-06	2.90739E-07	1.51144E-07	6.55348E-12	2.88911E-10
[2,2,2]	5.01181E-05	3.45641E-07	3.08537E-06	2.75344E-07	1.19773E-06	1.72550E-11	5.37053E-09
[2,2,3]	8.18903E-05	2.98985E-07	2.89328E-06	2.54073E-07	2.84313E-06	2.55328E-11	1.90017E-08
[2,2,4]	1.08981E-04	2.58795E-07	2.67321E-06	2.33246E-07	4.84535E-06	3.23920E-11	4.22194E-08
[2,2,5]	1.32093E-04	2.23082E-07	2.45891E-06	2.12732E-07	7.06113E-06	3.80458E-11	7.45615E-08
[2,2,6]	1.51768E-04	1.93454E-07	2.26056E-06	1.94742E-07	9.34518E-06	4.25395E-11	1.14787E-07
[2,3,1]	1.32024E-05	4.04079E-07	2.78665E-06	2.94243E-07	1.29059E-07	5.46386E-12	1.90526E-10
[2,3,2]	5.02375E-05	3.52237E-07	3.09481E-06	2.78065E-07	1.18413E-06	1.60200E-11	4.65541E-09
[2,3,3]	8.19832E-05	3.05005E-07	2.90018E-06	2.56671E-07	2.84029E-06	2.39977E-11	1.73452E-08
[2,3,4]	1.09068E-04	2.63770E-07	2.67877E-06	2.35259E-07	4.85793E-06	3.05214E-11	3.94110E-08
[2,3,5]	1.32142E-04	2.26515E-07	2.45549E-06	2.13645E-07	7.08750E-06	3.55807E-11	7.03826E-08
[2,3,6]	1.51813E-04	1.96391E-07	2.25646E-06	1.95420E-07	9.38721E-06	3.96105E-11	1.09220E-07
[3,1,1]	2.77793E-05	5.50594E-07	4.80287E-06	4.13294E-07	4.40159E-07	1.44652E-11	1.33115E-09
[3,1,2]	6.28061E-05	4.79016E-07	4.79573E-06	3.86789E-07	1.74592E-06	2.83326E-11	9.38228E-09
[3,1,3]	9.27771E-05	4.12971E-07	4.46230E-06	3.54435E-07	3.55053E-06	3.91578E-11	2.68683E-08
[3,1,4]	1.18286E-04	3.56017E-07	4.10964E-06	3.23681E-07	5.65151E-06	4.81160E-11	5.41449E-08
[3,1,5]	1.40074E-04	3.07757E-07	3.77722E-06	2.95593E-07	7.91166E-06	5.52710E-11	9.06307E-08
[3,1,6]	1.58609E-04	2.66895E-07	3.47079E-06	2.70545E-07	1.02053E-05	6.10333E-11	1.34634E-07
[3,2,1]	2.05881E-05	4.10024E-07	3.55055E-06	3.06180E-07	3.04183E-07	9.85017E-12	7.82515E-10
[3,2,2]	5.66074E-05	3.57039E-07	3.61974E-06	2.87869E-07	1.48815E-06	2.06194E-11	7.62840E-09
[3,2,3]	8.74482E-05	3.08816E-07	3.38123E-06	2.65192E-07	3.21409E-06	2.91115E-11	2.36029E-08
[3,2,4]	1.13729E-04	2.66622E-07	3.12172E-06	2.42813E-07	5.26313E-06	3.62120E-11	4.93179E-08
[3,2,5]	1.36149E-04	2.30342E-07	2.87032E-06	2.21819E-07	7.49580E-06	4.19543E-11	8.41764E-08
[3,2,6]	1.55252E-04	2.00273E-07	2.64509E-06	2.03650E-07	9.77763E-06	4.66479E-11	1.26715E-07

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[3,3,1]	2.09482E-05	4.21150E-07	3.57541E-06	3.10087E-07	2.54568E-07	7.96145E-12	5.06797E-10
[3,3,2]	5.68995E-05	3.65901E-07	3.63615E-06	2.90572E-07	1.45262E-06	1.85207E-11	6.33645E-09
[3,3,3]	8.76700E-05	3.15418E-07	3.38687E-06	2.66430E-07	3.19606E-06	2.65958E-11	2.07729E-08
[3,3,4]	1.13932E-04	2.72507E-07	3.12512E-06	2.43759E-07	5.26850E-06	3.32498E-11	4.46678E-08
[3,3,5]	1.36279E-04	2.34311E-07	2.86016E-06	2.21440E-07	7.52341E-06	3.84286E-11	7.73876E-08
[3,3,6]	1.55357E-04	2.03191E-07	2.63000E-06	2.02598E-07	9.83231E-06	4.26223E-11	1.17685E-07
[4,1,1]	3.63660E-05	4.73804E-07	4.98430E-06	3.61439E-07	6.83721E-07	1.61531E-11	2.45268E-09
[4,1,2]	7.01632E-05	4.09802E-07	4.83162E-06	3.34997E-07	2.12823E-06	2.76595E-11	1.26608E-08
[4,1,3]	9.90938E-05	3.54896E-07	4.48986E-06	3.07972E-07	4.01916E-06	3.69707E-11	3.27020E-08
[4,1,4]	1.23697E-04	3.06886E-07	4.13860E-06	2.82078E-07	6.17093E-06	4.47031E-11	6.26095E-08
[4,1,5]	1.44692E-04	2.64678E-07	3.79703E-06	2.56831E-07	8.44728E-06	5.05907E-11	1.01577E-07
[4,1,6]	1.62577E-04	2.30034E-07	3.49588E-06	2.35613E-07	1.07401E-05	5.54716E-11	1.47796E-07
[4,2,1]	2.70376E-05	3.55540E-07	3.70052E-06	2.69404E-07	4.72534E-07	1.09979E-11	1.43573E-09
[4,2,2]	6.21576E-05	3.09273E-07	3.64595E-06	2.52214E-07	1.76867E-06	2.01465E-11	9.90778E-09
[4,2,3]	9.21948E-05	2.67331E-07	3.39685E-06	2.31966E-07	3.56171E-06	2.74699E-11	2.78776E-08
[4,2,4]	1.17804E-04	2.32020E-07	3.14337E-06	2.13542E-07	5.65107E-06	3.37586E-11	5.56944E-08
[4,2,5]	1.39620E-04	2.00174E-07	2.88674E-06	1.94698E-07	7.89524E-06	3.85902E-11	9.25533E-08
[4,2,6]	1.58240E-04	1.74629E-07	2.66736E-06	1.79384E-07	1.01763E-05	4.27860E-11	1.36899E-07
[4,3,1]	2.76080E-05	3.66475E-07	3.72522E-06	2.72553E-07	3.90805E-07	8.75107E-12	9.24695E-10
[4,3,2]	6.26087E-05	3.17494E-07	3.65618E-06	2.53718E-07	1.70571E-06	1.76417E-11	8.00023E-09
[4,3,3]	9.25443E-05	2.73840E-07	3.39508E-06	2.32423E-07	3.52087E-06	2.45806E-11	2.39769E-08
[4,3,4]	1.18103E-04	2.36899E-07	3.13259E-06	2.12838E-07	5.64045E-06	3.03996E-11	4.93633E-08
[4,3,5]	1.39822E-04	2.03719E-07	2.86436E-06	1.93252E-07	7.91581E-06	3.47581E-11	8.33852E-08
[4,3,6]	1.58397E-04	1.77065E-07	2.63720E-06	1.77172E-07	1.02299E-05	3.84099E-11	1.24884E-07
[5,1,1]	4.26120E-05	3.49275E-07	4.44340E-06	2.69522E-07	8.94590E-07	1.41393E-11	3.50199E-09
[5,1,2]	7.55110E-05	3.02149E-07	4.24831E-06	2.49320E-07	2.43653E-06	2.25098E-11	1.53051E-08
[5,1,3]	1.03646E-04	2.60043E-07	3.93264E-06	2.27525E-07	4.38549E-06	2.91415E-11	3.70893E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[5,1,4]	1.27591E-04	2.25036E-07	3.62698E-06	2.08514E-07	6.57262E-06	3.48116E-11	6.87102E-08
[5,1,5]	1.48010E-04	1.94184E-07	3.32448E-06	1.89795E-07	8.85893E-06	3.90376E-11	1.09143E-07
[5,1,6]	1.65428E-04	1.69215E-07	3.06756E-06	1.74653E-07	1.11508E-05	4.26799E-11	1.56633E-07
[5,2,1]	3.17556E-05	2.63560E-07	3.31032E-06	2.01755E-07	6.18418E-07	9.62563E-12	2.05210E-09
[5,2,2]	6.62100E-05	2.29215E-07	3.21045E-06	1.88461E-07	1.99490E-06	1.63477E-11	1.17092E-08
[5,2,3]	9.56370E-05	1.97279E-07	2.98065E-06	1.72423E-07	3.83427E-06	2.16537E-11	3.10349E-08
[5,2,4]	1.20756E-04	1.71553E-07	2.76332E-06	1.59066E-07	5.95297E-06	2.63173E-11	6.01718E-08
[5,2,5]	1.42121E-04	1.47613E-07	2.53278E-06	1.44547E-07	8.20345E-06	2.97085E-11	9.81389E-08
[5,2,6]	1.60396E-04	1.29406E-07	2.34844E-06	1.33901E-07	1.04846E-05	3.29438E-11	1.43508E-07
[5,3,1]	3.24988E-05	2.72642E-07	3.33119E-06	2.04184E-07	5.08448E-07	7.61328E-12	1.31428E-09
[5,3,2]	6.67988E-05	2.36368E-07	3.21686E-06	1.89735E-07	1.90716E-06	1.41331E-11	9.30458E-09
[5,3,3]	9.60880E-05	2.02493E-07	2.97254E-06	1.72410E-07	3.77261E-06	1.91111E-11	2.62683E-08
[5,3,4]	1.21129E-04	1.75215E-07	2.74287E-06	1.57917E-07	5.92558E-06	2.33971E-11	5.25801E-08
[5,3,5]	1.42381E-04	1.50473E-07	2.50465E-06	1.43077E-07	8.21221E-06	2.65340E-11	8.73825E-08
[5,3,6]	1.60584E-04	1.30811E-07	2.30791E-06	1.31239E-07	1.05317E-05	2.92948E-11	1.29392E-07
[6,1,1]	4.64251E-05	2.17123E-07	3.46123E-06	1.68375E-07	1.03948E-06	9.69069E-12	4.14955E-09
[6,1,2]	7.87661E-05	1.87879E-07	3.28616E-06	1.55577E-07	2.64170E-06	1.48207E-11	1.67365E-08
[6,1,3]	1.06405E-04	1.61628E-07	3.03556E-06	1.41866E-07	4.62587E-06	1.88438E-11	3.92895E-08
[6,1,4]	1.29935E-04	1.39563E-07	2.79812E-06	1.29702E-07	6.83672E-06	2.22822E-11	7.14407E-08
[6,1,5]	1.50008E-04	1.21061E-07	2.56802E-06	1.18663E-07	9.13025E-06	2.48799E-11	1.12232E-07
[6,1,6]	1.67123E-04	1.04927E-07	2.36743E-06	1.08560E-07	1.14212E-05	2.69274E-11	1.59805E-07
[6,2,1]	3.46865E-05	1.66521E-07	2.59656E-06	1.28055E-07	7.20054E-07	6.68739E-12	2.43551E-09
[6,2,2]	6.87184E-05	1.44883E-07	2.49859E-06	1.19526E-07	2.14719E-06	1.08865E-11	1.26804E-08
[6,2,3]	9.77611E-05	1.24883E-07	2.31642E-06	1.09452E-07	4.01693E-06	1.41979E-11	3.25423E-08
[6,2,4]	1.22553E-04	1.07852E-07	2.14417E-06	1.00249E-07	6.15401E-06	1.69994E-11	6.20673E-08
[6,2,5]	1.43645E-04	9.35264E-08	1.96859E-06	9.18006E-08	8.41124E-06	1.91878E-11	1.00207E-07
[6,2,6]	1.61689E-04	8.14440E-08	1.82430E-06	8.44762E-08	1.06930E-05	2.10086E-11	1.45512E-07

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[6,3,1]	3.54683E-05	1.68693E-07	2.59050E-06	1.26560E-07	5.88232E-07	5.16157E-12	1.55660E-09
[6,3,2]	6.93298E-05	1.46139E-07	2.48063E-06	1.17337E-07	2.03810E-06	9.12515E-12	9.98329E-09
[6,3,3]	9.82254E-05	1.25560E-07	2.28886E-06	1.06893E-07	3.93562E-06	1.22135E-11	2.73085E-08
[6,3,4]	1.22929E-04	1.07935E-07	2.10706E-06	9.72143E-08	6.10882E-06	1.47409E-11	5.38030E-08
[6,3,5]	1.43908E-04	9.35201E-08	1.92865E-06	8.88716E-08	8.40404E-06	1.67374E-11	8.86484E-08
[6,3,6]	1.61867E-04	8.06955E-08	1.77323E-06	8.08801E-08	1.07272E-05	1.82739E-11	1.30343E-07

Table 41. Number densities for Case-2B, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1]	1.27335E-08	3.30531E-06	2.20603E-09	2.87017E-09	1.10855E-08	4.13929E-10
[1,1,2]	4.23456E-08	3.90292E-06	2.18795E-09	2.71402E-09	1.01882E-08	3.72905E-10
[1,1,3]	4.15844E-08	3.60818E-06	2.07170E-09	2.50354E-09	9.22097E-09	3.32984E-10
[1,1,4]	3.85065E-08	3.28031E-06	1.91209E-09	2.27184E-09	8.24443E-09	2.94610E-10
[1,1,5]	3.55426E-08	2.99855E-06	1.77061E-09	2.07494E-09	7.42925E-09	2.62940E-10
[1,1,6]	3.25925E-08	2.72683E-06	1.62563E-09	1.88426E-09	6.66786E-09	2.34004E-10
[1,2,1]	9.40498E-09	2.44346E-06	1.62752E-09	2.11949E-09	8.19070E-09	3.05971E-10
[1,2,2]	3.91357E-08	3.09274E-06	1.61998E-09	2.00860E-09	7.53965E-09	2.75966E-10
[1,2,3]	3.85807E-08	2.86148E-06	1.53548E-09	1.85387E-09	6.82605E-09	2.46453E-10
[1,2,4]	3.57661E-08	2.60611E-06	1.42038E-09	1.68569E-09	6.11460E-09	2.18435E-10
[1,2,5]	3.30260E-08	2.38510E-06	1.31732E-09	1.54186E-09	5.51795E-09	1.95230E-10
[1,2,6]	3.03049E-08	2.17346E-06	1.21256E-09	1.40357E-09	4.96404E-09	1.74140E-10
[1,3,1]	9.32062E-09	2.42491E-06	1.61171E-09	2.10372E-09	8.14022E-09	3.04322E-10
[1,3,2]	3.90665E-08	3.07721E-06	1.60684E-09	1.99586E-09	7.50039E-09	2.74721E-10
[1,3,3]	3.84811E-08	2.83777E-06	1.51706E-09	1.83442E-09	6.76171E-09	2.44292E-10
[1,3,4]	3.56965E-08	2.58942E-06	1.40737E-09	1.67273E-09	6.07429E-09	2.17145E-10
[1,3,5]	3.29387E-08	2.36382E-06	1.30120E-09	1.52515E-09	5.46409E-09	1.93457E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,3,6]	3.02281E-08	2.15441E-06	1.19839E-09	1.38919E-09	4.91863E-09	1.72669E-10
[2,1,1]	3.16198E-08	6.08719E-06	3.03505E-09	3.81155E-09	1.46198E-08	5.42532E-10
[2,1,2]	5.13171E-08	6.03200E-06	2.95116E-09	3.56142E-09	1.33186E-08	4.85509E-10
[2,1,3]	4.92466E-08	5.55826E-06	2.77496E-09	3.27312E-09	1.20259E-08	4.32935E-10
[2,1,4]	4.55169E-08	5.07320E-06	2.57472E-09	2.99012E-09	1.08289E-08	3.85885E-10
[2,1,5]	4.19477E-08	4.62682E-06	2.37273E-09	2.72117E-09	9.72943E-09	3.43550E-10
[2,1,6]	3.84744E-08	4.21419E-06	2.18370E-09	2.47727E-09	8.75326E-09	3.06441E-10
[2,2,1]	2.33035E-08	4.48991E-06	2.22813E-09	2.80340E-09	1.07662E-08	3.99890E-10
[2,2,2]	4.34185E-08	4.55583E-06	2.18552E-09	2.63645E-09	9.85986E-09	3.59442E-10
[2,2,3]	4.18665E-08	4.19860E-06	2.05613E-09	2.42187E-09	8.89379E-09	3.20058E-10
[2,2,4]	3.87594E-08	3.83917E-06	1.91194E-09	2.21631E-09	8.02032E-09	2.85631E-10
[2,2,5]	3.57356E-08	3.50171E-06	1.76120E-09	2.01535E-09	7.19864E-09	2.53989E-10
[2,2,6]	3.28255E-08	3.19854E-06	1.62611E-09	1.84049E-09	6.49633E-09	2.27236E-10
[2,3,1]	2.33310E-08	4.52227E-06	2.24510E-09	2.84114E-09	1.09448E-08	4.07359E-10
[2,3,2]	4.34357E-08	4.57964E-06	2.19883E-09	2.66585E-09	9.99974E-09	3.65295E-10
[2,3,3]	4.18489E-08	4.21625E-06	2.07002E-09	2.44997E-09	9.02423E-09	3.25446E-10
[2,3,4]	3.87516E-08	3.85269E-06	1.92203E-09	2.23823E-09	8.12455E-09	2.89982E-10
[2,3,5]	3.56597E-08	3.49991E-06	1.76303E-09	2.02646E-09	7.26084E-09	2.56764E-10
[2,3,6]	3.27514E-08	3.19455E-06	1.62634E-09	1.84911E-09	6.54769E-09	2.29580E-10
[3,1,1]	4.97048E-08	7.52823E-06	3.20335E-09	3.94549E-09	1.50213E-08	5.54310E-10
[3,1,2]	6.16826E-08	7.16342E-06	3.08262E-09	3.67096E-09	1.36626E-08	4.96164E-10
[3,1,3]	5.83125E-08	6.56713E-06	2.87062E-09	3.35011E-09	1.22652E-08	4.40274E-10
[3,1,4]	5.38097E-08	5.98871E-06	2.65199E-09	3.04951E-09	1.10094E-08	3.91281E-10
[3,1,5]	4.95346E-08	5.46072E-06	2.44378E-09	2.77759E-09	9.90440E-09	3.48912E-10
[3,1,6]	4.54840E-08	4.98440E-06	2.25567E-09	2.53629E-09	8.93807E-09	3.12176E-10
[3,2,1]	3.67007E-08	5.57719E-06	2.36775E-09	2.92466E-09	1.11546E-08	4.12159E-10
[3,2,2]	4.94158E-08	5.36591E-06	2.29517E-09	2.73235E-09	1.01711E-08	3.69412E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[3,2,3]	4.69617E-08	4.93515E-06	2.15131E-09	2.50673E-09	9.17188E-09	3.29074E-10
[3,2,4]	4.34270E-08	4.51103E-06	1.99368E-09	2.28756E-09	8.25033E-09	2.92987E-10
[3,2,5]	3.99956E-08	4.11451E-06	1.83840E-09	2.08421E-09	7.42244E-09	2.61206E-10
[3,2,6]	3.68004E-08	3.76743E-06	1.70229E-09	1.90895E-09	6.71792E-09	2.34365E-10
[3,3,1]	3.68746E-08	5.64000E-06	2.38161E-09	2.96606E-09	1.13678E-08	4.21435E-10
[3,3,2]	4.95297E-08	5.40969E-06	2.30254E-09	2.76158E-09	1.03302E-08	3.76481E-10
[3,3,3]	4.69861E-08	4.95887E-06	2.14883E-09	2.52125E-09	9.27092E-09	3.33814E-10
[3,3,4]	4.34430E-08	4.52829E-06	1.98989E-09	2.29919E-09	8.33529E-09	2.97129E-10
[3,3,5]	3.98839E-08	4.10884E-06	1.82484E-09	2.08301E-09	7.45694E-09	2.63447E-10
[3,3,6]	3.66583E-08	3.75255E-06	1.68375E-09	1.90111E-09	6.72593E-09	2.35599E-10
[4,1,1]	6.18897E-08	7.55150E-06	2.82250E-09	3.42192E-09	1.29475E-08	4.75535E-10
[4,1,2]	6.82351E-08	7.06233E-06	2.67987E-09	3.15414E-09	1.16886E-08	4.23024E-10
[4,1,3]	6.40191E-08	6.47413E-06	2.49969E-09	2.88963E-09	1.05427E-08	3.77374E-10
[4,1,4]	5.90530E-08	5.91129E-06	2.31488E-09	2.63896E-09	9.49682E-09	3.36630E-10
[4,1,5]	5.42886E-08	5.38152E-06	2.12582E-09	2.39634E-09	8.52023E-09	2.99410E-10
[4,1,6]	4.99185E-08	4.92226E-06	1.96676E-09	2.19325E-09	7.70689E-09	2.68496E-10
[4,2,1]	4.58256E-08	5.62189E-06	2.09843E-09	2.55232E-09	9.67816E-09	3.56016E-10
[4,2,2]	5.32413E-08	5.31035E-06	2.01866E-09	2.37565E-09	8.80667E-09	3.18793E-10
[4,2,3]	5.01696E-08	4.87689E-06	1.88630E-09	2.17636E-09	7.93563E-09	2.83904E-10
[4,2,4]	4.64117E-08	4.46992E-06	1.75674E-09	1.99760E-09	7.18121E-09	2.54322E-10
[4,2,5]	4.26980E-08	4.07313E-06	1.61600E-09	1.81638E-09	6.44954E-09	2.26386E-10
[4,2,6]	3.93653E-08	3.73982E-06	1.50158E-09	1.66963E-09	5.85857E-09	2.03854E-10
[4,3,1]	4.60877E-08	5.68978E-06	2.10463E-09	2.58652E-09	9.87022E-09	3.64676E-10
[4,3,2]	5.33751E-08	5.34970E-06	2.01453E-09	2.39357E-09	8.93034E-09	3.24755E-10
[4,3,3]	5.01727E-08	4.89415E-06	1.87554E-09	2.18416E-09	8.01691E-09	2.88199E-10
[4,3,4]	4.63525E-08	4.47035E-06	1.73741E-09	1.99397E-09	7.21782E-09	2.56937E-10
[4,3,5]	4.24872E-08	4.05386E-06	1.59188E-09	1.80565E-09	6.45590E-09	2.27805E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[4,3,6]	3.90865E-08	3.70705E-06	1.47169E-09	1.65154E-09	5.83614E-09	2.04195E-10
[5,1,1]	6.59004E-08	6.48118E-06	2.11529E-09	2.53054E-09	9.53126E-09	3.48806E-10
[5,1,2]	6.85398E-08	6.01639E-06	1.99982E-09	2.32949E-09	8.60348E-09	3.10507E-10
[5,1,3]	6.39718E-08	5.49734E-06	1.84957E-09	2.11777E-09	7.70487E-09	2.75128E-10
[5,1,4]	5.90104E-08	5.02364E-06	1.71313E-09	1.93509E-09	6.94554E-09	2.45624E-10
[5,1,5]	5.41932E-08	4.56978E-06	1.57210E-09	1.75701E-09	6.23273E-09	2.18566E-10
[5,1,6]	4.99062E-08	4.18953E-06	1.45918E-09	1.61312E-09	5.65477E-09	1.96566E-10
[5,2,1]	4.89233E-08	4.84385E-06	1.57909E-09	1.89562E-09	7.15756E-09	2.62403E-10
[5,2,2]	5.28179E-08	4.54011E-06	1.51230E-09	1.76116E-09	6.50806E-09	2.34959E-10
[5,2,3]	4.94908E-08	4.15693E-06	1.40421E-09	1.60490E-09	5.83653E-09	2.08325E-10
[5,2,4]	4.58247E-08	3.81840E-06	1.31016E-09	1.47608E-09	5.29288E-09	1.87016E-10
[5,2,5]	4.21026E-08	3.47284E-06	1.20073E-09	1.33769E-09	4.73897E-09	1.65988E-10
[5,2,6]	3.89066E-08	3.20025E-06	1.12194E-09	1.23641E-09	4.32809E-09	1.50258E-10
[5,3,1]	4.92150E-08	4.90497E-06	1.58249E-09	1.92230E-09	7.31176E-09	2.69434E-10
[5,3,2]	5.29398E-08	4.57416E-06	1.50852E-09	1.77666E-09	6.61512E-09	2.40127E-10
[5,3,3]	4.94409E-08	4.16577E-06	1.39155E-09	1.60786E-09	5.89296E-09	2.11549E-10
[5,3,4]	4.56585E-08	3.80605E-06	1.28901E-09	1.46819E-09	5.30727E-09	1.88670E-10
[5,3,5]	4.17953E-08	3.44724E-06	1.17803E-09	1.32665E-09	4.73811E-09	1.66997E-10
[5,3,6]	3.84788E-08	3.15484E-06	1.08975E-09	1.21394E-09	4.28468E-09	1.49723E-10
[6,1,1]	6.21289E-08	4.81984E-06	1.32441E-09	1.56488E-09	5.87851E-09	2.14611E-10
[6,1,2]	6.26327E-08	4.45825E-06	1.24888E-09	1.43925E-09	5.30528E-09	1.91104E-10
[6,1,3]	5.82606E-08	4.06585E-06	1.15350E-09	1.30792E-09	4.75063E-09	1.69346E-10
[6,1,4]	5.37325E-08	3.71331E-06	1.06558E-09	1.19209E-09	4.27211E-09	1.50829E-10
[6,1,5]	4.93395E-08	3.38343E-06	9.82785E-10	1.08830E-09	3.85499E-09	1.34968E-10
[6,1,6]	4.54574E-08	3.09799E-06	9.06723E-10	9.92880E-10	3.47581E-09	1.20631E-10
[6,2,1]	4.62942E-08	3.63064E-06	1.00458E-09	1.19190E-09	4.48902E-09	1.64193E-10
[6,2,2]	4.80516E-08	3.39085E-06	9.60053E-10	1.10677E-09	4.08213E-09	1.47099E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[6,2,3]	4.48694E-08	3.10131E-06	8.91610E-10	1.00988E-09	3.66705E-09	1.30681E-10
[6,2,4]	4.15437E-08	2.84343E-06	8.25660E-10	9.21719E-10	3.30042E-09	1.16432E-10
[6,2,5]	3.81631E-08	2.59145E-06	7.62440E-10	8.42278E-10	2.98012E-09	1.04230E-10
[6,2,6]	3.53021E-08	2.38592E-06	7.07656E-10	7.72836E-10	2.70174E-09	9.36491E-11
[6,3,1]	4.64337E-08	3.64320E-06	9.82263E-10	1.17889E-09	4.47587E-09	1.64628E-10
[6,3,2]	4.80120E-08	3.38303E-06	9.32871E-10	1.08727E-09	4.04362E-09	1.46580E-10
[6,3,3]	4.46641E-08	3.07741E-06	8.62228E-10	9.87074E-10	3.61464E-09	1.29614E-10
[6,3,4]	4.12068E-08	2.80421E-06	7.92739E-10	8.94597E-10	3.23164E-09	1.14763E-10
[6,3,5]	3.77222E-08	2.54726E-06	7.30976E-10	8.16168E-10	2.91313E-09	1.02575E-10
[6,3,6]	3.47170E-08	2.32474E-06	6.70782E-10	7.40625E-10	2.61267E-09	9.12101E-11

Table 42. Axial flux distribution for Case-2B.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	Value	Statistical error	Value	Statistical error
5.34E+01	5.59E+13	4.40E-04	9.28E+13	4.10E-04
6.01E+01	5.36E+13	4.10E-04	1.17E+14	3.70E-04
6.68E+01	5.55E+13	3.90E-04	1.36E+14	3.50E-04
7.35E+01	5.95E+13	3.80E-04	1.53E+14	3.30E-04
8.02E+01	6.46E+13	3.60E-04	1.68E+14	3.10E-04
8.70E+01	7.01E+13	3.40E-04	1.83E+14	3.00E-04
9.37E+01	7.57E+13	3.30E-04	1.98E+14	2.90E-04
1.00E+02	8.14E+13	3.20E-04	2.13E+14	2.80E-04
1.07E+02	8.70E+13	3.00E-04	2.27E+14	2.60E-04
1.14E+02	9.25E+13	2.90E-04	2.42E+14	2.50E-04
1.21E+02	9.81E+13	2.80E-04	2.57E+14	2.40E-04
1.27E+02	1.04E+14	2.70E-04	2.71E+14	2.40E-04
1.34E+02	1.09E+14	2.60E-04	2.85E+14	2.30E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.41E+02	1.14E+14	2.60E-04	2.99E+14	2.20E-04
1.47E+02	1.20E+14	2.50E-04	3.13E+14	2.10E-04
1.54E+02	1.25E+14	2.40E-04	3.27E+14	2.00E-04
1.61E+02	1.30E+14	2.30E-04	3.40E+14	2.00E-04
1.68E+02	1.35E+14	2.30E-04	3.54E+14	1.90E-04
1.74E+02	1.39E+14	2.20E-04	3.66E+14	1.90E-04
1.81E+02	1.44E+14	2.20E-04	3.78E+14	1.80E-04
1.88E+02	1.48E+14	2.10E-04	3.90E+14	1.80E-04
1.94E+02	1.53E+14	2.10E-04	4.01E+14	1.70E-04
2.01E+02	1.56E+14	2.00E-04	4.11E+14	1.70E-04
2.08E+02	1.60E+14	2.00E-04	4.21E+14	1.60E-04
2.15E+02	1.63E+14	2.00E-04	4.31E+14	1.60E-04
2.21E+02	1.66E+14	1.90E-04	4.40E+14	1.60E-04
2.28E+02	1.68E+14	1.90E-04	4.48E+14	1.50E-04
2.35E+02	1.70E+14	1.90E-04	4.55E+14	1.50E-04
2.42E+02	1.72E+14	1.90E-04	4.60E+14	1.50E-04
2.48E+02	1.74E+14	1.90E-04	4.65E+14	1.50E-04
2.55E+02	1.75E+14	1.90E-04	4.68E+14	1.50E-04
2.62E+02	1.76E+14	1.90E-04	4.71E+14	1.50E-04
2.68E+02	1.76E+14	1.90E-04	4.72E+14	1.50E-04
2.75E+02	1.75E+14	1.90E-04	4.73E+14	1.50E-04
2.82E+02	1.74E+14	1.90E-04	4.72E+14	1.60E-04
2.89E+02	1.72E+14	1.90E-04	4.68E+14	1.60E-04
2.95E+02	1.70E+14	2.00E-04	4.63E+14	1.60E-04
3.02E+02	1.67E+14	2.00E-04	4.56E+14	1.70E-04
3.09E+02	1.63E+14	2.00E-04	4.46E+14	1.70E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
3.15E+02	1.59E+14	2.10E-04	4.36E+14	1.80E-04
3.22E+02	1.54E+14	2.20E-04	4.23E+14	1.80E-04
3.29E+02	1.49E+14	2.20E-04	4.09E+14	1.90E-04
3.36E+02	1.42E+14	2.30E-04	3.93E+14	1.90E-04
3.42E+02	1.35E+14	2.40E-04	3.75E+14	2.00E-04
3.49E+02	1.28E+14	2.50E-04	3.55E+14	2.10E-04
3.56E+02	1.20E+14	2.50E-04	3.32E+14	2.20E-04
3.62E+02	1.12E+14	2.70E-04	3.06E+14	2.30E-04
3.69E+02	1.06E+14	2.80E-04	2.77E+14	2.40E-04
3.76E+02	1.04E+14	2.90E-04	2.40E+14	2.60E-04
3.83E+02	1.09E+14	3.00E-04	1.93E+14	2.80E-04

Table 43. Radial flux distribution for Case-2B.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
3.58E+01	2.41E+14	1.40E-04	3.57E+14	1.20E-04
3.74E+01	2.23E+14	1.30E-04	3.75E+14	1.10E-04
3.91E+01	2.09E+14	1.30E-04	3.89E+14	1.10E-04
4.07E+01	1.96E+14	1.30E-04	4.00E+14	1.00E-04
4.23E+01	1.86E+14	1.30E-04	4.09E+14	1.00E-04
4.40E+01	1.77E+14	1.30E-04	4.15E+14	1.00E-04
4.56E+01	1.70E+14	1.20E-04	4.20E+14	9.00E-05
4.72E+01	1.64E+14	1.20E-04	4.23E+14	9.00E-05
4.88E+01	1.59E+14	1.20E-04	4.25E+14	9.00E-05
5.05E+01	1.54E+14	1.20E-04	4.26E+14	9.00E-05

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
5.21E+01	1.50E+14	1.20E-04	4.26E+14	8.00E-05
5.37E+01	1.47E+14	1.20E-04	4.25E+14	8.00E-05
5.53E+01	1.44E+14	1.20E-04	4.24E+14	8.00E-05
5.70E+01	1.41E+14	1.10E-04	4.22E+14	8.00E-05
5.86E+01	1.39E+14	1.10E-04	4.19E+14	8.00E-05
6.02E+01	1.36E+14	1.10E-04	4.16E+14	8.00E-05
6.19E+01	1.34E+14	1.10E-04	4.12E+14	7.00E-05
6.35E+01	1.32E+14	1.10E-04	4.08E+14	7.00E-05
6.51E+01	1.30E+14	1.10E-04	4.04E+14	7.00E-05
6.67E+01	1.28E+14	1.10E-04	4.00E+14	7.00E-05
6.84E+01	1.26E+14	1.10E-04	3.95E+14	7.00E-05
7.00E+01	1.24E+14	1.10E-04	3.90E+14	7.00E-05
7.16E+01	1.23E+14	1.10E-04	3.85E+14	7.00E-05
7.33E+01	1.21E+14	1.10E-04	3.80E+14	7.00E-05
7.49E+01	1.19E+14	1.10E-04	3.74E+14	7.00E-05
7.65E+01	1.18E+14	1.10E-04	3.68E+14	7.00E-05
7.81E+01	1.16E+14	1.00E-04	3.62E+14	7.00E-05
7.98E+01	1.15E+14	1.00E-04	3.55E+14	7.00E-05
8.14E+01	1.13E+14	1.00E-04	3.48E+14	7.00E-05
8.30E+01	1.12E+14	1.00E-04	3.41E+14	7.00E-05
8.47E+01	1.11E+14	1.00E-04	3.34E+14	7.00E-05
8.63E+01	1.10E+14	1.00E-04	3.26E+14	7.00E-05
8.79E+01	1.10E+14	1.00E-04	3.17E+14	8.00E-05
8.95E+01	1.09E+14	1.00E-04	3.09E+14	8.00E-05
9.12E+01	1.09E+14	1.00E-04	2.99E+14	8.00E-05
9.28E+01	1.10E+14	1.00E-04	2.89E+14	8.00E-05

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
9.44E+01	1.10E+14	1.00E-04	2.79E+14	8.00E-05
9.60E+01	1.12E+14	1.00E-04	2.67E+14	8.00E-05
9.77E+01	1.14E+14	1.00E-04	2.55E+14	9.00E-05
9.93E+01	1.16E+14	1.00E-04	2.42E+14	9.00E-05
1.01E+02	1.20E+14	1.10E-04	2.28E+14	9.00E-05
1.03E+02	1.24E+14	1.10E-04	2.13E+14	9.00E-05
1.04E+02	1.30E+14	1.10E-04	1.96E+14	1.00E-04

Table 44. Power produced per TRISO particle and fast neutron flux (E > 1MeV) for Case-2B. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes.)

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,1,1]	1.73E+02	3.60E-04	1.06E+14	9.30E-04
[2,1,1]	2.31E+02	3.00E-04	1.48E+14	7.80E-04
[3,1,1]	2.28E+02	2.90E-04	1.50E+14	7.70E-04
[4,1,1]	1.98E+02	3.10E-04	1.27E+14	8.40E-04
[5,1,1]	1.43E+02	3.80E-04	9.22E+13	9.90E-04
[6,1,1]	8.33E+01	5.10E-04	5.26E+13	1.32E-03
[1,1,2]	1.59E+02	3.60E-04	1.06E+14	9.20E-04
[2,1,2]	2.10E+02	3.00E-04	1.47E+14	7.80E-04
[3,1,2]	2.07E+02	2.90E-04	1.49E+14	7.70E-04
[4,1,2]	1.78E+02	3.20E-04	1.26E+14	8.30E-04
[5,1,2]	1.29E+02	3.90E-04	9.18E+13	9.80E-04
[6,1,2]	7.51E+01	5.10E-04	5.23E+13	1.31E-03
[1,1,3]	1.38E+02	3.70E-04	1.04E+14	9.30E-04
[2,1,3]	1.87E+02	3.10E-04	1.46E+14	7.80E-04
[3,1,3]	1.87E+02	3.00E-04	1.48E+14	7.70E-04

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[4,1,3]	1.54E+02	3.30E-04	1.25E+14	8.30E-04
[5,1,3]	1.14E+02	4.00E-04	9.06E+13	9.90E-04
[6,1,3]	6.74E+01	5.30E-04	5.22E+13	1.31E-03
[1,1,4]	1.23E+02	3.80E-04	1.03E+14	9.20E-04
[2,1,4]	1.60E+02	3.20E-04	1.45E+14	7.70E-04
[3,1,4]	1.66E+02	3.10E-04	1.47E+14	7.70E-04
[4,1,4]	1.38E+02	3.40E-04	1.24E+14	8.30E-04
[5,1,4]	9.70E+01	4.10E-04	8.94E+13	9.90E-04
[6,1,4]	6.04E+01	5.40E-04	5.16E+13	1.30E-03
[1,1,5]	1.10E+02	4.00E-04	1.03E+14	9.30E-04
[2,1,5]	1.48E+02	3.30E-04	1.45E+14	7.90E-04
[3,1,5]	1.48E+02	3.20E-04	1.47E+14	7.70E-04
[4,1,5]	1.22E+02	3.50E-04	1.24E+14	8.40E-04
[5,1,5]	9.04E+01	4.20E-04	8.97E+13	1.00E-03
[6,1,5]	5.39E+01	5.60E-04	5.18E+13	1.32E-03
[1,1,6]	9.68E+01	4.10E-04	1.02E+14	9.40E-04
[2,1,6]	1.25E+02	3.40E-04	1.43E+14	7.90E-04
[3,1,6]	1.31E+02	3.30E-04	1.45E+14	7.80E-04
[4,1,6]	1.09E+02	3.60E-04	1.23E+14	8.50E-04
[5,1,6]	7.67E+01	4.40E-04	8.87E+13	1.00E-03
[6,1,6]	4.80E+01	5.80E-04	5.09E+13	1.33E-03
[1,2,1]	1.29E+02	4.00E-04	8.88E+13	1.01E-03
[2,2,1]	1.72E+02	3.30E-04	1.24E+14	8.50E-04
[3,2,1]	1.71E+02	3.20E-04	1.26E+14	8.40E-04
[4,2,1]	1.49E+02	3.50E-04	1.07E+14	9.10E-04
[5,2,1]	1.08E+02	4.20E-04	7.81E+13	1.07E-03
[6,2,1]	6.39E+01	5.60E-04	4.48E+13	1.42E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,2,2]	1.18E+02	4.00E-04	8.83E+13	1.00E-03
[2,2,2]	1.57E+02	3.40E-04	1.23E+14	8.50E-04
[3,2,2]	1.55E+02	3.20E-04	1.25E+14	8.30E-04
[4,2,2]	1.35E+02	3.50E-04	1.07E+14	9.00E-04
[5,2,2]	9.76E+01	4.30E-04	7.77E+13	1.06E-03
[6,2,2]	5.79E+01	5.60E-04	4.47E+13	1.40E-03
[1,2,3]	1.04E+02	4.10E-04	8.73E+13	1.00E-03
[2,2,3]	1.40E+02	3.50E-04	1.23E+14	8.40E-04
[3,2,3]	1.41E+02	3.40E-04	1.25E+14	8.30E-04
[4,2,3]	1.17E+02	3.70E-04	1.06E+14	9.10E-04
[5,2,3]	8.70E+01	4.40E-04	7.70E+13	1.06E-03
[6,2,3]	5.24E+01	5.80E-04	4.48E+13	1.40E-03
[1,2,4]	9.21E+01	4.20E-04	8.62E+13	1.00E-03
[2,2,4]	1.19E+02	3.50E-04	1.21E+14	8.40E-04
[3,2,4]	1.25E+02	3.40E-04	1.24E+14	8.30E-04
[4,2,4]	1.05E+02	3.70E-04	1.05E+14	9.00E-04
[5,2,4]	7.42E+01	4.50E-04	7.63E+13	1.06E-03
[6,2,4]	4.68E+01	5.90E-04	4.40E+13	1.40E-03
[1,2,5]	8.23E+01	4.40E-04	8.65E+13	1.01E-03
[2,2,5]	1.11E+02	3.70E-04	1.21E+14	8.50E-04
[3,2,5]	1.12E+02	3.60E-04	1.24E+14	8.40E-04
[4,2,5]	9.34E+01	3.90E-04	1.05E+14	9.10E-04
[5,2,5]	6.93E+01	4.70E-04	7.63E+13	1.07E-03
[6,2,5]	4.18E+01	6.20E-04	4.43E+13	1.41E-03
[1,2,6]	7.25E+01	4.60E-04	8.54E+13	1.02E-03
[2,2,6]	9.35E+01	3.80E-04	1.20E+14	8.60E-04
[3,2,6]	9.90E+01	3.70E-04	1.23E+14	8.40E-04

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[4,2,6]	8.27E+01	4.10E-04	1.04E+14	9.20E-04
[5,2,6]	5.88E+01	4.90E-04	7.56E+13	1.08E-03
[6,2,6]	3.73E+01	6.40E-04	4.37E+13	1.43E-03
[1,3,1]	1.26E+02	4.10E-04	6.85E+13	1.16E-03
[2,3,1]	1.71E+02	3.40E-04	9.65E+13	9.70E-04
[3,3,1]	1.71E+02	3.30E-04	9.85E+13	9.50E-04
[4,3,1]	1.50E+02	3.60E-04	8.41E+13	1.03E-03
[5,3,1]	1.09E+02	4.30E-04	6.13E+13	1.22E-03
[6,3,1]	6.31E+01	5.70E-04	3.49E+13	1.62E-03
[1,3,2]	1.16E+02	4.10E-04	6.83E+13	1.14E-03
[2,3,2]	1.56E+02	3.40E-04	9.58E+13	9.60E-04
[3,3,2]	1.55E+02	3.30E-04	9.80E+13	9.40E-04
[4,3,2]	1.35E+02	3.60E-04	8.34E+13	1.02E-03
[5,3,2]	9.83E+01	4.40E-04	6.11E+13	1.20E-03
[6,3,2]	5.70E+01	5.80E-04	3.48E+13	1.59E-03
[1,3,3]	1.01E+02	4.30E-04	6.74E+13	1.14E-03
[2,3,3]	1.40E+02	3.60E-04	9.57E+13	9.60E-04
[3,3,3]	1.42E+02	3.40E-04	9.76E+13	9.50E-04
[4,3,3]	1.18E+02	3.80E-04	8.28E+13	1.03E-03
[5,3,3]	8.77E+01	4.50E-04	6.03E+13	1.20E-03
[6,3,3]	5.17E+01	6.00E-04	3.47E+13	1.59E-03
[1,3,4]	8.99E+01	4.40E-04	6.64E+13	1.14E-03
[2,3,4]	1.19E+02	3.60E-04	9.40E+13	9.60E-04
[3,3,4]	1.25E+02	3.50E-04	9.63E+13	9.40E-04
[4,3,4]	1.04E+02	3.80E-04	8.21E+13	1.02E-03
[5,3,4]	7.39E+01	4.60E-04	5.92E+13	1.20E-03
[6,3,4]	4.57E+01	6.10E-04	3.41E+13	1.59E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,3,5]	8.08E+01	4.50E-04	6.66E+13	1.15E-03
[2,3,5]	1.11E+02	3.80E-04	9.42E+13	9.70E-04
[3,3,5]	1.12E+02	3.70E-04	9.62E+13	9.50E-04
[4,3,5]	9.34E+01	4.00E-04	8.18E+13	1.03E-03
[5,3,5]	6.93E+01	4.80E-04	5.94E+13	1.21E-03
[6,3,5]	4.12E+01	6.30E-04	3.45E+13	1.60E-03
[1,3,6]	7.06E+01	4.70E-04	6.56E+13	1.17E-03
[2,3,6]	9.29E+01	3.90E-04	9.26E+13	9.70E-04
[3,3,6]	9.83E+01	3.80E-04	9.50E+13	9.60E-04
[4,3,6]	8.20E+01	4.20E-04	8.11E+13	1.04E-03
[5,3,6]	5.81E+01	5.00E-04	5.85E+13	1.23E-03
[6,3,6]	3.60E+01	6.60E-04	3.36E+13	1.62E-03

5.5 Case-2C

Table 45. Number densities for Case-2C, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicates axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1,1]	3.67858E-03	1.94133E-02	1.42396E-08	4.00972E-05	4.75714E-06	7.79215E-07	6.27300E-08	3.64333E-08	2.20503E-07
[1,1,2,1]	2.25219E-03	1.90983E-02	9.57099E-07	1.23139E-04	5.24936E-05	1.94848E-05	5.11187E-06	2.67362E-08	2.27975E-07
[1,1,3,1]	1.37439E-03	1.87875E-02	4.09136E-06	1.34201E-04	8.32300E-05	4.00134E-05	1.97869E-05	1.94655E-08	1.94577E-07
[1,2,1,1]	3.68175E-03	1.94188E-02	1.18239E-08	3.64461E-05	4.33730E-06	6.44749E-07	5.15454E-08	3.58560E-08	2.16399E-07
[1,2,2,1]	2.25485E-03	1.91042E-02	9.36549E-07	1.19633E-04	5.26571E-05	1.88056E-05	5.04747E-06	2.62487E-08	2.22104E-07
[1,2,3,1]	1.37573E-03	1.87932E-02	4.04982E-06	1.30704E-04	8.38562E-05	3.90358E-05	1.97244E-05	1.90646E-08	1.88247E-07
[1,3,1,1]	3.67591E-03	1.94256E-02	1.02708E-08	3.15213E-05	3.88423E-06	5.21852E-07	4.28720E-08	3.53758E-08	2.11503E-07
[1,3,2,1]	2.25160E-03	1.91109E-02	9.20758E-07	1.14427E-04	5.30305E-05	1.80616E-05	5.03217E-06	2.57858E-08	2.13676E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,3,3,1]	1.37327E-03	1.87997E-02	4.01840E-06	1.25428E-04	8.47008E-05	3.78801E-05	1.97576E-05	1.86805E-08	1.79629E-07
[1,4,1,1]	3.65346E-03	1.94305E-02	9.63787E-09	2.76091E-05	3.68090E-06	4.55223E-07	4.04746E-08	3.51729E-08	2.06621E-07
[1,4,2,1]	2.23693E-03	1.91160E-02	9.16306E-07	1.08520E-04	5.37744E-05	1.74298E-05	5.11307E-06	2.55503E-08	2.04033E-07
[1,4,3,1]	1.36480E-03	1.88050E-02	4.00367E-06	1.19424E-04	8.58087E-05	3.66277E-05	1.99354E-05	1.83851E-08	1.69581E-07
[2,1,1,1]	3.31627E-03	1.93233E-02	9.75134E-08	8.57118E-05	1.57538E-05	4.16343E-06	4.87818E-07	3.83420E-08	2.57727E-07
[2,1,2,1]	2.02692E-03	1.90085E-02	1.51375E-06	1.40714E-04	6.03314E-05	2.72844E-05	7.78270E-06	2.80537E-08	2.40860E-07
[2,1,3,1]	1.23623E-03	1.86987E-02	5.19229E-06	1.47479E-04	8.51163E-05	4.70939E-05	2.40435E-05	2.07691E-08	2.09645E-07
[2,2,1,1]	3.32733E-03	1.93391E-02	7.82367E-08	7.71820E-05	1.43117E-05	3.39177E-06	3.91740E-07	3.73217E-08	2.49543E-07
[2,2,2,1]	2.03465E-03	1.90251E-02	1.42846E-06	1.32625E-04	6.03770E-05	2.54331E-05	7.50003E-06	2.71673E-08	2.29885E-07
[2,2,3,1]	1.24036E-03	1.87148E-02	5.04389E-06	1.39497E-04	8.61814E-05	4.47766E-05	2.37435E-05	1.99997E-08	1.98302E-07
[2,3,1,1]	3.31553E-03	1.93579E-02	6.56919E-08	6.55031E-05	1.27896E-05	2.67984E-06	3.19887E-07	3.61763E-08	2.38366E-07
[2,3,2,1]	2.02812E-03	1.90434E-02	1.36040E-06	1.20746E-04	6.07067E-05	2.34671E-05	7.37233E-06	2.61528E-08	2.14866E-07
[2,3,3,1]	1.23584E-03	1.87327E-02	4.92109E-06	1.27692E-04	8.75463E-05	4.20150E-05	2.36996E-05	1.90899E-08	1.82956E-07
[2,4,1,1]	3.26619E-03	1.93713E-02	6.01348E-08	5.57435E-05	1.20675E-05	2.27063E-06	2.98191E-07	3.51687E-08	2.26152E-07
[2,4,2,1]	1.99707E-03	1.90575E-02	1.33033E-06	1.07888E-04	6.16971E-05	2.17647E-05	7.51223E-06	2.51753E-08	1.98738E-07
[2,4,3,1]	1.21742E-03	1.87469E-02	4.85414E-06	1.14646E-04	8.92954E-05	3.91598E-05	2.40369E-05	1.81900E-08	1.66623E-07
[3,1,1,1]	2.95784E-03	1.92266E-02	2.93758E-07	1.17414E-04	2.99207E-05	9.86492E-06	1.59055E-06	3.66765E-08	2.60131E-07
[3,1,2,1]	1.80656E-03	1.89149E-02	2.28592E-06	1.51094E-04	6.90782E-05	3.45508E-05	1.14515E-05	2.67842E-08	2.37901E-07
[3,1,3,1]	1.10103E-03	1.86060E-02	6.53726E-06	1.54848E-04	8.86980E-05	5.24710E-05	2.92115E-05	2.01203E-08	2.07258E-07
[3,2,1,1]	2.97695E-03	1.92543E-02	2.34031E-07	1.05433E-04	2.72858E-05	8.02572E-06	1.27121E-06	3.55822E-08	2.50074E-07
[3,2,2,1]	1.81804E-03	1.89425E-02	2.10014E-06	1.39997E-04	6.87144E-05	3.16215E-05	1.08202E-05	2.58289E-08	2.25223E-07
[3,2,3,1]	1.10819E-03	1.86335E-02	6.23342E-06	1.43890E-04	8.96631E-05	4.90747E-05	2.85267E-05	1.92048E-08	1.94181E-07
[3,3,1,1]	2.96122E-03	1.92861E-02	1.94295E-07	8.88223E-05	2.43718E-05	6.33023E-06	1.03295E-06	3.41714E-08	2.36034E-07
[3,3,2,1]	1.80945E-03	1.89733E-02	1.94498E-06	1.23528E-04	6.84028E-05	2.84395E-05	1.04492E-05	2.45778E-08	2.08414E-07
[3,3,3,1]	1.10222E-03	1.86635E-02	5.97940E-06	1.27574E-04	9.08042E-05	4.49970E-05	2.82599E-05	1.80611E-08	1.77463E-07
[3,4,1,1]	2.89045E-03	1.93086E-02	1.76166E-07	7.44669E-05	2.28416E-05	5.29021E-06	9.50572E-07	3.27099E-08	2.20773E-07
[3,4,2,1]	1.76675E-03	1.89969E-02	1.86393E-06	1.06210E-04	6.88696E-05	2.56415E-05	1.05412E-05	2.32083E-08	1.90388E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[3,4,3,1]	1.07636E-03	1.86870E-02	5.82729E-06	1.10168E-04	9.21864E-05	4.09188E-05	2.86130E-05	1.68371E-08	1.59418E-07
[4,1,1,1]	2.66899E-03	1.91463E-02	5.70137E-07	1.33275E-04	4.22854E-05	1.57317E-05	3.14632E-06	3.34465E-08	2.58242E-07
[4,1,2,1]	1.62867E-03	1.88332E-02	3.11641E-06	1.56605E-04	7.65717E-05	4.00832E-05	1.52188E-05	2.45504E-08	2.31891E-07
[4,1,3,1]	9.91974E-04	1.85253E-02	7.86814E-06	1.58432E-04	9.24758E-05	5.58698E-05	3.40879E-05	1.86443E-08	2.01058E-07
[4,2,1,1]	2.69275E-03	1.91838E-02	4.54935E-07	1.19588E-04	3.87919E-05	1.28715E-05	2.52502E-06	3.24007E-08	2.46691E-07
[4,2,2,1]	1.64326E-03	1.88709E-02	2.81409E-06	1.43613E-04	7.57194E-05	3.63063E-05	1.41925E-05	2.35833E-08	2.18636E-07
[4,2,3,1]	1.00075E-03	1.85626E-02	7.40780E-06	1.45705E-04	9.31196E-05	5.17639E-05	3.30154E-05	1.77224E-08	1.87480E-07
[4,3,1,1]	2.67469E-03	1.92263E-02	3.75704E-07	1.00427E-04	3.47654E-05	1.01181E-05	2.04584E-06	3.09500E-08	2.31032E-07
[4,3,2,1]	1.63300E-03	1.89124E-02	2.56088E-06	1.24457E-04	7.46694E-05	3.21200E-05	1.35300E-05	2.22788E-08	2.00877E-07
[4,3,3,1]	9.94252E-04	1.86035E-02	7.00949E-06	1.26723E-04	9.36087E-05	4.67904E-05	3.24625E-05	1.64984E-08	1.70184E-07
[4,4,1,1]	2.59265E-03	1.92568E-02	3.36698E-07	8.35163E-05	3.23073E-05	8.39184E-06	1.85871E-06	2.93175E-08	2.14150E-07
[4,4,2,1]	1.58317E-03	1.89444E-02	2.41816E-06	1.04751E-04	7.43153E-05	2.84581E-05	1.35034E-05	2.07964E-08	1.82217E-07
[4,4,3,1]	9.64062E-04	1.86353E-02	6.75772E-06	1.07025E-04	9.43095E-05	4.18435E-05	3.27200E-05	1.51880E-08	1.51993E-07
[5,1,1,1]	2.45050E-03	1.90905E-02	8.52266E-07	1.35839E-04	5.21640E-05	1.97642E-05	4.75984E-06	2.93627E-08	2.43632E-07
[5,1,2,1]	1.49542E-03	1.87793E-02	3.83769E-06	1.51535E-04	8.31798E-05	4.23392E-05	1.84974E-05	2.14413E-08	2.12085E-07
[5,1,3,1]	9.10480E-04	1.84721E-02	8.96352E-06	1.52413E-04	9.68016E-05	5.60746E-05	3.81459E-05	1.63087E-08	1.81474E-07
[5,2,1,1]	2.48178E-03	1.91349E-02	6.78966E-07	1.22637E-04	4.77962E-05	1.62670E-05	3.80377E-06	2.84113E-08	2.34240E-07
[5,2,2,1]	1.51453E-03	1.88239E-02	3.42954E-06	1.39020E-04	8.16085E-05	3.82648E-05	1.70530E-05	2.05634E-08	2.01588E-07
[5,2,3,1]	9.21923E-04	1.85161E-02	8.36513E-06	1.40217E-04	9.68567E-05	5.18408E-05	3.66569E-05	1.54980E-08	1.71145E-07
[5,3,1,1]	2.46726E-03	1.91851E-02	5.56256E-07	1.03354E-04	4.26629E-05	1.28208E-05	3.05520E-06	2.70622E-08	2.20230E-07
[5,3,2,1]	1.50638E-03	1.88726E-02	3.08538E-06	1.20198E-04	7.96133E-05	3.36479E-05	1.60478E-05	1.93625E-08	1.86606E-07
[5,3,3,1]	9.17053E-04	1.85642E-02	7.84093E-06	1.21593E-04	9.64126E-05	4.66497E-05	3.57488E-05	1.43700E-08	1.56422E-07
[5,4,1,1]	2.38435E-03	1.92213E-02	4.93082E-07	8.59951E-05	3.92743E-05	1.05590E-05	2.72722E-06	2.54958E-08	2.04457E-07
[5,4,2,1]	1.45576E-03	1.89102E-02	2.88151E-06	1.00581E-04	7.83018E-05	2.96000E-05	1.58323E-05	1.80153E-08	1.70326E-07
[5,4,3,1]	8.86787E-04	1.86016E-02	7.49767E-06	1.02175E-04	9.62179E-05	4.14546E-05	3.57833E-05	1.31692E-08	1.41047E-07
[1,1,1,2]	3.85681E-03	2.03578E-02	1.46382E-08	3.22077E-05	3.81346E-06	6.20902E-07	4.97646E-08	3.77818E-08	2.28572E-07
[1,1,2,2]	2.03375E-03	1.72479E-02	8.30530E-07	8.65653E-05	3.66975E-05	1.34881E-05	3.51324E-06	2.30331E-08	1.96942E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,3,2]	1.38224E-03	1.89209E-02	3.90218E-06	1.05800E-04	6.55331E-05	3.10052E-05	1.52105E-05	1.81661E-08	1.82581E-07
[1,2,1,2]	4.03294E-03	2.12652E-02	1.27129E-08	3.05649E-05	3.60789E-06	5.35133E-07	4.23548E-08	3.88135E-08	2.34508E-07
[1,2,2,2]	2.06250E-03	1.74815E-02	8.24020E-07	8.53051E-05	3.73268E-05	1.32033E-05	3.52003E-06	2.29585E-08	1.94237E-07
[1,2,3,2]	1.37777E-03	1.88456E-02	3.84499E-06	1.02710E-04	6.57276E-05	3.01233E-05	1.50921E-05	1.77356E-08	1.75860E-07
[1,3,1,2]	4.17787E-03	2.20657E-02	1.12726E-08	2.75653E-05	3.35787E-06	4.51319E-07	3.66157E-08	3.97619E-08	2.38054E-07
[1,3,2,2]	2.02989E-03	1.72350E-02	7.98507E-07	8.05168E-05	3.70579E-05	1.25050E-05	3.45938E-06	2.22862E-08	1.84797E-07
[1,3,3,2]	1.37393E-03	1.88235E-02	3.80474E-06	9.85480E-05	6.63136E-05	2.91569E-05	1.50807E-05	1.73824E-08	1.67839E-07
[1,4,1,2]	3.93860E-03	2.09461E-02	1.03275E-08	2.33800E-05	3.10942E-06	3.82667E-07	3.38734E-08	3.76515E-08	2.21256E-07
[1,4,2,2]	2.04790E-03	1.75034E-02	8.07116E-07	7.77704E-05	3.81963E-05	1.22442E-05	3.56694E-06	2.24555E-08	1.79250E-07
[1,4,3,2]	1.37204E-03	1.89311E-02	3.81765E-06	9.45053E-05	6.75725E-05	2.83862E-05	1.53272E-05	1.72769E-08	1.59549E-07
[2,1,1,2]	3.71121E-03	2.16391E-02	1.06372E-07	7.32100E-05	1.34026E-05	3.55107E-06	4.13592E-07	4.18744E-08	2.81331E-07
[2,1,2,2]	2.01258E-03	1.88879E-02	1.44380E-06	1.08118E-04	4.63893E-05	2.07956E-05	5.88866E-06	2.63017E-08	2.26367E-07
[2,1,3,2]	1.23843E-03	1.87680E-02	4.93564E-06	1.15003E-04	6.68460E-05	3.63803E-05	1.84251E-05	1.90586E-08	1.94337E-07
[2,2,1,2]	3.33927E-03	1.94083E-02	7.71022E-08	5.93109E-05	1.09411E-05	2.58281E-06	2.96548E-07	3.66505E-08	2.45390E-07
[2,2,2,2]	2.03274E-03	1.90269E-02	1.37211E-06	1.02976E-04	4.68457E-05	1.95348E-05	5.72285E-06	2.57351E-08	2.18117E-07
[2,2,3,2]	1.24431E-03	1.88034E-02	4.79386E-06	1.09294E-04	6.77855E-05	3.46359E-05	1.82062E-05	1.84488E-08	1.84457E-07
[2,3,1,2]	3.45236E-03	2.01440E-02	6.63854E-08	5.24279E-05	1.01658E-05	2.12571E-06	2.51563E-07	3.69570E-08	2.43452E-07
[2,3,2,2]	1.99591E-03	1.87549E-02	1.28814E-06	9.25547E-05	4.64037E-05	1.77751E-05	5.54140E-06	2.45075E-08	2.01694E-07
[2,3,3,2]	1.24130E-03	1.88332E-02	4.67533E-06	1.00383E-04	6.88991E-05	3.25392E-05	1.81779E-05	1.77109E-08	1.70536E-07
[2,4,1,2]	3.20465E-03	1.89987E-02	5.79283E-08	4.27591E-05	9.24128E-06	1.72112E-06	2.24743E-07	3.39772E-08	2.18637E-07
[2,4,2,2]	2.00174E-03	1.91084E-02	1.28159E-06	8.47937E-05	4.81477E-05	1.67868E-05	5.74564E-06	2.41201E-08	1.90442E-07
[2,4,3,2]	1.22375E-03	1.88728E-02	4.62634E-06	9.08062E-05	7.05188E-05	3.04069E-05	1.84943E-05	1.70071E-08	1.56228E-07
[3,1,1,2]	2.77890E-03	1.80818E-02	2.68024E-07	8.50891E-05	2.15024E-05	7.06488E-06	1.13075E-06	3.32923E-08	2.36424E-07
[3,1,2,2]	1.92360E-03	2.01679E-02	2.33312E-06	1.24424E-04	5.70174E-05	2.82252E-05	9.29723E-06	2.66587E-08	2.37763E-07
[3,1,3,2]	1.10518E-03	1.87198E-02	6.22270E-06	1.20847E-04	6.98196E-05	4.06298E-05	2.24308E-05	1.82955E-08	1.90929E-07
[3,2,1,2]	2.79529E-03	1.80913E-02	2.15884E-07	7.67132E-05	1.97015E-05	5.78142E-06	9.09875E-07	3.24298E-08	2.27835E-07
[3,2,2,2]	1.93887E-03	2.02214E-02	2.14517E-06	1.16025E-04	5.69176E-05	2.59335E-05	8.80466E-06	2.58706E-08	2.26514E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[3,2,3,2]	1.11268E-03	1.87470E-02	5.93111E-06	1.12895E-04	7.06804E-05	3.80644E-05	2.19139E-05	1.75882E-08	1.79813E-07
[3,3,1,2]	2.89076E-03	1.88259E-02	1.84661E-07	6.73933E-05	1.83551E-05	4.73882E-06	7.69375E-07	3.25278E-08	2.24370E-07
[3,3,2,2]	1.90154E-03	1.99533E-02	1.96181E-06	1.01186E-04	5.59206E-05	2.29936E-05	8.38208E-06	2.44016E-08	2.07526E-07
[3,3,3,2]	1.11063E-03	1.88360E-02	5.70282E-06	1.00720E-04	7.18218E-05	3.50499E-05	2.17797E-05	1.67166E-08	1.65274E-07
[3,4,1,2]	2.66257E-03	1.77801E-02	1.59008E-07	5.42064E-05	1.65184E-05	3.79374E-06	6.76716E-07	2.94941E-08	1.99170E-07
[3,4,2,2]	1.89242E-03	2.03614E-02	1.91684E-06	8.94796E-05	5.76259E-05	2.12155E-05	8.64143E-06	2.36624E-08	1.94157E-07
[3,4,3,2]	1.07943E-03	1.87738E-02	5.53804E-06	8.72949E-05	7.28931E-05	3.17710E-05	2.19905E-05	1.56418E-08	1.48621E-07
[4,1,1,2]	2.87377E-03	2.06472E-02	5.95663E-07	1.10278E-04	3.48990E-05	1.29209E-05	2.56851E-06	3.45055E-08	2.66608E-07
[4,1,2,2]	1.47091E-03	1.70403E-02	2.69209E-06	1.09829E-04	5.36856E-05	2.77979E-05	1.04840E-05	2.05806E-08	1.95295E-07
[4,1,3,2]	9.99061E-04	1.87103E-02	7.50846E-06	1.24578E-04	7.31157E-05	4.34645E-05	2.62742E-05	1.68995E-08	1.84644E-07
[4,2,1,2]	2.96383E-03	2.11334E-02	4.89472E-07	1.01764E-04	3.28877E-05	1.08528E-05	2.11722E-06	3.43241E-08	2.61810E-07
[4,2,2,2]	1.49608E-03	1.72063E-02	2.45090E-06	1.02010E-04	5.37279E-05	2.54090E-05	9.86592E-06	2.00581E-08	1.86603E-07
[4,2,3,2]	1.00654E-03	1.87071E-02	7.04765E-06	1.14904E-04	7.36042E-05	4.02652E-05	2.53976E-05	1.61413E-08	1.72755E-07
[4,3,1,2]	3.06137E-03	2.20025E-02	4.16442E-07	8.91337E-05	3.06968E-05	8.89220E-06	1.78490E-06	3.42775E-08	2.56101E-07
[4,3,2,2]	1.46448E-03	1.69728E-02	2.19730E-06	8.73824E-05	5.22119E-05	2.21650E-05	9.25625E-06	1.87782E-08	1.69844E-07
[4,3,3,2]	1.00319E-03	1.88082E-02	6.68783E-06	1.00658E-04	7.43274E-05	3.65483E-05	2.50881E-05	1.52185E-08	1.58147E-07
[4,4,1,2]	2.78602E-03	2.06796E-02	3.52989E-07	7.07539E-05	2.72502E-05	7.02976E-06	1.54392E-06	3.06533E-08	2.24168E-07
[4,4,2,2]	1.44842E-03	1.73423E-02	2.11801E-06	7.57905E-05	5.32746E-05	2.01580E-05	9.46487E-06	1.80390E-08	1.58165E-07
[4,4,3,2]	9.69406E-04	1.87710E-02	6.42859E-06	8.55698E-05	7.49489E-05	3.26846E-05	2.52347E-05	1.40941E-08	1.41809E-07
[5,1,1,2]	2.75326E-03	2.14766E-02	9.24424E-07	1.17486E-04	4.48974E-05	1.69119E-05	4.04295E-06	3.13846E-08	2.60891E-07
[5,1,2,2]	1.48405E-03	1.86749E-02	3.63288E-06	1.16861E-04	6.41850E-05	3.22372E-05	1.40033E-05	1.96604E-08	1.95360E-07
[5,1,3,2]	9.16764E-04	1.86587E-02	8.53247E-06	1.19928E-04	7.65943E-05	4.36410E-05	2.94137E-05	1.47383E-08	1.65903E-07
[5,2,1,2]	2.49045E-03	1.92131E-02	6.61243E-07	9.52260E-05	3.69620E-05	1.24852E-05	2.90154E-06	2.72942E-08	2.25412E-07
[5,2,2,2]	1.51799E-03	1.89012E-02	3.28110E-06	1.08784E-04	6.38630E-05	2.95076E-05	1.30674E-05	1.92047E-08	1.88778E-07
[5,2,3,2]	9.28862E-04	1.86989E-02	7.95967E-06	1.10863E-04	7.67764E-05	4.04530E-05	2.82864E-05	1.41151E-08	1.57268E-07
[5,3,1,2]	2.56909E-03	1.99709E-02	5.58734E-07	8.34825E-05	3.43060E-05	1.02341E-05	2.42187E-06	2.71558E-08	2.21143E-07
[5,3,2,2]	1.48563E-03	1.86260E-02	2.90120E-06	9.28211E-05	6.13279E-05	2.55395E-05	1.20741E-05	1.79045E-08	1.72931E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[5,3,3,2]	9.21964E-04	1.87066E-02	7.44401E-06	9.63364E-05	7.64278E-05	3.63374E-05	2.75526E-05	1.31811E-08	1.44556E-07
[5,4,1,2]	2.34181E-03	1.88628E-02	4.70870E-07	6.66952E-05	3.03093E-05	8.08696E-06	2.07250E-06	2.43049E-08	1.95137E-07
[5,4,2,2]	1.46430E-03	1.90256E-02	2.76446E-06	8.01640E-05	6.18222E-05	2.30733E-05	1.22006E-05	1.71278E-08	1.62414E-07
[5,4,3,2]	8.93408E-04	1.87854E-02	7.13842E-06	8.19937E-05	7.68008E-05	3.25282E-05	2.77076E-05	1.22421E-08	1.31476E-07

Table 46. Number densities for Case-2C, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1,1]	1.67883E-07	4.79062E-06	1.62062E-05	7.61733E-07	1.26316E-08	2.14298E-08	5.03152E-10	9.18572E-06	6.17712E-06
[1,1,2,1]	3.59684E-06	2.55439E-05	9.69255E-05	4.23787E-06	8.47078E-09	1.42511E-08	3.32552E-10	5.32556E-05	6.78885E-06
[1,1,3,1]	8.85200E-06	4.08939E-05	1.52835E-04	6.25335E-06	5.58111E-09	9.31692E-09	2.16023E-10	8.20767E-05	4.46435E-06
[1,2,1,1]	1.53342E-07	4.71495E-06	1.60165E-05	7.54445E-07	1.25118E-08	2.12306E-08	4.98547E-10	9.10013E-06	6.12000E-06
[1,2,2,1]	3.50944E-06	2.54804E-05	9.67167E-05	4.23060E-06	8.35147E-09	1.40550E-08	3.28053E-10	5.31710E-05	6.73282E-06
[1,2,3,1]	8.71037E-06	4.08418E-05	1.52681E-04	6.24879E-06	5.50688E-09	9.19772E-09	2.13336E-10	8.20251E-05	4.43057E-06
[1,3,1,1]	1.43231E-07	4.65218E-06	1.62960E-05	7.69750E-07	1.27670E-08	2.16692E-08	5.08947E-10	9.28780E-06	6.24689E-06
[1,3,2,1]	3.42494E-06	2.54221E-05	9.68597E-05	4.23892E-06	8.49080E-09	1.42958E-08	3.33782E-10	5.32738E-05	6.80261E-06
[1,3,3,1]	8.59159E-06	4.07972E-05	1.52786E-04	6.25483E-06	5.60835E-09	9.37351E-09	2.17517E-10	8.20999E-05	4.48149E-06
[1,4,1,1]	1.45101E-07	4.62602E-06	1.74632E-05	8.26747E-07	1.37137E-08	2.32805E-08	5.46892E-10	9.97821E-06	6.71198E-06
[1,4,2,1]	3.38218E-06	2.53968E-05	9.76968E-05	4.27740E-06	9.12986E-09	1.53792E-08	3.59204E-10	5.37380E-05	7.11489E-06
[1,4,3,1]	8.49654E-06	4.07713E-05	1.53307E-04	6.27760E-06	5.98735E-09	1.00151E-08	2.32531E-10	8.23746E-05	4.66615E-06
[2,1,1,1]	7.29076E-07	9.82828E-06	3.60720E-05	1.66287E-06	1.50919E-08	2.54999E-08	5.96333E-10	2.01225E-05	1.04341E-05
[2,1,2,1]	5.14749E-06	2.92750E-05	1.11148E-04	4.79312E-06	1.00716E-08	1.68779E-08	3.92234E-10	6.05047E-05	8.24959E-06
[2,1,3,1]	1.07877E-05	4.37585E-05	1.62965E-04	6.58072E-06	6.71667E-09	1.11590E-08	2.57484E-10	8.68772E-05	5.43110E-06
[2,2,1,1]	6.47947E-07	9.61872E-06	3.53158E-05	1.63477E-06	1.47483E-08	2.49318E-08	5.83252E-10	1.97927E-05	1.02428E-05
[2,2,2,1]	4.87609E-06	2.90924E-05	1.10437E-04	4.76990E-06	9.80920E-09	1.64509E-08	3.82529E-10	6.02355E-05	8.10000E-06
[2,2,3,1]	1.03869E-05	4.36002E-05	1.62403E-04	6.56499E-06	6.53387E-09	1.08673E-08	2.50961E-10	8.66989E-05	5.33179E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[2,3,1,1]	5.94163E-07	9.40661E-06	3.57603E-05	1.66394E-06	1.49856E-08	2.53496E-08	5.93311E-10	2.01583E-05	1.04279E-05
[2,3,2,1]	4.63093E-06	2.89039E-05	1.10579E-04	4.78417E-06	9.91331E-09	1.66426E-08	3.87278E-10	6.04195E-05	8.19135E-06
[2,3,3,1]	1.00419E-05	4.34418E-05	1.62424E-04	6.57304E-06	6.57251E-09	1.09482E-08	2.53108E-10	8.68072E-05	5.38180E-06
[2,4,1,1]	5.90071E-07	9.25007E-06	3.82711E-05	1.78810E-06	1.61149E-08	2.72741E-08	6.38622E-10	2.16734E-05	1.12162E-05
[2,4,2,1]	4.48591E-06	2.87594E-05	1.12235E-04	4.86336E-06	1.06007E-08	1.78154E-08	4.14884E-10	6.13856E-05	8.68614E-06
[2,4,3,1]	9.77878E-06	4.33169E-05	1.63429E-04	6.62006E-06	6.98387E-09	1.16524E-08	2.69699E-10	8.73826E-05	5.67744E-06
[3,1,1,1]	1.64294E-06	1.46556E-05	5.66959E-05	2.56476E-06	1.52825E-08	2.57501E-08	6.00852E-10	3.11711E-05	1.26364E-05
[3,1,2,1]	6.88622E-06	3.28807E-05	1.25779E-04	5.34342E-06	1.01018E-08	1.68841E-08	3.91457E-10	6.77593E-05	8.97889E-06
[3,1,3,1]	1.28339E-05	4.66015E-05	1.73566E-04	6.90934E-06	6.80269E-09	1.12644E-08	2.59132E-10	9.17253E-05	5.94160E-06
[3,2,1,1]	1.44077E-06	1.43003E-05	5.52146E-05	2.51267E-06	1.48836E-08	2.50980E-08	5.85987E-10	3.05605E-05	1.23546E-05
[3,2,2,1]	6.40880E-06	3.25647E-05	1.24521E-04	5.30542E-06	9.85729E-09	1.64945E-08	3.82771E-10	6.73209E-05	8.79394E-06
[3,2,3,1]	1.21587E-05	4.63082E-05	1.72439E-04	6.87914E-06	6.56470E-09	1.08883E-08	2.50800E-10	9.13836E-05	5.78603E-06
[3,3,1,1]	1.31454E-06	1.39038E-05	5.55741E-05	2.54756E-06	1.49917E-08	2.53054E-08	5.91259E-10	3.10130E-05	1.25089E-05
[3,3,2,1]	5.98634E-06	3.22108E-05	1.24442E-04	5.31945E-06	9.86200E-09	1.65271E-08	3.83955E-10	6.75175E-05	8.85107E-06
[3,3,3,1]	1.15659E-05	4.59997E-05	1.72194E-04	6.88480E-06	6.53243E-09	1.08579E-08	2.50503E-10	9.14770E-05	5.80435E-06
[3,4,1,1]	1.29664E-06	1.35594E-05	5.90526E-05	2.72274E-06	1.58685E-08	2.68064E-08	6.26693E-10	3.31714E-05	1.33376E-05
[3,4,2,1]	5.73110E-06	3.18960E-05	1.26514E-04	5.42406E-06	1.03068E-08	1.72974E-08	4.02268E-10	6.88123E-05	9.32214E-06
[3,4,3,1]	1.11376E-05	4.57331E-05	1.73392E-04	6.94640E-06	6.79152E-09	1.13135E-08	2.61426E-10	9.22460E-05	6.08485E-06
[4,1,1,1]	2.61558E-06	1.90696E-05	7.38699E-05	3.29002E-06	1.25412E-08	2.10846E-08	4.91019E-10	4.02212E-05	1.23956E-05
[4,1,2,1]	8.39353E-06	3.62128E-05	1.38000E-04	5.78015E-06	8.33610E-09	1.39000E-08	3.21555E-10	7.37340E-05	8.48528E-06
[4,1,3,1]	1.44774E-05	4.92645E-05	1.82464E-04	7.16432E-06	5.65258E-09	9.33283E-09	2.14107E-10	9.57438E-05	5.64270E-06
[4,2,1,1]	2.29265E-06	1.85729E-05	7.18151E-05	3.22180E-06	1.22675E-08	2.06457E-08	4.81183E-10	3.94212E-05	1.21300E-05
[4,2,2,1]	7.72147E-06	3.57580E-05	1.36197E-04	5.72830E-06	8.10432E-09	1.35332E-08	3.13429E-10	7.31358E-05	8.28932E-06
[4,2,3,1]	1.35757E-05	4.88326E-05	1.80854E-04	7.12335E-06	5.47289E-09	9.05451E-09	2.08062E-10	9.52807E-05	5.48707E-06
[4,3,1,1]	2.08137E-06	1.79863E-05	7.19661E-05	3.25721E-06	1.22914E-08	2.07116E-08	4.83167E-10	3.98990E-05	1.22285E-05
[4,3,2,1]	7.13839E-06	3.52296E-05	1.35847E-04	5.74031E-06	8.07911E-09	1.35163E-08	3.13483E-10	7.33241E-05	8.31524E-06
[4,3,3,1]	1.27650E-05	4.83581E-05	1.80244E-04	7.12324E-06	5.38429E-09	8.93118E-09	2.05637E-10	9.53196E-05	5.46302E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[4,4,1,1]	2.03856E-06	1.74326E-05	7.58238E-05	3.45598E-06	1.27241E-08	2.14613E-08	5.01004E-10	4.23789E-05	1.28611E-05
[4,4,2,1]	6.80734E-06	3.47281E-05	1.38039E-04	5.85743E-06	8.31582E-09	1.39365E-08	3.23642E-10	7.47973E-05	8.67397E-06
[4,4,3,1]	1.22125E-05	4.79337E-05	1.81409E-04	7.19026E-06	5.49463E-09	9.13737E-09	2.10775E-10	9.61749E-05	5.66452E-06
[5,1,1,1]	3.37130E-06	2.29543E-05	8.70628E-05	3.82936E-06	9.61346E-09	1.61449E-08	3.75618E-10	4.71530E-05	1.08547E-05
[5,1,2,1]	9.30215E-06	3.91368E-05	1.47194E-04	6.08995E-06	6.32910E-09	1.05440E-08	2.43680E-10	7.82668E-05	7.27543E-06
[5,1,3,1]	1.53232E-05	5.16045E-05	1.89074E-04	7.33362E-06	4.29140E-09	7.07859E-09	1.62206E-10	9.87919E-05	4.84884E-06
[5,2,1,1]	2.94829E-06	2.23264E-05	8.42871E-05	3.73768E-06	9.21453E-09	1.54914E-08	3.60701E-10	4.60713E-05	1.05352E-05
[5,2,2,1]	8.50888E-06	3.85510E-05	1.44789E-04	6.02100E-06	6.03996E-09	1.00777E-08	2.33183E-10	7.74661E-05	7.04512E-06
[5,2,3,1]	1.42697E-05	5.10427E-05	1.86948E-04	7.27969E-06	4.07220E-09	6.73089E-09	1.54492E-10	9.81776E-05	4.67300E-06
[5,3,1,1]	2.65656E-06	2.15618E-05	8.39283E-05	3.75859E-06	8.98972E-09	1.51330E-08	3.52690E-10	4.63916E-05	1.04834E-05
[5,3,2,1]	7.81720E-06	3.78571E-05	1.43973E-04	6.02136E-06	5.85309E-09	9.78454E-09	2.26725E-10	7.75283E-05	6.97569E-06
[5,3,3,1]	1.33302E-05	5.04073E-05	1.85870E-04	7.26855E-06	3.89367E-09	6.45310E-09	1.48422E-10	9.80963E-05	4.58317E-06
[5,4,1,1]	2.58548E-06	2.08057E-05	8.76019E-05	3.95386E-06	8.97640E-09	1.51257E-08	3.52769E-10	4.88691E-05	1.07997E-05
[5,4,2,1]	7.42037E-06	3.71817E-05	1.45940E-04	6.13451E-06	5.81811E-09	9.74295E-09	2.26045E-10	7.89817E-05	7.14512E-06
[5,4,3,1]	1.26870E-05	4.98281E-05	1.86751E-04	7.32977E-06	3.81775E-09	6.34318E-09	1.46163E-10	9.89024E-05	4.65421E-06
[1,1,1,2]	1.74231E-07	4.96771E-06	1.67277E-05	7.90342E-07	1.31087E-08	2.22497E-08	5.22575E-10	9.53667E-06	6.41402E-06
[1,1,2,2]	3.13287E-06	2.23635E-05	8.45276E-05	3.74877E-06	7.44495E-09	1.25515E-08	2.93358E-10	4.71906E-05	5.99339E-06
[1,1,3,2]	8.51400E-06	3.93445E-05	1.46648E-04	6.12573E-06	5.40493E-09	9.05263E-09	2.10473E-10	8.06073E-05	4.35141E-06
[1,2,1,2]	1.63932E-07	5.10382E-06	1.71937E-05	8.13746E-07	1.34977E-08	2.29135E-08	5.38227E-10	9.82097E-06	6.60565E-06
[1,2,2,2]	3.10332E-06	2.26117E-05	8.55287E-05	3.79441E-06	7.47403E-09	1.26037E-08	2.94634E-10	4.77693E-05	6.04040E-06
[1,2,3,2]	8.34892E-06	3.91329E-05	1.45896E-04	6.09576E-06	5.31421E-09	8.90438E-09	2.07088E-10	8.02198E-05	4.30179E-06
[1,3,1,2]	1.57839E-07	5.22883E-06	1.81306E-05	8.59887E-07	1.42642E-08	2.42193E-08	5.68985E-10	1.03804E-05	6.98248E-06
[1,3,2,2]	2.99078E-06	2.22443E-05	8.44443E-05	3.74778E-06	7.49794E-09	1.26486E-08	2.95758E-10	4.71799E-05	6.01902E-06
[1,3,3,2]	8.21438E-06	3.90377E-05	1.45759E-04	6.09147E-06	5.38268E-09	9.02444E-09	2.09962E-10	8.01603E-05	4.33416E-06
[1,4,1,2]	1.54494E-07	4.95190E-06	1.86082E-05	8.83879E-07	1.46632E-08	2.49000E-08	5.85057E-10	1.06720E-05	7.17928E-06
[1,4,2,2]	2.99076E-06	2.25683E-05	8.64879E-05	3.83991E-06	8.18625E-09	1.38150E-08	3.23121E-10	4.83218E-05	6.39180E-06
[1,4,3,2]	8.17878E-06	3.92407E-05	1.47145E-04	6.15060E-06	5.83562E-09	9.79037E-09	2.27880E-10	8.09104E-05	4.56425E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[2,1,1,2]	7.99015E-07	1.08003E-05	3.94664E-05	1.83591E-06	1.66362E-08	2.81408E-08	6.58611E-10	2.22407E-05	1.15291E-05
[2,1,2,2]	4.91653E-06	2.80761E-05	1.06215E-04	4.65522E-06	9.72584E-09	1.63416E-08	3.80551E-10	5.88800E-05	7.99798E-06
[2,1,3,2]	1.02939E-05	4.18011E-05	1.55255E-04	6.41020E-06	6.43733E-09	1.07370E-08	2.48563E-10	8.48639E-05	5.24822E-06
[2,2,1,2]	6.34618E-07	9.48785E-06	3.46078E-05	1.61500E-06	1.45807E-08	2.46732E-08	5.77611E-10	1.95720E-05	1.01337E-05
[2,2,2,2]	4.69782E-06	2.81115E-05	1.06384E-04	4.66807E-06	9.56326E-09	1.60778E-08	3.74565E-10	5.90610E-05	7.92726E-06
[2,2,3,2]	9.94810E-06	4.17190E-05	1.54965E-04	6.40365E-06	6.27505E-09	1.04754E-08	2.42668E-10	8.48021E-05	5.16115E-06
[2,3,1,2]	5.99612E-07	9.64253E-06	3.63633E-05	1.70362E-06	1.53642E-08	2.60119E-08	6.09177E-10	2.06557E-05	1.06923E-05
[2,3,2,2]	4.39679E-06	2.75348E-05	1.04984E-04	4.61297E-06	9.53109E-09	1.60369E-08	3.73835E-10	5.83645E-05	7.90265E-06
[2,3,3,2]	9.60584E-06	4.16222E-05	1.55146E-04	6.41703E-06	6.34142E-09	1.06001E-08	2.45782E-10	8.49793E-05	5.21922E-06
[2,4,1,2]	5.68490E-07	8.96906E-06	3.68737E-05	1.73251E-06	1.55762E-08	2.63803E-08	6.17983E-10	2.10139E-05	1.08673E-05
[2,4,2,2]	4.34960E-06	2.79185E-05	1.08556E-04	4.77603E-06	1.03944E-08	1.75038E-08	4.08272E-10	6.03911E-05	8.53940E-06
[2,4,3,2]	9.40367E-06	4.15987E-05	1.56487E-04	6.47758E-06	6.77471E-09	1.13391E-08	2.63150E-10	8.57291E-05	5.53889E-06
[3,1,1,2]	1.49718E-06	1.34412E-05	5.17490E-05	2.36969E-06	1.40696E-08	2.37445E-08	5.54701E-10	2.88428E-05	1.16798E-05
[3,1,2,2]	7.03691E-06	3.36823E-05	1.28394E-04	5.55552E-06	1.04143E-08	1.74600E-08	4.05798E-10	7.06080E-05	9.31073E-06
[3,1,3,2]	1.22309E-05	4.44459E-05	1.65046E-04	6.72911E-06	6.48494E-09	1.07857E-08	2.49052E-10	8.96111E-05	5.72137E-06
[3,2,1,2]	1.32299E-06	1.31412E-05	5.05026E-05	2.32308E-06	1.37818E-08	2.32733E-08	5.43946E-10	2.82902E-05	1.14488E-05
[3,2,2,2]	6.57074E-06	3.34553E-05	1.27469E-04	5.52783E-06	1.01512E-08	1.70338E-08	3.96163E-10	7.02947E-05	9.13001E-06
[3,2,3,2]	1.16230E-05	4.42218E-05	1.64190E-04	6.70550E-06	6.29625E-09	1.04857E-08	2.42373E-10	8.93445E-05	5.59091E-06
[3,3,1,2]	1.24183E-06	1.33180E-05	5.29391E-05	2.44901E-06	1.44628E-08	2.44423E-08	5.71596E-10	2.98445E-05	1.20589E-05
[3,3,2,2]	6.04641E-06	3.26611E-05	1.25720E-04	5.46637E-06	1.00550E-08	1.68930E-08	3.93241E-10	6.95243E-05	9.08043E-06
[3,3,3,2]	1.10860E-05	4.41229E-05	1.64666E-04	6.73747E-06	6.33165E-09	1.05639E-08	2.44508E-10	8.97805E-05	5.65100E-06
[3,4,1,2]	1.16990E-06	1.23005E-05	5.32814E-05	2.47505E-06	1.44284E-08	2.43976E-08	5.70785E-10	3.01805E-05	1.21348E-05
[3,4,2,2]	5.93744E-06	3.30228E-05	1.30522E-04	5.68856E-06	1.07949E-08	1.81563E-08	4.22984E-10	7.23057E-05	9.79109E-06
[3,4,3,2]	1.06724E-05	4.37355E-05	1.65306E-04	6.77448E-06	6.56972E-09	1.09800E-08	2.54447E-10	9.02144E-05	5.91641E-06
[4,1,1,2]	2.72832E-06	1.99502E-05	7.69721E-05	3.47819E-06	1.32198E-08	2.22700E-08	5.19397E-10	4.25958E-05	1.31121E-05
[4,1,2,2]	7.24794E-06	3.13504E-05	1.19079E-04	5.08894E-06	7.26115E-09	1.21485E-08	2.81807E-10	6.50790E-05	7.44296E-06
[4,1,3,2]	1.38051E-05	4.69967E-05	1.73560E-04	6.98943E-06	5.39364E-09	8.94712E-09	2.06094E-10	9.37220E-05	5.43501E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[4,2,1,2]	2.45841E-06	1.99204E-05	7.66916E-05	3.48478E-06	1.32198E-08	2.22874E-08	5.20113E-10	4.27034E-05	1.31347E-05
[4,2,2,2]	6.74789E-06	3.12694E-05	1.18715E-04	5.08965E-06	7.14872E-09	1.19743E-08	2.78018E-10	6.51348E-05	7.34330E-06
[4,2,3,2]	1.29549E-05	4.65659E-05	1.71941E-04	6.94159E-06	5.21587E-09	8.66649E-09	1.99892E-10	9.31500E-05	5.28490E-06
[4,3,1,2]	2.30544E-06	2.01227E-05	8.00846E-05	3.66420E-06	1.37804E-08	2.32551E-08	5.43087E-10	4.49414E-05	1.37736E-05
[4,3,2,2]	6.14489E-06	3.03971E-05	1.16789E-04	5.02608E-06	7.01671E-09	1.17709E-08	2.73605E-10	6.43430E-05	7.26226E-06
[4,3,3,2]	1.22362E-05	4.63524E-05	1.72258E-04	6.97365E-06	5.20499E-09	8.66783E-09	2.00255E-10	9.36048E-05	5.31767E-06
[4,4,1,2]	2.13993E-06	1.83847E-05	7.95431E-05	3.65777E-06	1.34246E-08	2.26702E-08	5.29693E-10	4.49006E-05	1.36147E-05
[4,4,2,2]	5.99974E-06	3.06453E-05	1.21381E-04	5.24092E-06	7.40502E-09	1.24390E-08	2.89410E-10	6.70602E-05	7.76338E-06
[4,4,3,2]	1.17104E-05	4.58735E-05	1.73057E-04	7.02260E-06	5.30469E-09	8.85187E-09	2.04804E-10	9.42071E-05	5.50804E-06
[5,1,2,2]	8.81376E-06	3.71177E-05	1.39209E-04	5.88401E-06	6.04585E-09	1.01075E-08	2.34265E-10	7.58225E-05	6.99828E-06
[5,1,3,2]	1.45856E-05	4.90947E-05	1.79416E-04	7.14481E-06	4.09147E-09	6.78110E-09	1.56042E-10	9.65916E-05	4.66197E-06
[5,2,1,2]	2.86712E-06	2.17523E-05	8.17712E-05	3.67750E-06	9.00063E-09	1.51608E-08	3.53510E-10	4.54060E-05	1.03595E-05
[5,2,2,2]	8.17353E-06	3.70272E-05	1.38684E-04	5.88489E-06	5.85922E-09	9.80708E-09	2.27511E-10	7.59034E-05	6.86669E-06
[5,2,3,2]	1.36358E-05	4.86581E-05	1.77740E-04	7.10031E-06	3.90576E-09	6.48454E-09	1.49420E-10	9.60829E-05	4.50859E-06
[5,3,1,2]	2.67315E-06	2.18820E-05	8.47645E-05	3.84171E-06	9.15536E-09	1.54371E-08	3.60221E-10	4.74845E-05	1.07200E-05
[5,3,2,2]	7.38981E-06	3.58437E-05	1.35870E-04	5.79231E-06	5.59190E-09	9.37421E-09	2.17720E-10	7.47524E-05	6.69386E-06
[5,3,3,2]	1.27229E-05	4.80642E-05	1.76762E-04	7.08607E-06	3.74945E-09	6.23886E-09	1.43999E-10	9.59381E-05	4.44193E-06
[5,4,1,2]	2.47002E-06	2.00085E-05	8.38427E-05	3.82119E-06	8.65955E-09	1.46113E-08	3.41115E-10	4.72837E-05	1.04404E-05
[5,4,2,2]	7.17404E-06	3.60010E-05	1.40819E-04	6.02707E-06	5.67251E-09	9.52188E-09	2.21351E-10	7.77625E-05	7.01132E-06
[5,4,3,2]	1.21946E-05	4.77419E-05	1.78422E-04	7.17369E-06	3.72403E-09	6.20927E-09	1.43526E-10	9.70852E-05	4.54612E-06

Table 47. Number densities for Case-2C, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1,1]	1.46986E-05	1.21269E-07	1.07936E-06	8.81691E-08	1.78410E-07	1.69519E-12	2.65230E-10
[1,1,2,1]	8.34549E-05	8.11276E-08	8.37953E-07	6.52129E-08	2.29911E-06	4.71607E-12	7.83362E-09

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,3,1]	1.26205E-04	5.33141E-08	6.16644E-07	4.72849E-08	5.18275E-06	6.27297E-12	2.34289E-08
[1,2,1,1]	1.45627E-05	1.20126E-07	1.06600E-06	8.71363E-08	1.67072E-07	1.58240E-12	2.26217E-10
[1,2,2,1]	8.33212E-05	7.99944E-08	8.23074E-07	6.40751E-08	2.28480E-06	4.51129E-12	7.51433E-09
[1,2,3,1]	1.26124E-04	5.26161E-08	6.05365E-07	4.64404E-08	5.16908E-06	6.00914E-12	2.28314E-08
[1,3,1,1]	1.48645E-05	1.22587E-07	1.08355E-06	8.86552E-08	1.57572E-07	1.48858E-12	1.96930E-10
[1,3,2,1]	8.34873E-05	8.13423E-08	8.31835E-07	6.48503E-08	2.27854E-06	4.39563E-12	7.26110E-09
[1,3,3,1]	1.26245E-04	5.35997E-08	6.11799E-07	4.70105E-08	5.17100E-06	5.90652E-12	2.23074E-08
[1,4,1,1]	1.59717E-05	1.31688E-07	1.16002E-06	9.50013E-08	1.57995E-07	1.48997E-12	1.85880E-10
[1,4,2,1]	8.42311E-05	8.74807E-08	8.87513E-07	6.94017E-08	2.29602E-06	4.52694E-12	7.13201E-09
[1,4,3,1]	1.26686E-04	5.72406E-08	6.46620E-07	4.98409E-08	5.19489E-06	6.03487E-12	2.19027E-08
[2,1,1,1]	3.20776E-05	1.45281E-07	1.49349E-06	1.08962E-07	5.65660E-07	3.83518E-12	1.46667E-09
[2,1,2,1]	9.45879E-05	9.67087E-08	1.12555E-06	8.01780E-08	2.93840E-06	7.34687E-12	1.29066E-08
[2,1,3,1]	1.33210E-04	6.43017E-08	8.42768E-07	5.92463E-08	5.87589E-06	9.32861E-12	3.21786E-08
[2,2,1,1]	3.15549E-05	1.42002E-07	1.45142E-06	1.05866E-07	5.14989E-07	3.41962E-12	1.19453E-09
[2,2,2,1]	9.41646E-05	9.42172E-08	1.08720E-06	7.74328E-08	2.87697E-06	6.73537E-12	1.18666E-08
[2,2,3,1]	1.32933E-04	6.25791E-08	8.11230E-07	5.70139E-08	5.81823E-06	8.60936E-12	3.03322E-08
[2,3,1,1]	3.21432E-05	1.44319E-07	1.46218E-06	1.06776E-07	4.71427E-07	3.06571E-12	9.90132E-10
[2,3,2,1]	9.44636E-05	9.52520E-08	1.08580E-06	7.74235E-08	2.83861E-06	6.28640E-12	1.09887E-08
[2,3,3,1]	1.33111E-04	6.29865E-08	8.04084E-07	5.65508E-08	5.79460E-06	8.08574E-12	2.86454E-08
[2,4,1,1]	3.45660E-05	1.55221E-07	1.56042E-06	1.14140E-07	4.61615E-07	2.95486E-12	9.05843E-10
[2,4,2,1]	9.60084E-05	1.01897E-07	1.14688E-06	8.19198E-08	2.85540E-06	6.19783E-12	1.05184E-08
[2,4,3,1]	1.34032E-04	6.69688E-08	8.40166E-07	5.92130E-08	5.82518E-06	7.97869E-12	2.75620E-08
[3,1,1,1]	4.95325E-05	1.47108E-07	1.61907E-06	1.13700E-07	1.13015E-06	5.77562E-12	3.82487E-09
[3,1,2,1]	1.05662E-04	9.69943E-08	1.20384E-06	8.28551E-08	3.70854E-06	9.03576E-12	1.91844E-08
[3,1,3,1]	1.40245E-04	6.51080E-08	9.14894E-07	6.21541E-08	6.68689E-06	1.10085E-11	4.19210E-08
[3,2,1,1]	4.85693E-05	1.43304E-07	1.56067E-06	1.09713E-07	1.01288E-06	5.04353E-12	3.07125E-09
[3,2,2,1]	1.04977E-04	9.46801E-08	1.15793E-06	7.98415E-08	3.57982E-06	8.15335E-12	1.71780E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[3,2,3,1]	1.39715E-04	6.28678E-08	8.68453E-07	5.90383E-08	6.56220E-06	9.93436E-12	3.84398E-08
[3,3,1,1]	4.92987E-05	1.44393E-07	1.55244E-06	1.09263E-07	9.09843E-07	4.40494E-12	2.50112E-09
[3,3,2,1]	1.05300E-04	9.47746E-08	1.13892E-06	7.86303E-08	3.48321E-06	7.38971E-12	1.54662E-08
[3,3,3,1]	1.39876E-04	6.26050E-08	8.45772E-07	5.75752E-08	6.48282E-06	9.08092E-12	3.55680E-08
[3,4,1,1]	5.27409E-05	1.52888E-07	1.62819E-06	1.14616E-07	8.73389E-07	4.11829E-12	2.24442E-09
[3,4,2,1]	1.07367E-04	9.91060E-08	1.17258E-06	8.09482E-08	3.46849E-06	6.98695E-12	1.45757E-08
[3,4,3,1]	1.41106E-04	6.51434E-08	8.61127E-07	5.86547E-08	6.48686E-06	8.61865E-12	3.37010E-08
[4,1,1,1]	6.37019E-05	1.20772E-07	1.41586E-06	9.54745E-08	1.70604E-06	6.06806E-12	6.58803E-09
[4,1,2,1]	1.14637E-04	8.00618E-08	1.05716E-06	7.01278E-08	4.43286E-06	8.68940E-12	2.46999E-08
[4,1,3,1]	1.45924E-04	5.41070E-08	8.12029E-07	5.31569E-08	7.43157E-06	1.02756E-11	4.94447E-08
[4,2,1,1]	6.24470E-05	1.18170E-07	1.36495E-06	9.22889E-08	1.52012E-06	5.27798E-12	5.26436E-09
[4,2,2,1]	1.13707E-04	7.78729E-08	1.00999E-06	6.71108E-08	4.23378E-06	7.74850E-12	2.17603E-08
[4,2,3,1]	1.45210E-04	5.24200E-08	7.68954E-07	5.04766E-08	7.23981E-06	9.22044E-12	4.47030E-08
[4,3,1,1]	6.32190E-05	1.18447E-07	1.34571E-06	9.11613E-08	1.35160E-06	4.54670E-12	4.23247E-09
[4,3,2,1]	1.14022E-04	7.76775E-08	9.84812E-07	6.56060E-08	4.07276E-06	6.90403E-12	1.92564E-08
[4,3,3,1]	1.45290E-04	5.16173E-08	7.37029E-07	4.84637E-08	7.09822E-06	8.26110E-12	4.06502E-08
[4,4,1,1]	6.71616E-05	1.22669E-07	1.37925E-06	9.33211E-08	1.27728E-06	4.13445E-12	3.73331E-09
[4,4,2,1]	1.16368E-04	8.00042E-08	9.94769E-07	6.63181E-08	4.01447E-06	6.38035E-12	1.79732E-08
[4,4,3,1]	1.46657E-04	5.27240E-08	7.34056E-07	4.83088E-08	7.05615E-06	7.64781E-12	3.82589E-08
[5,1,1,1]	7.44263E-05	9.25876E-08	1.12373E-06	7.41352E-08	2.20208E-06	5.28266E-12	8.65084E-09
[5,1,2,1]	1.21278E-04	6.08022E-08	8.31497E-07	5.38760E-08	5.02646E-06	7.07963E-12	2.75207E-08
[5,1,3,1]	1.50041E-04	4.10909E-08	6.39916E-07	4.08587E-08	8.03185E-06	8.13761E-12	5.22170E-08
[5,2,1,1]	7.27327E-05	8.87847E-08	1.06431E-06	7.01420E-08	1.94729E-06	4.49405E-12	6.86705E-09
[5,2,2,1]	1.20036E-04	5.80585E-08	7.80594E-07	5.05411E-08	4.75605E-06	6.16652E-12	2.39637E-08
[5,2,3,1]	1.49096E-04	3.90225E-08	5.95373E-07	3.79922E-08	7.77560E-06	7.16950E-12	4.67154E-08
[5,3,1,1]	7.32545E-05	8.66658E-08	1.02401E-06	6.73752E-08	1.71341E-06	3.76456E-12	5.45663E-09
[5,3,2,1]	1.20153E-04	5.63048E-08	7.41844E-07	4.79656E-08	4.52734E-06	5.33743E-12	2.10042E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[5,3,3,1]	1.48989E-04	3.73493E-08	5.55414E-07	3.53994E-08	7.56560E-06	6.23238E-12	4.20294E-08
[5,4,1,1]	7.71771E-05	8.65836E-08	1.01456E-06	6.64608E-08	1.59619E-06	3.30273E-12	4.74163E-09
[5,4,2,1]	1.22461E-04	5.60107E-08	7.25828E-07	4.67929E-08	4.41996E-06	4.76261E-12	1.93966E-08
[5,4,3,1]	1.50276E-04	3.66590E-08	5.33357E-07	3.38787E-08	7.47077E-06	5.57003E-12	3.92661E-08
[1,1,1,2]	1.52617E-05	1.25864E-07	1.11230E-06	9.10064E-08	1.60424E-07	1.52428E-12	2.38306E-10
[1,1,2,2]	7.39726E-05	7.13425E-08	7.14997E-07	5.59455E-08	1.67295E-06	3.37021E-12	5.68804E-09
[1,1,3,2]	1.24000E-04	5.16776E-08	5.70713E-07	4.40577E-08	4.13759E-06	4.95595E-12	1.87181E-08
[1,2,1,2]	1.57176E-05	1.29606E-07	1.14268E-06	9.35411E-08	1.57074E-07	1.48755E-12	2.12144E-10
[1,2,2,2]	7.48794E-05	7.16279E-08	7.15614E-07	5.60120E-08	1.68603E-06	3.28376E-12	5.56029E-09
[1,2,3,2]	1.23402E-04	5.08187E-08	5.58667E-07	4.31445E-08	4.11093E-06	4.73765E-12	1.81524E-08
[1,3,1,2]	1.66144E-05	1.36975E-07	1.20403E-06	9.86357E-08	1.55203E-07	1.46572E-12	1.91807E-10
[1,3,2,2]	7.39597E-05	7.18674E-08	7.14382E-07	5.59884E-08	1.65872E-06	3.16703E-12	5.30114E-09
[1,3,3,2]	1.23316E-04	5.14871E-08	5.62193E-07	4.34772E-08	4.10466E-06	4.61688E-12	1.76439E-08
[1,4,1,2]	1.70832E-05	1.40816E-07	1.23482E-06	1.01231E-07	1.51418E-07	1.42803E-12	1.78402E-10
[1,4,2,2]	7.57645E-05	7.84774E-08	7.74847E-07	6.08995E-08	1.69731E-06	3.31383E-12	5.28529E-09
[1,4,3,2]	1.24489E-04	5.58360E-08	6.04159E-07	4.68717E-08	4.15030E-06	4.79970E-12	1.75012E-08
[2,1,1,2]	3.54607E-05	1.60196E-07	1.62209E-06	1.18608E-07	5.22327E-07	3.47773E-12	1.33881E-09
[2,1,2,2]	9.20794E-05	9.34544E-08	1.04841E-06	7.51185E-08	2.33528E-06	5.73401E-12	1.02746E-08
[2,1,3,2]	1.30182E-04	6.16952E-08	7.67748E-07	5.43146E-08	4.66023E-06	7.30500E-12	2.55041E-08
[2,2,1,2]	3.12084E-05	1.40424E-07	1.41534E-06	1.03492E-07	4.28236E-07	2.80069E-12	1.00717E-09
[2,2,2,2]	9.23603E-05	9.19158E-08	1.02475E-06	7.33802E-08	2.30741E-06	5.32816E-12	9.57119E-09
[2,2,3,2]	1.30083E-04	6.01615E-08	7.41909E-07	5.24654E-08	4.62429E-06	6.76076E-12	2.40377E-08
[2,3,1,2]	3.29409E-05	1.47994E-07	1.48150E-06	1.08436E-07	4.11434E-07	2.63315E-12	8.63552E-10
[2,3,2,2]	9.12815E-05	9.16352E-08	1.01156E-06	7.25017E-08	2.24744E-06	4.91658E-12	8.69916E-09
[2,3,3,2]	1.30367E-04	6.08297E-08	7.39736E-07	5.23807E-08	4.60920E-06	6.36020E-12	2.26400E-08
[2,4,1,2]	3.35175E-05	1.50062E-07	1.49497E-06	1.09471E-07	3.87684E-07	2.43558E-12	7.63175E-10
[2,4,2,2]	9.44848E-05	9.99675E-08	1.09228E-06	7.84077E-08	2.30404E-06	4.96078E-12	8.52148E-09

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[2,4,3,2]	1.31557E-04	6.50217E-08	7.79999E-07	5.52963E-08	4.64771E-06	6.32517E-12	2.19364E-08
[3,1,1,2]	4.58443E-05	1.35491E-07	1.45903E-06	1.02789E-07	8.60642E-07	4.33257E-12	2.92440E-09
[3,1,2,2]	1.10147E-04	1.00080E-07	1.19127E-06	8.24715E-08	3.14217E-06	7.53281E-12	1.63134E-08
[3,1,3,2]	1.37077E-04	6.21436E-08	8.25402E-07	5.64298E-08	5.29751E-06	8.59476E-12	3.31514E-08
[3,2,1,2]	4.49718E-05	1.32744E-07	1.41693E-06	9.99720E-08	7.78263E-07	3.83316E-12	2.39264E-09
[3,2,2,2]	1.09655E-04	9.75802E-08	1.14879E-06	7.95901E-08	3.04695E-06	6.81582E-12	1.46452E-08
[3,2,3,2]	1.36662E-04	6.03638E-08	7.89916E-07	5.40610E-08	5.20908E-06	7.80996E-12	3.04657E-08
[3,3,1,2]	4.74510E-05	1.39340E-07	1.47201E-06	1.03970E-07	7.35028E-07	3.51275E-12	2.01851E-09
[3,3,2,2]	1.08470E-04	9.66982E-08	1.12167E-06	7.78138E-08	2.92913E-06	6.11371E-12	1.30288E-08
[3,3,3,2]	1.37347E-04	6.07437E-08	7.79187E-07	5.34152E-08	5.16885E-06	7.20406E-12	2.82245E-08
[3,4,1,2]	4.79928E-05	1.39046E-07	1.45989E-06	1.03047E-07	6.78183E-07	3.14842E-12	1.74829E-09
[3,4,2,2]	1.12860E-04	1.03861E-07	1.18976E-06	8.25573E-08	2.98390E-06	5.96806E-12	1.25846E-08
[3,4,3,2]	1.38065E-04	6.30730E-08	7.95379E-07	5.45128E-08	5.15908E-06	6.83619E-12	2.67793E-08
[4,1,1,2]	6.74837E-05	1.27374E-07	1.45250E-06	9.83844E-08	1.47612E-06	5.17597E-12	5.72478E-09
[4,1,2,2]	1.01223E-04	6.98029E-08	8.80664E-07	5.87779E-08	3.17621E-06	6.15000E-12	1.76992E-08
[4,1,3,2]	1.42912E-04	5.16948E-08	7.31073E-07	4.81931E-08	5.89934E-06	8.08967E-12	3.91405E-08
[4,2,1,2]	6.76652E-05	1.27406E-07	1.43709E-06	9.74787E-08	1.35565E-06	4.62685E-12	4.74183E-09
[4,2,2,2]	1.01309E-04	6.87464E-08	8.53964E-07	5.71264E-08	3.06842E-06	5.55276E-12	1.57778E-08
[4,2,3,2]	1.42031E-04	5.00180E-08	6.93985E-07	4.58289E-08	5.74761E-06	7.24777E-12	3.53234E-08
[4,3,1,2]	7.12253E-05	1.32853E-07	1.47939E-06	1.00467E-07	1.26566E-06	4.17333E-12	3.97591E-09
[4,3,2,2]	1.00095E-04	6.75131E-08	8.23433E-07	5.51628E-08	2.91401E-06	4.88281E-12	1.37864E-08
[4,3,3,2]	1.42746E-04	4.99545E-08	6.76521E-07	4.47664E-08	5.66225E-06	6.57173E-12	3.23784E-08
[4,4,1,2]	7.11707E-05	1.29466E-07	1.43139E-06	9.70782E-08	1.14393E-06	3.62722E-12	3.36128E-09
[4,4,2,2]	1.04372E-04	7.12887E-08	8.56942E-07	5.73944E-08	2.94410E-06	4.64268E-12	1.31948E-08
[4,4,3,2]	1.43728E-04	5.09521E-08	6.76078E-07	4.47420E-08	5.62562E-06	6.09485E-12	3.03939E-08
[5,1,1,2]	8.20711E-05	1.01044E-07	1.19050E-06	7.88543E-08	1.97449E-06	4.64702E-12	7.76982E-09
[5,1,2,2]	1.17543E-04	5.81369E-08	7.57869E-07	4.94338E-08	3.94674E-06	5.48060E-12	2.16233E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[5,1,3,2]	1.46772E-04	3.92274E-08	5.74757E-07	3.69729E-08	6.36914E-06	6.41232E-12	4.13105E-08
[5,2,1,2]	7.17039E-05	8.67698E-08	1.01300E-06	6.70132E-08	1.57349E-06	3.56304E-12	5.58044E-09
[5,2,2,2]	1.17665E-04	5.63697E-08	7.24983E-07	4.72505E-08	3.78799E-06	4.86225E-12	1.91172E-08
[5,2,3,2]	1.45987E-04	3.74719E-08	5.39092E-07	3.46757E-08	6.17875E-06	5.66950E-12	3.70312E-08
[5,3,1,2]	7.49994E-05	8.83011E-08	1.01920E-06	6.73197E-08	1.45077E-06	3.12747E-12	4.63180E-09
[5,3,2,2]	1.15899E-04	5.38332E-08	6.80995E-07	4.43063E-08	3.55525E-06	4.14082E-12	1.64818E-08
[5,3,3,2]	1.45785E-04	3.60051E-08	5.07108E-07	3.25417E-08	6.01071E-06	4.94482E-12	3.34013E-08
[5,4,1,2]	7.46884E-05	8.35564E-08	9.60057E-07	6.31166E-08	1.29946E-06	2.64487E-12	3.89397E-09
[5,4,2,2]	1.20619E-04	5.46466E-08	6.83839E-07	4.42913E-08	3.55737E-06	3.79973E-12	1.56224E-08
[5,4,3,2]	1.47591E-04	3.57926E-08	4.94829E-07	3.16751E-08	5.97168E-06	4.47512E-12	3.13029E-08

Table 48. Number densities for Case-2C, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1,1]	1.41555E-08	1.64722E-06	6.72432E-10	8.47491E-10	3.26470E-09	1.21475E-10
[1,1,2,1]	1.20505E-08	1.22739E-06	5.17124E-10	6.22039E-10	2.32179E-09	8.45353E-11
[1,1,3,1]	8.86952E-09	8.86156E-07	3.84007E-10	4.48513E-10	1.63134E-09	5.83469E-11
[1,2,1,1]	1.39803E-08	1.62822E-06	6.63794E-10	8.37745E-10	3.22972E-09	1.20238E-10
[1,2,2,1]	1.18552E-08	1.20650E-06	5.07442E-10	6.11356E-10	2.28436E-09	8.32358E-11
[1,2,3,1]	8.72138E-09	8.70689E-07	3.76585E-10	4.40654E-10	1.60492E-09	5.74591E-11
[1,3,1,1]	1.42104E-08	1.65687E-06	6.74351E-10	8.52597E-10	3.29038E-09	1.22582E-10
[1,3,2,1]	1.19701E-08	1.22108E-06	5.12643E-10	6.18996E-10	2.31628E-09	8.44850E-11
[1,3,3,1]	8.80585E-09	8.81303E-07	3.80406E-10	4.46280E-10	1.62836E-09	5.83758E-11
[1,4,1,1]	1.52132E-08	1.77544E-06	7.21753E-10	9.13865E-10	3.52980E-09	1.31568E-10
[1,4,2,1]	1.27006E-08	1.30566E-06	5.47537E-10	6.62736E-10	2.48381E-09	9.06893E-11
[1,4,3,1]	9.26317E-09	9.33655E-07	4.02326E-10	4.73430E-10	1.73106E-09	6.21476E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[2,1,1,1]	2.23141E-08	2.20729E-06	8.43564E-10	1.03978E-09	3.96099E-09	1.46218E-10
[2,1,2,1]	1.70888E-08	1.61779E-06	6.41753E-10	7.59765E-10	2.80965E-09	1.01613E-10
[2,1,3,1]	1.27769E-08	1.18884E-06	4.85549E-10	5.58251E-10	2.00970E-09	7.13299E-11
[2,2,1,1]	2.17284E-08	2.14848E-06	8.17405E-10	1.01069E-09	3.85779E-09	1.42604E-10
[2,2,2,1]	1.65478E-08	1.56537E-06	6.17930E-10	7.34177E-10	2.72200E-09	9.86254E-11
[2,2,3,1]	1.23341E-08	1.14637E-06	4.65724E-10	5.37580E-10	1.94117E-09	6.90559E-11
[2,3,1,1]	2.19138E-08	2.16941E-06	8.21516E-10	1.02005E-09	3.90347E-09	1.44547E-10
[2,3,2,1]	1.65516E-08	1.56747E-06	6.15323E-10	7.34701E-10	2.73311E-09	9.92673E-11
[2,3,3,1]	1.22567E-08	1.13949E-06	4.59774E-10	5.33742E-10	1.93526E-09	6.90592E-11
[2,4,1,1]	2.33952E-08	2.31973E-06	8.75633E-10	1.09104E-09	4.18378E-09	1.55140E-10
[2,4,2,1]	1.74938E-08	1.66038E-06	6.48256E-10	7.78069E-10	2.90433E-09	1.05739E-10
[2,4,3,1]	1.28192E-08	1.19460E-06	4.78948E-10	5.59517E-10	2.03764E-09	7.29459E-11
[3,1,1,1]	2.55336E-08	2.34924E-06	8.91053E-10	1.08152E-09	4.08019E-09	1.49591E-10
[3,1,2,1]	1.90886E-08	1.70543E-06	6.68375E-10	7.83037E-10	2.87230E-09	1.03277E-10
[3,1,3,1]	1.44800E-08	1.27200E-06	5.13322E-10	5.84044E-10	2.08408E-09	7.34848E-11
[3,2,1,1]	2.46546E-08	2.27019E-06	8.56544E-10	1.04437E-09	3.95186E-09	1.45192E-10
[3,2,2,1]	1.83818E-08	1.64516E-06	6.41432E-10	7.55248E-10	2.78055E-09	1.00247E-10
[3,2,3,1]	1.37845E-08	1.21085E-06	4.85393E-10	5.55326E-10	1.99016E-09	7.04058E-11
[3,3,1,1]	2.45822E-08	2.26544E-06	8.48785E-10	1.04108E-09	3.95429E-09	1.45667E-10
[3,3,2,1]	1.81332E-08	1.62407E-06	6.28091E-10	7.44671E-10	2.75485E-09	9.96708E-11
[3,3,3,1]	1.34721E-08	1.18402E-06	4.70333E-10	5.42329E-10	1.95474E-09	6.94575E-11
[3,4,1,1]	2.58612E-08	2.38177E-06	8.86671E-10	1.09292E-09	4.16387E-09	1.53709E-10
[3,4,2,1]	1.87568E-08	1.67775E-06	6.42813E-10	7.67517E-10	2.85282E-09	1.03566E-10
[3,4,3,1]	1.37834E-08	1.21045E-06	4.75826E-10	5.53330E-10	2.00629E-09	7.16083E-11
[4,1,1,1]	2.34895E-08	2.02345E-06	7.54031E-10	9.05506E-10	3.39266E-09	1.23782E-10
[4,1,2,1]	1.75511E-08	1.47796E-06	5.69068E-10	6.61011E-10	2.40869E-09	8.61959E-11
[4,1,3,1]	1.34593E-08	1.11412E-06	4.41583E-10	4.98175E-10	1.76523E-09	6.19147E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[4,2,1,1]	2.26522E-08	1.95721E-06	7.25645E-10	8.76134E-10	3.29477E-09	1.20526E-10
[4,2,2,1]	1.67956E-08	1.41682E-06	5.41944E-10	6.33258E-10	2.31796E-09	8.32250E-11
[4,2,3,1]	1.27594E-08	1.05903E-06	4.17122E-10	4.73661E-10	1.68702E-09	5.94084E-11
[4,3,1,1]	2.23859E-08	1.93718E-06	7.12630E-10	8.66440E-10	3.27327E-09	1.20128E-10
[4,3,2,1]	1.64175E-08	1.38796E-06	5.26229E-10	6.19972E-10	2.28258E-09	8.23077E-11
[4,3,3,1]	1.22804E-08	1.02004E-06	3.97488E-10	4.55537E-10	1.63352E-09	5.78293E-11
[4,4,1,1]	2.30722E-08	1.99059E-06	7.25955E-10	8.87755E-10	3.36619E-09	1.23855E-10
[4,4,2,1]	1.66690E-08	1.40769E-06	5.28339E-10	6.27595E-10	2.32351E-09	8.41232E-11
[4,4,3,1]	1.23029E-08	1.02066E-06	3.93137E-10	4.54874E-10	1.64215E-09	5.84342E-11
[5,1,1,1]	1.92648E-08	1.59171E-06	5.87550E-10	7.02185E-10	2.62146E-09	9.54063E-11
[5,1,2,1]	1.42948E-08	1.15298E-06	4.37891E-10	5.07246E-10	1.84347E-09	6.58477E-11
[5,1,3,1]	1.10031E-08	8.70543E-07	3.39856E-10	3.82497E-10	1.35189E-09	4.73300E-11
[5,2,1,1]	1.83238E-08	1.51169E-06	5.53380E-10	6.64923E-10	2.49215E-09	9.09523E-11
[5,2,2,1]	1.34809E-08	1.08576E-06	4.08723E-10	4.76344E-10	1.73946E-09	6.23520E-11
[5,2,3,1]	1.02828E-08	8.12617E-07	3.14354E-10	3.56071E-10	1.26513E-09	4.44745E-11
[5,3,1,1]	1.77439E-08	1.45941E-06	5.28358E-10	6.39391E-10	2.40820E-09	8.81940E-11
[5,3,2,1]	1.28995E-08	1.03605E-06	3.85213E-10	4.52690E-10	1.66319E-09	5.98875E-11
[5,3,3,1]	9.66594E-09	7.61539E-07	2.90647E-10	3.32312E-10	1.18910E-09	4.20331E-11
[5,4,1,1]	1.77522E-08	1.44890E-06	5.18531E-10	6.31240E-10	2.38689E-09	8.76547E-11
[5,4,2,1]	1.27384E-08	1.01726E-06	3.73221E-10	4.42202E-10	1.63390E-09	5.90778E-11
[5,4,3,1]	9.38171E-09	7.34208E-07	2.75980E-10	3.18551E-10	1.14765E-09	4.07818E-11
[1,1,1,2]	1.45875E-08	1.70096E-06	6.92097E-10	8.75215E-10	3.37799E-09	1.25862E-10
[1,1,2,2]	1.02896E-08	1.05481E-06	4.39452E-10	5.34692E-10	2.01100E-09	7.36244E-11
[1,1,3,2]	8.21473E-09	8.27720E-07	3.53688E-10	4.19034E-10	1.54056E-09	5.55428E-11
[1,2,1,2]	1.49858E-08	1.74861E-06	7.10728E-10	8.99745E-10	3.47485E-09	1.29526E-10
[1,2,2,2]	1.03098E-08	1.05640E-06	4.39504E-10	5.35449E-10	2.01559E-09	7.38365E-11
[1,2,3,2]	8.05349E-09	8.10845E-07	3.45890E-10	4.10476E-10	1.51090E-09	5.45199E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,3,1,2]	1.57904E-08	1.84406E-06	7.48583E-10	9.48961E-10	3.66779E-09	1.36788E-10
[1,3,2,2]	1.02803E-08	1.05583E-06	4.38659E-10	5.35397E-10	2.01777E-09	7.39763E-11
[1,3,3,2]	8.09872E-09	8.17031E-07	3.47920E-10	4.13815E-10	1.52558E-09	5.51105E-11
[1,4,1,2]	1.61941E-08	1.89241E-06	7.67666E-10	9.74113E-10	3.76714E-09	1.40538E-10
[1,4,2,2]	1.10875E-08	1.14737E-06	4.76385E-10	5.82574E-10	2.19829E-09	8.06578E-11
[1,4,3,2]	8.65378E-09	8.79917E-07	3.74310E-10	4.46350E-10	1.64840E-09	5.96160E-11
[2,1,1,2]	2.42712E-08	2.40713E-06	9.12626E-10	1.13309E-09	4.33533E-09	1.60536E-10
[2,1,2,2]	1.59337E-08	1.51951E-06	5.94669E-10	7.13486E-10	2.66296E-09	9.69615E-11
[2,1,3,2]	1.16586E-08	1.09384E-06	4.39572E-10	5.13300E-10	1.87024E-09	6.69885E-11
[2,2,1,2]	2.12050E-08	2.10296E-06	7.94659E-10	9.89028E-10	3.78992E-09	1.40486E-10
[2,2,2,2]	1.56132E-08	1.48713E-06	5.79519E-10	6.97283E-10	2.60776E-09	9.50870E-11
[2,2,3,2]	1.12967E-08	1.05855E-06	4.23397E-10	4.96111E-10	1.81233E-09	6.50383E-11
[2,3,1,2]	2.22139E-08	2.20521E-06	8.30334E-10	1.03681E-09	3.98085E-09	1.47761E-10
[2,3,2,2]	1.54324E-08	1.47116E-06	5.70606E-10	6.89413E-10	2.58547E-09	9.44588E-11
[2,3,3,2]	1.12806E-08	1.05823E-06	4.20932E-10	4.95764E-10	1.81765E-09	6.54033E-11
[2,4,1,2]	2.24425E-08	2.22804E-06	8.36547E-10	1.04713E-09	4.02635E-09	1.49590E-10
[2,4,2,2]	1.66679E-08	1.59221E-06	6.14950E-10	7.46126E-10	2.80579E-09	1.02698E-10
[2,4,3,2]	1.19105E-08	1.11873E-06	4.42459E-10	5.23857E-10	1.92761E-09	6.95372E-11
[3,1,1,2]	2.30581E-08	2.12886E-06	7.99031E-10	9.79249E-10	3.71688E-09	1.36868E-10
[3,1,2,2]	1.89216E-08	1.70298E-06	6.57421E-10	7.81431E-10	2.89626E-09	1.04940E-10
[3,1,3,2]	1.30921E-08	1.15954E-06	4.60016E-10	5.31923E-10	1.92262E-09	6.84640E-11
[3,2,1,2]	2.24045E-08	2.07182E-06	7.74799E-10	9.52987E-10	3.62565E-09	1.33725E-10
[3,2,2,2]	1.82813E-08	1.64581E-06	6.32310E-10	7.54671E-10	2.80540E-09	1.01864E-10
[3,2,3,2]	1.25542E-08	1.11247E-06	4.38970E-10	5.10052E-10	1.85042E-09	6.60759E-11
[3,3,1,2]	2.33168E-08	2.15794E-06	8.02520E-10	9.91858E-10	3.78496E-09	1.39894E-10
[3,3,2,2]	1.78901E-08	1.61201E-06	6.15164E-10	7.38581E-10	2.75673E-09	1.00388E-10
[3,3,3,2]	1.24163E-08	1.10143E-06	4.31190E-10	5.04611E-10	1.84009E-09	6.59594E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[3,4,1,2]	2.32033E-08	2.14353E-06	7.92973E-10	9.83600E-10	3.76178E-09	1.39244E-10
[3,4,2,2]	1.90421E-08	1.71453E-06	6.49575E-10	7.84358E-10	2.93860E-09	1.07292E-10
[3,4,3,2]	1.27384E-08	1.12793E-06	4.37498E-10	5.15624E-10	1.88950E-09	6.79732E-11
[4,1,1,2]	2.41394E-08	2.08991E-06	7.69700E-10	9.34861E-10	3.52852E-09	1.29426E-10
[4,1,2,2]	1.46478E-08	1.24291E-06	4.71172E-10	5.55551E-10	2.04686E-09	7.38531E-11
[4,1,3,2]	1.21361E-08	1.01365E-06	3.95217E-10	4.53112E-10	1.62671E-09	5.76398E-11
[4,2,1,2]	2.39046E-08	2.07298E-06	7.59895E-10	9.26930E-10	3.50882E-09	1.28966E-10
[4,2,2,2]	1.42125E-08	1.20886E-06	4.56049E-10	5.40454E-10	1.99870E-09	7.23103E-11
[4,2,3,2]	1.15398E-08	9.65345E-07	3.74045E-10	4.31363E-10	1.55571E-09	5.53142E-11
[4,3,1,2]	2.46656E-08	2.14062E-06	7.79475E-10	9.56242E-10	3.63314E-09	1.33879E-10
[4,3,2,2]	1.37453E-08	1.17008E-06	4.37791E-10	5.22524E-10	1.94200E-09	7.05111E-11
[4,3,3,2]	1.12847E-08	9.45304E-07	3.62871E-10	4.22014E-10	1.53130E-09	5.46987E-11
[4,4,1,2]	2.39838E-08	2.07482E-06	7.50450E-10	9.24594E-10	3.52241E-09	1.30038E-10
[4,4,2,2]	1.43779E-08	1.22148E-06	4.52993E-10	5.44277E-10	2.03182E-09	7.40048E-11
[4,4,3,2]	1.13449E-08	9.48278E-07	3.60257E-10	4.22413E-10	1.54148E-09	5.52946E-11
[5,1,1,2]	2.04634E-08	1.69841E-06	6.18754E-10	7.48370E-10	2.81623E-09	1.03088E-10
[5,1,2,2]	1.30466E-08	1.06112E-06	3.96888E-10	4.66740E-10	1.71557E-09	6.17998E-11
[5,1,3,2]	9.89113E-09	7.90269E-07	3.03641E-10	3.47247E-10	1.24355E-09	4.39856E-11
[5,2,1,2]	1.74818E-08	1.44818E-06	5.23932E-10	6.36408E-10	2.40231E-09	8.81253E-11
[5,2,2,2]	1.25288E-08	1.01772E-06	3.77752E-10	4.46506E-10	1.64768E-09	5.95227E-11
[5,2,3,2]	9.31201E-09	7.43502E-07	2.83400E-10	3.26018E-10	1.17306E-09	4.16416E-11
[5,3,1,2]	1.76882E-08	1.46102E-06	5.23703E-10	6.39887E-10	2.42507E-09	8.92081E-11
[5,3,2,2]	1.18487E-08	9.59195E-07	3.52056E-10	4.19177E-10	1.55498E-09	5.63879E-11
[5,3,3,2]	8.83134E-09	7.02083E-07	2.64091E-10	3.06391E-10	1.10945E-09	3.95737E-11
[5,4,1,2]	1.68131E-08	1.37782E-06	4.89153E-10	6.00281E-10	2.28150E-09	8.40915E-11
[5,4,2,2]	1.20189E-08	9.65431E-07	3.49979E-10	4.19452E-10	1.56302E-09	5.68625E-11
[5,4,3,2]	8.69568E-09	6.87416E-07	2.55318E-10	2.98661E-10	1.08774E-09	3.89681E-11

Table 49. Axial flux distribution for Case-2C.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
5.25E+01	4.32E+13	1.80E-04	2.84E+13	1.90E-04
5.75E+01	4.29E+13	1.70E-04	3.61E+13	1.80E-04
6.25E+01	4.33E+13	1.60E-04	4.24E+13	1.60E-04
6.75E+01	4.42E+13	1.60E-04	4.77E+13	1.50E-04
7.25E+01	4.55E+13	1.60E-04	5.24E+13	1.50E-04
7.75E+01	4.71E+13	1.50E-04	5.67E+13	1.50E-04
8.25E+01	4.88E+13	1.50E-04	6.05E+13	1.40E-04
8.75E+01	5.05E+13	1.40E-04	6.38E+13	1.30E-04
9.25E+01	5.22E+13	1.40E-04	6.67E+13	1.30E-04
9.75E+01	5.38E+13	1.30E-04	6.93E+13	1.20E-04
1.03E+02	5.54E+13	1.30E-04	7.14E+13	1.20E-04
1.08E+02	5.70E+13	1.30E-04	7.34E+13	1.20E-04
1.13E+02	5.84E+13	1.30E-04	7.52E+13	1.20E-04
1.18E+02	5.97E+13	1.30E-04	7.68E+13	1.20E-04
1.23E+02	6.08E+13	1.20E-04	7.82E+13	1.10E-04
1.28E+02	6.19E+13	1.20E-04	7.92E+13	1.10E-04
1.33E+02	6.29E+13	1.20E-04	8.00E+13	1.10E-04
1.38E+02	6.39E+13	1.20E-04	8.05E+13	1.10E-04
1.43E+02	6.48E+13	1.20E-04	8.08E+13	1.10E-04
1.48E+02	6.56E+13	1.20E-04	8.08E+13	1.10E-04
1.53E+02	6.63E+13	1.10E-04	8.05E+13	1.10E-04
1.58E+02	6.68E+13	1.10E-04	8.02E+13	1.10E-04
1.63E+02	6.71E+13	1.20E-04	7.98E+13	1.10E-04
1.68E+02	6.73E+13	1.20E-04	7.94E+13	1.10E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.73E+02	6.72E+13	1.20E-04	7.88E+13	1.10E-04
1.78E+02	6.70E+13	1.20E-04	7.83E+13	1.10E-04
1.83E+02	6.67E+13	1.10E-04	7.76E+13	1.10E-04
1.88E+02	6.62E+13	1.20E-04	7.68E+13	1.10E-04
1.93E+02	6.57E+13	1.20E-04	7.58E+13	1.10E-04
1.98E+02	6.51E+13	1.20E-04	7.46E+13	1.20E-04
2.03E+02	6.44E+13	1.20E-04	7.33E+13	1.20E-04
2.08E+02	6.36E+13	1.20E-04	7.20E+13	1.20E-04
2.13E+02	6.25E+13	1.20E-04	7.08E+13	1.20E-04
2.18E+02	6.15E+13	1.20E-04	6.94E+13	1.20E-04
2.23E+02	6.03E+13	1.30E-04	6.79E+13	1.20E-04
2.28E+02	5.91E+13	1.30E-04	6.63E+13	1.30E-04
2.33E+02	5.77E+13	1.40E-04	6.46E+13	1.30E-04
2.38E+02	5.62E+13	1.40E-04	6.28E+13	1.30E-04
2.43E+02	5.47E+13	1.40E-04	6.11E+13	1.30E-04
2.48E+02	5.33E+13	1.40E-04	5.92E+13	1.40E-04
2.53E+02	5.18E+13	1.50E-04	5.71E+13	1.40E-04
2.58E+02	5.03E+13	1.50E-04	5.49E+13	1.50E-04
2.63E+02	4.87E+13	1.60E-04	5.25E+13	1.50E-04
2.68E+02	4.73E+13	1.60E-04	5.00E+13	1.60E-04
2.73E+02	4.60E+13	1.60E-04	4.74E+13	1.60E-04
2.78E+02	4.49E+13	1.70E-04	4.46E+13	1.70E-04
2.83E+02	4.41E+13	1.70E-04	4.14E+13	1.80E-04
2.88E+02	4.36E+13	1.80E-04	3.78E+13	1.90E-04
2.93E+02	4.36E+13	1.90E-04	3.37E+13	2.00E-04
2.98E+02	4.44E+13	2.00E-04	2.90E+13	2.10E-04

Table 50. Radial flux distribution for Case-2C.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.50E+00	5.78E+13	3.00E-04	8.20E+13	2.60E-04
4.50E+00	5.78E+13	2.30E-04	8.19E+13	1.90E-04
7.50E+00	5.77E+13	1.90E-04	8.17E+13	1.60E-04
1.05E+01	5.76E+13	1.60E-04	8.16E+13	1.40E-04
1.35E+01	5.75E+13	1.50E-04	8.13E+13	1.30E-04
1.65E+01	5.73E+13	1.30E-04	8.11E+13	1.10E-04
1.95E+01	5.72E+13	1.20E-04	8.07E+13	1.10E-04
2.25E+01	5.69E+13	1.10E-04	8.03E+13	1.00E-04
2.55E+01	5.67E+13	1.10E-04	7.98E+13	9.00E-05
2.85E+01	5.65E+13	1.00E-04	7.92E+13	9.00E-05
3.15E+01	5.62E+13	9.00E-05	7.86E+13	8.00E-05
3.45E+01	5.60E+13	9.00E-05	7.79E+13	8.00E-05
3.75E+01	5.57E+13	8.00E-05	7.71E+13	7.00E-05
4.05E+01	5.54E+13	8.00E-05	7.62E+13	7.00E-05
4.35E+01	5.52E+13	8.00E-05	7.52E+13	7.00E-05
4.65E+01	5.49E+13	7.00E-05	7.41E+13	7.00E-05
4.95E+01	5.47E+13	7.00E-05	7.29E+13	6.00E-05
5.25E+01	5.45E+13	7.00E-05	7.16E+13	6.00E-05
5.55E+01	5.44E+13	7.00E-05	7.01E+13	6.00E-05
5.85E+01	5.43E+13	7.00E-05	6.86E+13	6.00E-05
6.15E+01	5.43E+13	7.00E-05	6.69E+13	6.00E-05
6.45E+01	5.43E+13	6.00E-05	6.49E+13	6.00E-05
6.75E+01	5.45E+13	6.00E-05	6.29E+13	6.00E-05
7.05E+01	5.48E+13	6.00E-05	6.06E+13	6.00E-05

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
7.35E+01	5.52E+13	6.00E-05	5.81E+13	6.00E-05
7.65E+01	5.59E+13	6.00E-05	5.54E+13	6.00E-05
7.95E+01	5.68E+13	6.00E-05	5.24E+13	6.00E-05
8.25E+01	5.78E+13	6.00E-05	4.92E+13	6.00E-05
8.55E+01	5.91E+13	6.00E-05	4.56E+13	7.00E-05
8.85E+01	6.07E+13	7.00E-05	4.18E+13	7.00E-05

Table 51. Power produced per TRISO particle and fast neutron flux (E > 1MeV) for Case-2C. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,1,1,1]	1.46E+02	3.70E-04	2.31E+13	1.16E-03
[2,1,1,1]	1.48E+02	3.30E-04	3.25E+13	9.70E-04
[3,1,1,1]	1.62E+02	3.10E-04	3.26E+13	9.60E-04
[4,1,1,1]	1.46E+02	3.40E-04	2.81E+13	1.04E-03
[5,1,1,1]	1.47E+02	3.90E-04	2.04E+13	1.22E-03
[1,1,2,1]	1.62E+02	4.00E-04	2.22E+13	1.16E-03
[2,1,2,1]	1.49E+02	3.60E-04	3.18E+13	9.70E-04
[3,1,2,1]	1.53E+02	3.40E-04	3.19E+13	9.70E-04
[4,1,2,1]	1.62E+02	3.70E-04	2.72E+13	1.04E-03
[5,1,2,1]	1.50E+02	4.30E-04	1.92E+13	1.25E-03
[1,1,3,1]	1.63E+02	4.40E-04	2.17E+13	1.17E-03
[2,1,3,1]	1.50E+02	3.90E-04	3.13E+13	9.70E-04
[3,1,3,1]	1.54E+02	3.70E-04	3.15E+13	9.70E-04
[4,1,3,1]	1.62E+02	4.00E-04	2.68E+13	1.05E-03
[5,1,3,1]	1.50E+02	4.60E-04	1.89E+13	1.25E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,2,1,1]	1.48E+02	3.70E-04	2.20E+13	1.18E-03
[2,2,1,1]	1.50E+02	3.30E-04	3.03E+13	1.00E-03
[3,2,1,1]	1.65E+02	3.20E-04	3.01E+13	1.00E-03
[4,2,1,1]	1.48E+02	3.50E-04	2.59E+13	1.08E-03
[5,2,1,1]	1.49E+02	4.00E-04	1.85E+13	1.27E-03
[1,2,2,1]	1.63E+02	4.00E-04	2.09E+13	1.20E-03
[2,2,2,1]	1.51E+02	3.60E-04	2.96E+13	1.00E-03
[3,2,2,1]	1.54E+02	3.50E-04	2.96E+13	1.00E-03
[4,2,2,1]	1.63E+02	3.80E-04	2.51E+13	1.09E-03
[5,2,2,1]	1.51E+02	4.40E-04	1.76E+13	1.30E-03
[1,2,3,1]	1.64E+02	4.40E-04	2.06E+13	1.20E-03
[2,2,3,1]	1.51E+02	3.90E-04	2.92E+13	1.00E-03
[3,2,3,1]	1.56E+02	3.80E-04	2.90E+13	1.00E-03
[4,2,3,1]	1.63E+02	4.10E-04	2.48E+13	1.08E-03
[5,2,3,1]	1.51E+02	4.70E-04	1.72E+13	1.31E-03
[1,3,1,1]	1.44E+02	3.70E-04	2.03E+13	1.23E-03
[2,3,1,1]	1.46E+02	3.30E-04	2.75E+13	1.05E-03
[3,3,1,1]	1.61E+02	3.20E-04	2.70E+13	1.06E-03
[4,3,1,1]	1.44E+02	3.50E-04	2.32E+13	1.15E-03
[5,3,1,1]	1.45E+02	4.10E-04	1.63E+13	1.36E-03
[1,3,2,1]	1.61E+02	4.00E-04	1.92E+13	1.25E-03
[2,3,2,1]	1.49E+02	3.60E-04	2.67E+13	1.06E-03
[3,3,2,1]	1.52E+02	3.50E-04	2.64E+13	1.06E-03
[4,3,2,1]	1.61E+02	3.80E-04	2.22E+13	1.16E-03
[5,3,2,1]	1.48E+02	4.50E-04	1.53E+13	1.39E-03
[1,3,3,1]	1.61E+02	4.40E-04	1.89E+13	1.25E-03
[2,3,3,1]	1.49E+02	3.90E-04	2.63E+13	1.06E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[3,3,3,1]	1.53E+02	3.80E-04	2.58E+13	1.07E-03
[4,3,3,1]	1.61E+02	4.10E-04	2.19E+13	1.15E-03
[5,3,3,1]	1.49E+02	4.80E-04	1.50E+13	1.40E-03
[1,4,1,1]	1.51E+02	3.60E-04	1.66E+13	1.37E-03
[2,4,1,1]	1.52E+02	3.20E-04	2.20E+13	1.18E-03
[3,4,1,1]	1.67E+02	3.10E-04	2.15E+13	1.19E-03
[4,4,1,1]	1.50E+02	3.40E-04	1.82E+13	1.29E-03
[5,4,1,1]	1.52E+02	4.10E-04	1.25E+13	1.56E-03
[1,4,2,1]	1.65E+02	3.90E-04	1.55E+13	1.39E-03
[2,4,2,1]	1.52E+02	3.50E-04	2.12E+13	1.19E-03
[3,4,2,1]	1.56E+02	3.50E-04	2.07E+13	1.20E-03
[4,4,2,1]	1.65E+02	3.80E-04	1.73E+13	1.31E-03
[5,4,2,1]	1.51E+02	4.50E-04	1.18E+13	1.59E-03
[1,4,3,1]	1.65E+02	4.30E-04	1.51E+13	1.40E-03
[2,4,3,1]	1.52E+02	3.80E-04	2.07E+13	1.19E-03
[3,4,3,1]	1.57E+02	3.70E-04	2.02E+13	1.21E-03
[4,4,3,1]	1.65E+02	4.10E-04	1.69E+13	1.32E-03
[5,4,3,1]	1.53E+02	4.90E-04	1.14E+13	1.61E-03
[1,1,1,2]	1.46E+02	3.80E-04	2.37E+13	1.14E-03
[2,1,1,2]	1.47E+02	3.30E-04	3.32E+13	9.60E-04
[3,1,1,2]	1.63E+02	3.20E-04	3.32E+13	9.60E-04
[4,1,1,2]	1.46E+02	3.50E-04	2.87E+13	1.03E-03
[5,1,1,2]	1.48E+02	4.00E-04	2.08E+13	1.21E-03
[1,1,2,2]	1.62E+02	4.10E-04	2.25E+13	1.16E-03
[2,1,2,2]	1.49E+02	3.60E-04	3.23E+13	9.60E-04
[3,1,2,2]	1.54E+02	3.50E-04	3.24E+13	9.60E-04
[4,1,2,2]	1.62E+02	3.80E-04	2.76E+13	1.04E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[5,1,2,2]	1.50E+02	4.40E-04	1.96E+13	1.24E-03
[1,1,3,2]	1.63E+02	4.50E-04	2.20E+13	1.17E-03
[2,1,3,2]	1.50E+02	4.00E-04	3.16E+13	9.70E-04
[3,1,3,2]	1.54E+02	3.80E-04	3.18E+13	9.70E-04
[4,1,3,2]	1.63E+02	4.10E-04	2.72E+13	1.04E-03
[5,1,3,2]	1.50E+02	4.80E-04	1.91E+13	1.25E-03
[1,2,1,2]	1.49E+02	3.80E-04	2.25E+13	1.17E-03
[2,2,1,2]	1.50E+02	3.30E-04	3.10E+13	9.90E-04
[3,2,1,2]	1.64E+02	3.20E-04	3.07E+13	9.90E-04
[4,2,1,2]	1.48E+02	3.50E-04	2.65E+13	1.07E-03
[5,2,1,2]	1.50E+02	4.10E-04	1.89E+13	1.27E-03
[1,2,2,2]	1.63E+02	4.10E-04	2.13E+13	1.19E-03
[2,2,2,2]	1.50E+02	3.70E-04	3.01E+13	9.90E-04
[3,2,2,2]	1.55E+02	3.60E-04	3.01E+13	1.00E-03
[4,2,2,2]	1.64E+02	3.90E-04	2.54E+13	1.08E-03
[5,2,2,2]	1.51E+02	4.50E-04	1.78E+13	1.30E-03
[1,2,3,2]	1.64E+02	4.50E-04	2.09E+13	1.19E-03
[2,2,3,2]	1.51E+02	4.00E-04	2.96E+13	1.00E-03
[3,2,3,2]	1.56E+02	3.90E-04	2.93E+13	1.00E-03
[4,2,3,2]	1.64E+02	4.20E-04	2.51E+13	1.09E-03
[5,2,3,2]	1.51E+02	4.80E-04	1.74E+13	1.30E-03
[1,3,1,2]	1.44E+02	3.80E-04	2.09E+13	1.22E-03
[2,3,1,2]	1.45E+02	3.30E-04	2.82E+13	1.04E-03
[3,3,1,2]	1.60E+02	3.20E-04	2.76E+13	1.05E-03
[4,3,1,2]	1.44E+02	3.60E-04	2.38E+13	1.13E-03
[5,3,1,2]	1.45E+02	4.20E-04	1.67E+13	1.35E-03
[1,3,2,2]	1.61E+02	4.10E-04	1.96E+13	1.24E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[2,3,2,2]	1.48E+02	3.70E-04	2.72E+13	1.05E-03
[3,3,2,2]	1.53E+02	3.60E-04	2.69E+13	1.06E-03
[4,3,2,2]	1.61E+02	3.90E-04	2.26E+13	1.15E-03
[5,3,2,2]	1.48E+02	4.60E-04	1.56E+13	1.38E-03
[1,3,3,2]	1.62E+02	4.50E-04	1.92E+13	1.25E-03
[2,3,3,2]	1.49E+02	4.00E-04	2.66E+13	1.06E-03
[3,3,3,2]	1.53E+02	3.90E-04	2.61E+13	1.06E-03
[4,3,3,2]	1.61E+02	4.20E-04	2.21E+13	1.15E-03
[5,3,3,2]	1.49E+02	4.90E-04	1.52E+13	1.39E-03
[1,4,1,2]	1.50E+02	3.60E-04	1.72E+13	1.35E-03
[2,4,1,2]	1.52E+02	3.20E-04	2.28E+13	1.16E-03
[3,4,1,2]	1.66E+02	3.20E-04	2.21E+13	1.18E-03
[4,4,1,2]	1.50E+02	3.50E-04	1.88E+13	1.28E-03
[5,4,1,2]	1.52E+02	4.20E-04	1.30E+13	1.54E-03
[1,4,2,2]	1.65E+02	4.00E-04	1.59E+13	1.38E-03
[2,4,2,2]	1.52E+02	3.60E-04	2.17E+13	1.18E-03
[3,4,2,2]	1.56E+02	3.50E-04	2.12E+13	1.19E-03
[4,4,2,2]	1.65E+02	3.90E-04	1.77E+13	1.31E-03
[5,4,2,2]	1.52E+02	4.60E-04	1.21E+13	1.59E-03
[1,4,3,2]	1.65E+02	4.40E-04	1.54E+13	1.39E-03
[2,4,3,2]	1.52E+02	3.90E-04	2.11E+13	1.19E-03
[3,4,3,2]	1.57E+02	3.90E-04	2.05E+13	1.20E-03
[4,4,3,2]	1.66E+02	4.20E-04	1.72E+13	1.31E-03
[5,4,3,2]	1.52E+02	5.00E-04	1.16E+13	1.60E-03

5.6 Case-2D

Table 52. Number densities for Case-2D, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1,1]	4.42282E-03	1.91603E-02	2.13917E-08	6.35627E-05	6.09474E-06	1.57669E-06	1.01981E-07	6.35589E-08	2.69672E-07
[1,1,2,1]	3.20485E-03	1.86810E-02	1.24527E-06	2.49461E-04	6.13418E-05	3.59640E-05	5.74119E-06	5.84211E-08	4.00200E-07
[1,1,3,1]	2.32055E-03	1.82120E-02	5.51676E-06	2.96873E-04	9.97392E-05	8.35371E-05	2.32584E-05	5.11181E-08	4.26536E-07
[1,2,1,1]	4.50057E-03	1.91736E-02	1.21408E-08	5.89424E-05	4.33490E-06	9.98115E-07	4.73813E-08	6.47251E-08	2.75372E-07
[1,2,2,1]	3.26100E-03	1.86938E-02	1.16484E-06	2.57740E-04	5.79123E-05	3.47287E-05	5.08464E-06	5.98837E-08	4.41077E-07
[1,2,3,1]	2.36117E-03	1.82243E-02	5.34557E-06	3.08555E-04	9.67087E-05	8.36062E-05	2.19328E-05	5.25624E-08	4.73405E-07
[1,3,1,1]	4.50469E-03	1.91975E-02	6.91032E-09	4.25171E-05	3.24283E-06	5.76422E-07	2.79393E-08	5.79721E-08	2.46446E-07
[1,3,2,1]	3.26464E-03	1.87174E-02	1.09480E-06	2.41714E-04	5.93413E-05	3.20182E-05	5.00986E-06	5.36476E-08	3.85803E-07
[1,3,3,1]	2.36365E-03	1.82473E-02	5.17659E-06	2.92989E-04	9.99387E-05	7.93072E-05	2.19478E-05	4.69425E-08	4.06803E-07
[2,1,1,1]	4.05266E-03	1.90259E-02	1.35796E-07	1.35247E-04	1.92595E-05	7.50374E-06	7.00870E-07	6.72183E-08	3.55347E-07
[2,1,2,1]	2.93588E-03	1.85487E-02	2.02202E-06	2.66718E-04	7.29050E-05	5.02289E-05	9.48668E-06	6.05247E-08	4.32929E-07
[2,1,3,1]	2.12506E-03	1.80827E-02	7.17437E-06	2.98531E-04	1.04268E-04	9.56261E-05	2.97895E-05	5.27060E-08	4.58212E-07
[2,2,1,1]	4.21847E-03	1.90565E-02	7.87039E-08	1.30687E-04	1.42192E-05	5.02873E-06	3.38072E-07	7.12214E-08	3.82292E-07
[2,2,2,1]	3.05599E-03	1.85786E-02	1.77713E-06	2.83655E-04	6.66949E-05	4.73019E-05	7.61803E-06	6.48062E-08	4.85360E-07
[2,2,3,1]	2.21230E-03	1.81118E-02	6.71566E-06	3.21149E-04	9.92209E-05	9.57709E-05	2.65516E-05	5.67574E-08	5.21000E-07
[2,3,1,1]	4.21850E-03	1.91123E-02	4.56545E-08	9.38611E-05	1.11577E-05	3.03244E-06	2.14916E-07	6.14206E-08	3.23074E-07
[2,3,2,1]	3.05685E-03	1.86337E-02	1.55852E-06	2.46053E-04	6.91526E-05	4.09910E-05	7.38346E-06	5.56104E-08	3.90752E-07
[2,3,3,1]	2.21273E-03	1.81655E-02	6.24609E-06	2.84185E-04	1.05031E-04	8.66443E-05	2.65935E-05	4.84046E-08	4.08937E-07
[3,1,1,1]	3.72265E-03	1.88963E-02	3.78375E-07	1.89856E-04	3.41971E-05	1.63773E-05	1.94463E-06	6.56232E-08	3.96000E-07
[3,1,2,1]	2.69613E-03	1.84230E-02	3.01650E-06	2.82281E-04	8.30580E-05	6.33152E-05	1.39675E-05	5.81771E-08	4.60602E-07
[3,1,3,1]	1.95102E-03	1.79599E-02	9.05831E-06	3.03276E-04	1.08528E-04	1.05113E-04	3.65589E-05	5.05601E-08	4.81790E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[3,2,1,1]	3.96266E-03	1.89434E-02	2.22360E-07	1.89715E-04	2.60324E-05	1.14712E-05	9.67872E-07	7.07086E-08	4.32316E-07
[3,2,2,1]	2.87041E-03	1.84689E-02	2.54504E-06	3.07165E-04	7.51528E-05	5.92106E-05	1.06168E-05	6.35486E-08	5.23454E-07
[3,2,3,1]	2.07753E-03	1.80046E-02	8.26341E-06	3.34603E-04	1.02335E-04	1.05915E-04	3.13742E-05	5.56238E-08	5.56637E-07
[3,3,1,1]	3.95609E-03	1.90298E-02	1.30693E-07	1.35532E-04	2.09624E-05	7.05343E-06	6.35224E-07	6.00672E-08	3.54166E-07
[3,3,2,1]	2.86633E-03	1.85537E-02	2.12011E-06	2.51561E-04	7.75670E-05	4.95148E-05	1.01470E-05	5.35086E-08	4.08219E-07
[3,3,3,1]	2.07442E-03	1.80873E-02	7.42720E-06	2.79710E-04	1.09026E-04	9.27910E-05	3.13728E-05	4.63956E-08	4.23483E-07
[4,1,1,1]	3.47332E-03	1.87938E-02	6.99944E-07	2.25146E-04	4.66544E-05	2.50748E-05	3.46642E-06	6.25884E-08	4.27560E-07
[4,1,2,1]	2.51461E-03	1.83218E-02	4.02651E-06	2.94287E-04	9.07324E-05	7.32771E-05	1.81055E-05	5.51072E-08	4.81573E-07
[4,1,3,1]	1.81949E-03	1.78613E-02	1.08200E-05	3.08587E-04	1.11940E-04	1.11623E-04	4.22480E-05	4.78447E-08	4.96315E-07
[4,2,1,1]	3.76623E-03	1.88537E-02	4.14923E-07	2.30557E-04	3.62957E-05	1.81392E-05	1.76365E-06	6.78010E-08	4.69657E-07
[4,2,2,1]	2.72716E-03	1.83804E-02	3.31707E-06	3.25161E-04	8.19084E-05	6.87063E-05	1.34061E-05	6.05423E-08	5.49897E-07
[4,2,3,1]	1.97380E-03	1.79183E-02	9.70260E-06	3.45997E-04	1.05253E-04	1.13216E-04	3.54881E-05	5.29563E-08	5.77412E-07
[4,3,1,1]	3.75265E-03	1.89642E-02	2.45823E-07	1.63885E-04	2.97166E-05	1.12892E-05	1.18096E-06	5.72047E-08	3.76606E-07
[4,3,2,1]	2.71831E-03	1.84890E-02	2.67247E-06	2.56567E-04	8.38774E-05	5.61834E-05	1.26859E-05	5.05270E-08	4.22514E-07
[4,3,3,1]	1.96717E-03	1.80242E-02	8.50884E-06	2.78124E-04	1.11939E-04	9.70885E-05	3.54097E-05	4.36637E-08	4.33092E-07
[5,1,1,1]	3.30758E-03	1.87228E-02	1.01146E-06	2.47195E-04	5.53154E-05	3.16895E-05	4.79379E-06	5.83809E-08	4.54831E-07
[5,1,2,1]	2.39475E-03	1.82524E-02	4.86926E-06	3.03004E-04	9.58371E-05	7.97913E-05	2.11812E-05	5.11914E-08	5.00326E-07
[5,1,3,1]	1.73240E-03	1.77933E-02	1.22230E-05	3.13385E-04	1.14367E-04	1.15594E-04	4.62830E-05	4.44920E-08	5.08663E-07
[5,2,1,1]	3.63398E-03	1.87913E-02	6.02557E-07	2.57046E-04	4.36093E-05	2.34271E-05	2.47415E-06	6.25594E-08	5.00849E-07
[5,2,2,1]	2.63153E-03	1.83193E-02	3.95476E-06	3.38088E-04	8.65588E-05	7.50949E-05	1.54903E-05	5.55669E-08	5.71753E-07
[5,2,3,1]	1.90445E-03	1.78588E-02	1.08389E-05	3.54859E-04	1.07399E-04	1.17879E-04	3.84154E-05	4.86090E-08	5.93166E-07
[5,3,1,1]	3.61533E-03	1.89185E-02	3.58807E-07	1.82037E-04	3.60711E-05	1.46747E-05	1.67511E-06	5.29469E-08	3.96691E-07
[5,3,2,1]	2.61859E-03	1.84442E-02	3.12602E-06	2.60745E-04	8.80270E-05	6.06606E-05	1.45913E-05	4.64881E-08	4.35761E-07
[5,3,3,1]	1.89492E-03	1.79805E-02	9.36059E-06	2.78358E-04	1.13822E-04	9.97582E-05	3.82733E-05	4.01287E-08	4.41147E-07
[6,1,1,1]	3.21208E-03	1.86838E-02	1.23490E-06	2.58202E-04	6.08253E-05	3.52908E-05	5.68011E-06	5.05556E-08	4.65715E-07
[6,1,2,1]	2.32555E-03	1.82143E-02	5.43426E-06	3.06787E-04	9.94430E-05	8.27751E-05	2.31057E-05	4.42825E-08	5.01036E-07
[6,1,3,1]	1.68232E-03	1.77562E-02	1.31404E-05	3.15204E-04	1.16542E-04	1.16898E-04	4.87518E-05	3.84833E-08	5.03720E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[6,2,1,1]	3.55662E-03	1.87570E-02	7.37264E-07	2.70737E-04	4.83462E-05	2.64107E-05	2.95874E-06	5.21743E-08	5.09365E-07
[6,2,2,1]	2.57552E-03	1.82858E-02	4.37849E-06	3.44177E-04	8.99175E-05	7.81682E-05	1.68069E-05	4.62805E-08	5.68270E-07
[6,2,3,1]	1.86380E-03	1.78261E-02	1.15816E-05	3.58696E-04	1.09514E-04	1.19631E-04	4.02472E-05	4.05783E-08	5.83274E-07
[6,3,1,1]	3.53635E-03	1.88934E-02	4.39895E-07	1.91658E-04	4.00050E-05	1.66131E-05	2.00588E-06	4.52001E-08	4.07976E-07
[6,3,2,1]	2.56139E-03	1.84197E-02	3.42552E-06	2.62805E-04	9.07967E-05	6.27351E-05	1.57566E-05	3.95760E-08	4.39621E-07
[6,3,3,1]	1.85338E-03	1.79566E-02	9.91721E-06	2.78259E-04	1.15380E-04	1.00632E-04	3.99937E-05	3.41902E-08	4.40347E-07
[1,1,1,2]	4.42532E-03	1.91793E-02	2.10411E-08	5.14812E-05	4.91030E-06	1.26358E-06	8.11130E-08	6.29038E-08	2.66546E-07
[1,1,2,2]	3.21329E-03	1.87880E-02	1.22576E-06	2.04193E-04	5.00009E-05	2.90272E-05	4.60254E-06	5.57689E-08	3.83248E-07
[1,1,3,2]	2.33115E-03	1.84016E-02	5.40909E-06	2.45202E-04	8.24432E-05	6.78878E-05	1.87282E-05	4.77796E-08	4.00776E-07
[1,2,1,2]	4.50205E-03	1.91898E-02	1.19600E-08	4.78140E-05	3.50188E-06	8.06863E-07	3.80852E-08	6.41166E-08	2.72449E-07
[1,2,2,2]	3.26925E-03	1.87987E-02	1.14695E-06	2.10739E-04	4.71271E-05	2.80525E-05	4.07695E-06	5.71488E-08	4.22969E-07
[1,2,3,2]	2.37184E-03	1.84120E-02	5.24175E-06	2.54690E-04	7.98672E-05	6.79217E-05	1.76504E-05	4.90747E-08	4.45438E-07
[1,3,1,2]	4.50631E-03	1.92091E-02	6.80271E-09	3.45716E-05	2.62362E-06	4.65783E-07	2.24435E-08	5.75832E-08	2.44506E-07
[1,3,2,2]	3.27248E-03	1.88176E-02	1.07963E-06	1.97768E-04	4.83172E-05	2.58717E-05	4.02057E-06	5.13014E-08	3.69586E-07
[1,3,3,2]	2.37416E-03	1.84306E-02	5.07832E-06	2.41899E-04	8.25096E-05	6.44389E-05	1.76679E-05	4.39369E-08	3.82869E-07
[2,1,1,2]	4.05711E-03	1.90700E-02	1.34408E-07	1.09777E-04	1.55729E-05	6.03488E-06	5.59682E-07	6.58177E-08	3.48291E-07
[2,1,2,2]	2.94521E-03	1.86791E-02	1.98917E-06	2.19046E-04	5.96945E-05	4.06084E-05	7.61454E-06	5.74636E-08	4.12329E-07
[2,1,3,2]	2.13551E-03	1.82948E-02	7.03480E-06	2.46840E-04	8.65199E-05	7.78578E-05	2.40432E-05	4.90364E-08	4.29603E-07
[2,2,1,2]	4.22167E-03	1.90950E-02	7.77705E-08	1.05945E-04	1.14838E-05	4.05492E-06	2.71055E-07	6.97576E-08	3.74863E-07
[2,2,2,2]	3.06484E-03	1.87041E-02	1.75031E-06	2.32467E-04	5.44657E-05	3.82224E-05	6.10934E-06	6.14587E-08	4.62721E-07
[2,2,3,2]	2.22302E-03	1.83193E-02	6.58347E-06	2.65206E-04	8.21367E-05	7.79625E-05	2.13971E-05	5.27507E-08	4.88480E-07
[2,3,1,2]	4.22244E-03	1.91401E-02	4.51929E-08	7.61932E-05	9.01038E-06	2.43768E-06	1.71533E-07	6.05241E-08	3.18700E-07
[2,3,2,2]	3.06563E-03	1.87487E-02	1.53618E-06	2.01904E-04	5.64554E-05	3.31641E-05	5.92487E-06	5.30594E-08	3.73782E-07
[2,3,3,2]	2.22384E-03	1.83633E-02	6.12272E-06	2.34998E-04	8.68978E-05	7.04914E-05	2.14198E-05	4.51953E-08	3.84176E-07
[3,1,1,2]	3.72888E-03	1.89642E-02	3.74260E-07	1.54689E-04	2.77280E-05	1.31958E-05	1.55486E-06	6.35821E-08	3.84438E-07
[3,1,2,2]	2.70651E-03	1.85758E-02	2.96439E-06	2.32296E-04	6.82631E-05	5.12705E-05	1.12128E-05	5.49248E-08	4.37095E-07
[3,1,3,2]	1.96153E-03	1.81935E-02	8.87993E-06	2.50935E-04	9.02663E-05	8.57773E-05	2.95395E-05	4.68153E-08	4.50322E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[3,2,1,2]	3.96677E-03	1.90027E-02	2.19862E-07	1.54254E-04	2.10802E-05	9.25640E-06	7.77343E-07	6.86217E-08	4.20307E-07
[3,2,2,2]	2.87979E-03	1.86141E-02	2.50581E-06	2.52128E-04	6.15631E-05	4.78986E-05	8.51693E-06	5.99384E-08	4.96459E-07
[3,2,3,2]	2.08833E-03	1.82311E-02	8.09614E-06	2.76526E-04	8.49166E-05	8.62938E-05	2.53041E-05	5.13640E-08	5.19841E-07
[3,3,1,2]	3.96125E-03	1.90727E-02	1.29472E-07	1.10374E-04	1.69652E-05	5.69836E-06	5.09555E-07	5.87754E-08	3.46888E-07
[3,3,2,2]	2.87559E-03	1.86830E-02	2.08879E-06	2.06687E-04	6.35126E-05	4.00849E-05	8.15023E-06	5.08746E-08	3.89387E-07
[3,3,3,2]	2.08567E-03	1.82989E-02	7.27701E-06	2.31435E-04	9.04322E-05	7.55678E-05	2.52897E-05	4.32261E-08	3.96936E-07
[4,1,1,2]	3.48074E-03	1.88808E-02	6.91091E-07	1.83622E-04	3.79164E-05	2.02148E-05	2.77387E-06	6.02078E-08	4.12479E-07
[4,1,2,2]	2.52515E-03	1.84923E-02	3.95594E-06	2.42650E-04	7.47865E-05	5.94315E-05	1.45492E-05	5.17431E-08	4.55154E-07
[4,1,3,2]	1.82985E-03	1.81118E-02	1.06025E-05	2.55667E-04	9.33005E-05	9.12379E-05	3.41794E-05	4.41278E-08	4.62032E-07
[4,2,1,2]	3.77161E-03	1.89298E-02	4.09164E-07	1.87586E-04	2.94173E-05	1.46212E-05	1.41353E-06	6.52784E-08	4.53702E-07
[4,2,2,2]	2.73682E-03	1.85411E-02	3.26467E-06	2.67381E-04	6.72748E-05	5.56235E-05	1.07612E-05	5.68291E-08	5.19676E-07
[4,2,3,2]	1.98457E-03	1.81597E-02	9.50242E-06	2.86258E-04	8.74985E-05	9.23359E-05	2.86438E-05	4.87717E-08	5.37773E-07
[4,3,1,2]	3.75913E-03	1.90192E-02	2.43444E-07	1.33613E-04	2.40796E-05	9.12475E-06	9.47453E-07	5.56755E-08	3.67228E-07
[4,3,2,2]	2.72810E-03	1.86296E-02	2.63013E-06	2.11180E-04	6.88181E-05	4.55199E-05	1.01963E-05	4.78505E-08	4.01572E-07
[4,3,3,2]	1.97835E-03	1.82465E-02	8.33467E-06	2.30399E-04	9.30301E-05	7.91470E-05	2.85647E-05	4.06053E-08	4.04896E-07
[5,1,1,2]	3.31580E-03	1.88230E-02	9.97305E-07	2.01672E-04	4.50076E-05	2.55595E-05	3.83887E-06	5.58792E-08	4.37030E-07
[5,1,2,2]	2.40512E-03	1.84347E-02	4.78343E-06	2.50135E-04	7.91623E-05	6.48150E-05	1.70512E-05	4.79499E-08	4.71372E-07
[5,1,3,2]	1.74273E-03	1.80554E-02	1.19715E-05	2.59918E-04	9.54645E-05	9.45699E-05	3.74698E-05	4.09112E-08	4.72753E-07
[5,2,1,2]	3.64010E-03	1.88791E-02	5.93758E-07	2.09240E-04	3.53521E-05	1.88950E-05	1.98304E-06	5.99296E-08	4.81711E-07
[5,2,2,2]	2.64146E-03	1.84907E-02	3.88956E-06	2.78349E-04	7.11776E-05	6.08699E-05	1.24400E-05	5.19859E-08	5.39466E-07
[5,2,3,2]	1.91526E-03	1.81104E-02	1.06132E-05	2.93762E-04	8.94553E-05	9.61657E-05	3.10236E-05	4.46909E-08	5.51713E-07
[5,3,1,2]	3.62246E-03	1.89819E-02	3.55224E-07	1.48523E-04	2.92584E-05	1.18562E-05	1.34429E-06	5.12778E-08	3.85203E-07
[5,3,2,2]	2.62892E-03	1.85927E-02	3.07222E-06	2.14935E-04	7.23136E-05	4.91736E-05	1.17258E-05	4.38926E-08	4.12847E-07
[5,3,3,2]	1.90608E-03	1.82103E-02	9.16521E-06	2.30726E-04	9.47397E-05	8.13622E-05	3.08945E-05	3.72441E-08	4.12110E-07
[6,1,1,2]	3.22060E-03	1.87910E-02	1.21650E-06	2.10866E-04	4.95071E-05	2.84856E-05	4.55049E-06	4.81831E-08	4.45581E-07
[6,1,2,2]	2.33600E-03	1.84033E-02	5.33458E-06	2.53418E-04	8.22020E-05	6.72892E-05	1.86063E-05	4.13455E-08	4.71207E-07
[6,1,3,2]	1.69254E-03	1.80246E-02	1.28635E-05	2.61610E-04	9.73444E-05	9.56915E-05	3.94753E-05	3.52924E-08	4.67188E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[6,2,1,2]	3.56305E-03	1.88510E-02	7.26062E-07	2.20614E-04	3.92086E-05	2.13104E-05	2.37229E-06	4.98243E-08	4.88544E-07
[6,2,2,2]	2.58559E-03	1.84631E-02	4.30325E-06	2.83552E-04	7.39814E-05	6.34007E-05	1.35072E-05	4.31823E-08	5.34949E-07
[6,2,3,2]	1.87469E-03	1.80835E-02	1.13319E-05	2.97073E-04	9.12107E-05	9.76813E-05	3.25048E-05	3.71264E-08	5.40695E-07
[6,3,1,2]	3.54369E-03	1.89613E-02	4.35477E-07	1.56522E-04	3.24851E-05	1.34157E-05	1.61062E-06	4.36918E-08	3.95283E-07
[6,3,2,2]	2.57186E-03	1.85725E-02	3.36348E-06	2.16708E-04	7.46404E-05	5.08907E-05	1.26647E-05	3.73342E-08	4.16144E-07
[6,3,3,2]	1.86454E-03	1.81906E-02	9.70180E-06	2.30732E-04	9.60809E-05	8.21237E-05	3.22952E-05	3.16474E-08	4.11023E-07

Table 53. Number densities for Case-2D, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1,1]	2.01266E-07	2.22906E-06	1.63802E-05	7.61531E-07	4.68745E-08	7.97737E-08	1.88374E-09	9.11411E-06	9.71088E-06
[1,1,2,1]	4.51207E-06	1.50313E-05	8.83644E-05	3.85380E-06	3.74976E-08	6.30751E-08	1.47671E-09	4.63208E-05	2.11701E-05
[1,1,3,1]	1.30365E-05	2.67438E-05	1.51209E-04	6.23012E-06	2.95399E-08	4.92738E-08	1.14544E-09	7.55379E-05	1.91493E-05
[1,2,1,1]	1.28225E-07	2.26895E-06	1.21830E-05	5.68066E-07	3.49683E-08	5.95276E-08	1.40585E-09	6.80072E-06	7.24646E-06
[1,2,2,1]	4.27002E-06	1.50681E-05	8.46274E-05	3.70067E-06	2.81016E-08	4.72607E-08	1.10634E-09	4.45113E-05	1.92510E-05
[1,2,3,1]	1.26923E-05	2.67496E-05	1.47994E-04	6.11028E-06	2.21955E-08	3.70058E-08	8.60063E-10	7.41327E-05	1.76656E-05
[1,3,1,1]	9.66981E-08	2.03311E-06	1.20298E-05	5.65132E-07	3.47978E-08	5.92775E-08	1.40074E-09	6.77148E-06	7.21773E-06
[1,3,2,1]	3.98135E-06	1.48541E-05	8.44235E-05	3.69574E-06	2.78081E-08	4.68084E-08	1.09648E-09	4.44581E-05	1.91978E-05
[1,3,3,1]	1.21901E-05	2.65605E-05	1.47801E-04	6.10597E-06	2.19410E-08	3.66253E-08	8.51892E-10	7.40870E-05	1.76213E-05
[2,1,1,1]	8.93471E-07	4.59054E-06	3.67535E-05	1.68080E-06	5.67122E-08	9.57598E-08	2.23930E-09	2.00678E-05	1.92511E-05
[2,1,2,1]	6.67709E-06	1.72230E-05	1.06487E-04	4.57565E-06	4.50872E-08	7.53487E-08	1.74811E-09	5.49538E-05	2.58182E-05
[2,1,3,1]	1.61854E-05	2.88027E-05	1.66870E-04	6.78997E-06	3.55942E-08	5.90010E-08	1.35928E-09	8.23083E-05	2.22258E-05
[2,2,1,1]	5.69874E-07	4.76336E-06	2.73753E-05	1.25758E-06	4.25407E-08	7.18690E-08	1.68122E-09	1.50210E-05	1.44165E-05
[2,2,2,1]	6.00039E-06	1.73740E-05	9.82629E-05	4.24240E-06	3.39944E-08	5.67982E-08	1.31768E-09	5.10195E-05	2.20669E-05
[2,2,3,1]	1.52999E-05	2.88677E-05	1.59803E-04	6.52870E-06	2.68901E-08	4.45454E-08	1.02600E-09	7.92456E-05	1.93178E-05
[2,3,1,1]	4.33306E-07	4.18625E-06	2.73065E-05	1.27001E-06	4.35126E-08	7.36350E-08	1.72497E-09	1.51916E-05	1.46129E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[2,3,2,1]	5.28322E-06	1.68428E-05	9.80386E-05	4.24663E-06	3.45819E-08	5.79031E-08	1.34561E-09	5.10898E-05	2.21636E-05
[2,3,3,1]	1.41094E-05	2.83964E-05	1.59518E-04	6.52947E-06	2.72257E-08	4.52208E-08	1.04363E-09	7.92735E-05	1.93689E-05
[3,1,1,1]	1.95862E-06	6.90841E-06	5.60682E-05	2.52326E-06	5.21387E-08	8.76336E-08	2.03991E-09	3.00989E-05	2.57838E-05
[3,1,2,1]	9.02402E-06	1.93675E-05	1.23434E-04	5.23289E-06	4.12648E-08	6.87089E-08	1.58746E-09	6.28307E-05	2.86699E-05
[3,1,3,1]	1.93505E-05	3.08337E-05	1.81472E-04	7.29870E-06	3.25764E-08	5.38068E-08	1.23446E-09	8.84864E-05	2.40156E-05
[3,2,1,1]	1.25807E-06	7.24204E-06	4.19602E-05	1.89902E-06	3.96933E-08	6.67654E-08	1.55509E-09	2.26624E-05	1.94487E-05
[3,2,2,1]	7.82759E-06	1.96528E-05	1.11180E-04	4.74274E-06	3.15587E-08	5.25404E-08	1.21406E-09	5.70432E-05	2.37634E-05
[3,2,3,1]	1.78899E-05	3.09712E-05	1.70987E-04	6.91510E-06	2.50105E-08	4.12863E-08	9.47106E-10	8.39873E-05	2.02191E-05
[3,3,1,1]	9.62279E-07	6.29478E-06	4.19184E-05	1.92873E-06	4.07978E-08	6.87876E-08	1.60516E-09	2.30617E-05	1.98536E-05
[3,3,2,1]	6.67470E-06	1.87725E-05	1.10868E-04	4.75757E-06	3.22460E-08	5.38467E-08	1.24710E-09	5.72595E-05	2.40028E-05
[3,3,3,1]	1.60221E-05	3.01820E-05	1.70510E-04	6.92084E-06	2.53514E-08	4.20051E-08	9.66235E-10	8.40933E-05	2.03511E-05
[4,1,1,1]	3.07508E-06	9.12803E-06	7.13571E-05	3.17172E-06	4.03669E-08	6.76101E-08	1.56818E-09	3.78420E-05	2.85191E-05
[4,1,2,1]	1.10505E-05	2.14108E-05	1.36775E-04	5.73637E-06	3.19640E-08	5.30636E-08	1.22188E-09	6.89169E-05	2.90316E-05
[4,1,3,1]	2.19286E-05	3.27561E-05	1.92923E-04	7.68582E-06	2.52285E-08	4.15474E-08	9.49969E-10	9.32594E-05	2.39525E-05
[4,2,1,1]	1.98830E-06	9.62192E-06	5.36525E-05	2.40009E-06	3.11807E-08	5.22695E-08	1.21328E-09	2.86477E-05	2.16677E-05
[4,2,2,1]	9.39452E-06	2.18299E-05	1.21511E-04	5.13264E-06	2.48834E-08	4.13078E-08	9.51472E-10	6.17812E-05	2.37451E-05
[4,2,3,1]	1.99781E-05	3.29712E-05	1.79889E-04	7.21346E-06	1.96964E-08	3.24206E-08	7.41305E-10	8.77126E-05	1.98621E-05
[4,3,1,1]	1.52722E-06	8.30575E-06	5.36142E-05	2.44556E-06	3.21931E-08	5.41286E-08	1.25933E-09	2.92571E-05	2.22172E-05
[4,3,2,1]	7.87224E-06	2.05990E-05	1.21055E-04	5.15557E-06	2.54202E-08	4.23568E-08	9.78383E-10	6.21144E-05	2.40657E-05
[4,3,3,1]	1.75661E-05	3.18588E-05	1.79185E-04	7.22265E-06	1.99442E-08	3.29783E-08	7.56603E-10	8.78787E-05	2.00383E-05
[5,1,1,1]	3.96610E-06	1.11985E-05	8.18270E-05	3.60553E-06	2.73058E-08	4.56124E-08	1.05489E-09	4.30679E-05	2.80274E-05
[5,1,2,1]	1.24749E-05	2.32950E-05	1.45790E-04	6.06707E-06	2.14709E-08	3.55558E-08	8.16354E-10	7.29968E-05	2.72112E-05
[5,1,3,1]	2.36408E-05	3.45016E-05	2.00661E-04	7.93764E-06	1.70203E-08	2.79599E-08	6.37435E-10	9.64728E-05	2.22738E-05
[5,2,1,1]	2.57663E-06	1.18186E-05	6.17421E-05	2.73937E-06	2.13380E-08	3.56770E-08	8.25802E-10	3.27346E-05	2.14190E-05
[5,2,2,1]	1.04862E-05	2.38212E-05	1.28547E-04	5.39069E-06	1.68809E-08	2.79548E-08	6.42044E-10	6.49889E-05	2.21231E-05
[5,2,3,1]	2.13339E-05	3.47829E-05	1.85932E-04	7.40791E-06	1.33967E-08	2.19980E-08	5.01547E-10	9.02413E-05	1.83297E-05
[5,3,1,1]	1.98201E-06	1.01678E-05	6.16679E-05	2.79523E-06	2.20143E-08	3.69313E-08	8.57015E-10	3.34856E-05	2.20083E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[5,3,2,1]	8.71055E-06	2.22728E-05	1.27993E-04	5.42025E-06	1.73203E-08	2.88055E-08	6.63739E-10	6.54171E-05	2.24829E-05
[5,3,3,1]	1.85741E-05	3.33746E-05	1.85058E-04	7.41980E-06	1.35909E-08	2.24321E-08	5.13411E-10	9.04544E-05	1.85248E-05
[6,1,1,1]	4.47287E-06	1.29879E-05	8.79544E-05	3.85365E-06	1.59911E-08	2.66553E-08	6.14802E-10	4.61228E-05	2.53577E-05
[6,1,2,1]	1.31931E-05	2.49058E-05	1.51026E-04	6.25177E-06	1.25870E-08	2.08047E-08	4.76465E-10	7.53846E-05	2.40032E-05
[6,1,3,1]	2.44122E-05	3.59673E-05	2.05097E-04	8.07307E-06	9.94465E-09	1.63054E-08	3.70751E-10	9.83473E-05	1.95540E-05
[6,2,1,1]	2.91320E-06	1.36513E-05	6.65510E-05	2.93681E-06	1.26958E-08	2.11840E-08	4.89087E-10	3.51620E-05	1.94778E-05
[6,2,2,1]	1.10251E-05	2.54728E-05	1.32688E-04	5.53636E-06	1.00475E-08	1.66096E-08	3.80573E-10	6.68952E-05	1.94797E-05
[6,2,3,1]	2.19336E-05	3.62744E-05	1.89456E-04	7.51327E-06	7.98481E-09	1.30881E-08	2.97681E-10	9.17460E-05	1.60532E-05
[6,3,1,1]	2.24160E-06	1.17570E-05	6.63413E-05	2.99430E-06	1.28263E-08	2.14743E-08	4.96985E-10	3.59451E-05	1.99805E-05
[6,3,2,1]	9.11604E-06	2.36884E-05	1.31956E-04	5.56555E-06	1.00491E-08	1.66828E-08	3.83404E-10	6.73304E-05	1.97749E-05
[6,3,3,1]	1.89906E-05	3.46403E-05	1.88379E-04	7.52348E-06	7.90186E-09	1.30200E-08	2.97229E-10	9.19498E-05	1.62013E-05
[1,1,1,2]	1.97811E-07	2.20588E-06	1.60950E-05	7.52457E-07	4.63260E-08	7.88809E-08	1.86331E-09	9.01157E-06	9.60311E-06
[1,1,2,2]	4.38908E-06	1.45728E-05	8.53574E-05	3.78330E-06	3.65774E-08	6.16711E-08	1.44641E-09	4.55628E-05	2.07888E-05
[1,1,3,2]	1.25382E-05	2.56059E-05	1.44368E-04	6.08504E-06	2.85470E-08	4.77745E-08	1.11363E-09	7.39832E-05	1.86656E-05
[1,2,1,2]	1.26212E-07	2.24754E-06	1.20033E-05	5.62485E-07	3.46315E-08	5.89816E-08	1.39339E-09	6.73798E-06	7.18057E-06
[1,2,2,2]	4.14860E-06	1.46072E-05	8.17978E-05	3.63386E-06	2.74001E-08	4.61901E-08	1.08322E-09	4.37919E-05	1.89090E-05
[1,2,3,2]	1.22006E-05	2.56087E-05	1.41352E-04	5.96875E-06	2.14122E-08	3.58201E-08	8.34816E-10	7.26145E-05	1.72182E-05
[1,3,1,2]	9.43054E-08	2.01939E-06	1.18734E-05	5.59823E-07	3.44758E-08	5.87488E-08	1.38856E-09	6.71083E-06	7.15377E-06
[1,3,2,2]	3.87681E-06	1.44070E-05	8.16537E-05	3.63065E-06	2.72103E-08	4.59050E-08	1.07713E-09	4.37579E-05	1.88759E-05
[1,3,3,2]	1.17250E-05	2.54360E-05	1.41207E-04	5.96562E-06	2.12282E-08	3.55502E-08	8.29093E-10	7.25816E-05	1.71870E-05
[2,1,1,2]	8.69716E-07	4.51754E-06	3.59262E-05	1.65822E-06	5.59059E-08	9.45040E-08	2.21168E-09	1.98203E-05	1.90167E-05
[2,1,2,2]	6.47109E-06	1.66538E-05	1.02498E-04	4.48515E-06	4.38891E-08	7.35372E-08	1.70954E-09	5.39858E-05	2.53049E-05
[2,1,3,2]	1.55313E-05	2.75264E-05	1.58922E-04	6.62482E-06	3.43763E-08	5.71813E-08	1.32127E-09	8.05424E-05	2.16333E-05
[2,2,1,2]	5.57198E-07	4.69026E-06	2.68083E-05	1.24202E-06	4.19436E-08	7.09334E-08	1.66052E-09	1.48503E-05	1.42529E-05
[2,2,2,2]	5.81578E-06	1.67937E-05	9.46925E-05	4.16054E-06	3.30920E-08	5.54381E-08	1.28877E-09	5.01424E-05	2.16373E-05
[2,2,3,2]	1.46771E-05	2.75802E-05	1.52304E-04	6.37132E-06	2.59241E-08	4.30991E-08	9.95671E-10	7.75595E-05	1.87967E-05
[2,3,1,2]	4.25154E-07	4.14088E-06	2.68039E-05	1.25453E-06	4.28995E-08	7.26522E-08	1.70282E-09	1.50178E-05	1.44445E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[2,3,2,2]	5.12928E-06	1.63045E-05	9.45807E-05	4.16706E-06	3.37101E-08	5.65768E-08	1.31716E-09	5.02360E-05	2.17533E-05
[2,3,3,2]	1.35315E-05	2.71517E-05	1.52087E-04	6.37285E-06	2.62309E-08	4.37126E-08	1.01161E-09	7.75935E-05	1.88501E-05
[3,1,1,2]	1.90933E-06	6.76270E-06	5.45372E-05	2.48431E-06	5.11605E-08	8.61282E-08	2.00719E-09	2.96773E-05	2.54205E-05
[3,1,2,2]	8.70771E-06	1.86792E-05	1.18408E-04	5.12125E-06	3.99923E-08	6.67804E-08	1.54641E-09	6.16393E-05	2.80391E-05
[3,1,3,2]	1.85278E-05	2.94128E-05	1.72404E-04	7.11299E-06	3.13240E-08	5.19301E-08	1.19518E-09	8.65028E-05	2.33307E-05
[3,2,1,2]	1.23190E-06	7.09540E-06	4.09205E-05	1.87282E-06	3.90614E-08	6.58035E-08	1.53437E-09	2.23802E-05	1.92059E-05
[3,2,2,2]	7.57518E-06	1.89434E-05	1.06835E-04	4.64540E-06	3.06263E-08	5.11372E-08	1.18434E-09	5.60033E-05	2.32602E-05
[3,2,3,2]	1.71188E-05	2.95262E-05	1.62611E-04	6.74151E-06	2.40182E-08	3.97993E-08	9.15942E-10	8.21286E-05	1.96352E-05
[3,3,1,2]	9.44754E-07	6.20372E-06	4.10339E-05	1.90394E-06	4.02401E-08	6.79252E-08	1.58634E-09	2.27882E-05	1.96184E-05
[3,3,2,2]	6.46693E-06	1.81393E-05	1.06737E-04	4.66453E-06	3.14329E-08	5.26224E-08	1.22118E-09	5.62638E-05	2.35358E-05
[3,3,3,2]	1.53454E-05	2.88182E-05	1.62299E-04	6.74982E-06	2.44651E-08	4.06749E-08	9.38371E-10	8.22590E-05	1.97875E-05
[4,1,1,2]	2.99140E-06	8.89738E-06	6.91689E-05	3.11818E-06	3.94944E-08	6.62805E-08	1.53959E-09	3.72664E-05	2.80756E-05
[4,1,2,2]	1.06535E-05	2.05994E-05	1.30910E-04	5.60876E-06	3.09963E-08	5.16178E-08	1.19162E-09	6.75577E-05	2.83656E-05
[4,1,3,2]	2.09555E-05	3.11924E-05	1.82948E-04	7.48381E-06	2.42247E-08	4.00487E-08	9.18788E-10	9.11019E-05	2.32388E-05
[4,2,1,2]	1.94281E-06	9.38615E-06	5.21205E-05	2.36243E-06	3.04946E-08	5.12151E-08	1.19038E-09	2.82436E-05	2.13511E-05
[4,2,2,2]	9.07881E-06	2.09875E-05	1.16508E-04	5.02246E-06	2.41051E-08	4.01423E-08	9.26944E-10	6.06061E-05	2.32118E-05
[4,2,3,2]	1.90881E-05	3.13719E-05	1.70791E-04	7.02676E-06	1.88844E-08	3.12080E-08	7.16009E-10	8.57131E-05	1.92607E-05
[4,3,1,2]	1.49497E-06	8.16065E-06	5.23419E-05	2.41124E-06	3.16198E-08	5.32386E-08	1.23984E-09	2.88809E-05	2.19258E-05
[4,3,2,2]	7.60891E-06	1.98696E-05	1.16348E-04	5.05088E-06	2.47103E-08	4.12834E-08	9.55594E-10	6.09943E-05	2.35714E-05
[4,3,3,2]	1.68067E-05	3.03805E-05	1.70349E-04	7.04046E-06	1.92471E-08	3.19377E-08	7.34944E-10	8.59236E-05	1.94730E-05
[5,1,1,2]	3.85737E-06	1.08790E-05	7.91381E-05	3.54112E-06	2.66504E-08	4.46172E-08	1.03360E-09	4.23771E-05	2.75601E-05
[5,1,2,2]	1.20166E-05	2.23658E-05	1.39352E-04	5.92910E-06	2.08335E-08	3.46126E-08	7.96829E-10	7.15279E-05	2.65762E-05
[5,1,3,2]	2.25783E-05	3.28030E-05	1.90044E-04	7.72420E-06	1.63000E-08	2.68833E-08	6.15025E-10	9.41904E-05	2.15859E-05
[5,2,1,2]	2.51646E-06	1.14902E-05	5.98384E-05	2.69339E-06	2.08364E-08	3.49132E-08	8.09395E-10	3.22420E-05	2.10790E-05
[5,2,2,2]	1.01178E-05	2.28513E-05	1.23067E-04	5.27120E-06	1.63072E-08	2.70938E-08	6.23905E-10	6.37140E-05	2.16015E-05
[5,2,3,2]	2.03672E-05	3.30402E-05	1.76325E-04	7.21203E-06	1.28139E-08	2.11260E-08	4.83349E-10	8.81406E-05	1.77539E-05
[5,3,1,2]	1.94224E-06	9.96376E-06	6.01122E-05	2.75442E-06	2.16223E-08	3.63324E-08	8.44114E-10	3.30401E-05	2.17075E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[5,3,2,2]	8.40302E-06	2.14500E-05	1.22866E-04	5.30699E-06	1.67899E-08	2.80003E-08	6.46604E-10	6.42038E-05	2.19983E-05
[5,3,3,2]	1.77547E-05	3.17895E-05	1.75785E-04	7.22993E-06	1.30979E-08	2.16953E-08	4.98076E-10	8.84138E-05	1.79933E-05
[6,1,1,2]	4.34465E-06	1.25844E-05	8.49649E-05	3.78304E-06	1.56110E-08	2.60843E-08	6.02731E-10	4.53657E-05	2.49217E-05
[6,1,2,2]	1.26981E-05	2.38708E-05	1.44228E-04	6.10714E-06	1.21651E-08	2.01743E-08	4.63281E-10	7.38426E-05	2.34282E-05
[6,1,3,2]	2.33071E-05	3.41509E-05	1.94108E-04	7.85331E-06	9.52642E-09	1.56834E-08	3.57899E-10	9.59926E-05	1.89390E-05
[6,2,1,2]	2.84261E-06	1.32402E-05	6.44214E-05	2.88598E-06	1.24001E-08	2.07381E-08	4.79606E-10	3.46177E-05	1.91568E-05
[6,2,2,2]	1.06319E-05	2.43929E-05	1.26919E-04	5.41136E-06	9.69730E-09	1.60852E-08	3.69564E-10	6.55595E-05	1.90066E-05
[6,2,3,2]	2.09222E-05	3.44071E-05	1.79536E-04	7.31183E-06	7.61538E-09	1.25351E-08	2.86126E-10	8.95813E-05	1.55342E-05
[6,3,1,2]	2.19564E-06	1.14999E-05	6.46201E-05	2.94995E-06	1.26086E-08	2.11463E-08	4.90017E-10	3.54615E-05	1.97043E-05
[6,3,2,2]	8.78938E-06	2.27855E-05	1.26595E-04	5.44787E-06	9.76361E-09	1.62549E-08	3.74433E-10	6.60675E-05	1.93423E-05
[6,3,3,2]	1.81452E-05	3.29624E-05	1.78852E-04	7.32929E-06	7.60679E-09	1.25789E-08	2.88059E-10	8.98581E-05	1.57304E-05

Table 54. Number densities for Case-2D, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone).

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1,1]	1.47300E-05	4.44760E-07	2.92090E-06	3.28202E-07	2.05937E-07	7.46703E-12	5.18939E-10
[1,1,2,1]	7.37349E-05	3.54675E-07	3.06230E-06	2.99333E-07	2.65789E-06	2.72952E-11	1.64490E-08
[1,1,3,1]	1.19343E-04	2.78623E-07	2.70803E-06	2.60758E-07	6.42254E-06	4.05013E-11	6.04654E-08
[1,2,1,1]	1.09910E-05	3.31803E-07	2.17303E-06	2.44120E-07	1.44090E-07	5.18266E-12	3.08589E-10
[1,2,2,1]	7.08200E-05	2.65791E-07	2.37862E-06	2.24414E-07	2.48925E-06	2.04814E-11	1.51368E-08
[1,2,3,1]	1.17087E-04	2.09313E-07	2.11157E-06	1.96212E-07	6.20720E-06	3.08614E-11	5.76392E-08
[1,3,1,1]	1.09476E-05	3.30274E-07	2.14055E-06	2.41034E-07	1.18935E-07	4.23219E-12	1.94433E-10
[1,3,2,1]	7.07393E-05	2.63129E-07	2.33730E-06	2.20302E-07	2.47185E-06	1.89006E-11	1.38473E-08
[1,3,3,1]	1.17019E-04	2.07048E-07	2.07230E-06	1.92313E-07	6.20535E-06	2.84717E-11	5.46024E-08
[2,1,1,1]	3.22573E-05	5.44360E-07	4.80908E-06	4.15164E-07	6.69508E-07	1.76531E-11	2.76152E-09
[2,1,2,1]	8.74177E-05	4.31448E-07	4.55340E-06	3.71573E-07	3.58309E-06	4.09871E-11	2.75184E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[2,1,3,1]	1.29953E-04	3.39638E-07	4.01537E-06	3.23351E-07	7.52628E-06	5.71875E-11	8.19909E-08
[2,2,1,1]	2.41458E-05	4.08347E-07	3.58528E-06	3.09590E-07	4.66622E-07	1.20935E-11	1.62899E-09
[2,2,2,1]	8.11147E-05	3.25230E-07	3.46438E-06	2.80008E-07	3.17648E-06	3.05164E-11	2.33400E-08
[2,2,3,1]	1.25062E-04	2.56487E-07	3.06859E-06	2.44652E-07	7.02934E-06	4.34559E-11	7.42344E-08
[2,3,1,1]	2.44343E-05	4.17757E-07	3.57401E-06	3.11183E-07	3.78335E-07	9.54587E-12	1.02228E-09
[2,3,2,1]	8.12440E-05	3.30998E-07	3.43332E-06	2.79463E-07	3.11511E-06	2.72898E-11	1.98779E-08
[2,3,3,1]	1.25125E-04	2.59893E-07	3.02660E-06	2.42679E-07	7.00794E-06	3.92802E-11	6.68042E-08
[3,1,1,1]	4.82292E-05	5.02175E-07	5.37587E-06	3.96247E-07	1.28571E-06	2.43544E-11	6.78346E-09
[3,1,2,1]	9.98336E-05	3.96291E-07	4.92583E-06	3.49999E-07	4.56482E-06	4.49530E-11	4.05672E-08
[3,1,3,1]	1.39573E-04	3.11963E-07	4.33074E-06	3.03799E-07	8.63272E-06	5.92227E-11	1.04756E-07
[3,2,1,1]	3.63171E-05	3.82275E-07	4.04265E-06	2.99127E-07	8.99154E-07	1.67449E-11	4.02289E-09
[3,2,2,1]	9.05921E-05	3.02976E-07	3.76265E-06	2.67111E-07	3.91054E-06	3.33950E-11	3.27362E-08
[3,2,3,1]	1.32413E-04	2.39380E-07	3.32916E-06	2.33413E-07	7.86960E-06	4.52570E-11	9.14171E-08
[3,3,1,1]	3.69823E-05	3.93174E-07	4.02462E-06	2.99652E-07	7.21927E-07	1.29677E-11	2.50084E-09
[3,3,2,1]	9.09669E-05	3.09876E-07	3.71874E-06	2.65262E-07	3.77905E-06	2.88866E-11	2.67253E-08
[3,3,3,1]	1.32613E-04	2.42979E-07	3.26333E-06	2.29437E-07	7.80153E-06	3.98081E-11	7.94017E-08
[4,1,1,1]	6.04948E-05	3.89801E-07	4.88148E-06	3.15725E-07	1.88252E-06	2.42345E-11	1.12993E-08
[4,1,2,1]	1.09360E-04	3.07766E-07	4.41094E-06	2.77697E-07	5.41271E-06	3.98161E-11	5.22134E-08
[4,1,3,1]	1.46935E-04	2.42224E-07	3.86842E-06	2.40558E-07	9.55328E-06	5.04421E-11	1.23240E-07
[4,2,1,1]	4.58035E-05	3.01069E-07	3.70717E-06	2.41341E-07	1.32274E-06	1.67810E-11	6.73889E-09
[4,2,2,1]	9.79935E-05	2.39490E-07	3.40479E-06	2.15333E-07	4.55534E-06	2.98052E-11	4.09530E-08
[4,2,3,1]	1.38129E-04	1.89000E-07	3.00556E-06	1.87658E-07	8.58220E-06	3.88384E-11	1.05081E-07
[4,3,1,1]	4.68139E-05	3.11108E-07	3.68275E-06	2.41372E-07	1.05741E-06	1.29067E-11	4.18577E-09
[4,3,2,1]	9.85653E-05	2.44971E-07	3.34572E-06	2.12352E-07	4.34712E-06	2.52037E-11	3.27055E-08
[4,3,3,1]	1.38437E-04	1.91698E-07	2.92414E-06	1.82969E-07	8.45888E-06	3.35381E-11	8.93011E-08
[5,1,1,1]	6.87180E-05	2.64344E-07	3.81939E-06	2.17939E-07	2.34590E-06	1.91580E-11	1.49375E-08
[5,1,2,1]	1.15675E-04	2.07298E-07	3.41363E-06	1.89832E-07	6.02609E-06	2.93063E-11	6.01072E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[5,1,3,1]	1.51811E-04	1.63840E-07	2.99565E-06	1.64990E-07	1.02108E-05	3.64540E-11	1.34494E-07
[5,2,1,1]	5.22393E-05	2.06564E-07	2.92592E-06	1.68286E-07	1.65458E-06	1.33431E-11	8.93923E-09
[5,2,2,1]	1.02945E-04	1.62938E-07	2.65632E-06	1.48457E-07	5.02418E-06	2.19454E-11	4.64030E-08
[5,2,3,1]	1.41938E-04	1.28908E-07	2.34399E-06	1.29548E-07	9.09370E-06	2.81050E-11	1.13163E-07
[5,3,1,1]	5.34817E-05	2.13339E-07	2.89605E-06	1.67526E-07	1.31975E-06	1.02072E-11	5.53820E-09
[5,3,2,1]	1.03676E-04	1.67404E-07	2.60323E-06	1.46383E-07	4.75795E-06	1.84277E-11	3.66039E-08
[5,3,3,1]	1.42328E-04	1.31011E-07	2.27003E-06	1.25987E-07	8.92627E-06	2.40324E-11	9.48988E-08
[6,1,1,1]	7.34706E-05	1.55346E-07	2.61596E-06	1.29197E-07	2.64103E-06	1.21525E-11	1.67934E-08
[6,1,2,1]	1.19297E-04	1.21931E-07	2.32580E-06	1.12451E-07	6.40794E-06	1.79744E-11	6.32629E-08
[6,1,3,1]	1.54565E-04	9.60698E-08	2.03779E-06	9.73490E-08	1.06156E-05	2.19049E-11	1.37747E-07
[6,2,1,1]	5.60210E-05	1.23313E-07	2.02465E-06	1.01268E-07	1.86896E-06	8.58064E-12	1.00747E-08
[6,2,2,1]	1.05825E-04	9.72943E-08	1.82747E-06	8.92128E-08	5.32079E-06	1.35996E-11	4.84371E-08
[6,2,3,1]	1.44124E-04	7.70832E-08	1.61307E-06	7.79355E-08	9.41695E-06	1.71655E-11	1.15123E-07
[6,3,1,1]	5.73164E-05	1.24787E-07	1.97961E-06	9.85108E-08	1.48507E-06	6.42499E-12	6.23239E-09
[6,3,2,1]	1.06569E-04	9.75172E-08	1.76615E-06	8.55519E-08	5.00878E-06	1.10980E-11	3.79379E-08
[6,3,3,1]	1.44503E-04	7.64766E-08	1.53957E-06	7.37418E-08	9.20920E-06	1.42488E-11	9.58240E-08
[1,1,1,2]	1.45658E-05	4.39611E-07	2.86537E-06	3.22485E-07	1.78899E-07	6.48615E-12	4.50162E-10
[1,1,2,2]	7.25542E-05	3.46181E-07	2.89807E-06	2.84609E-07	2.21112E-06	2.24888E-11	1.37328E-08
[1,1,3,2]	1.16950E-04	2.69494E-07	2.51001E-06	2.43033E-07	5.31194E-06	3.33520E-11	4.98657E-08
[1,2,1,2]	1.08906E-05	3.28644E-07	2.13782E-06	2.40519E-07	1.26327E-07	4.54346E-12	2.70157E-10
[1,2,2,2]	6.96996E-05	2.59313E-07	2.25033E-06	2.13259E-07	2.07245E-06	1.68713E-11	1.26350E-08
[1,2,3,2]	1.14750E-04	2.02107E-07	1.95377E-06	1.82502E-07	5.13059E-06	2.53587E-11	4.76477E-08
[1,3,1,2]	1.08502E-05	3.27244E-07	2.11045E-06	2.37902E-07	1.05997E-07	3.77082E-12	1.71996E-10
[1,3,2,2]	6.96495E-05	2.57622E-07	2.22074E-06	2.10348E-07	2.05931E-06	1.56264E-11	1.15938E-08
[1,3,3,2]	1.14703E-04	2.00496E-07	1.92415E-06	1.79578E-07	5.13166E-06	2.34777E-11	4.51438E-08
[2,1,1,2]	3.18654E-05	5.36788E-07	4.67773E-06	4.04172E-07	5.68315E-07	1.48383E-11	2.34527E-09
[2,1,2,2]	8.59134E-05	4.20280E-07	4.28859E-06	3.51464E-07	2.97254E-06	3.37507E-11	2.28572E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[2,1,3,2]	1.27239E-04	3.28325E-07	3.71207E-06	3.00512E-07	6.22267E-06	4.71658E-11	6.76032E-08
[2,2,1,2]	2.38753E-05	4.02742E-07	3.49326E-06	3.01749E-07	3.97923E-07	1.02017E-11	1.40525E-09
[2,2,2,2]	7.97516E-05	3.16824E-07	3.26195E-06	2.64816E-07	2.63756E-06	2.51064E-11	1.93868E-08
[2,2,3,2]	1.22471E-04	2.47512E-07	2.83122E-06	2.26935E-07	5.80635E-06	3.57950E-11	6.13742E-08
[2,3,1,2]	2.41576E-05	4.11973E-07	3.49373E-06	3.04177E-07	3.27083E-07	8.14021E-12	8.82907E-10
[2,3,2,2]	7.99168E-05	3.22869E-07	3.24687E-06	2.65358E-07	2.58940E-06	2.25086E-11	1.65797E-08
[2,3,3,2]	1.22542E-04	2.50636E-07	2.79794E-06	2.25378E-07	5.79310E-06	3.22614E-11	5.50488E-08
[3,1,1,2]	4.75657E-05	4.92997E-07	5.18133E-06	3.81883E-07	1.07947E-06	2.02266E-11	5.71025E-09
[3,1,2,2]	9.79858E-05	3.84391E-07	4.61140E-06	3.28616E-07	3.77779E-06	3.69243E-11	3.36142E-08
[3,1,3,2]	1.36530E-04	3.00298E-07	3.98472E-06	2.80567E-07	7.13380E-06	4.87675E-11	8.63479E-08
[3,2,1,2]	3.58734E-05	3.76346E-07	3.90948E-06	2.89472E-07	7.58135E-07	1.39708E-11	3.42998E-09
[3,2,2,2]	8.89795E-05	2.94264E-07	3.52466E-06	2.51133E-07	3.24092E-06	2.74681E-11	2.71242E-08
[3,2,3,2]	1.29561E-04	2.30131E-07	3.05711E-06	2.15192E-07	6.49772E-06	3.72168E-11	7.54707E-08
[3,3,1,2]	3.65500E-05	3.87908E-07	3.91550E-06	2.91840E-07	6.16259E-07	1.09245E-11	2.14002E-09
[3,3,2,2]	8.94225E-05	3.02265E-07	3.50805E-06	2.51369E-07	3.13786E-06	2.38506E-11	2.22122E-08
[3,3,3,2]	1.29798E-04	2.34695E-07	3.01470E-06	2.13179E-07	6.44632E-06	3.27546E-11	6.54012E-08
[4,1,1,2]	5.95930E-05	3.81595E-07	4.67121E-06	3.02203E-07	1.57216E-06	2.00345E-11	9.46883E-09
[4,1,2,2]	1.07257E-04	2.98692E-07	4.11673E-06	2.60248E-07	4.47449E-06	3.27651E-11	4.32330E-08
[4,1,3,2]	1.43630E-04	2.32838E-07	3.54842E-06	2.21548E-07	7.89749E-06	4.16655E-11	1.01481E-07
[4,2,1,2]	4.51698E-05	2.94622E-07	3.55456E-06	2.31243E-07	1.10827E-06	1.38775E-11	5.67758E-09
[4,2,2,2]	9.61751E-05	2.32201E-07	3.17671E-06	2.01660E-07	3.76975E-06	2.44949E-11	3.39143E-08
[4,2,3,2]	1.35066E-04	1.81409E-07	2.75147E-06	1.72533E-07	7.08610E-06	3.19859E-11	8.66481E-08
[4,3,1,2]	4.62211E-05	3.05702E-07	3.56142E-06	2.33414E-07	8.96075E-07	1.07784E-11	3.56005E-09
[4,3,2,2]	9.68309E-05	2.38312E-07	3.14544E-06	2.00353E-07	3.60662E-06	2.07572E-11	2.70856E-08
[4,3,3,2]	1.35440E-04	1.85177E-07	2.69903E-06	1.69824E-07	6.98842E-06	2.76090E-11	7.35076E-08
[5,1,1,2]	6.76388E-05	2.58164E-07	3.63483E-06	2.07554E-07	1.95364E-06	1.57909E-11	1.24799E-08
[5,1,2,2]	1.13409E-04	2.01315E-07	3.18108E-06	1.77786E-07	4.98273E-06	2.42286E-11	4.97039E-08

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[5,1,3,2]	1.48321E-04	1.57085E-07	2.73960E-06	1.51411E-07	8.43816E-06	3.00024E-11	1.10766E-07
[5,2,1,2]	5.14691E-05	2.01826E-07	2.79001E-06	1.60584E-07	1.38141E-06	1.10005E-11	7.50482E-09
[5,2,2,2]	1.00976E-04	1.57549E-07	2.46930E-06	1.38458E-07	4.15458E-06	1.80311E-11	3.83957E-08
[5,2,3,2]	1.38724E-04	1.23439E-07	2.14010E-06	1.18754E-07	7.50791E-06	2.31175E-11	9.32387E-08
[5,3,1,2]	5.27820E-05	2.09627E-07	2.79061E-06	1.61648E-07	1.11396E-06	8.49663E-12	4.70396E-09
[5,3,2,2]	1.01800E-04	1.62409E-07	2.43922E-06	1.37571E-07	3.94413E-06	1.51472E-11	3.02881E-08
[5,3,3,2]	1.39206E-04	1.26385E-07	2.09242E-06	1.16703E-07	7.37221E-06	1.98018E-11	7.81869E-08
[6,1,1,2]	7.22910E-05	1.51747E-07	2.48207E-06	1.22883E-07	2.19635E-06	1.00081E-11	1.40147E-08
[6,1,2,2]	1.16922E-04	1.17964E-07	2.16114E-06	1.04809E-07	5.29819E-06	1.48386E-11	5.22950E-08
[6,1,3,2]	1.50969E-04	9.21301E-08	1.86077E-06	8.92941E-08	8.77247E-06	1.81039E-11	1.13490E-07
[6,2,1,2]	5.51722E-05	1.20511E-07	1.92499E-06	9.65309E-08	1.55783E-06	7.06904E-12	8.44187E-09
[6,2,2,2]	1.03764E-04	9.39904E-08	1.69475E-06	8.30608E-08	4.39737E-06	1.11689E-11	4.00877E-08
[6,2,3,2]	1.40816E-04	7.36072E-08	1.46852E-06	7.11759E-08	7.77374E-06	1.40718E-11	9.47854E-08
[6,3,1,2]	5.65590E-05	1.22721E-07	1.90427E-06	9.50327E-08	1.25161E-06	5.35393E-12	5.28299E-09
[6,3,2,2]	1.04620E-04	9.48132E-08	1.65387E-06	8.05488E-08	4.15061E-06	9.14847E-12	3.13948E-08
[6,3,3,2]	1.41307E-04	7.36943E-08	1.41719E-06	6.81944E-08	7.60404E-06	1.17687E-11	7.90487E-08

Table 55. Number densities for Case-2D, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1,1]	2.50431E-08	4.67924E-06	2.51766E-09	3.19921E-09	1.22854E-08	4.56543E-10
[1,1,2,1]	3.99435E-08	4.50609E-06	2.41964E-09	2.88697E-09	1.06323E-08	3.83594E-10
[1,1,3,1]	3.56557E-08	3.91049E-06	2.15608E-09	2.50027E-09	8.97453E-09	3.17887E-10
[1,2,1,1]	1.86309E-08	3.48613E-06	1.86996E-09	2.38006E-09	9.14912E-09	3.40253E-10
[1,2,2,1]	3.40800E-08	3.45145E-06	1.81554E-09	2.16387E-09	7.96630E-09	2.87333E-10
[1,2,3,1]	3.05374E-08	3.00610E-06	1.62466E-09	1.88069E-09	6.74526E-09	2.38778E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,3,1,1]	1.83522E-08	3.44385E-06	1.83886E-09	2.35182E-09	9.06578E-09	3.37771E-10
[1,3,2,1]	3.37252E-08	3.39363E-06	1.77696E-09	2.12565E-09	7.84539E-09	2.83465E-10
[1,3,3,1]	3.01997E-08	2.95017E-06	1.58803E-09	1.84453E-09	6.63237E-09	2.35206E-10
[2,1,1,1]	5.30581E-08	7.42127E-06	3.23840E-09	3.96931E-09	1.50410E-08	5.53291E-10
[2,1,2,1]	5.79112E-08	6.70028E-06	3.01537E-09	3.52103E-09	1.28791E-08	4.62016E-10
[2,1,3,1]	5.12891E-08	5.81115E-06	2.67495E-09	3.04786E-09	1.08858E-08	3.83899E-10
[2,2,1,1]	3.95372E-08	5.54471E-06	2.40959E-09	2.96110E-09	1.12415E-08	4.14078E-10
[2,2,2,1]	4.58022E-08	5.07396E-06	2.27572E-09	2.65284E-09	9.69911E-09	3.47799E-10
[2,2,3,1]	4.07470E-08	4.41827E-06	2.02891E-09	2.30513E-09	8.22319E-09	2.89703E-10
[2,3,1,1]	3.93083E-08	5.55745E-06	2.40213E-09	2.98209E-09	1.13894E-08	4.21273E-10
[2,3,2,1]	4.53674E-08	5.04892E-06	2.25572E-09	2.65247E-09	9.75526E-09	3.51320E-10
[2,3,3,1]	4.02262E-08	4.37184E-06	1.99954E-09	2.29048E-09	8.21978E-09	2.90889E-10
[3,1,1,1]	7.11475E-08	7.98096E-06	3.13372E-09	3.75775E-09	1.40767E-08	5.13484E-10
[3,1,2,1]	6.95911E-08	7.06574E-06	2.85552E-09	3.29410E-09	1.19660E-08	4.27017E-10
[3,1,3,1]	6.13786E-08	6.11826E-06	2.52118E-09	2.84520E-09	1.01059E-08	3.54860E-10
[3,2,1,1]	5.33310E-08	6.01912E-06	2.36025E-09	2.83871E-09	1.06593E-08	3.89479E-10
[3,2,2,1]	5.38958E-08	5.38911E-06	2.18352E-09	2.51390E-09	9.12876E-09	3.25641E-10
[3,2,3,1]	4.78038E-08	4.69384E-06	1.94302E-09	2.18547E-09	7.75260E-09	2.71906E-10
[3,3,1,1]	5.30676E-08	6.03653E-06	2.33775E-09	2.85008E-09	1.07947E-08	3.96832E-10
[3,3,2,1]	5.33131E-08	5.35851E-06	2.14664E-09	2.50186E-09	9.16458E-09	3.29033E-10
[3,3,3,1]	4.69919E-08	4.62444E-06	1.89134E-09	2.15268E-09	7.70434E-09	2.72065E-10
[4,1,1,1]	7.54510E-08	6.99038E-06	2.51978E-09	2.97523E-09	1.10531E-08	4.00710E-10
[4,1,2,1]	7.06914E-08	6.14266E-06	2.27550E-09	2.59953E-09	9.38928E-09	3.33613E-10
[4,1,3,1]	6.21765E-08	5.31018E-06	2.00249E-09	2.24138E-09	7.92320E-09	2.77166E-10
[4,2,1,1]	5.69682E-08	5.32750E-06	1.92196E-09	2.27612E-09	8.47877E-09	3.07965E-10
[4,2,2,1]	5.46488E-08	4.74220E-06	1.76816E-09	2.01601E-09	7.28108E-09	2.58638E-10
[4,2,3,1]	4.83594E-08	4.12421E-06	1.56710E-09	1.74820E-09	6.17316E-09	2.15714E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[4,3,1,1]	5.66338E-08	5.33882E-06	1.89700E-09	2.28262E-09	8.59209E-09	3.14412E-10
[4,3,2,1]	5.38663E-08	4.69380E-06	1.72261E-09	1.99318E-09	7.27565E-09	2.60513E-10
[4,3,3,1]	4.72766E-08	4.03761E-06	1.50988E-09	1.70884E-09	6.09973E-09	2.14953E-10
[5,1,1,1]	6.83766E-08	5.27905E-06	1.74906E-09	2.04272E-09	7.54694E-09	2.72460E-10
[5,1,2,1]	6.26573E-08	4.60288E-06	1.55992E-09	1.76794E-09	6.36024E-09	2.25281E-10
[5,1,3,1]	5.50636E-08	3.98508E-06	1.37648E-09	1.52986E-09	5.38908E-09	1.87982E-10
[5,2,1,1]	5.19872E-08	4.06020E-06	1.34778E-09	1.57864E-09	5.84956E-09	2.11611E-10
[5,2,2,1]	4.85853E-08	3.58468E-06	1.22244E-09	1.38264E-09	4.97488E-09	1.76187E-10
[5,2,3,1]	4.29448E-08	3.11849E-06	1.08401E-09	1.20088E-09	4.22708E-09	1.47321E-10
[5,3,1,1]	5.15727E-08	4.05721E-06	1.32274E-09	1.57606E-09	5.90761E-09	2.15487E-10
[5,3,2,1]	4.77599E-08	3.54284E-06	1.18932E-09	1.36746E-09	4.97898E-09	1.77919E-10
[5,3,3,1]	4.17986E-08	3.04251E-06	1.04045E-09	1.17132E-09	4.17279E-09	1.46807E-10
[6,1,1,1]	5.47171E-08	3.47659E-06	1.03944E-09	1.20410E-09	4.43559E-09	1.59749E-10
[6,1,2,1]	4.95331E-08	3.02117E-06	9.25039E-10	1.04187E-09	3.74041E-09	1.32248E-10
[6,1,3,1]	4.34845E-08	2.61186E-06	8.12672E-10	8.97863E-10	3.15726E-09	1.09955E-10
[6,2,1,1]	4.19075E-08	2.70366E-06	8.13155E-10	9.44822E-10	3.49108E-09	1.25996E-10
[6,2,2,1]	3.86134E-08	2.37786E-06	7.35401E-10	8.26819E-10	2.96918E-09	1.04975E-10
[6,2,3,1]	3.41162E-08	2.07005E-06	6.52632E-10	7.18948E-10	2.52629E-09	8.79041E-11
[6,3,1,1]	4.13252E-08	2.66639E-06	7.79344E-10	9.21281E-10	3.44570E-09	1.25452E-10
[6,3,2,1]	3.76975E-08	2.31517E-06	6.95273E-10	7.94653E-10	2.88973E-09	1.03138E-10
[6,3,3,1]	3.29442E-08	1.98851E-06	6.08925E-10	6.81800E-10	2.42648E-09	8.52812E-11
[1,1,1,2]	2.45668E-08	4.59999E-06	2.46631E-09	3.14520E-09	1.21028E-08	4.50415E-10
[1,1,2,2]	3.79388E-08	4.29362E-06	2.27832E-09	2.75051E-09	1.02105E-08	3.70554E-10
[1,1,3,2]	3.31224E-08	3.65350E-06	1.98860E-09	2.33598E-09	8.46807E-09	3.02219E-10
[1,2,1,2]	1.83290E-08	3.43617E-06	1.83730E-09	2.34610E-09	9.03526E-09	3.36462E-10
[1,2,2,2]	3.23837E-08	3.28751E-06	1.70829E-09	2.06052E-09	7.64691E-09	2.77464E-10
[1,2,3,2]	2.83493E-08	2.80352E-06	1.49510E-09	1.75360E-09	6.35272E-09	2.26614E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,3,1,2]	1.80940E-08	3.40019E-06	1.81126E-09	2.32211E-09	8.96336E-09	3.34277E-10
[1,3,2,2]	3.21295E-08	3.24631E-06	1.68055E-09	2.03359E-09	7.56352E-09	2.74840E-10
[1,3,3,2]	2.80943E-08	2.76112E-06	1.46746E-09	1.72655E-09	6.26906E-09	2.23984E-10
[2,1,1,2]	5.17067E-08	7.24490E-06	3.13391E-09	3.86803E-09	1.47206E-08	5.43186E-10
[2,1,2,2]	5.46932E-08	6.35710E-06	2.82394E-09	3.33741E-09	1.23128E-08	4.44540E-10
[2,1,3,2]	4.74902E-08	5.41644E-06	2.46057E-09	2.83951E-09	1.02453E-08	3.64140E-10
[2,2,1,2]	3.86055E-08	5.42071E-06	2.33530E-09	2.88867E-09	1.10108E-08	4.06755E-10
[2,2,2,2]	4.32648E-08	4.81322E-06	2.13025E-09	2.51425E-09	9.27324E-09	3.34717E-10
[2,2,3,2]	3.76771E-08	4.11028E-06	1.86221E-09	2.14351E-09	7.72589E-09	2.74359E-10
[2,3,1,2]	3.84980E-08	5.44647E-06	2.33784E-09	2.91685E-09	1.11742E-08	4.14205E-10
[2,3,2,2]	4.30148E-08	4.80849E-06	2.12150E-09	2.52351E-09	9.35577E-09	3.38945E-10
[2,3,3,2]	3.72699E-08	4.07417E-06	1.83811E-09	2.13219E-09	7.72783E-09	2.75550E-10
[3,1,1,2]	6.88409E-08	7.72808E-06	2.99657E-09	3.62637E-09	1.36661E-08	5.00676E-10
[3,1,2,2]	6.53744E-08	6.66445E-06	2.65390E-09	3.09944E-09	1.13626E-08	4.08293E-10
[3,1,3,2]	5.66156E-08	5.67501E-06	2.30470E-09	2.63392E-09	9.45328E-09	3.34625E-10
[3,2,1,2]	5.17490E-08	5.84708E-06	2.26676E-09	2.75074E-09	1.03878E-08	3.81131E-10
[3,2,2,2]	5.06564E-08	5.08740E-06	2.03133E-09	2.36875E-09	8.68234E-09	3.11911E-10
[3,2,3,2]	4.40199E-08	4.34627E-06	1.77236E-09	2.01984E-09	7.24190E-09	2.56113E-10
[3,3,1,2]	5.17491E-08	5.89371E-06	2.26322E-09	2.77875E-09	1.05705E-08	3.89808E-10
[3,3,2,2]	5.03949E-08	5.09185E-06	2.01457E-09	2.37576E-09	8.77631E-09	3.17077E-10
[3,3,3,2]	4.34627E-08	4.30702E-06	1.73978E-09	2.00506E-09	7.24807E-09	2.57915E-10
[4,1,1,2]	7.25585E-08	6.72501E-06	2.39053E-09	2.85248E-09	1.06723E-08	3.88920E-10
[4,1,2,2]	6.61766E-08	5.77736E-06	2.11061E-09	2.44190E-09	8.90516E-09	3.18727E-10
[4,1,3,2]	5.71815E-08	4.91044E-06	1.82572E-09	2.06937E-09	7.39254E-09	2.60734E-10
[4,2,1,2]	5.49125E-08	5.13425E-06	1.82545E-09	2.18415E-09	8.19161E-09	2.99021E-10
[4,2,2,2]	5.11630E-08	4.45962E-06	1.63824E-09	1.89239E-09	6.90154E-09	2.46984E-10
[4,2,3,2]	4.43925E-08	3.80694E-06	1.42575E-09	1.61138E-09	5.75156E-09	2.02686E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[4,3,1,2]	5.49708E-08	5.18421E-06	1.82162E-09	2.20999E-09	8.36257E-09	3.07179E-10
[4,3,2,2]	5.07706E-08	4.44522E-06	1.60943E-09	1.88448E-09	6.93914E-09	2.50088E-10
[4,3,3,2]	4.36787E-08	3.75749E-06	1.38753E-09	1.58995E-09	5.73307E-09	2.03604E-10
[5,1,1,2]	6.54280E-08	5.05304E-06	1.65003E-09	1.94895E-09	7.25654E-09	2.63483E-10
[5,1,2,2]	5.85308E-08	4.32355E-06	1.44600E-09	1.65972E-09	6.02969E-09	2.15174E-10
[5,1,3,2]	5.05080E-08	3.67325E-06	1.25061E-09	1.40741E-09	5.01063E-09	1.76241E-10
[5,2,1,2]	4.98510E-08	3.89337E-06	1.27402E-09	1.50911E-09	5.63396E-09	2.04945E-10
[5,2,2,2]	4.53352E-08	3.35876E-06	1.12791E-09	1.29255E-09	4.69735E-09	1.67634E-10
[5,2,3,2]	3.93225E-08	2.87090E-06	9.83470E-10	1.10358E-09	3.92662E-09	1.38016E-10
[5,3,1,2]	4.98832E-08	3.92771E-06	1.26655E-09	1.52300E-09	5.74249E-09	2.10366E-10
[5,3,2,2]	4.48914E-08	3.34381E-06	1.10677E-09	1.28788E-09	4.73132E-09	1.70204E-10
[5,3,3,2]	3.85758E-08	2.82739E-06	9.54321E-10	1.08764E-09	3.91427E-09	1.38792E-10
[6,1,1,2]	5.21766E-08	3.31926E-06	9.79058E-10	1.14758E-09	4.26189E-09	1.54424E-10
[6,1,2,2]	4.61723E-08	2.82941E-06	8.53285E-10	9.73287E-10	3.52920E-09	1.25736E-10
[6,1,3,2]	3.98146E-08	2.40420E-06	7.38013E-10	8.25689E-10	2.93475E-09	1.03072E-10
[6,2,1,2]	4.00442E-08	2.58635E-06	7.67653E-10	9.02399E-10	3.36051E-09	1.21991E-10
[6,2,2,2]	3.59405E-08	2.22287E-06	6.77351E-10	7.71682E-10	2.79938E-09	9.97447E-11
[6,2,3,2]	3.11658E-08	1.89987E-06	5.89845E-10	6.58240E-10	2.33842E-09	8.20740E-11
[6,3,1,2]	3.98814E-08	2.57819E-06	7.45877E-10	8.90178E-10	3.35006E-09	1.22523E-10
[6,3,2,2]	3.53800E-08	2.18436E-06	6.48263E-10	7.49911E-10	2.75164E-09	9.88747E-11
[6,3,3,2]	3.03726E-08	1.84533E-06	5.57591E-10	6.32050E-10	2.27261E-09	8.05062E-11

Table 56. Axial flux distribution for Case-2D.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	Value	Statistical error	Value	Statistical error
5.34E+01	1.42E+17	4.30E-04	1.46E+17	4.40E-04
6.01E+01	1.47E+17	4.00E-04	1.87E+17	4.00E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
6.68E+01	1.58E+17	3.80E-04	2.23E+17	3.70E-04
7.35E+01	1.73E+17	3.60E-04	2.55E+17	3.50E-04
8.02E+01	1.90E+17	3.40E-04	2.85E+17	3.30E-04
8.70E+01	2.08E+17	3.30E-04	3.14E+17	3.10E-04
9.37E+01	2.27E+17	3.10E-04	3.42E+17	3.00E-04
1.00E+02	2.45E+17	3.00E-04	3.71E+17	2.90E-04
1.07E+02	2.64E+17	2.90E-04	4.01E+17	2.70E-04
1.14E+02	2.83E+17	2.80E-04	4.30E+17	2.60E-04
1.21E+02	3.02E+17	2.70E-04	4.59E+17	2.50E-04
1.27E+02	3.21E+17	2.60E-04	4.89E+17	2.40E-04
1.34E+02	3.40E+17	2.50E-04	5.18E+17	2.30E-04
1.41E+02	3.59E+17	2.40E-04	5.48E+17	2.20E-04
1.47E+02	3.78E+17	2.30E-04	5.77E+17	2.20E-04
1.54E+02	3.97E+17	2.20E-04	6.07E+17	2.10E-04
1.61E+02	4.16E+17	2.10E-04	6.38E+17	2.00E-04
1.68E+02	4.34E+17	2.10E-04	6.68E+17	1.90E-04
1.74E+02	4.52E+17	2.00E-04	6.97E+17	1.90E-04
1.81E+02	4.70E+17	1.90E-04	7.26E+17	1.80E-04
1.88E+02	4.88E+17	1.90E-04	7.54E+17	1.80E-04
1.94E+02	5.05E+17	1.80E-04	7.81E+17	1.70E-04
2.01E+02	5.22E+17	1.80E-04	8.09E+17	1.70E-04
2.08E+02	5.38E+17	1.80E-04	8.35E+17	1.60E-04
2.15E+02	5.52E+17	1.70E-04	8.62E+17	1.60E-04
2.21E+02	5.65E+17	1.70E-04	8.90E+17	1.50E-04
2.28E+02	5.77E+17	1.60E-04	9.14E+17	1.50E-04
2.35E+02	5.89E+17	1.60E-04	9.36E+17	1.50E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
2.42E+02	5.99E+17	1.60E-04	9.55E+17	1.50E-04
2.48E+02	6.09E+17	1.60E-04	9.71E+17	1.40E-04
2.55E+02	6.17E+17	1.60E-04	9.86E+17	1.40E-04
2.62E+02	6.23E+17	1.60E-04	9.98E+17	1.40E-04
2.68E+02	6.26E+17	1.60E-04	1.01E+18	1.40E-04
2.75E+02	6.27E+17	1.60E-04	1.02E+18	1.40E-04
2.82E+02	6.25E+17	1.60E-04	1.03E+18	1.40E-04
2.89E+02	6.22E+17	1.60E-04	1.03E+18	1.50E-04
2.95E+02	6.17E+17	1.60E-04	1.02E+18	1.50E-04
3.02E+02	6.10E+17	1.60E-04	1.01E+18	1.50E-04
3.09E+02	6.00E+17	1.70E-04	9.94E+17	1.50E-04
3.15E+02	5.86E+17	1.70E-04	9.75E+17	1.60E-04
3.22E+02	5.70E+17	1.80E-04	9.51E+17	1.60E-04
3.29E+02	5.50E+17	1.80E-04	9.24E+17	1.70E-04
3.36E+02	5.26E+17	1.90E-04	8.92E+17	1.70E-04
3.42E+02	5.00E+17	1.90E-04	8.53E+17	1.80E-04
3.49E+02	4.72E+17	2.00E-04	8.06E+17	1.90E-04
3.56E+02	4.42E+17	2.10E-04	7.52E+17	2.00E-04
3.62E+02	4.12E+17	2.20E-04	6.89E+17	2.10E-04
3.69E+02	3.84E+17	2.30E-04	6.15E+17	2.20E-04
3.76E+02	3.63E+17	2.40E-04	5.26E+17	2.30E-04
3.83E+02	3.58E+17	2.60E-04	4.15E+17	2.60E-04

Table 57. Radial flux distribution for Case-2D.

	Thermal flux (n/cm²-s)		Fast flux (n/cm²-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
3.58E+01	3.59E+14	1.20E-04	3.48E+14	1.20E-04
3.74E+01	3.43E+14	1.20E-04	3.67E+14	1.10E-04
3.91E+01	3.29E+14	1.20E-04	3.83E+14	1.10E-04
4.07E+01	3.17E+14	1.10E-04	3.96E+14	1.00E-04
4.23E+01	3.06E+14	1.10E-04	4.07E+14	1.00E-04
4.40E+01	2.97E+14	1.10E-04	4.16E+14	1.00E-04
4.56E+01	2.89E+14	1.10E-04	4.23E+14	9.00E-05
4.72E+01	2.83E+14	1.00E-04	4.29E+14	9.00E-05
4.88E+01	2.77E+14	1.00E-04	4.33E+14	9.00E-05
5.05E+01	2.71E+14	1.00E-04	4.36E+14	8.00E-05
5.21E+01	2.66E+14	1.00E-04	4.38E+14	8.00E-05
5.37E+01	2.62E+14	1.00E-04	4.39E+14	8.00E-05
5.53E+01	2.58E+14	1.00E-04	4.40E+14	8.00E-05
5.70E+01	2.54E+14	9.00E-05	4.39E+14	8.00E-05
5.86E+01	2.50E+14	9.00E-05	4.38E+14	7.00E-05
6.02E+01	2.47E+14	9.00E-05	4.36E+14	7.00E-05
6.19E+01	2.43E+14	9.00E-05	4.33E+14	7.00E-05
6.35E+01	2.40E+14	9.00E-05	4.30E+14	7.00E-05
6.51E+01	2.37E+14	9.00E-05	4.27E+14	7.00E-05
6.67E+01	2.33E+14	9.00E-05	4.23E+14	7.00E-05
6.84E+01	2.30E+14	9.00E-05	4.19E+14	7.00E-05
7.00E+01	2.27E+14	9.00E-05	4.15E+14	7.00E-05
7.16E+01	2.23E+14	9.00E-05	4.09E+14	7.00E-05
7.33E+01	2.20E+14	9.00E-05	4.04E+14	7.00E-05
7.49E+01	2.17E+14	8.00E-05	3.98E+14	7.00E-05

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
7.65E+01	2.14E+14	8.00E-05	3.91E+14	7.00E-05
7.81E+01	2.11E+14	8.00E-05	3.84E+14	7.00E-05
7.98E+01	2.08E+14	8.00E-05	3.77E+14	7.00E-05
8.14E+01	2.05E+14	8.00E-05	3.69E+14	7.00E-05
8.30E+01	2.02E+14	8.00E-05	3.60E+14	7.00E-05
8.47E+01	2.00E+14	8.00E-05	3.52E+14	7.00E-05
8.63E+01	1.97E+14	9.00E-05	3.42E+14	7.00E-05
8.79E+01	1.95E+14	9.00E-05	3.32E+14	7.00E-05
8.95E+01	1.93E+14	9.00E-05	3.22E+14	7.00E-05
9.12E+01	1.92E+14	9.00E-05	3.11E+14	8.00E-05
9.28E+01	1.90E+14	9.00E-05	2.99E+14	8.00E-05
9.44E+01	1.89E+14	9.00E-05	2.87E+14	8.00E-05
9.60E+01	1.89E+14	9.00E-05	2.74E+14	8.00E-05
9.77E+01	1.89E+14	9.00E-05	2.60E+14	8.00E-05
9.93E+01	1.89E+14	9.00E-05	2.45E+14	9.00E-05
1.01E+02	1.91E+14	9.00E-05	2.30E+14	9.00E-05
1.03E+02	1.93E+14	1.00E-04	2.13E+14	9.00E-05
1.04E+02	1.96E+14	1.00E-04	1.96E+14	1.00E-04

Table 58. Power produced per TRISO particle and fast neutron flux (E > 1MeV) for Case-2D. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, number of passes, and fuel kernel zone. Note that the fuel kernel zone numbering is: 1 for the outer zone and 2 for the inner zone.)

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,1,1,1]	8.81E+01	3.40E-04	6.87E+13	1.14E-03
[2,1,1,1]	1.10E+02	2.90E-04	9.40E+13	9.60E-04
[3,1,1,1]	1.01E+02	2.90E-04	8.92E+13	9.90E-04

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[4,1,1,1]	8.22E+01	3.30E-04	7.01E+13	1.11E-03
[5,1,1,1]	5.66E+01	4.10E-04	4.76E+13	1.36E-03
[6,1,1,1]	3.24E+01	5.60E-04	2.51E+13	1.86E-03
[1,1,2,1]	7.74E+01	3.50E-04	6.61E+13	1.14E-03
[2,1,2,1]	9.47E+01	3.00E-04	9.10E+13	9.60E-04
[3,1,2,1]	9.01E+01	3.00E-04	8.69E+13	9.90E-04
[4,1,2,1]	6.95E+01	3.40E-04	6.80E+13	1.11E-03
[5,1,2,1]	4.75E+01	4.30E-04	4.57E+13	1.36E-03
[6,1,2,1]	2.85E+01	5.70E-04	2.45E+13	1.86E-03
[1,1,3,1]	6.87E+01	3.60E-04	6.72E+13	1.14E-03
[2,1,3,1]	8.43E+01	3.10E-04	9.26E+13	9.70E-04
[3,1,3,1]	8.00E+01	3.10E-04	8.80E+13	9.90E-04
[4,1,3,1]	6.14E+01	3.50E-04	6.90E+13	1.11E-03
[5,1,3,1]	4.23E+01	4.40E-04	4.69E+13	1.36E-03
[6,1,3,1]	2.51E+01	5.90E-04	2.48E+13	1.87E-03
[1,2,1,1]	6.54E+01	3.80E-04	5.91E+13	1.22E-03
[2,2,1,1]	8.23E+01	3.30E-04	8.16E+13	1.03E-03
[3,2,1,1]	7.63E+01	3.30E-04	7.84E+13	1.05E-03
[4,2,1,1]	6.28E+01	3.70E-04	6.22E+13	1.18E-03
[5,2,1,1]	4.37E+01	4.50E-04	4.26E+13	1.43E-03
[6,2,1,1]	2.53E+01	6.10E-04	2.26E+13	1.96E-03
[1,2,2,1]	5.81E+01	3.90E-04	5.74E+13	1.21E-03
[2,2,2,1]	7.16E+01	3.30E-04	7.94E+13	1.03E-03
[3,2,2,1]	6.88E+01	3.40E-04	7.67E+13	1.04E-03
[4,2,2,1]	5.40E+01	3.80E-04	6.07E+13	1.18E-03
[5,2,2,1]	3.73E+01	4.70E-04	4.12E+13	1.43E-03
[6,2,2,1]	2.26E+01	6.20E-04	2.20E+13	1.97E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,2,3,1]	5.19E+01	4.00E-04	5.82E+13	1.22E-03
[2,2,3,1]	6.39E+01	3.40E-04	8.08E+13	1.03E-03
[3,2,3,1]	6.15E+01	3.50E-04	7.78E+13	1.05E-03
[4,2,3,1]	4.80E+01	3.90E-04	6.18E+13	1.18E-03
[5,2,3,1]	3.33E+01	4.90E-04	4.20E+13	1.43E-03
[6,2,3,1]	2.02E+01	6.50E-04	2.24E+13	1.97E-03
[1,3,1,1]	6.46E+01	3.90E-04	4.36E+13	1.42E-03
[2,3,1,1]	8.27E+01	3.40E-04	6.03E+13	1.20E-03
[3,3,1,1]	7.66E+01	3.40E-04	5.78E+13	1.23E-03
[4,3,1,1]	6.29E+01	3.80E-04	4.62E+13	1.37E-03
[5,3,1,1]	4.34E+01	4.70E-04	3.14E+13	1.66E-03
[6,3,1,1]	2.47E+01	6.30E-04	1.66E+13	2.29E-03
[1,3,2,1]	5.70E+01	4.00E-04	4.19E+13	1.42E-03
[2,3,2,1]	7.15E+01	3.40E-04	5.84E+13	1.21E-03
[3,3,2,1]	6.86E+01	3.50E-04	5.64E+13	1.22E-03
[4,3,2,1]	5.34E+01	3.90E-04	4.47E+13	1.37E-03
[5,3,2,1]	3.70E+01	4.80E-04	3.05E+13	1.67E-03
[6,3,2,1]	2.18E+01	6.40E-04	1.62E+13	2.30E-03
[1,3,3,1]	5.09E+01	4.10E-04	4.25E+13	1.43E-03
[2,3,3,1]	6.35E+01	3.50E-04	5.95E+13	1.20E-03
[3,3,3,1]	6.06E+01	3.60E-04	5.71E+13	1.23E-03
[4,3,3,1]	4.69E+01	4.10E-04	4.53E+13	1.38E-03
[5,3,3,1]	3.25E+01	5.00E-04	3.09E+13	1.67E-03
[6,3,3,1]	1.91E+01	6.70E-04	1.64E+13	2.29E-03
[1,1,1,2]	8.66E+01	3.50E-04	7.00E+13	1.13E-03
[2,1,1,2]	1.08E+02	3.00E-04	9.61E+13	9.50E-04
[3,1,1,2]	9.76E+01	3.00E-04	9.08E+13	9.80E-04

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[4,1,1,2]	7.87E+01	3.40E-04	7.14E+13	1.10E-03
[5,1,1,2]	5.38E+01	4.20E-04	4.86E+13	1.35E-03
[6,1,1,2]	3.09E+01	5.70E-04	2.56E+13	1.85E-03
[1,1,2,2]	7.37E+01	3.60E-04	6.75E+13	1.13E-03
[2,1,2,2]	8.96E+01	3.00E-04	9.25E+13	9.60E-04
[3,1,2,2]	8.46E+01	3.10E-04	8.83E+13	9.80E-04
[4,1,2,2]	6.52E+01	3.50E-04	6.95E+13	1.11E-03
[5,1,2,2]	4.47E+01	4.40E-04	4.68E+13	1.35E-03
[6,1,2,2]	2.66E+01	5.90E-04	2.49E+13	1.85E-03
[1,1,3,2]	6.42E+01	3.70E-04	6.81E+13	1.14E-03
[2,1,3,2]	7.86E+01	3.20E-04	9.40E+13	9.60E-04
[3,1,3,2]	7.39E+01	3.20E-04	8.91E+13	9.80E-04
[4,1,3,2]	5.68E+01	3.70E-04	7.00E+13	1.11E-03
[5,1,3,2]	3.89E+01	4.50E-04	4.74E+13	1.36E-03
[6,1,3,2]	2.31E+01	6.10E-04	2.52E+13	1.86E-03
[1,2,1,2]	6.45E+01	3.90E-04	6.05E+13	1.21E-03
[2,2,1,2]	8.03E+01	3.30E-04	8.33E+13	1.03E-03
[3,2,1,2]	7.41E+01	3.30E-04	8.00E+13	1.04E-03
[4,2,1,2]	6.02E+01	3.80E-04	6.33E+13	1.17E-03
[5,2,1,2]	4.18E+01	4.70E-04	4.35E+13	1.41E-03
[6,2,1,2]	2.43E+01	6.20E-04	2.29E+13	1.95E-03
[1,2,2,2]	5.52E+01	4.00E-04	5.83E+13	1.21E-03
[2,2,2,2]	6.78E+01	3.40E-04	8.08E+13	1.02E-03
[3,2,2,2]	6.48E+01	3.40E-04	7.77E+13	1.05E-03
[4,2,2,2]	5.07E+01	3.90E-04	6.18E+13	1.17E-03
[5,2,2,2]	3.49E+01	4.80E-04	4.19E+13	1.42E-03
[6,2,2,2]	2.11E+01	6.40E-04	2.25E+13	1.95E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,2,3,2]	4.83E+01	4.10E-04	5.90E+13	1.21E-03
[2,2,3,2]	5.95E+01	3.50E-04	8.21E+13	1.02E-03
[3,2,3,2]	5.68E+01	3.60E-04	7.87E+13	1.04E-03
[4,2,3,2]	4.43E+01	4.10E-04	6.25E+13	1.17E-03
[5,2,3,2]	3.06E+01	5.00E-04	4.25E+13	1.43E-03
[6,2,3,2]	1.85E+01	6.70E-04	2.27E+13	1.96E-03
[1,3,1,2]	6.38E+01	4.00E-04	4.46E+13	1.41E-03
[2,3,1,2]	8.08E+01	3.40E-04	6.17E+13	1.19E-03
[3,3,1,2]	7.48E+01	3.40E-04	5.94E+13	1.21E-03
[4,3,1,2]	6.08E+01	3.90E-04	4.71E+13	1.36E-03
[5,3,1,2]	4.20E+01	4.70E-04	3.24E+13	1.65E-03
[6,3,1,2]	2.39E+01	6.40E-04	1.70E+13	2.28E-03
[1,3,2,2]	5.47E+01	4.00E-04	4.30E+13	1.41E-03
[2,3,2,2]	6.80E+01	3.50E-04	5.95E+13	1.20E-03
[3,3,2,2]	6.52E+01	3.50E-04	5.77E+13	1.22E-03
[4,3,2,2]	5.05E+01	4.00E-04	4.56E+13	1.37E-03
[5,3,2,2]	3.47E+01	4.90E-04	3.11E+13	1.66E-03
[6,3,2,2]	2.06E+01	6.60E-04	1.65E+13	2.27E-03
[1,3,3,2]	4.76E+01	4.20E-04	4.33E+13	1.42E-03
[2,3,3,2]	5.91E+01	3.60E-04	6.01E+13	1.20E-03
[3,3,3,2]	5.65E+01	3.70E-04	5.80E+13	1.22E-03
[4,3,3,2]	4.37E+01	4.20E-04	4.59E+13	1.37E-03
[5,3,3,2]	3.02E+01	5.10E-04	3.13E+13	1.66E-03
[6,3,3,2]	1.77E+01	6.90E-04	1.66E+13	2.28E-03

5.7 Case-2E

Table 59. Number densities for Case-2E, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes).

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1]	3.80504E-03	1.94297E-02	4.89081E-09	3.23134E-05	2.30250E-06	3.26395E-07	1.49311E-08	3.47988E-08	2.19590E-07
[1,1,2]	2.93007E-03	1.91547E-02	4.40432E-07	1.56001E-04	3.72024E-05	1.42482E-05	1.94758E-06	3.19066E-08	2.86435E-07
[1,1,3]	2.24413E-03	1.88807E-02	2.13545E-06	1.97542E-04	6.96359E-05	3.89636E-05	9.23187E-06	2.80645E-08	2.80050E-07
[1,2,1]	3.84434E-03	1.94358E-02	2.64806E-09	2.88181E-05	1.61967E-06	1.84653E-07	6.51140E-09	3.17280E-08	2.13038E-07
[1,2,2]	2.95999E-03	1.91610E-02	4.11718E-07	1.57656E-04	3.58040E-05	1.34270E-05	1.77506E-06	2.92114E-08	2.92735E-07
[1,2,3]	2.26711E-03	1.88870E-02	2.06415E-06	2.00998E-04	6.86298E-05	3.80470E-05	8.81929E-06	2.57104E-08	2.86097E-07
[1,3,1]	3.99582E-03	1.62994E-01	3.86179E-04	1.06927E-03	8.53438E-04	4.35181E-04	7.04093E-04	6.39661E-08	9.90206E-07
[1,3,2]	3.31918E-03	1.56764E-01	3.85180E-04	9.76900E-04	8.31709E-04	4.13261E-04	6.99261E-04	5.77523E-08	8.69534E-07
[1,3,3]	2.73732E-03	1.50549E-01	3.83430E-04	9.12692E-04	7.99474E-04	3.95174E-04	6.92562E-04	5.19902E-08	7.89331E-07
[1,4,1]	3.98334E-03	1.63002E-01	3.85486E-04	1.04938E-03	8.59032E-04	4.29617E-04	7.06049E-04	6.56599E-08	9.17371E-07
[1,4,2]	3.30863E-03	1.56773E-01	3.84494E-04	9.57584E-04	8.37127E-04	4.07671E-04	7.01133E-04	5.91419E-08	8.07579E-07
[1,4,3]	2.72877E-03	1.50558E-01	3.82730E-04	8.94481E-04	8.04531E-04	3.89833E-04	6.94388E-04	5.31106E-08	7.32535E-07
[1,5,1]	3.57956E-03	1.93644E-02	3.57408E-08	7.44269E-05	8.28024E-06	1.98295E-06	1.31033E-07	3.91809E-08	2.79414E-07
[1,5,2]	2.75293E-03	1.90891E-02	6.97440E-07	1.70634E-04	4.47902E-05	2.05730E-05	3.12472E-06	3.54778E-08	3.01614E-07
[1,5,3]	2.10693E-03	1.88156E-02	2.75401E-06	2.02485E-04	7.39867E-05	4.61229E-05	1.17523E-05	3.10994E-08	2.95857E-07
[2,1,1]	3.67855E-03	1.93819E-02	1.76990E-08	6.76966E-05	5.69204E-06	1.08741E-06	5.15854E-08	3.57721E-08	2.82930E-07
[2,1,2]	2.82929E-03	1.91068E-02	5.92835E-07	1.75084E-04	4.15444E-05	1.81155E-05	2.50634E-06	3.26019E-08	3.11464E-07
[2,1,3]	2.16546E-03	1.88332E-02	2.52633E-06	2.10749E-04	7.18854E-05	4.37491E-05	1.05013E-05	2.86210E-08	3.05279E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[2,2,1]	3.86561E-03	1.61920E-01	3.87268E-04	1.07072E-03	8.44889E-04	4.38390E-04	7.02124E-04	6.94349E-08	1.04613E-06
[2,2,2]	3.20658E-03	1.55692E-01	3.86170E-04	9.84945E-04	8.20571E-04	4.17554E-04	6.96949E-04	6.24296E-08	9.43087E-07
[2,2,3]	2.64147E-03	1.49480E-01	3.84268E-04	9.24344E-04	7.87097E-04	3.99793E-04	6.89925E-04	5.63490E-08	8.59827E-07
[2,3,1]	3.83782E-03	1.61943E-01	3.85476E-04	1.02285E-03	8.57930E-04	4.24896E-04	7.06792E-04	6.97412E-08	9.16055E-07
[2,3,2]	3.18341E-03	1.55717E-01	3.84369E-04	9.38613E-04	8.33187E-04	4.04043E-04	7.01462E-04	6.23726E-08	8.24003E-07
[2,3,3]	2.62246E-03	1.49504E-01	3.82448E-04	8.80276E-04	7.99085E-04	3.86730E-04	6.94303E-04	5.61946E-08	7.49792E-07
[2,4,1]	3.34036E-03	1.92898E-02	1.16740E-07	1.11837E-04	1.72059E-05	5.39782E-06	4.86203E-07	3.97481E-08	2.93835E-07
[2,4,2]	2.56722E-03	1.90169E-02	1.07558E-06	1.82913E-04	5.29379E-05	2.76937E-05	4.88396E-06	3.54085E-08	3.06349E-07
[2,4,3]	1.96307E-03	1.87437E-02	3.55389E-06	2.06557E-04	7.86490E-05	5.31136E-05	1.49780E-05	3.10066E-08	2.99360E-07
[2,5,1]	3.49947E-03	1.93203E-02	5.72368E-08	1.04677E-04	1.21536E-05	3.06470E-06	1.94934E-07	3.71811E-08	3.01095E-07
[2,5,2]	2.69004E-03	1.90472E-02	8.49123E-07	1.90809E-04	4.81846E-05	2.35212E-05	3.56339E-06	3.33633E-08	3.18056E-07
[2,5,3]	2.05715E-03	1.87739E-02	3.11163E-06	2.19455E-04	7.58397E-05	4.95437E-05	1.26255E-05	2.92885E-08	3.11634E-07
[3,1,1]	3.72427E-03	1.60828E-01	3.88882E-04	1.07277E-03	8.35941E-04	4.42638E-04	7.00930E-04	7.32967E-08	1.06081E-06
[3,1,2]	3.08627E-03	1.54607E-01	3.87632E-04	9.91358E-04	8.09951E-04	4.21796E-04	6.95354E-04	6.55328E-08	9.61696E-07
[3,1,3]	2.53947E-03	1.48398E-01	3.85547E-04	9.34515E-04	7.75366E-04	4.04269E-04	6.87944E-04	5.92985E-08	8.78748E-07
[3,2,1]	3.68144E-03	1.60869E-01	3.85842E-04	9.97783E-04	8.55624E-04	4.21310E-04	7.08304E-04	7.17076E-08	9.10017E-07
[3,2,2]	3.05061E-03	1.54649E-01	3.84584E-04	9.19236E-04	8.28738E-04	4.00744E-04	7.02438E-04	6.38633E-08	8.21253E-07
[3,2,3]	2.51009E-03	1.48439E-01	3.82485E-04	8.65499E-04	7.93314E-04	3.83854E-04	6.94851E-04	5.76663E-08	7.48588E-07
[3,3,1]	3.12937E-03	1.92235E-02	2.47438E-07	1.36712E-04	2.62184E-05	9.74059E-06	1.08374E-06	3.79443E-08	3.01278E-07
[3,3,2]	2.40257E-03	1.89482E-02	1.52623E-06	1.92632E-04	6.02174E-05	3.42914E-05	6.91916E-06	3.36461E-08	3.08031E-07
[3,3,3]	1.83575E-03	1.86756E-02	4.42172E-06	2.10285E-04	8.27704E-05	5.89073E-05	1.83091E-05	2.94191E-08	2.98574E-07
[3,4,1]	3.33916E-03	1.92655E-02	1.21352E-07	1.31621E-04	1.90617E-05	5.73573E-06	4.44907E-07	3.58107E-08	3.10607E-07
[3,4,2]	2.56431E-03	1.89906E-02	1.14801E-06	2.03833E-04	5.44803E-05	2.86888E-05	4.77291E-06	3.20127E-08	3.21107E-07
[3,4,3]	1.95926E-03	1.87175E-02	3.74186E-06	2.26951E-04	7.96486E-05	5.46071E-05	1.48215E-05	2.81238E-08	3.13147E-07
[3,5,1]	3.59503E-03	1.59753E-01	3.90350E-04	1.07050E-03	8.29304E-04	4.43766E-04	6.99693E-04	6.97690E-08	1.05858E-06
[3,5,2]	2.97488E-03	1.53530E-01	3.88968E-04	9.97496E-04	8.00203E-04	4.24834E-04	6.93728E-04	6.31610E-08	9.64051E-07
[3,5,3]	2.44507E-03	1.47324E-01	3.86709E-04	9.43740E-04	7.64753E-04	4.07465E-04	6.85991E-04	5.73199E-08	8.82479E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[4,1,1]	3.53908E-03	1.59809E-01	3.86182E-04	9.73801E-04	8.53586E-04	4.16363E-04	7.09332E-04	6.77404E-08	8.98750E-07
[4,1,2]	2.92867E-03	1.53589E-01	3.84762E-04	9.04156E-04	8.23439E-04	3.97658E-04	7.02999E-04	6.08329E-08	8.14164E-07
[4,1,3]	2.40722E-03	1.47382E-01	3.82482E-04	8.54283E-04	7.86982E-04	3.81130E-04	6.95009E-04	5.49812E-08	7.43703E-07
[4,2,1]	2.95045E-03	1.91729E-02	3.99337E-07	1.47716E-04	3.46496E-05	1.34843E-05	1.83181E-06	3.44385E-08	2.88384E-07
[4,2,2]	2.26279E-03	1.88989E-02	1.96442E-06	1.90582E-04	6.73917E-05	3.82810E-05	8.99009E-06	3.01894E-08	2.85522E-07
[4,2,3]	1.72739E-03	1.86265E-02	5.21670E-06	2.04119E-04	8.78386E-05	6.12941E-05	2.14954E-05	2.63371E-08	2.72876E-07
[4,3,1]	3.19927E-03	1.92235E-02	1.97283E-07	1.45900E-04	2.58584E-05	8.23781E-06	7.74841E-07	3.28332E-08	2.98742E-07
[4,3,2]	2.45420E-03	1.89496E-02	1.44023E-06	2.05404E-04	6.09570E-05	3.21228E-05	6.03292E-06	2.90904E-08	2.99227E-07
[4,3,3]	1.87361E-03	1.86767E-02	4.32414E-06	2.24394E-04	8.44703E-05	5.70869E-05	1.69800E-05	2.54759E-08	2.88119E-07
[4,4,1]	3.47948E-03	1.58707E-01	3.90686E-04	1.05297E-03	8.27803E-04	4.38615E-04	6.99358E-04	6.35869E-08	9.84558E-07
[4,4,2]	2.87511E-03	1.52488E-01	3.89095E-04	9.82381E-04	7.97618E-04	4.19684E-04	6.93279E-04	5.74361E-08	8.88994E-07
[4,4,3]	2.36046E-03	1.46284E-01	3.86669E-04	9.31619E-04	7.61444E-04	4.02567E-04	6.85189E-04	5.22241E-08	8.14652E-07
[4,5,1]	3.41774E-03	1.58777E-01	3.85726E-04	9.46368E-04	8.53263E-04	4.08415E-04	7.10106E-04	6.05847E-08	8.51017E-07
[4,5,2]	2.82496E-03	1.52561E-01	3.84110E-04	8.80262E-04	8.21834E-04	3.89911E-04	7.03508E-04	5.42757E-08	7.67794E-07
[4,5,3]	2.31930E-03	1.46356E-01	3.81671E-04	8.33619E-04	7.84525E-04	3.73783E-04	6.95153E-04	4.91780E-08	7.01206E-07

Table 60. Number densities for Case-2E, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1]	7.33033E-08	3.66102E-06	9.41248E-06	4.44918E-07	9.19958E-09	1.56200E-08	3.67038E-10	5.35578E-06	4.00238E-06
[1,1,2]	1.85438E-06	2.23209E-05	5.84510E-05	2.57648E-06	7.66837E-09	1.29113E-08	3.01574E-10	3.19021E-05	5.95282E-06
[1,1,3]	5.18275E-06	3.89451E-05	1.01479E-04	4.22052E-06	6.24305E-09	1.04470E-08	2.42808E-10	5.38684E-05	4.90022E-06
[1,2,1]	4.70956E-08	3.33841E-06	7.33893E-06	3.47710E-07	7.18998E-09	1.22107E-08	2.86955E-10	4.18673E-06	3.12878E-06
[1,2,2]	1.76032E-06	2.20375E-05	5.66022E-05	2.49725E-06	6.03375E-09	1.01602E-08	2.37334E-10	3.09583E-05	5.24951E-06
[1,2,3]	5.02580E-06	3.86934E-05	9.98611E-05	4.15606E-06	4.91393E-09	8.22321E-09	1.91138E-10	5.31053E-05	4.33318E-06
[1,3,1]	1.42571E-04	9.52484E-04	1.92570E-03	4.83193E-05	7.55528E-09	1.22921E-08	2.80063E-10	1.11853E-03	6.64434E-06
[1,3,2]	1.39854E-04	9.38252E-04	1.88642E-03	4.66980E-05	6.77926E-09	1.09929E-08	2.49833E-10	1.09816E-03	5.09632E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,3,3]	1.37120E-04	9.20512E-04	1.84128E-03	4.49145E-05	5.92180E-09	9.56026E-09	2.16590E-10	1.07463E-03	4.40880E-06
[1,4,1]	1.41987E-04	9.52806E-04	1.92716E-03	4.83645E-05	8.49710E-09	1.38512E-08	3.15645E-10	1.11906E-03	7.03734E-06
[1,4,2]	1.39278E-04	9.38540E-04	1.88772E-03	4.67372E-05	7.59627E-09	1.23441E-08	2.80602E-10	1.09862E-03	5.43634E-06
[1,4,3]	1.36511E-04	9.20768E-04	1.84241E-03	4.49474E-05	6.60953E-09	1.06962E-08	2.42374E-10	1.07502E-03	4.69406E-06
[1,5,1]	3.34528E-07	7.77649E-06	2.14167E-05	9.96916E-07	1.14989E-08	1.94500E-08	4.55207E-10	1.20290E-05	7.20252E-06
[1,5,2]	2.65013E-06	2.60390E-05	6.92247E-05	3.01708E-06	9.54617E-09	1.60234E-08	3.72901E-10	3.74531E-05	7.40431E-06
[1,5,3]	6.30490E-06	4.22098E-05	1.10773E-04	4.56016E-06	7.75122E-09	1.29321E-08	2.99471E-10	5.83945E-05	6.01985E-06
[2,1,1]	2.02293E-07	7.09663E-06	1.60199E-05	7.49153E-07	8.36815E-09	1.41606E-08	3.31459E-10	9.04538E-06	5.36324E-06
[2,1,2]	2.33455E-06	2.54516E-05	6.44000E-05	2.81336E-06	6.95972E-09	1.16829E-08	2.71883E-10	3.50204E-05	5.90531E-06
[2,1,3]	5.83906E-06	4.16865E-05	1.06570E-04	4.39491E-06	5.65724E-09	9.43750E-09	2.18535E-10	5.64329E-05	4.81504E-06
[2,2,1]	1.44918E-04	9.51387E-04	1.92082E-03	4.81017E-05	8.16654E-09	1.32276E-08	3.00367E-10	1.11580E-03	7.01455E-06
[2,2,2]	1.42285E-04	9.36428E-04	1.88045E-03	4.64481E-05	7.19285E-09	1.16036E-08	2.62781E-10	1.09486E-03	5.73853E-06
[2,2,3]	1.39431E-04	9.18057E-04	1.83430E-03	4.46365E-05	6.29584E-09	1.01073E-08	2.28146E-10	1.07077E-03	4.97532E-06
[2,3,1]	1.43268E-04	9.51955E-04	1.92399E-03	4.82010E-05	9.31186E-09	1.51316E-08	3.43813E-10	1.11697E-03	7.71221E-06
[2,3,2]	1.40584E-04	9.36922E-04	1.88322E-03	4.65326E-05	8.15675E-09	1.32066E-08	2.99287E-10	1.09585E-03	6.33020E-06
[2,3,3]	1.37778E-04	9.18506E-04	1.83674E-03	4.47083E-05	7.12577E-09	1.14858E-08	2.59440E-10	1.07162E-03	5.47938E-06
[2,4,1]	7.98175E-07	1.19480E-05	3.47220E-05	1.59005E-06	1.24526E-08	2.10083E-08	4.90680E-10	1.92409E-05	9.38064E-06
[2,4,2]	3.63762E-06	2.97542E-05	8.09116E-05	3.48422E-06	1.01741E-08	1.70455E-08	3.96014E-10	4.33619E-05	8.46965E-06
[2,4,3]	7.62332E-06	4.54765E-05	1.20867E-04	4.92190E-06	8.27482E-09	1.37815E-08	3.18600E-10	6.32153E-05	6.85592E-06
[2,5,1]	4.76831E-07	1.09984E-05	2.57660E-05	1.18739E-06	9.20168E-09	1.55363E-08	3.63073E-10	1.43802E-05	6.95850E-06
[2,5,2]	3.02967E-06	2.89447E-05	7.29795E-05	3.15439E-06	7.52593E-09	1.26123E-08	2.93111E-10	3.94096E-05	6.50549E-06
[2,5,3]	6.78495E-06	4.47524E-05	1.13971E-04	4.65465E-06	6.13083E-09	1.02113E-08	2.36123E-10	6.00308E-05	5.27821E-06
[3,1,1]	1.48305E-04	9.50712E-04	1.91765E-03	4.79343E-05	9.16604E-09	1.48336E-08	3.36508E-10	1.11362E-03	7.62086E-06
[3,1,2]	1.45525E-04	9.34952E-04	1.87586E-03	4.62374E-05	7.96241E-09	1.28328E-08	2.90307E-10	1.09197E-03	6.40130E-06
[3,1,3]	1.42570E-04	9.15933E-04	1.82859E-03	4.43936E-05	6.97938E-09	1.11927E-08	2.52331E-10	1.06728E-03	5.55945E-06
[3,2,1]	1.45493E-04	9.51341E-04	1.92234E-03	4.80830E-05	1.02382E-08	1.66282E-08	3.77599E-10	1.11538E-03	8.46063E-06
[3,2,2]	1.42652E-04	9.35491E-04	1.87994E-03	4.63633E-05	8.86740E-09	1.43489E-08	3.24966E-10	1.09346E-03	7.11125E-06

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[3,2,3]	1.39765E-04	9.16427E-04	1.83219E-03	4.45008E-05	7.75626E-09	1.24932E-08	2.81970E-10	1.06855E-03	6.16567E-06
[3,3,1]	1.36680E-06	1.59298E-05	4.68499E-05	2.11541E-06	1.11655E-08	1.87950E-08	4.38139E-10	2.56989E-05	1.00252E-05
[3,3,2]	4.62799E-06	3.32908E-05	9.15596E-05	3.89723E-06	9.14955E-09	1.53006E-08	3.54852E-10	4.86757E-05	8.61481E-06
[3,3,3]	8.85921E-06	4.85844E-05	1.30027E-04	5.23890E-06	7.42899E-09	1.23507E-08	2.85009E-10	6.75455E-05	6.95463E-06
[3,4,1]	8.16141E-07	1.47542E-05	3.47489E-05	1.58089E-06	8.35565E-09	1.40786E-08	3.28420E-10	1.92219E-05	7.47236E-06
[3,4,2]	3.71422E-06	3.22975E-05	8.09063E-05	3.46080E-06	6.87334E-09	1.14988E-08	2.66805E-10	4.34225E-05	6.55343E-06
[3,4,3]	7.65957E-06	4.76975E-05	1.20805E-04	4.88653E-06	5.60740E-09	9.32356E-09	2.15237E-10	6.33268E-05	5.30815E-06
[3,5,1]	1.50556E-04	9.49698E-04	1.91331E-03	4.77289E-05	8.37399E-09	1.35347E-08	3.06638E-10	1.11097E-03	7.62807E-06
[3,5,2]	1.47880E-04	9.33252E-04	1.87046E-03	4.60006E-05	7.40475E-09	1.19156E-08	2.69135E-10	1.08874E-03	6.53655E-06
[3,5,3]	1.44826E-04	9.13628E-04	1.82217E-03	4.41287E-05	6.50137E-09	1.04083E-08	2.34243E-10	1.06349E-03	5.68486E-06
[4,1,1]	1.46790E-04	9.50316E-04	1.91921E-03	4.79181E-05	9.27747E-09	1.50553E-08	3.41555E-10	1.11324E-03	8.47801E-06
[4,1,2]	1.43993E-04	9.33751E-04	1.87551E-03	4.61587E-05	8.13214E-09	1.31435E-08	2.97317E-10	1.09064E-03	7.23997E-06
[4,1,3]	1.41000E-04	9.14075E-04	1.82660E-03	4.42619E-05	7.09630E-09	1.14152E-08	2.57301E-10	1.06509E-03	6.27439E-06
[4,2,1]	1.88210E-06	1.95471E-05	5.73805E-05	2.56084E-06	9.61390E-09	1.61639E-08	3.76448E-10	3.12606E-05	9.71152E-06
[4,2,2]	5.37635E-06	3.64740E-05	1.00729E-04	4.24363E-06	7.86068E-09	1.31363E-08	3.04444E-10	5.32482E-05	8.14334E-06
[4,2,3]	9.71037E-06	5.13806E-05	1.37889E-04	5.50194E-06	6.38669E-09	1.06129E-08	2.44753E-10	7.12780E-05	6.56729E-06
[4,3,1]	1.12670E-06	1.81992E-05	4.27748E-05	1.92486E-06	7.39768E-09	1.24504E-08	2.90199E-10	2.35151E-05	7.34222E-06
[4,3,2]	4.22321E-06	3.53501E-05	8.79563E-05	3.72656E-06	6.09154E-09	1.01841E-08	2.36153E-10	4.69892E-05	6.24440E-06
[4,3,3]	8.24723E-06	5.03738E-05	1.26843E-04	5.08452E-06	4.95505E-09	8.23481E-09	1.89990E-10	6.62513E-05	5.04748E-06
[4,4,1]	1.50367E-04	9.48166E-04	1.90754E-03	4.74786E-05	7.42877E-09	1.20137E-08	2.72021E-10	1.10779E-03	7.24935E-06
[4,4,2]	1.47567E-04	9.31106E-04	1.86379E-03	4.57245E-05	6.57835E-09	1.05954E-08	2.39154E-10	1.08504E-03	6.28014E-06
[4,4,3]	1.44454E-04	9.10936E-04	1.81461E-03	4.38297E-05	5.77683E-09	9.25737E-09	2.08175E-10	1.05929E-03	5.46603E-06
[4,5,1]	1.45911E-04	9.48593E-04	1.91370E-03	4.76793E-05	7.74400E-09	1.25687E-08	2.85004E-10	1.11023E-03	7.86217E-06
[4,5,2]	1.42995E-04	9.31385E-04	1.86891E-03	4.58880E-05	6.75874E-09	1.09273E-08	2.47039E-10	1.08704E-03	6.75512E-06
[4,5,3]	1.39976E-04	9.11178E-04	1.81907E-03	4.39668E-05	5.91971E-09	9.52561E-09	2.14570E-10	1.06096E-03	5.86140E-06

Table 61. Number densities for Case-2E, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes).

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1]	8.58297E-06	8.82319E-08	7.55373E-07	6.38701E-08	9.10854E-08	1.07240E-12	1.06597E-10
[1,1,2]	5.02521E-05	7.33815E-08	7.36549E-07	5.85071E-08	1.38236E-06	3.73517E-12	4.18021E-09
[1,1,3]	8.36546E-05	5.96288E-08	6.54781E-07	5.13158E-08	3.41175E-06	5.51975E-12	1.43641E-08
[1,2,1]	6.70923E-06	6.89596E-08	5.88764E-07	4.98008E-08	6.66004E-08	7.80002E-13	6.32061E-11
[1,2,2]	4.87430E-05	5.77399E-08	5.84403E-07	4.59519E-08	1.31695E-06	2.88931E-12	3.83461E-09
[1,2,3]	8.24373E-05	4.69329E-08	5.19834E-07	4.03166E-08	3.32618E-06	4.31361E-12	1.35642E-08
[1,3,1]	1.34691E-03	7.13429E-08	1.06813E-06	8.00151E-08	1.25912E-04	2.92640E-11	4.81792E-07
[1,3,2]	1.31512E-03	6.39192E-08	9.75339E-07	7.37392E-08	1.24457E-04	2.87625E-11	4.71449E-07
[1,3,3]	1.27911E-03	5.57320E-08	8.82879E-07	6.65073E-08	1.22588E-04	2.78108E-11	4.64594E-07
[1,4,1]	1.34775E-03	8.03555E-08	1.19284E-06	8.99453E-08	1.26093E-04	3.02191E-11	4.77619E-07
[1,4,2]	1.31585E-03	7.17420E-08	1.08663E-06	8.25843E-08	1.24626E-04	2.96367E-11	4.67476E-07
[1,4,3]	1.27972E-03	6.23216E-08	9.80189E-07	7.42192E-08	1.22745E-04	2.85017E-11	4.60493E-07
[1,5,1]	1.92099E-05	1.10672E-07	1.10358E-06	8.21170E-08	2.90053E-07	2.42055E-12	6.04934E-10
[1,5,2]	5.89037E-05	9.16757E-08	1.02736E-06	7.44048E-08	1.80022E-06	5.64975E-12	6.78081E-09
[1,5,3]	9.05244E-05	7.42947E-08	9.09028E-07	6.50168E-08	3.93780E-06	7.90195E-12	1.92674E-08
[2,1,1]	1.44435E-05	8.05728E-08	8.04789E-07	5.94176E-08	1.97652E-07	1.57554E-12	3.26024E-10
[2,1,2]	5.50262E-05	6.68585E-08	7.54676E-07	5.40499E-08	1.61162E-06	3.97283E-12	5.53740E-09
[2,1,3]	8.74053E-05	5.42372E-08	6.69011E-07	4.73021E-08	3.70077E-06	5.65994E-12	1.67912E-08
[2,2,1]	1.34260E-03	7.73060E-08	1.28408E-06	8.70565E-08	1.25677E-04	3.60235E-11	5.08274E-07
[2,2,2]	1.31002E-03	6.79689E-08	1.16700E-06	7.88351E-08	1.24147E-04	3.51802E-11	4.99455E-07
[2,2,3]	1.27327E-03	5.93637E-08	1.05869E-06	7.12855E-08	1.22205E-04	3.41125E-11	4.92587E-07
[2,3,1]	1.34447E-03	8.83543E-08	1.45337E-06	9.89467E-08	1.26093E-04	3.63918E-11	4.96137E-07
[2,3,2]	1.31161E-03	7.72805E-08	1.31371E-06	8.90870E-08	1.24528E-04	3.52459E-11	4.87341E-07
[2,3,3]	1.27462E-03	6.73866E-08	1.18970E-06	8.04385E-08	1.22562E-04	3.41236E-11	4.80649E-07
[2,4,1]	3.06451E-05	1.19856E-07	1.27914E-06	9.13514E-08	6.01955E-07	3.89645E-12	1.69061E-09

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[2,4,2]	6.80826E-05	9.77314E-08	1.15838E-06	8.09268E-08	2.31484E-06	7.11289E-12	1.02933E-08
[2,4,3]	9.78279E-05	7.93321E-08	1.02414E-06	7.07721E-08	4.55476E-06	9.47510E-12	2.53668E-08
[2,5,1]	2.29027E-05	8.85748E-08	9.34943E-07	6.68956E-08	4.03442E-07	2.52529E-12	8.93340E-10
[2,5,2]	6.18015E-05	7.22903E-08	8.52175E-07	5.95260E-08	1.97662E-06	4.98072E-12	7.74240E-09
[2,5,3]	9.27792E-05	5.87702E-08	7.55572E-07	5.21797E-08	4.14620E-06	6.78417E-12	2.06894E-08
[3,1,1]	1.33916E-03	8.67377E-08	1.47076E-06	9.88180E-08	1.25579E-04	4.10129E-11	5.42832E-07
[3,1,2]	1.30558E-03	7.52150E-08	1.32120E-06	8.83295E-08	1.23955E-04	3.94389E-11	5.33460E-07
[3,1,3]	1.26802E-03	6.57881E-08	1.20164E-06	8.00720E-08	1.21929E-04	3.82937E-11	5.26665E-07
[3,2,1]	1.34198E-03	9.71257E-08	1.63089E-06	1.09489E-07	1.26189E-04	4.06048E-11	5.22717E-07
[3,2,2]	1.30798E-03	8.39974E-08	1.45967E-06	9.75464E-08	1.24514E-04	3.88992E-11	5.13543E-07
[3,2,3]	1.27005E-03	7.33352E-08	1.32539E-06	8.82828E-08	1.22467E-04	3.77235E-11	5.06684E-07
[3,3,1]	4.08213E-05	1.07519E-07	1.22219E-06	8.37181E-08	9.54379E-07	4.51348E-12	3.17717E-09
[3,3,2]	7.62693E-05	8.79283E-08	1.10080E-06	7.41819E-08	2.83658E-06	7.36938E-12	1.39457E-08
[3,3,3]	1.04316E-04	7.12556E-08	9.70580E-07	6.47202E-08	5.15837E-06	9.44080E-12	3.10287E-08
[3,4,1]	3.05341E-05	8.04735E-08	9.01100E-07	6.19425E-08	6.37791E-07	2.93085E-12	1.67175E-09
[3,4,2]	6.79450E-05	6.60531E-08	8.18753E-07	5.52845E-08	2.34842E-06	5.14629E-12	9.96918E-09
[3,4,3]	9.76472E-05	5.37777E-08	7.26315E-07	4.85225E-08	4.58672E-06	6.78900E-12	2.42703E-08
[3,5,1]	1.33500E-03	7.93076E-08	1.40405E-06	9.10450E-08	1.25449E-04	3.82904E-11	5.63809E-07
[3,5,2]	1.30064E-03	6.99818E-08	1.28076E-06	8.30461E-08	1.23739E-04	3.74152E-11	5.56150E-07
[3,5,3]	1.26233E-03	6.13094E-08	1.16782E-06	7.54719E-08	1.21644E-04	3.63853E-11	5.49178E-07
[4,1,1]	1.33862E-03	8.80881E-08	1.53719E-06	9.97303E-08	1.26191E-04	3.75543E-11	5.38251E-07
[4,1,2]	1.30367E-03	7.70692E-08	1.39002E-06	9.01008E-08	1.24432E-04	3.64416E-11	5.29847E-07
[4,1,3]	1.26489E-03	6.71280E-08	1.26128E-06	8.14269E-08	1.22307E-04	3.52917E-11	5.22761E-07
[4,2,1]	4.95260E-05	9.25751E-08	1.08688E-06	7.30573E-08	1.30095E-06	4.47205E-12	4.55673E-09
[4,2,2]	8.32434E-05	7.55534E-08	9.71614E-07	6.43352E-08	3.31792E-06	6.76162E-12	1.65778E-08
[4,2,3]	1.09829E-04	6.12719E-08	8.55448E-07	5.60962E-08	5.70933E-06	8.44339E-12	3.44936E-08
[4,3,1]	3.72593E-05	7.12404E-08	8.20265E-07	5.55222E-08	8.74799E-07	2.97341E-12	2.39957E-09

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[4,3,2]	7.33538E-05	5.85448E-08	7.42345E-07	4.94326E-08	2.70299E-06	4.83725E-12	1.15035E-08
[4,3,3]	1.01906E-04	4.75306E-08	6.56233E-07	4.32200E-08	5.00224E-06	6.20053E-12	2.62838E-08
[4,4,1]	1.33003E-03	7.04368E-08	1.26950E-06	8.13273E-08	1.25321E-04	3.23283E-11	5.60455E-07
[4,4,2]	1.29498E-03	6.22749E-08	1.16321E-06	7.43534E-08	1.23560E-04	3.13659E-11	5.52420E-07
[4,4,3]	1.25603E-03	5.45773E-08	1.06226E-06	6.76557E-08	1.21400E-04	3.04161E-11	5.45447E-07
[4,5,1]	1.33392E-03	7.35979E-08	1.31625E-06	8.35427E-08	1.26087E-04	3.06186E-11	5.31237E-07
[4,5,2]	1.29817E-03	6.41393E-08	1.18927E-06	7.52279E-08	1.24265E-04	2.94001E-11	5.22180E-07
[4,5,3]	1.25870E-03	5.60741E-08	1.08286E-06	6.82830E-08	1.22073E-04	2.84828E-11	5.15311E-07

Table 62. Number densities for Case-2E, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1]	9.45140E-09	1.16302E-06	4.85918E-10	6.14986E-10	2.37316E-09	8.84288E-11
[1,1,2]	1.05253E-08	1.08070E-06	4.64134E-10	5.58798E-10	2.08931E-09	7.61468E-11
[1,1,3]	9.37247E-09	9.44385E-07	4.15892E-10	4.87686E-10	1.78555E-09	6.41193E-11
[1,2,1]	7.36675E-09	9.07300E-07	3.78397E-10	4.79606E-10	1.85232E-09	6.90665E-11
[1,2,2]	8.62152E-09	8.53936E-07	3.64349E-10	4.38915E-10	1.64188E-09	5.98650E-11
[1,2,3]	7.68366E-09	7.46529E-07	3.26685E-10	3.83163E-10	1.40338E-09	5.04123E-11
[1,3,1]	1.61287E-08	1.48862E-06	6.80037E-10	7.51476E-10	2.58727E-09	8.91742E-11
[1,3,2]	1.42398E-08	1.36316E-06	6.29266E-10	6.91929E-10	2.36852E-09	8.12753E-11
[1,3,3]	1.29213E-08	1.23009E-06	5.70567E-10	6.23299E-10	2.11859E-09	7.23171E-11
[1,4,1]	1.77058E-08	1.66200E-06	7.64124E-10	8.45015E-10	2.91105E-09	1.00301E-10
[1,4,2]	1.56497E-08	1.51725E-06	7.04397E-10	7.75191E-10	2.65524E-09	9.10924E-11
[1,4,3]	1.41558E-08	1.36354E-06	6.36428E-10	6.95818E-10	2.36656E-09	8.07562E-11
[1,5,1]	1.59795E-08	1.64521E-06	6.32755E-10	7.84605E-10	2.99972E-09	1.11031E-10
[1,5,2]	1.52728E-08	1.48657E-06	5.93555E-10	7.05906E-10	2.62423E-09	9.52366E-11
[1,5,3]	1.35286E-08	1.29493E-06	5.28619E-10	6.13971E-10	2.23742E-09	8.00649E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[2,1,1]	1.17620E-08	1.20023E-06	4.56553E-10	5.67749E-10	2.17504E-09	8.06253E-11
[2,1,2]	1.14233E-08	1.08978E-06	4.30908E-10	5.12636E-10	1.90740E-09	6.92666E-11
[2,1,3]	1.01368E-08	9.50696E-07	3.84672E-10	4.46497E-10	1.62784E-09	5.82703E-11
[2,2,1]	2.00370E-08	1.77909E-06	7.39819E-10	8.12286E-10	2.79270E-09	9.61611E-11
[2,2,2]	1.81413E-08	1.61477E-06	6.72809E-10	7.34747E-10	2.51074E-09	8.60716E-11
[2,2,3]	1.64840E-08	1.46062E-06	6.11725E-10	6.63539E-10	2.25105E-09	7.67518E-11
[2,3,1]	2.25368E-08	2.00808E-06	8.39635E-10	9.23897E-10	3.18127E-09	1.09575E-10
[2,3,2]	2.03198E-08	1.81174E-06	7.59071E-10	8.30933E-10	2.84413E-09	9.75409E-11
[2,3,3]	1.84262E-08	1.63536E-06	6.89185E-10	7.49332E-10	2.54618E-09	8.68437E-11
[2,4,1]	1.96761E-08	1.87104E-06	7.12461E-10	8.70112E-10	3.29670E-09	1.21243E-10
[2,4,2]	1.80030E-08	1.65443E-06	6.49231E-10	7.66072E-10	2.83188E-09	1.02357E-10
[2,4,3]	1.59245E-08	1.44201E-06	5.77546E-10	6.67039E-10	2.41938E-09	8.62807E-11
[2,5,1]	1.44004E-08	1.37103E-06	5.19835E-10	6.37642E-10	2.42297E-09	8.92983E-11
[2,5,2]	1.32868E-08	1.21744E-06	4.77369E-10	5.63620E-10	2.08586E-09	7.54529E-11
[2,5,3]	1.17837E-08	1.06350E-06	4.26148E-10	4.91833E-10	1.78484E-09	6.36727E-11
[3,1,1]	2.33051E-08	2.02691E-06	8.41627E-10	9.21817E-10	3.16160E-09	1.08618E-10
[3,1,2]	2.09973E-08	1.81639E-06	7.55617E-10	8.23028E-10	2.80518E-09	9.59405E-11
[3,1,3]	1.91217E-08	1.64713E-06	6.88920E-10	7.45093E-10	2.52069E-09	8.57239E-11
[3,2,1]	2.59032E-08	2.24082E-06	9.29863E-10	1.02223E-09	3.51537E-09	1.20944E-10
[3,2,2]	2.32514E-08	2.00035E-06	8.31957E-10	9.09753E-10	3.10945E-09	1.06511E-10
[3,2,3]	2.11374E-08	1.80994E-06	7.57327E-10	8.22276E-10	2.78938E-09	9.50009E-11
[3,3,1]	1.98129E-08	1.75977E-06	6.58513E-10	7.94978E-10	2.99125E-09	1.09469E-10
[3,3,2]	1.79100E-08	1.55309E-06	5.98010E-10	7.00561E-10	2.57645E-09	9.27807E-11
[3,3,3]	1.58052E-08	1.35125E-06	5.29967E-10	6.08677E-10	2.19796E-09	7.81317E-11
[3,4,1]	1.45830E-08	1.30184E-06	4.85342E-10	5.88695E-10	2.22273E-09	8.15444E-11
[3,4,2]	1.32967E-08	1.15647E-06	4.45503E-10	5.22265E-10	1.92372E-09	6.93481E-11
[3,4,3]	1.17961E-08	1.01161E-06	3.97728E-10	4.56394E-10	1.64931E-09	5.86542E-11

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[3,5,1]	2.31987E-08	1.91747E-06	7.76187E-10	8.47814E-10	2.90300E-09	9.96085E-11
[3,5,2]	2.11292E-08	1.74531E-06	7.11683E-10	7.72510E-10	2.62703E-09	8.96672E-11
[3,5,3]	1.92860E-08	1.58663E-06	6.50619E-10	7.01088E-10	2.36607E-09	8.02880E-11
[4,1,1]	2.54817E-08	2.09491E-06	8.47061E-10	9.29789E-10	3.19467E-09	1.09851E-10
[4,1,2]	2.30329E-08	1.88990E-06	7.69051E-10	8.39166E-10	2.86413E-09	9.79910E-11
[4,1,3]	2.09371E-08	1.70847E-06	6.99208E-10	7.57328E-10	2.56491E-09	8.72349E-11
[4,2,1]	1.81514E-08	1.55087E-06	5.77322E-10	6.92811E-10	2.59629E-09	9.47401E-11
[4,2,2]	1.62724E-08	1.36154E-06	5.19380E-10	6.07045E-10	2.22769E-09	8.00989E-11
[4,2,3]	1.43374E-08	1.18374E-06	4.59549E-10	5.27220E-10	1.90091E-09	6.75010E-11
[4,3,1]	1.36134E-08	1.17532E-06	4.37180E-10	5.27036E-10	1.98208E-09	7.25084E-11
[4,3,2]	1.23429E-08	1.04220E-06	3.99124E-10	4.66621E-10	1.71490E-09	6.17183E-11
[4,3,3]	1.09220E-08	9.08827E-07	3.54619E-10	4.06255E-10	1.46565E-09	5.20570E-11
[4,4,1]	2.14549E-08	1.72136E-06	6.93882E-10	7.57029E-10	2.58929E-09	8.87435E-11
[4,4,2]	1.96517E-08	1.57231E-06	6.37678E-10	6.91293E-10	2.34817E-09	8.00520E-11
[4,4,3]	1.79659E-08	1.43057E-06	5.83816E-10	6.28123E-10	2.11701E-09	7.17345E-11
[4,5,1]	2.25724E-08	1.78055E-06	7.09546E-10	7.78384E-10	2.67320E-09	9.18827E-11
[4,5,2]	2.04209E-08	1.60351E-06	6.42146E-10	7.00094E-10	2.38799E-09	8.16595E-11
[4,5,3]	1.86092E-08	1.45434E-06	5.86461E-10	6.34594E-10	2.14764E-09	7.29971E-11

Table 63. Axial flux distribution for Case-2E.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	Value	Statistical error	Value	Statistical error
5.25E+01	2.68E+13	2.40E-04	3.31E+13	2.20E-04
5.75E+01	2.42E+13	2.30E-04	4.11E+13	2.10E-04
6.25E+01	2.30E+13	2.30E-04	4.72E+13	2.00E-04
6.75E+01	2.26E+13	2.20E-04	5.21E+13	1.90E-04
7.25E+01	2.27E+13	2.30E-04	5.65E+13	1.80E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
7.75E+01	2.31E+13	2.30E-04	6.03E+13	1.80E-04
8.25E+01	2.37E+13	2.20E-04	6.37E+13	1.70E-04
8.75E+01	2.43E+13	2.10E-04	6.67E+13	1.70E-04
9.25E+01	2.50E+13	2.00E-04	6.95E+13	1.60E-04
9.75E+01	2.57E+13	2.00E-04	7.19E+13	1.50E-04
1.03E+02	2.64E+13	2.00E-04	7.42E+13	1.50E-04
1.08E+02	2.70E+13	2.00E-04	7.63E+13	1.50E-04
1.13E+02	2.77E+13	2.00E-04	7.82E+13	1.50E-04
1.18E+02	2.83E+13	1.90E-04	8.01E+13	1.40E-04
1.23E+02	2.88E+13	1.80E-04	8.17E+13	1.40E-04
1.28E+02	2.94E+13	1.80E-04	8.31E+13	1.30E-04
1.33E+02	2.99E+13	1.80E-04	8.43E+13	1.30E-04
1.38E+02	3.05E+13	1.80E-04	8.53E+13	1.30E-04
1.43E+02	3.10E+13	1.80E-04	8.62E+13	1.30E-04
1.48E+02	3.15E+13	1.70E-04	8.69E+13	1.30E-04
1.53E+02	3.19E+13	1.70E-04	8.75E+13	1.20E-04
1.58E+02	3.23E+13	1.70E-04	8.79E+13	1.20E-04
1.63E+02	3.26E+13	1.70E-04	8.81E+13	1.20E-04
1.68E+02	3.29E+13	1.70E-04	8.83E+13	1.30E-04
1.73E+02	3.30E+13	1.70E-04	8.84E+13	1.30E-04
1.78E+02	3.30E+13	1.70E-04	8.85E+13	1.20E-04
1.83E+02	3.30E+13	1.60E-04	8.84E+13	1.20E-04
1.88E+02	3.29E+13	1.60E-04	8.82E+13	1.20E-04
1.93E+02	3.29E+13	1.70E-04	8.78E+13	1.20E-04
1.98E+02	3.28E+13	1.70E-04	8.72E+13	1.30E-04
2.03E+02	3.26E+13	1.80E-04	8.65E+13	1.30E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Height (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
2.08E+02	3.23E+13	1.70E-04	8.58E+13	1.30E-04
2.13E+02	3.20E+13	1.70E-04	8.51E+13	1.30E-04
2.18E+02	3.16E+13	1.70E-04	8.42E+13	1.30E-04
2.23E+02	3.13E+13	1.80E-04	8.31E+13	1.30E-04
2.28E+02	3.08E+13	1.90E-04	8.19E+13	1.40E-04
2.33E+02	3.03E+13	1.90E-04	8.07E+13	1.40E-04
2.38E+02	2.98E+13	1.90E-04	7.93E+13	1.40E-04
2.43E+02	2.91E+13	1.90E-04	7.80E+13	1.40E-04
2.48E+02	2.85E+13	1.90E-04	7.65E+13	1.50E-04
2.53E+02	2.80E+13	2.00E-04	7.48E+13	1.50E-04
2.58E+02	2.74E+13	2.10E-04	7.29E+13	1.60E-04
2.63E+02	2.68E+13	2.10E-04	7.08E+13	1.60E-04
2.68E+02	2.64E+13	2.10E-04	6.86E+13	1.70E-04
2.73E+02	2.62E+13	2.10E-04	6.61E+13	1.70E-04
2.78E+02	2.62E+13	2.10E-04	6.33E+13	1.80E-04
2.83E+02	2.66E+13	2.20E-04	5.99E+13	1.90E-04
2.88E+02	2.77E+13	2.30E-04	5.57E+13	2.00E-04
2.93E+02	2.95E+13	2.30E-04	5.07E+13	2.00E-04
2.98E+02	3.27E+13	2.40E-04	4.43E+13	2.10E-04

Table 64. Radial flux distribution for Case-2E.

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
1.50E+00	4.87E+13	3.70E-04	9.77E+13	2.70E-04
4.50E+00	4.86E+13	2.70E-04	9.76E+13	2.00E-04

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
7.50E+00	4.84E+13	2.20E-04	9.73E+13	1.70E-04
1.05E+01	4.81E+13	1.90E-04	9.70E+13	1.50E-04
1.35E+01	4.78E+13	1.80E-04	9.63E+13	1.40E-04
1.65E+01	4.72E+13	1.60E-04	9.58E+13	1.20E-04
1.95E+01	4.67E+13	1.50E-04	9.49E+13	1.10E-04
2.25E+01	4.59E+13	1.40E-04	9.41E+13	1.00E-04
2.55E+01	4.52E+13	1.30E-04	9.31E+13	1.00E-04
2.85E+01	4.43E+13	1.20E-04	9.19E+13	9.00E-05
3.15E+01	4.32E+13	1.20E-04	9.08E+13	9.00E-05
3.45E+01	4.21E+13	1.10E-04	8.95E+13	8.00E-05
3.75E+01	4.08E+13	1.10E-04	8.82E+13	8.00E-05
4.05E+01	3.94E+13	1.10E-04	8.68E+13	8.00E-05
4.35E+01	3.78E+13	1.00E-04	8.54E+13	7.00E-05
4.65E+01	3.62E+13	1.00E-04	8.40E+13	7.00E-05
4.95E+01	3.43E+13	1.00E-04	8.23E+13	7.00E-05
5.25E+01	3.24E+13	1.00E-04	8.08E+13	7.00E-05
5.55E+01	3.03E+13	1.00E-04	7.92E+13	7.00E-05
5.85E+01	2.80E+13	9.00E-05	7.75E+13	7.00E-05
6.15E+01	2.56E+13	1.00E-04	7.59E+13	7.00E-05
6.45E+01	2.27E+13	9.00E-05	7.42E+13	7.00E-05
6.75E+01	2.06E+13	9.00E-05	7.24E+13	7.00E-05
7.05E+01	1.93E+13	1.00E-04	7.01E+13	7.00E-05
7.35E+01	1.87E+13	9.00E-05	6.77E+13	7.00E-05
7.65E+01	1.88E+13	9.00E-05	6.50E+13	7.00E-05
7.95E+01	1.95E+13	9.00E-05	6.20E+13	7.00E-05
8.25E+01	2.07E+13	9.00E-05	5.89E+13	7.00E-05

	Thermal flux (n/cm^2-s)		Fast flux (n/cm^2-s)	
Radius (cm)	**Value**	**Statistical error**	**Value**	**Statistical error**
8.55E+01	2.28E+13	9.00E-05	5.52E+13	7.00E-05
8.85E+01	2.57E+13	9.00E-05	5.11E+13	8.00E-05

Table 65. Power produced per TRISO particle and fast neutron flux (E > 1MeV) for Case-2E. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,1,1]	2.92E+02	3.10E-04	2.20E+13	1.18E-03
[2,1,1]	2.95E+02	2.50E-04	3.48E+13	9.40E-04
[3,1,1]	3.25E+02	2.30E-04	3.84E+13	8.90E-04
[4,1,1]	2.92E+02	2.50E-04	3.62E+13	9.20E-04
[5,1,1]	2.95E+02	2.80E-04	2.75E+13	1.06E-03
[1,1,2]	3.24E+02	3.10E-04	2.16E+13	1.19E-03
[2,1,2]	2.98E+02	2.60E-04	3.49E+13	9.30E-04
[3,1,2]	3.07E+02	2.40E-04	3.84E+13	8.80E-04
[4,1,2]	3.24E+02	2.50E-04	3.57E+13	9.20E-04
[5,1,2]	2.99E+02	2.80E-04	2.66E+13	1.07E-03
[1,1,3]	3.25E+02	3.20E-04	2.14E+13	1.19E-03
[2,1,3]	3.00E+02	2.60E-04	3.48E+13	9.30E-04
[3,1,3]	3.08E+02	2.40E-04	3.84E+13	8.80E-04
[4,1,3]	3.25E+02	2.50E-04	3.55E+13	9.20E-04
[5,1,3]	3.00E+02	2.90E-04	2.66E+13	1.07E-03
[1,2,1]	2.96E+02	3.10E-04	1.95E+13	1.25E-03
[2,2,1]	3.00E+02	2.60E-04	3.02E+13	1.00E-03
[3,2,1]	3.29E+02	2.40E-04	3.31E+13	9.50E-04

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[4,2,1]	2.96E+02	2.50E-04	3.10E+13	9.90E-04
[5,2,1]	2.99E+02	2.80E-04	2.35E+13	1.14E-03
[1,2,2]	3.27E+02	3.10E-04	1.89E+13	1.27E-03
[2,2,2]	3.01E+02	2.60E-04	3.03E+13	1.00E-03
[3,2,2]	3.10E+02	2.40E-04	3.32E+13	9.50E-04
[4,2,2]	3.27E+02	2.50E-04	3.06E+13	9.90E-04
[5,2,2]	3.02E+02	2.90E-04	2.28E+13	1.15E-03
[1,2,3]	3.27E+02	3.20E-04	1.89E+13	1.26E-03
[2,2,3]	3.02E+02	2.70E-04	3.02E+13	9.90E-04
[3,2,3]	3.11E+02	2.50E-04	3.31E+13	9.50E-04
[4,2,3]	3.27E+02	2.60E-04	3.05E+13	9.90E-04
[5,2,3]	3.02E+02	2.90E-04	2.27E+13	1.15E-03
[1,3,1]	2.86E+02	3.50E-04	1.50E+13	1.41E-03
[2,3,1]	2.91E+02	2.90E-04	2.29E+13	1.14E-03
[3,3,1]	3.21E+02	2.70E-04	2.51E+13	1.08E-03
[4,3,1]	2.88E+02	2.80E-04	2.34E+13	1.13E-03
[5,3,1]	2.90E+02	3.20E-04	1.75E+13	1.30E-03
[1,3,2]	3.21E+02	3.50E-04	1.46E+13	1.43E-03
[2,3,2]	2.96E+02	3.00E-04	2.30E+13	1.13E-03
[3,3,2]	3.05E+02	2.80E-04	2.51E+13	1.09E-03
[4,3,2]	3.21E+02	2.90E-04	2.31E+13	1.13E-03
[5,3,2]	2.96E+02	3.30E-04	1.69E+13	1.33E-03
[1,3,3]	3.22E+02	3.60E-04	1.46E+13	1.43E-03
[2,3,3]	2.97E+02	3.00E-04	2.29E+13	1.13E-03
[3,3,3]	3.06E+02	2.80E-04	2.49E+13	1.09E-03
[4,3,3]	3.22E+02	2.90E-04	2.30E+13	1.13E-03
[5,3,3]	2.98E+02	3.40E-04	1.68E+13	1.33E-03

Location	Power per Particle (mW)	Statistical error	Fast Flux (n/cm^2-s)	Statistical error
[1,4,1]	3.00E+02	3.40E-04	1.12E+13	1.64E-03
[2,4,1]	3.04E+02	2.90E-04	1.68E+13	1.33E-03
[3,4,1]	3.34E+02	2.70E-04	1.83E+13	1.27E-03
[4,4,1]	3.00E+02	2.80E-04	1.71E+13	1.32E-03
[5,4,1]	3.03E+02	3.30E-04	1.27E+13	1.54E-03
[1,4,2]	3.29E+02	3.50E-04	1.09E+13	1.65E-03
[2,4,2]	3.04E+02	3.00E-04	1.69E+13	1.33E-03
[3,4,2]	3.12E+02	2.80E-04	1.84E+13	1.27E-03
[4,4,2]	3.30E+02	2.90E-04	1.68E+13	1.33E-03
[5,4,2]	3.04E+02	3.40E-04	1.22E+13	1.56E-03
[1,4,3]	3.31E+02	3.60E-04	1.08E+13	1.65E-03
[2,4,3]	3.05E+02	3.00E-04	1.68E+13	1.33E-03
[3,4,3]	3.13E+02	2.80E-04	1.83E+13	1.27E-03
[4,4,3]	3.32E+02	3.00E-04	1.67E+13	1.33E-03
[5,4,3]	3.05E+02	3.50E-04	1.21E+13	1.56E-03

Appendix C
Case-3 Results

5.8 Case-3A

Table 66. Number densities for Case-3A, part 1 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes).

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[1,1,1]	3.83904E-03	1.94481E-02	1.34084E-09	1.81681E-05	1.10797E-06	9.39934E-08	3.53430E-09	3.59093E-08	1.91777E-07
[2,1,1]	2.96356E-03	1.89595E-02	1.59996E-07	9.76326E-05	2.37629E-05	6.06568E-06	7.28896E-07	3.09770E-08	2.47951E-07
[3,1,1]	2.42570E-03	1.96274E-02	8.36868E-07	1.32810E-04	5.12732E-05	1.96514E-05	4.12213E-06	2.77747E-08	2.46421E-07
[4,1,1]	1.59332E-03	1.63270E-02	1.86613E-06	1.20427E-04	5.97009E-05	2.82139E-05	8.93394E-06	1.99631E-08	1.92678E-07
[5,1,1]	1.34915E-03	1.75265E-02	4.00391E-06	1.33465E-04	7.65799E-05	4.10249E-05	1.79446E-05	1.85811E-08	1.93622E-07
[1,1,2]	9.85972E-04	1.62445E-02	6.24050E-06	1.25465E-04	7.82581E-05	4.55290E-05	2.59466E-05	1.50927E-08	1.66806E-07
[2,1,2]	3.76280E-03	2.00021E-02	1.03704E-08	4.50360E-05	4.44823E-06	6.48271E-07	3.54286E-08	4.04854E-08	2.51255E-07
[3,1,2]	3.14209E-03	2.10954E-02	2.72866E-07	1.20218E-04	3.22562E-05	9.72343E-06	1.27817E-06	3.75132E-08	2.76118E-07
[4,1,2]	2.25308E-03	1.91430E-02	1.03542E-06	1.34204E-04	5.41403E-05	2.27601E-05	5.09793E-06	2.94770E-08	2.42150E-07
[5,1,2]	1.74355E-03	1.87714E-02	2.51928E-06	1.41242E-04	7.11693E-05	3.59031E-05	1.19361E-05	2.50332E-08	2.25050E-07
[1,1,3]	1.45953E-03	1.99140E-02	5.11026E-06	1.53578E-04	8.83182E-05	4.97802E-05	2.25869E-05	2.30489E-08	2.24579E-07
[2,1,3]	1.03747E-03	1.79624E-02	7.54902E-06	1.40504E-04	8.69946E-05	5.26873E-05	3.09419E-05	1.83113E-08	1.89357E-07
[3,1,3]	3.37387E-03	1.89430E-02	3.29925E-08	6.59897E-05	9.28176E-06	1.78341E-06	1.32732E-07	3.84207E-08	2.47997E-07
[4,1,3]	2.57286E-03	1.82535E-02	3.58859E-07	1.13836E-04	3.38490E-05	1.15299E-05	1.73909E-06	3.23789E-08	2.40835E-07
[5,1,3]	1.99139E-03	1.78792E-02	1.23479E-06	1.29698E-04	5.48848E-05	2.47931E-05	6.08408E-06	2.73519E-08	2.28196E-07
[1,1,4]	1.84994E-03	2.10531E-02	3.34112E-06	1.60839E-04	8.31257E-05	4.39743E-05	1.56663E-05	2.78707E-08	2.55373E-07
[2,1,4]	1.25255E-03	1.80690E-02	5.24862E-06	1.41322E-04	8.17233E-05	4.78383E-05	2.28892E-05	2.08909E-08	2.06320E-07
[3,1,4]	1.00562E-03	1.84117E-02	8.51309E-06	1.45257E-04	9.00354E-05	5.60642E-05	3.44150E-05	1.87387E-08	1.96688E-07
[4,1,4]	3.80780E-03	2.24885E-02	8.33145E-08	9.78126E-05	1.74205E-05	3.94997E-06	3.59012E-07	4.35603E-08	3.01240E-07
[5,1,4]	2.62619E-03	1.96072E-02	5.38981E-07	1.29140E-04	4.21230E-05	1.55660E-05	2.65168E-06	3.30777E-08	2.61284E-07
[1,1,5]	2.00317E-03	1.89301E-02	1.61049E-06	1.40775E-04	6.22523E-05	2.94738E-05	7.88834E-06	2.75885E-08	2.43007E-07

Location	U-235	U-238	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Xe-135	Sm-149
[2,1,5]	1.37683E-03	1.64934E-02	3.03116E-06	1.28503E-04	6.74955E-05	3.68733E-05	1.40245E-05	2.08354E-08	2.00560E-07
[3,1,5]	1.23269E-03	1.87219E-02	6.07311E-06	1.47997E-04	8.63236E-05	5.16698E-05	2.60897E-05	2.06779E-08	2.14149E-07
[4,1,5]	8.81107E-04	1.69852E-02	8.55981E-06	1.35984E-04	8.40187E-05	5.31277E-05	3.40932E-05	1.65920E-08	1.82177E-07
[5,1,5]	3.16757E-03	1.95291E-02	1.15385E-07	9.37886E-05	2.01471E-05	4.83076E-06	5.19905E-07	3.45943E-08	2.56771E-07
[1,1,6]	2.77984E-03	2.16692E-02	7.55377E-07	1.44688E-04	5.21418E-05	1.95611E-05	3.75968E-06	3.32873E-08	2.79117E-07
[2,1,6]	1.98586E-03	1.95970E-02	1.94498E-06	1.44421E-04	6.84994E-05	3.22984E-05	9.50481E-06	2.59174E-08	2.39897E-07
[3,1,6]	1.50151E-03	1.87876E-02	3.85749E-06	1.44039E-04	7.99607E-05	4.29965E-05	1.77164E-05	2.15276E-08	2.15847E-07
[4,1,6]	1.35423E-03	2.14834E-02	7.58557E-06	1.66847E-04	1.01646E-04	5.97961E-05	3.22787E-05	2.15687E-08	2.31916E-07
[5,1,6]	9.17218E-04	1.84720E-02	9.94766E-06	1.45165E-04	9.33122E-05	5.76094E-05	3.92682E-05	1.63951E-08	1.85777E-07

Table 67. Number densities for Case-3A, part 2 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[1,1,1]	3.41340E-08	2.36215E-06	7.65080E-06	3.64567E-07	1.20169E-08	2.04399E-08	4.81417E-10	4.37905E-06	3.93151E-06
[2,1,1]	1.12244E-06	1.41798E-05	5.14654E-05	2.35452E-06	9.69847E-09	1.64068E-08	3.84960E-10	2.87710E-05	8.31080E-06
[3,1,1]	3.45721E-06	2.55388E-05	9.27852E-05	4.08944E-06	8.30417E-09	1.39908E-08	3.27243E-10	5.09177E-05	7.55463E-06
[4,1,1]	5.34793E-06	2.92152E-05	1.05398E-04	4.48365E-06	5.71773E-09	9.59647E-09	2.23750E-10	5.69771E-05	5.18992E-06
[5,1,1]	8.69620E-06	3.89969E-05	1.39183E-04	5.71830E-06	5.01324E-09	8.37946E-09	1.94690E-10	7.42671E-05	4.55678E-06
[1,1,2]	1.08872E-05	4.25570E-05	1.49846E-04	5.94668E-06	3.87092E-09	6.44053E-09	1.49050E-10	7.90292E-05	3.47400E-06
[2,1,2]	1.66064E-07	5.09446E-06	1.79917E-05	8.51064E-07	1.57466E-08	2.66874E-08	6.25657E-10	1.02331E-05	7.82310E-06
[3,1,2]	1.73671E-06	1.82721E-05	6.65869E-05	3.02517E-06	1.37235E-08	2.31414E-08	5.40581E-10	3.70388E-05	1.06238E-05
[4,1,2]	4.03349E-06	2.69060E-05	9.78456E-05	4.28472E-06	1.03197E-08	1.73316E-08	4.03593E-10	5.34789E-05	8.24877E-06
[5,1,2]	6.93818E-06	3.53337E-05	1.27447E-04	5.38769E-06	8.39383E-09	1.40414E-08	3.25909E-10	6.86540E-05	6.67713E-06
[1,1,3]	1.07925E-05	4.59709E-05	1.63842E-04	6.68992E-06	7.27101E-09	1.21114E-08	2.80099E-10	8.71534E-05	5.77556E-06
[2,1,3]	1.29075E-05	4.84362E-05	1.70241E-04	6.71422E-06	5.49431E-09	9.10771E-09	2.09767E-10	8.95228E-05	4.30481E-06
[3,1,3]	3.84725E-07	7.35861E-06	2.76886E-05	1.29781E-06	1.63136E-08	2.75980E-08	6.45979E-10	1.56298E-05	1.02487E-05
[4,1,3]	2.03555E-06	1.79759E-05	6.66040E-05	3.00325E-06	1.30455E-08	2.19660E-08	5.12406E-10	3.68337E-05	1.03606E-05

Location	Cs-134	Cs135	Cs-137	Kr-85	Kr-85m	Kr-88	Kr-89	Sr-88	Sr-89
[5,1,3]	4.49233E-06	2.70015E-05	9.89369E-05	4.30292E-06	1.04511E-08	1.75281E-08	4.07583E-10	5.38209E-05	8.50944E-06
[1,1,4]	8.79159E-06	4.15973E-05	1.50626E-04	6.32553E-06	1.01391E-08	1.69371E-08	3.92515E-10	8.08038E-05	8.24668E-06
[2,1,4]	1.07426E-05	4.32501E-05	1.54430E-04	6.26423E-06	7.20835E-09	1.19886E-08	2.76804E-10	8.18317E-05	5.79274E-06
[3,1,4]	1.42418E-05	5.10936E-05	1.79656E-04	7.03929E-06	6.10793E-09	1.01079E-08	2.32386E-10	9.41377E-05	4.87578E-06
[4,1,4]	7.86933E-07	1.16136E-05	4.41803E-05	2.05433E-06	1.71427E-08	2.89492E-08	6.76370E-10	2.47993E-05	1.36867E-05
[5,1,4]	2.75158E-06	2.15264E-05	8.01352E-05	3.58809E-06	1.23845E-08	2.08210E-08	4.84854E-10	4.41106E-05	1.14319E-05
[1,1,5]	5.47220E-06	3.04837E-05	1.11908E-04	4.83502E-06	9.83753E-09	1.64745E-08	3.82430E-10	6.06355E-05	9.17784E-06
[2,1,5]	7.60111E-06	3.40684E-05	1.23396E-04	5.14865E-06	7.05288E-09	1.17628E-08	2.72108E-10	6.59602E-05	6.56796E-06
[3,1,5]	1.19987E-05	4.63398E-05	1.65335E-04	6.66384E-06	6.62443E-09	1.09986E-08	2.53452E-10	8.73240E-05	6.11088E-06
[4,1,5]	1.39432E-05	4.84214E-05	1.70002E-04	6.61852E-06	5.01077E-09	8.27612E-09	1.89870E-10	8.88052E-05	4.58269E-06
[5,1,5]	9.36238E-07	1.23730E-05	4.64078E-05	2.14366E-06	1.21369E-08	2.04758E-08	4.77950E-10	2.59577E-05	1.18713E-05
[1,1,6]	3.50873E-06	2.60218E-05	9.62378E-05	4.28254E-06	1.10802E-08	1.86141E-08	4.33090E-10	5.28135E-05	1.20121E-05
[2,1,6]	6.17231E-06	3.33329E-05	1.21787E-04	5.23063E-06	8.22958E-09	1.37729E-08	3.19447E-10	6.58160E-05	8.98629E-06
[3,1,6]	9.17354E-06	4.03260E-05	1.45462E-04	6.03367E-06	6.51345E-09	1.08569E-08	2.50946E-10	7.75716E-05	7.07479E-06
[4,1,6]	1.43639E-05	5.47520E-05	1.94562E-04	7.79583E-06	6.14847E-09	1.02022E-08	2.34892E-10	1.02538E-04	6.63207E-06
[5,1,6]	1.56539E-05	5.39119E-05	1.88535E-04	7.29676E-06	4.42064E-09	7.29743E-09	1.67268E-10	9.82856E-05	4.71947E-06

Table 68. Number densities for Case-3A, part 3 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[1,1,1]	7.04378E-06	1.14923E-07	8.86049E-07	8.26132E-08	5.65563E-08	1.05374E-12	4.21083E-11
[2,1,1]	4.56525E-05	9.26342E-08	8.51881E-07	7.08590E-08	8.40725E-07	2.99875E-12	1.95782E-09
[3,1,1]	8.00709E-05	7.92187E-08	7.74522E-07	6.37623E-08	2.13803E-06	4.49053E-12	7.38773E-09
[4,1,1]	8.87801E-05	5.44774E-08	5.63972E-07	4.60959E-08	3.05468E-06	4.63729E-12	1.31899E-08
[5,1,1]	1.14618E-04	4.76988E-08	5.24849E-07	4.25494E-08	4.78835E-06	5.66614E-12	2.38509E-08
[1,1,2]	1.20756E-04	3.67729E-08	4.30600E-07	3.46912E-08	5.89615E-06	5.81639E-12	3.25726E-08
[2,1,2]	1.64025E-05	1.51517E-07	1.40711E-06	1.10250E-07	1.75051E-07	2.22261E-12	2.37574E-10

Location	Sr-90	Sr-91	I-131	I-135	Ag-109	Ag-109m	Ag-110
[3,1,2]	5.87112E-05	1.31862E-07	1.34142E-06	1.01746E-07	1.18115E-06	5.02634E-12	3.29941E-09
[4,1,2]	8.40012E-05	9.90296E-08	1.07008E-06	8.03941E-08	2.37352E-06	6.33728E-12	9.21283E-09
[5,1,2]	1.06838E-04	8.04406E-08	9.21424E-07	6.87322E-08	3.83339E-06	7.60745E-12	1.81080E-08
[1,1,3]	1.34317E-04	6.95773E-08	8.46945E-07	6.27174E-08	5.79738E-06	9.09706E-12	3.10648E-08
[2,1,3]	1.36586E-04	5.24861E-08	6.80696E-07	5.01083E-08	6.85032E-06	9.09920E-12	4.03960E-08
[3,1,3]	2.49978E-05	1.57096E-07	1.57818E-06	1.16131E-07	3.33595E-07	3.24233E-12	6.18660E-10
[4,1,3]	5.83229E-05	1.25448E-07	1.35553E-06	9.80472E-08	1.29086E-06	5.56478E-12	4.20240E-09
[5,1,3]	8.44418E-05	1.00385E-07	1.15416E-06	8.24895E-08	2.53856E-06	7.14283E-12	1.09611E-08
[1,1,4]	1.25589E-04	9.72625E-08	1.18776E-06	8.41489E-08	4.71968E-06	1.00238E-11	2.42776E-08
[2,1,4]	1.25947E-04	6.90358E-08	8.94399E-07	6.31146E-08	5.63952E-06	9.72429E-12	3.25818E-08
[3,1,4]	1.43421E-04	5.83995E-08	8.08358E-07	5.65653E-08	7.41290E-06	1.07836E-11	4.67027E-08
[4,1,4]	3.95812E-05	1.65327E-07	1.79632E-06	1.23736E-07	6.13870E-07	4.27104E-12	1.36380E-09
[5,1,4]	6.97483E-05	1.19282E-07	1.38732E-06	9.41969E-08	1.67139E-06	5.96681E-12	5.98385E-09
[1,1,5]	9.50037E-05	9.46258E-08	1.16691E-06	7.86068E-08	3.01671E-06	7.37945E-12	1.39489E-08
[2,1,5]	1.02373E-04	6.77480E-08	8.87709E-07	5.93280E-08	4.01220E-06	7.53442E-12	2.17302E-08
[3,1,5]	1.34200E-04	6.35345E-08	8.85661E-07	5.88052E-08	6.21375E-06	9.53790E-12	3.75809E-08
[4,1,5]	1.35086E-04	4.79705E-08	7.14424E-07	4.71188E-08	7.17834E-06	9.39500E-12	4.71337E-08
[5,1,5]	4.13504E-05	1.17129E-07	1.33878E-06	8.83583E-08	7.07045E-07	3.42493E-12	1.67103E-09
[1,1,6]	8.33771E-05	1.06804E-07	1.30471E-06	8.48566E-08	2.12010E-06	5.70770E-12	7.78676E-09
[2,1,6]	1.02959E-04	7.92315E-08	1.02623E-06	6.61568E-08	3.41307E-06	6.43411E-12	1.59230E-08
[3,1,6]	1.20202E-04	6.26234E-08	8.60695E-07	5.51177E-08	4.87384E-06	7.15638E-12	2.64628E-08
[4,1,6]	1.57320E-04	5.90249E-08	8.64257E-07	5.49291E-08	7.48914E-06	9.03932E-12	4.53269E-08
[5,1,6]	1.49251E-04	4.23631E-08	6.62448E-07	4.18327E-08	8.12047E-06	8.37295E-12	5.31298E-08

Table 69. Number densities for Case-3A, part 4 of 4. (The location indices are numbered starting from the fresh fuel loading location and indicate axial location, radial location, and number of passes.)

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,1]	9.74341E-09	1.39339E-06	6.26035E-10	7.99369E-10	3.09383E-09	1.15523E-10
[2,1,1]	1.28307E-08	1.25761E-06	5.52863E-10	6.81872E-10	2.58404E-09	9.50934E-11
[3,1,1]	1.16822E-08	1.12833E-06	5.06110E-10	6.11385E-10	2.28216E-09	8.31131E-11
[4,1,1]	8.49561E-09	8.13506E-07	3.70564E-10	4.40675E-10	1.62312E-09	5.85714E-11
[5,1,1]	7.92876E-09	7.49702E-07	3.45983E-10	4.05613E-10	1.47428E-09	5.27146E-11
[1,1,2]	6.49513E-09	6.09730E-07	2.85242E-10	3.29782E-10	1.18255E-09	4.18812E-11
[2,1,2]	1.87166E-08	2.14129E-06	8.41582E-10	1.05640E-09	4.06634E-09	1.51203E-10
[3,1,2]	1.93730E-08	1.98322E-06	7.96717E-10	9.70168E-10	3.66301E-09	1.34400E-10
[4,1,2]	1.54585E-08	1.56248E-06	6.39536E-10	7.63959E-10	2.84248E-09	1.03248E-10
[5,1,2]	1.33004E-08	1.33221E-06	5.53552E-10	6.51217E-10	2.39066E-09	8.60376E-11
[1,1,3]	1.22400E-08	1.21325E-06	5.10756E-10	5.92560E-10	2.14665E-09	7.65477E-11
[2,1,3]	9.82409E-09	9.66524E-07	4.12696E-10	4.72115E-10	1.68688E-09	5.95659E-11
[3,1,3]	2.30930E-08	2.35007E-06	8.93459E-10	1.10960E-09	4.24700E-09	1.57288E-10
[4,1,3]	2.03350E-08	1.97906E-06	7.71318E-10	9.32737E-10	3.50734E-09	1.28312E-10
[5,1,3]	1.73701E-08	1.66472E-06	6.58302E-10	7.82097E-10	2.89990E-09	1.05070E-10
[1,1,4]	1.78994E-08	1.69624E-06	6.79489E-10	7.95468E-10	2.91059E-09	1.04498E-10
[2,1,4]	1.34428E-08	1.26627E-06	5.15419E-10	5.95021E-10	2.14788E-09	7.63879E-11
[3,1,4]	1.21666E-08	1.13394E-06	4.67065E-10	5.31752E-10	1.89330E-09	6.66769E-11
[4,1,4]	2.86264E-08	2.62363E-06	9.57450E-10	1.17815E-09	4.48942E-09	1.65736E-10
[5,1,4]	2.23274E-08	1.99274E-06	7.43510E-10	8.93257E-10	3.34783E-09	1.22183E-10
[1,1,5]	1.87893E-08	1.65745E-06	6.29003E-10	7.43124E-10	2.74679E-09	9.92956E-11
[2,1,5]	1.43079E-08	1.24856E-06	4.80343E-10	5.59234E-10	2.03947E-09	7.30426E-11
[3,1,5]	1.42599E-08	1.23464E-06	4.81350E-10	5.52746E-10	1.98889E-09	7.05631E-11
[4,1,5]	1.15052E-08	9.86776E-07	3.90147E-10	4.41652E-10	1.56688E-09	5.50275E-11
[5,1,5]	2.27637E-08	1.92714E-06	6.86010E-10	8.39815E-10	3.19155E-09	1.17593E-10

Location	Xe-131m	Xe-133	Xe-135m	Xe-137	Xe-138	Xe-139
[1,1,6]	2.23317E-08	1.84933E-06	6.70877E-10	8.03413E-10	3.00571E-09	1.09554E-10
[2,1,6]	1.75814E-08	1.43896E-06	5.29778E-10	6.24458E-10	2.30512E-09	8.32492E-11
[3,1,6]	1.47440E-08	1.19540E-06	4.46485E-10	5.18792E-10	1.88972E-09	6.76193E-11
[4,1,6]	1.48094E-08	1.18933E-06	4.49850E-10	5.15556E-10	1.85277E-09	6.56720E-11
[5,1,6]	1.13472E-08	9.03216E-07	3.46521E-10	3.91540E-10	1.38747E-09	4.86827E-11