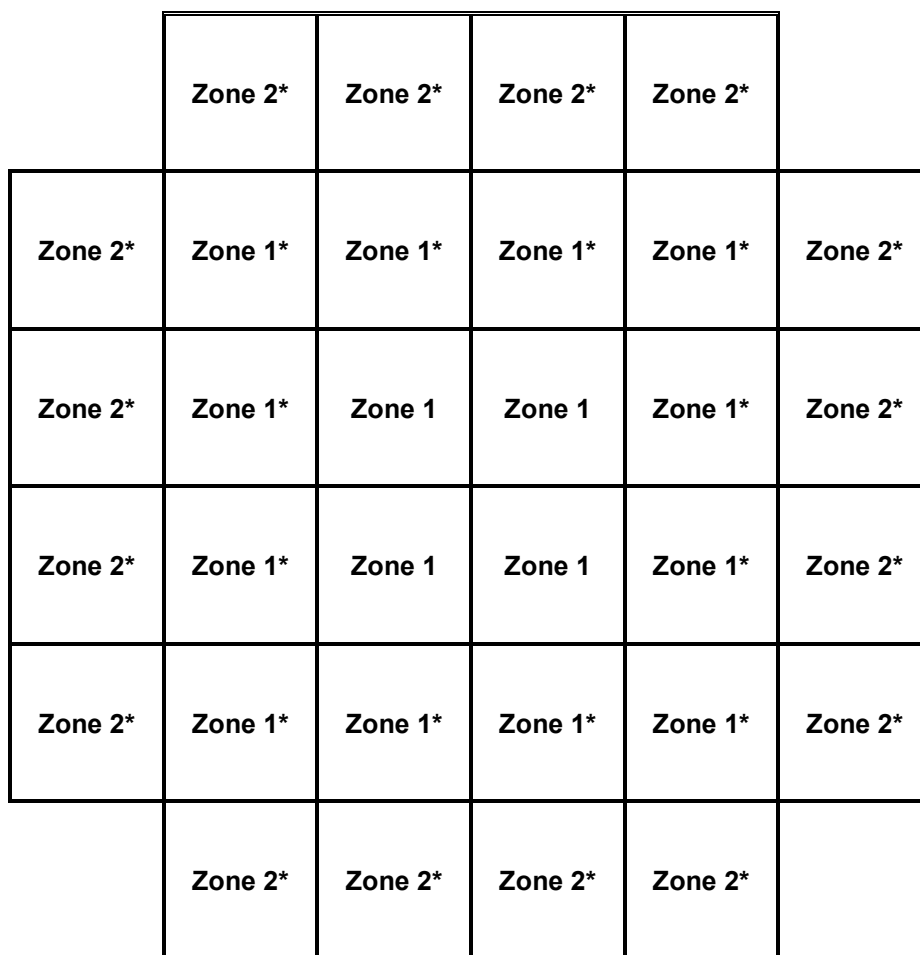


Note: The maximum planar average initial enrichment is specified as “initial enrichment.”

**Figure 1-1**  
**PWR Fuel Criticality Acceptance Curve for the 24P DSC**



\* Denotes locations where intact or damaged FAs may be stored.

	Zone 1	Zone 2
Max. Decay Heat / FA (kW)	0.63	0.87
Max. Decay Heat / Zone (kW)	10.08	13.92
Max. Decay Heat / DSC (kW)	24.0	

Notes:

(1) Up to 28 damaged FAs may be stored in Zone 1 and Zone 2 only.

**Figure 1-2**  
**Heat Load Zoning Configuration 1 for the NUHOMS®-32PT DSC**

	Zone 2**	Zone 1*	Zone 1*	Zone 2**	
Zone 2**	Zone 1*	Zone 1*	Zone 1*	Zone 1*	Zone 2**
Zone 1*	Zone 1*	Zone 1	Zone 1	Zone 1*	Zone 1*
Zone 1*	Zone 1*	Zone 1	Zone 1	Zone 1*	Zone 1*
Zone 2**	Zone 1*	Zone 1*	Zone 1*	Zone 1*	Zone 2**
	Zone 2**	Zone 1*	Zone 1*	Zone 2**	

\* Denotes locations where intact or damaged FAs may be stored.

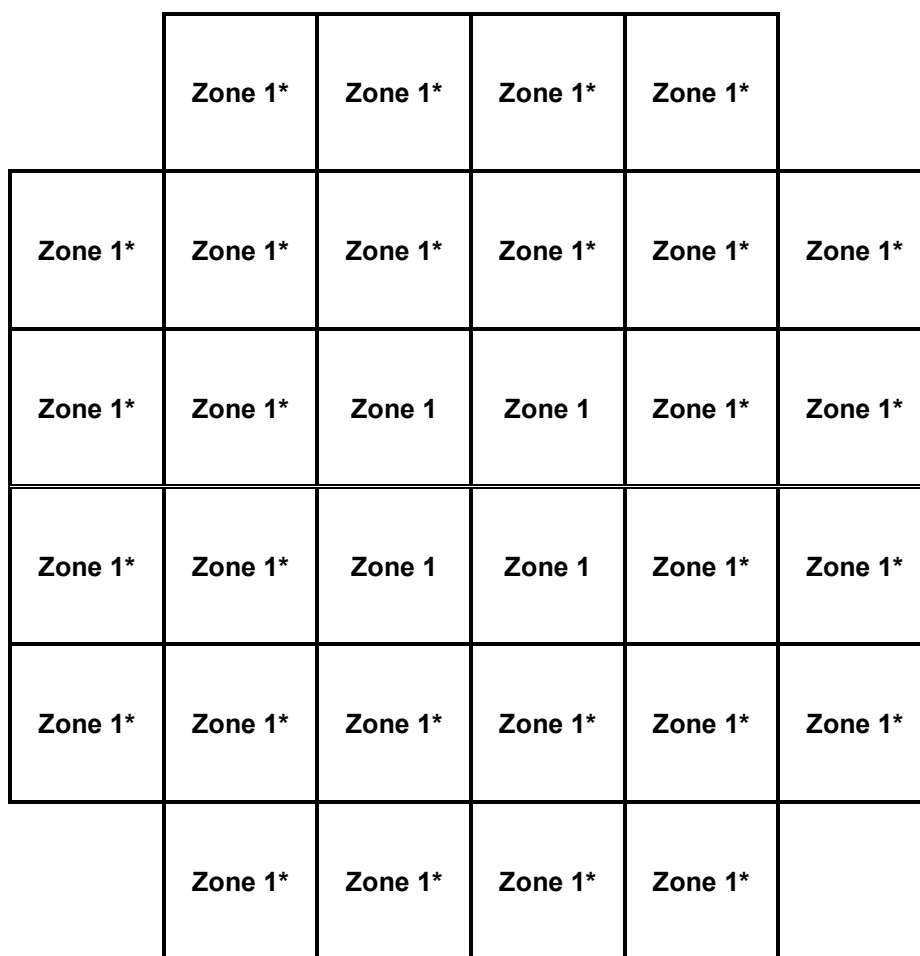
\*\* Denotes locations where intact or damaged FAs or FFCs may be stored.

	Zone 1	Zone 2
<b>Max. Decay Heat / FA (kW)</b>	0.6	1.2
<b>Max. Decay Heat / Zone (kW)</b>	14.4	9.6
<b>Max. Decay Heat / DSC (kW)</b>	24.0	

Notes:

- (1) The maximum allowable heat load per FFC is 0.8 kW.
- (2) Up to 28 damaged FAs may be stored in Zone 1 and Zone 2 only. When storing damaged FAs in Zone 1, intact FAs or Failed Fuel Cans (FFCs) may be stored in the remaining Zone 1 and Zone 2 locations.
- (3) Up to 8 FFCs may be stored in Zone 2 only. When storing FFCs in Zone 2, intact or damaged FAs may be stored in the remaining Zone 1 and Zone 2 locations.

**Figure 1-3**  
**Heat Load Zoning Configuration 2 for the NUHOMS®-32PT DSC**



\* Denotes locations where intact or damaged FAs may be stored.

	Zone 1
Max. Decay Heat / FA (kW)	0.7
Max. Decay Heat / Zone (kW)	22.4
Max. Decay Heat / DSC (kW)	22.4

Notes:

(1) Up to 28 damaged FAs may be stored in Zone 1 only.

**Figure 1-4**  
**Heat Load Zoning Configuration 3 for the NUHOMS®-32PT DSC**

	Zone 3	Zone 5*	Zone 5*	Zone 3	
Zone 3	Zone 2*	Zone 2*	Zone 2*	Zone 2*	Zone 3
Zone 5*	Zone 2*	Zone 1	Zone 1	Zone 2*	Zone 5*
Zone 5*	Zone 2*	Zone 1	Zone 1	Zone 2*	Zone 5*
Zone 4	Zone 2*	Zone 2*	Zone 2*	Zone 2*	Zone 4
	Zone 4	Zone 5*	Zone 5*	Zone 4	

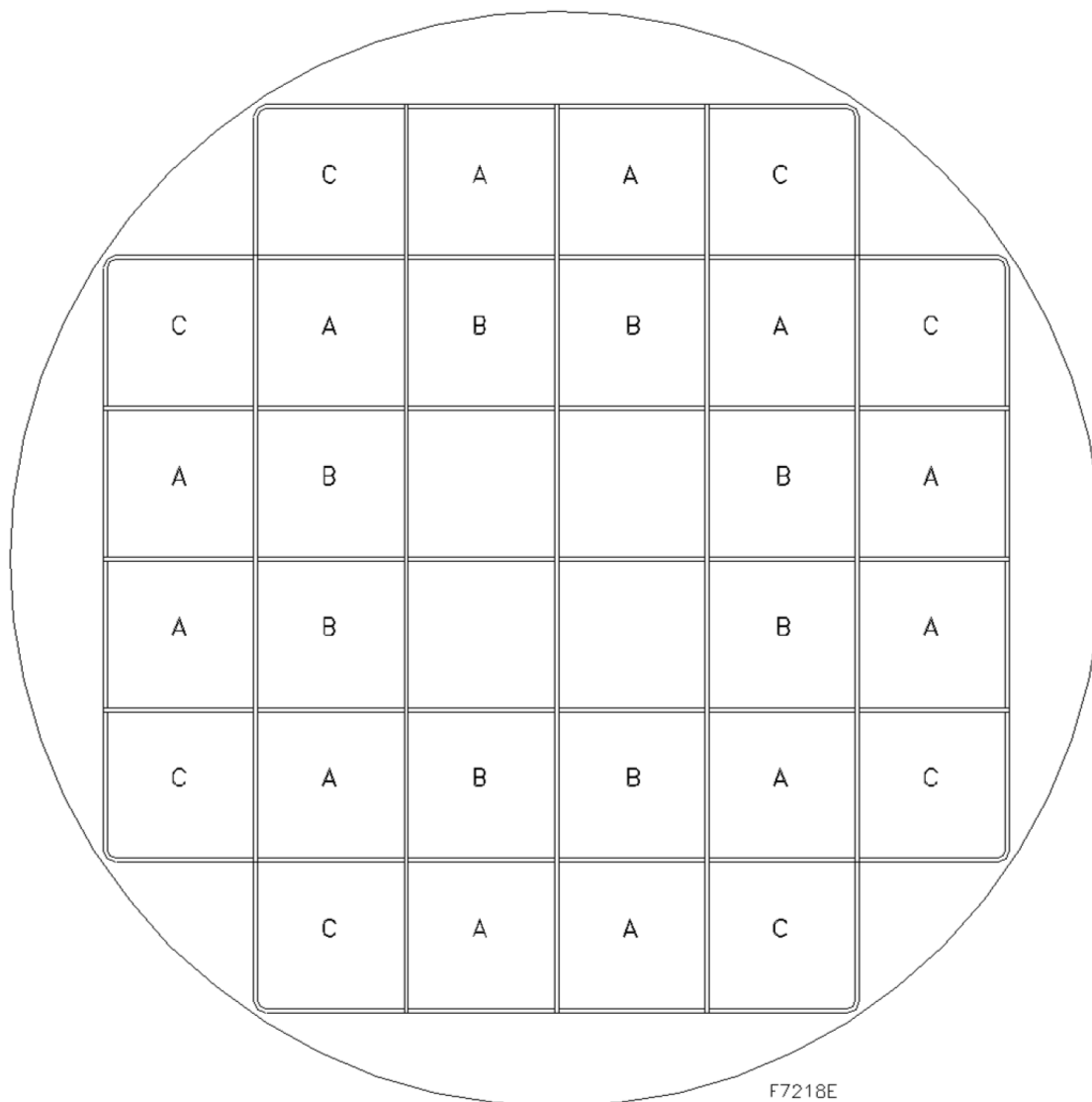
\* Denotes where damaged FAs may be stored.

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>Max. Decay Heat / FA (kW)</b>	0.40	0.60	2.20	1.70	0.8 <sup>(2)</sup>
<b>Max. Decay Heat / DSC (kW)</b>	24 <sup>(1)</sup>				

Notes:

- (1) Adjust payload to maintain the total DSC heat load within the specified limit.
- (2) If damaged FAs are loaded in any Zone 2 or Zone 5 locations, the maximum allowable decay heat per FA in Zone 5 is 0.6 kW.
- (3) Up to 20 damaged FAs may be stored in Zones 2 and 5 only.

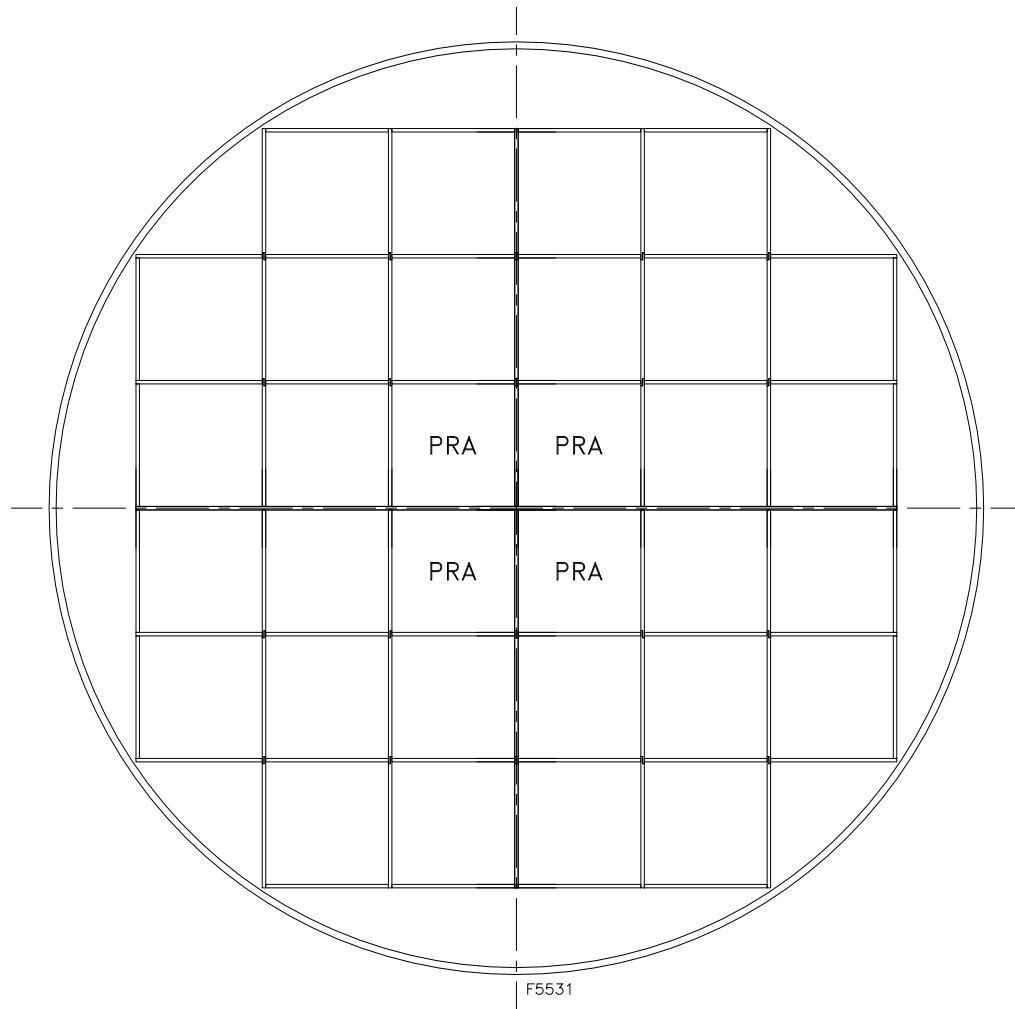
**Figure 1-4a**  
**Heat Load Zoning Configuration 4 for the NUHOMS® -32PT DSC**



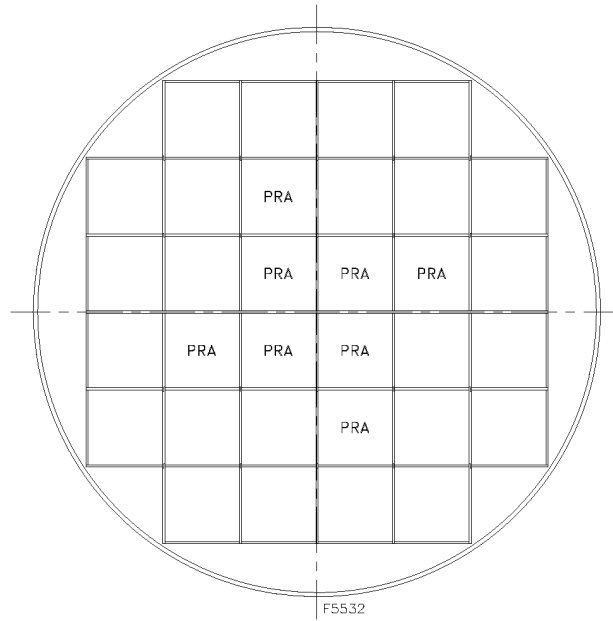
Notes:

- (1) The "C" locations shall be employed when loading up to 8 FFCs as specified in Table 1-1g3
- (2) The "B" locations and "C" locations shall be employed when loading up to 16 damaged fuel assemblies as specified in Table 1-1g2
- (3) The "A" locations, "B" locations and "C" locations shall be employed when loading greater than 16 and up to 28 damaged fuel assemblies as specified in Table 1-1g2

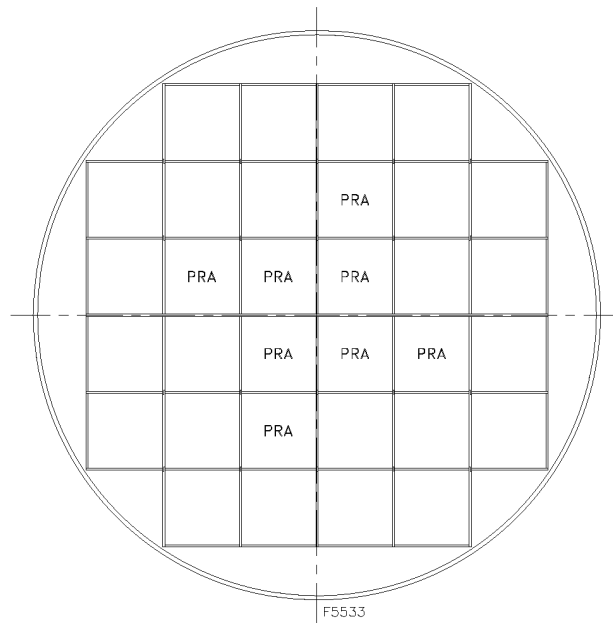
**Figure 1-4b**  
**Location of Damaged and Failed Fuel Assemblies inside 32PT DSC**



**Figure 1-5**  
**Required PRA Locations for the NUHOMS®-32PT DSC Configuration with Four PRAs**

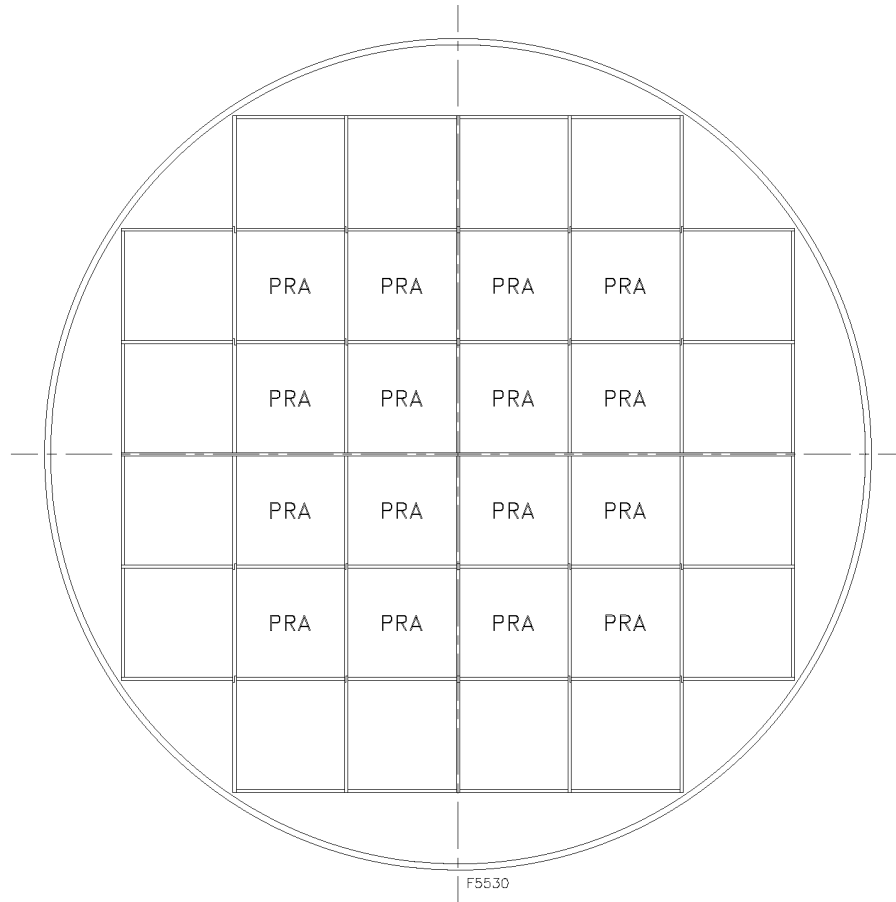


Or

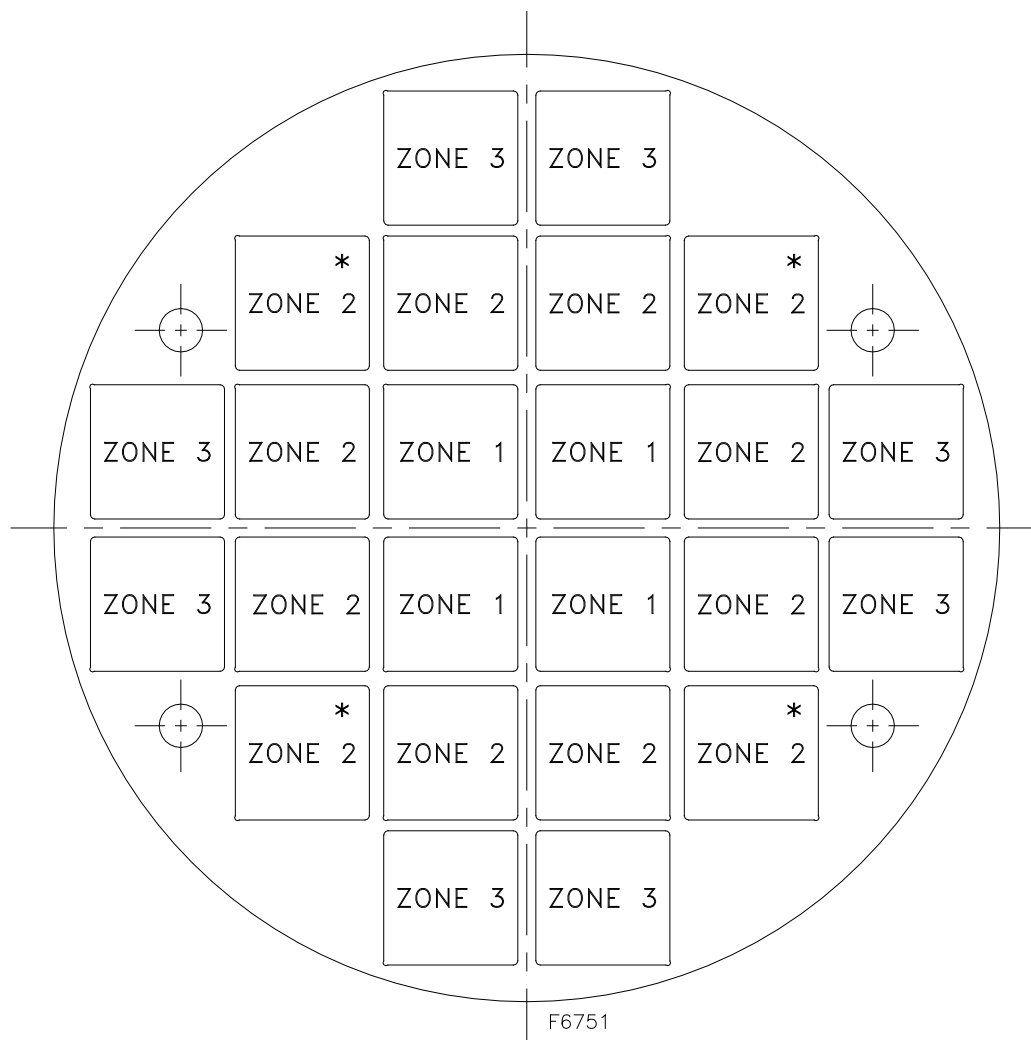


**Figure 1-6**  
**Required PRA Locations for the NUHOMS®-32PT DSC Configuration with Eight PRAs**





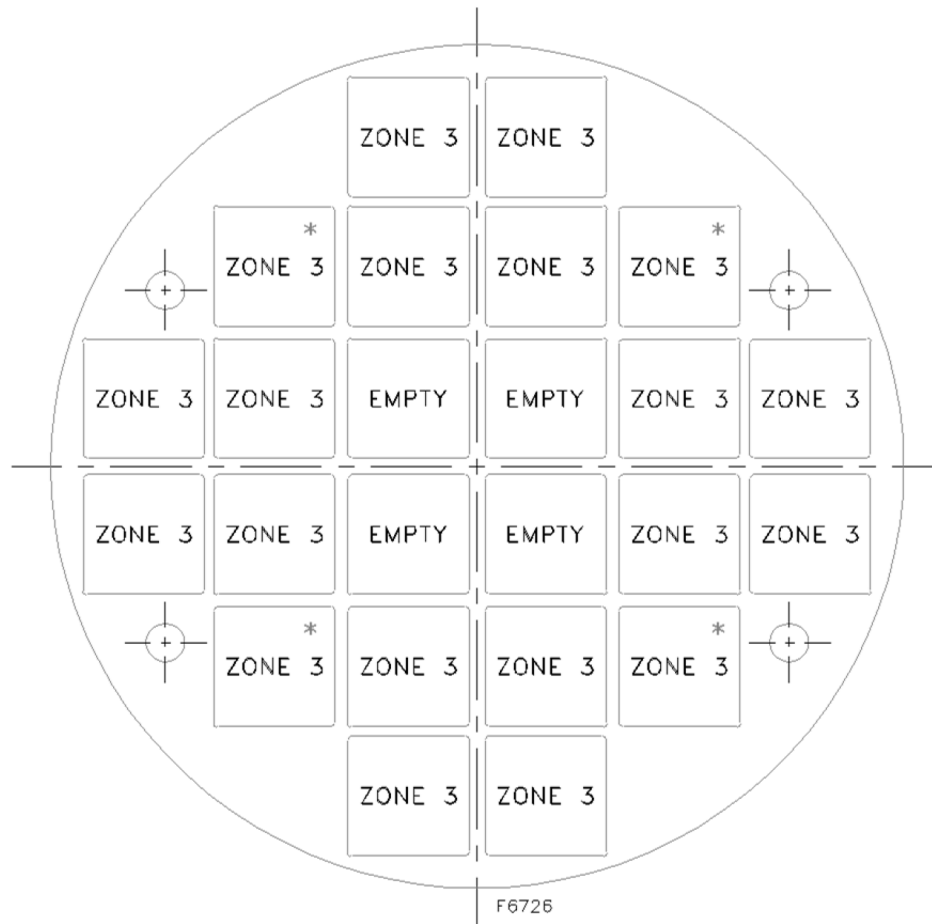
**Figure 1-7**  
**Required PRA Locations for the NUHOMS®-32PT DSC Configuration with Sixteen PRAs**



\* DENOTES LOCATION WHERE INTACT OR DAMAGED FUEL ASSEMBLY CAN BE STORED.

	<b>Zone 1</b>	<b>Zone 2</b>	<b>Zone 3</b>
Maximum Decay Heat (kW/FA)	0.7	1	1.3
Maximum Decay Heat per Zone (kW)	2.8	10.8	10.4

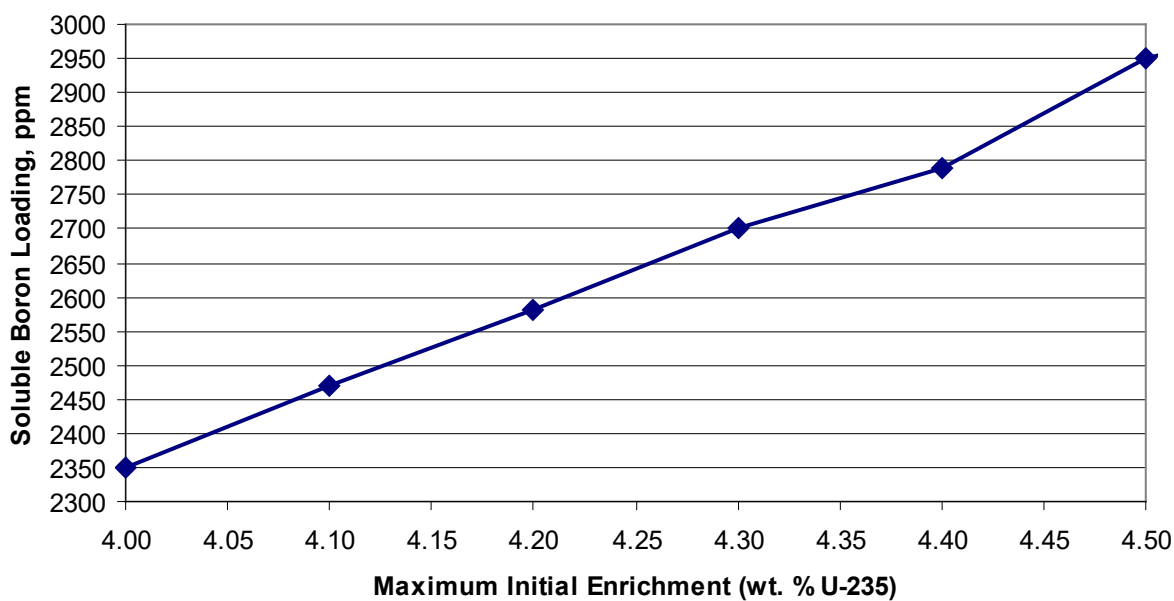
**Figure 1-8**  
**Heat Load Zoning Configuration for Fuel Assemblies (with or without Control Components) Stored in NUHOMS®-24PHB DSC-Configuration 1**



\* DENOTES LOCATION WHERE INTACT OR DAMAGED FUEL ASSEMBLY CAN BE STORED.

	<b>Zone 1</b>	<b>Zone 2</b>	<b>Zone 3</b>
Maximum Decay Heat (kW/FA)	N/A	N/A	1.3
Maximum Decay Heat per Zone (kW)	N/A	N/A	24.0

**Figure 1-9**  
**Heat Load Zoning Configuration for Fuel Assemblies (with or without Control Components) Stored in NUHOMS®-24PHB DSC-Configuration 2**

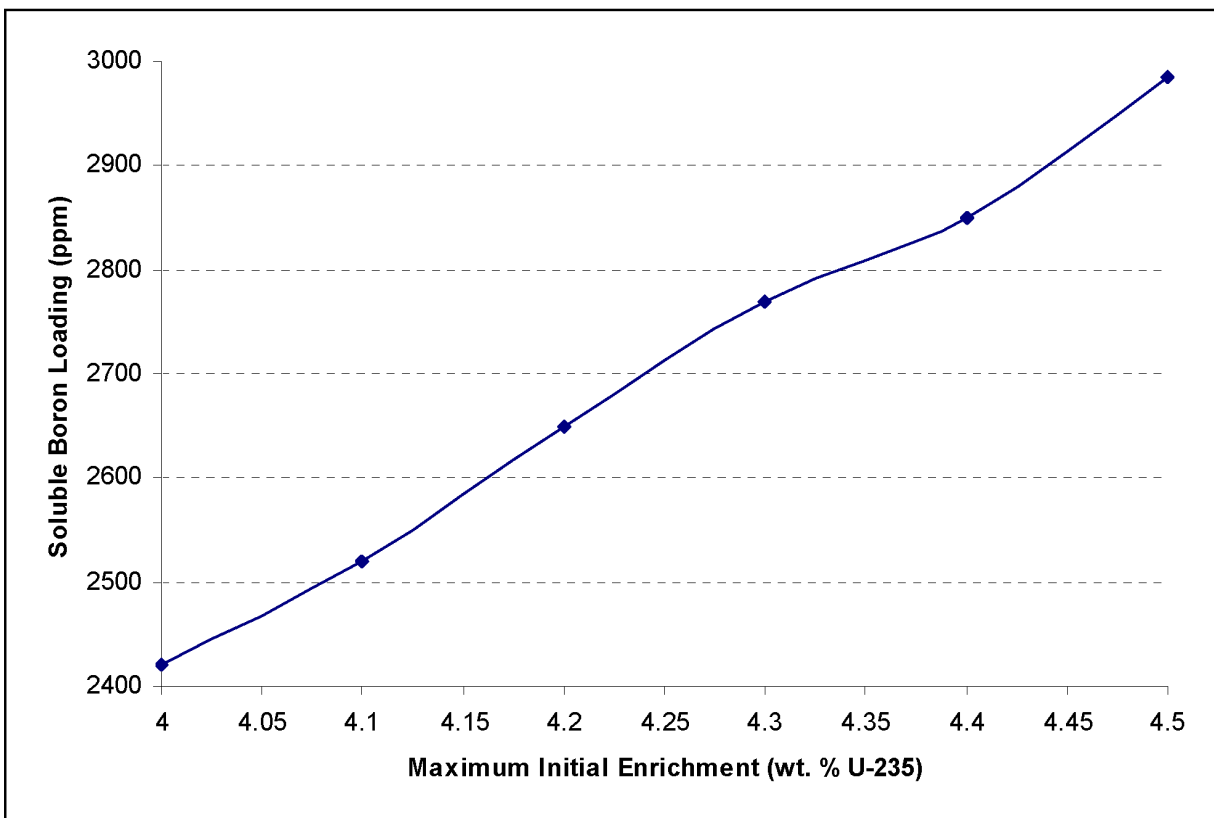


Linear Interpolation allowed between points.

Initial Enrichment	Boron Loading, ppm (when only intact assemblies are loaded)
≤ 4.0	2350
4.1	2470
4.2	2580
4.3	2700
4.4	2790
4.5	2950

Note: The maximum planar average initial enrichment is specified as “initial enrichment.”

**Figure 1-10**  
**Soluble Boron Concentration vs. Fuel Initial U-235 Enrichment (Intact Fuel)**  
**for the NUHOMS® 24PHB System**

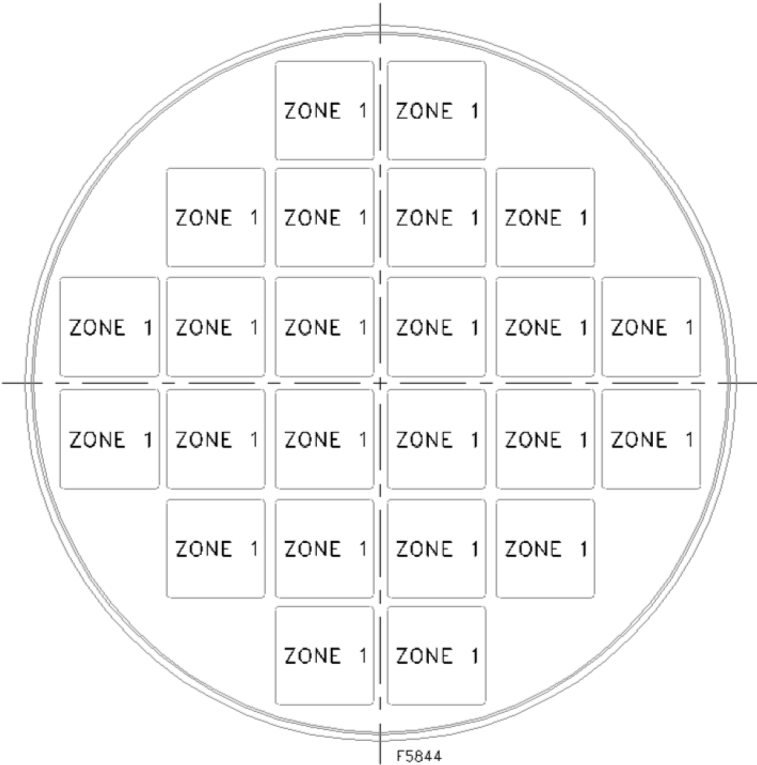


Linear interpolation allowed between points.

Initial Enrichment	Boron Loading, ppm (whenever damaged assemblies are loaded)
≤4.0	2420
4.1	2520
4.2	2650
4.3	2770
4.4	2850
4.5	2985

Note: The maximum planar average initial enrichment is specified as "Initial Enrichment."

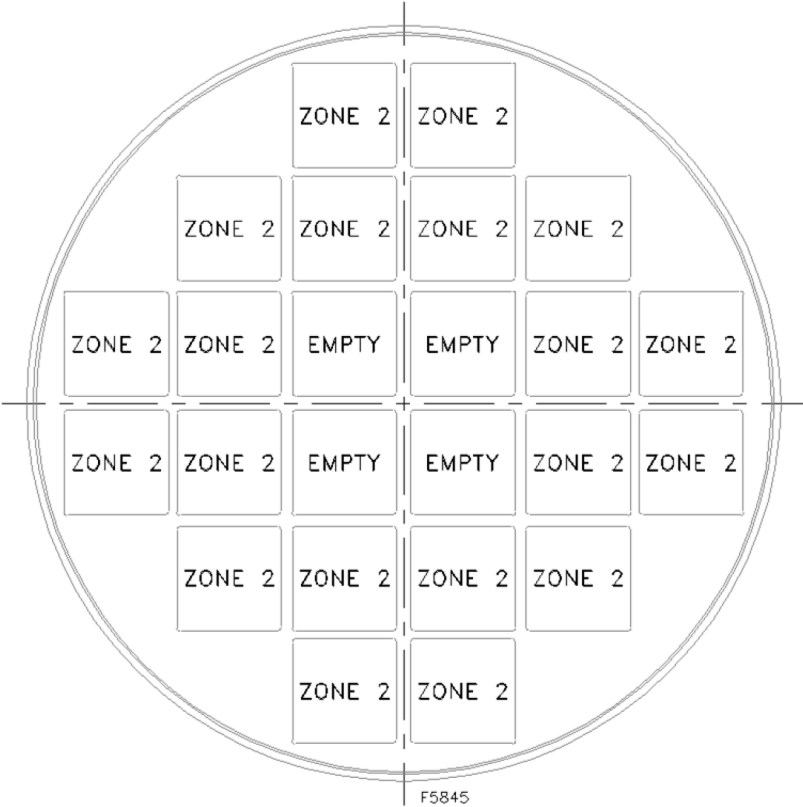
**Figure 1-10a**  
**Soluble Boron Concentration vs. Fuel Initial U-235 Enrichment**  
**(Damaged Fuel) for the NUHOMS®-24PHB System**



	Zone 1	Zone 2	Zone 3	Zone 4
Maximum Decay Heat (kW/FA)	1.7 <sup>(1)</sup>	N/A	N/A	N/A
Maximum Decay Heat per Zone (kW)	40.8	N/A	N/A	N/A

<sup>(1)</sup> The maximum decay heat load allowed for failed fuel assemblies is 1.0 kW/FA.

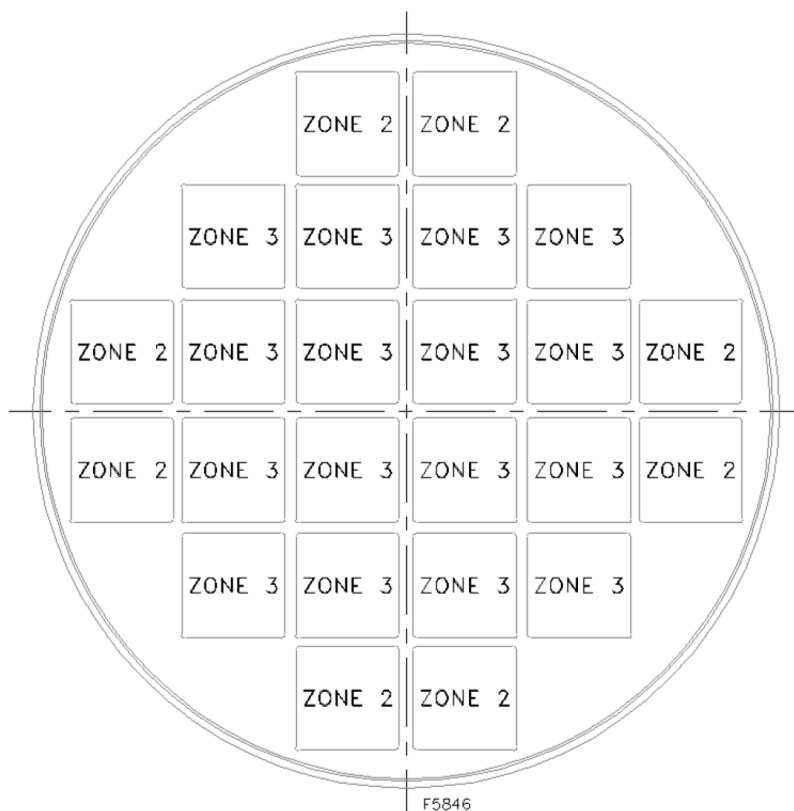
**Figure 1-11**  
**Heat Load Zoning Configuration Number 1 for 24PTH-S and 24PTH-L DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4
Maximum Decay Heat (kW/FA)	N/A	2 <sup>(1)</sup>	N/A	N/A
Maximum Decay Heat per Zone (kW)	N/A	40	N/A	N/A

<sup>(1)</sup> The maximum decay heat load allowed for failed fuel assemblies is 1.0 kW/FA.

**Figure 1-12**  
**Heat Load Zoning Configuration Number 2 for 24PTH-S and 24PTH-L DSCs**

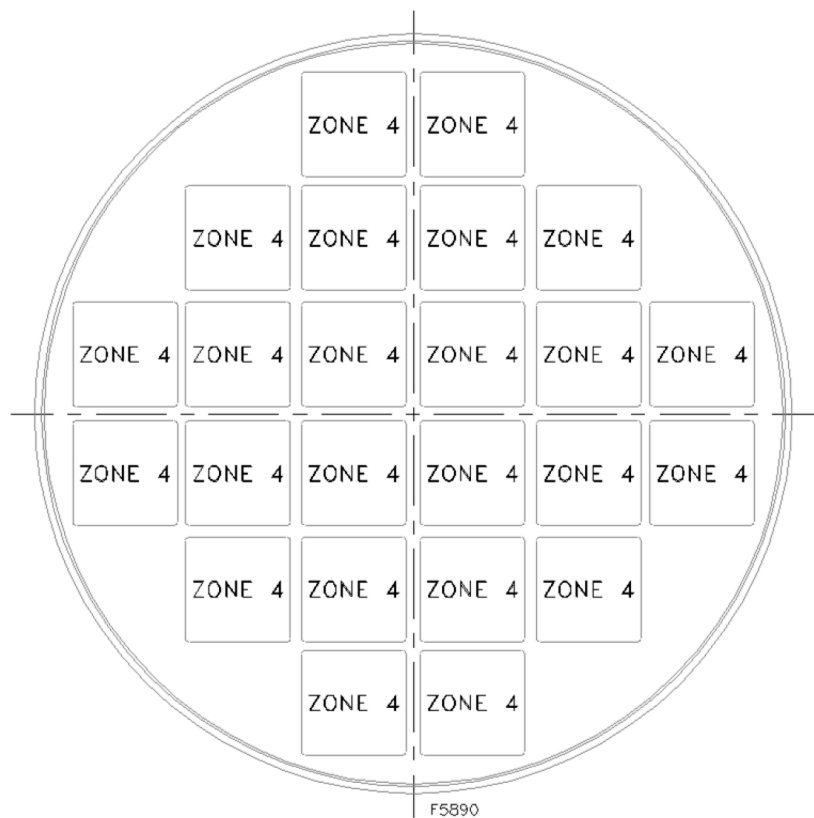


	Zone 1	Zone 2	Zone 3	Zone 4
Maximum Decay Heat (kW/FA)	N/A	2 <sup>(1)</sup>	1.5	N/A
Maximum Decay Heat per Zone (kW)	N/A	16	24	N/A

<sup>(1)</sup> The maximum decay heat load allowed for failed fuel assemblies is 1.0 kW/FA.

**Figure 1-13**  
**Heat Load Zoning Configuration Number 3 for 24PTH-S and 24PTH-L DSCs**

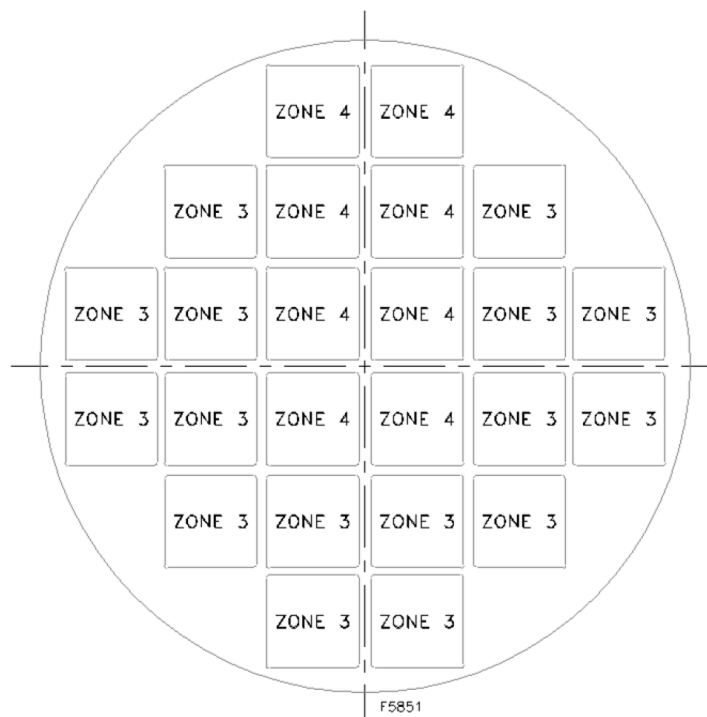




	Zone 1	Zone 2	Zone 3	Zone 4
Maximum Decay Heat (kW/FA)	N/A	N/A	N/A	1.3 <sup>(1)</sup>
Maximum Decay Heat per Zone (kW)	N/A	N/A	N/A	31.2

<sup>(1)</sup> The maximum decay heat load allowed for failed fuel assemblies is 0.6 kW/FA.

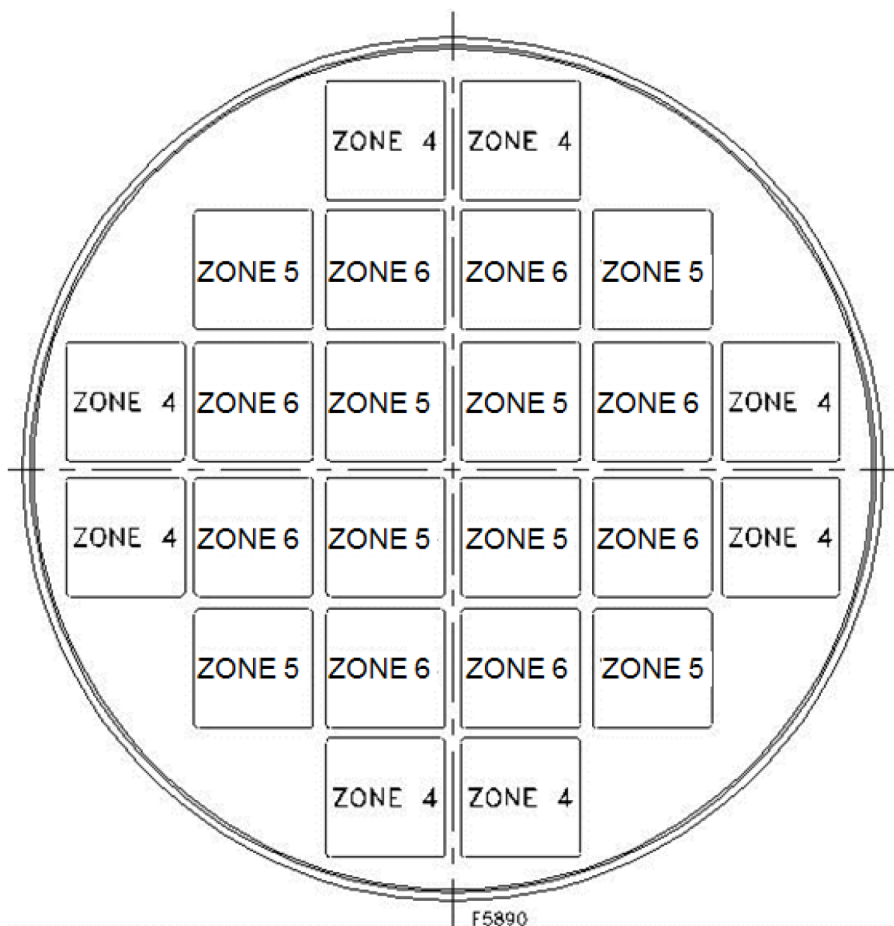
**Figure 1-14**  
**Heat Load Zoning Configuration Number 4 for 24PTH-S and 24PTH-L DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4
Maximum Decay Heat (kW/FA)	N/A	N/A	1.5 <sup>(3)</sup>	1.3 <sup>(3)</sup>
Maximum Decay Heat per Zone (kW)	N/A	N/A	Note 1	10.4

- (1) Fuel assemblies with a maximum heat load of 1.5 kW are permitted in Zone 3 as long as the total of 24 kW/canister maximum heat load is maintained.
- (2) This configuration is applicable to Basket Types 2A, 2B, or 2C only.
- (3) The maximum decay heat load allowed for failed fuel assemblies is 0.6 kW/FA. If damaged fuel assemblies are loaded with the failed fuel assemblies in the same basket, the maximum decay heat load allowed for damaged fuel assemblies is also 0.6 kW/FA.

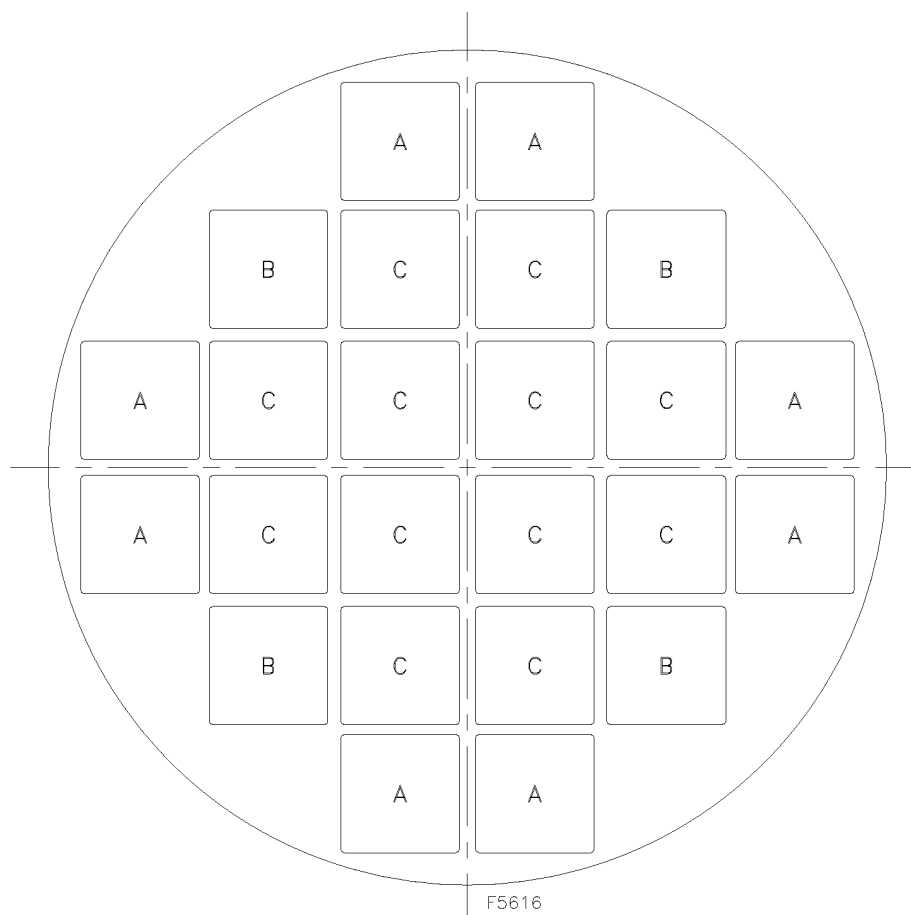
**Figure 1-15**  
**Heat Load Zoning Configuration Number 5 for 24PTH-S-LC<sup>(2)</sup>**



	Zone 4	Zone 5	Zone 6
Maximum Decay Heat (kW/FA)	1.3	0.6	2.5
Maximum Decay Heat per Zone (kW)	10.4	4.8	20.0

(1) Only intact fuel assemblies are allowed for this HLZC.

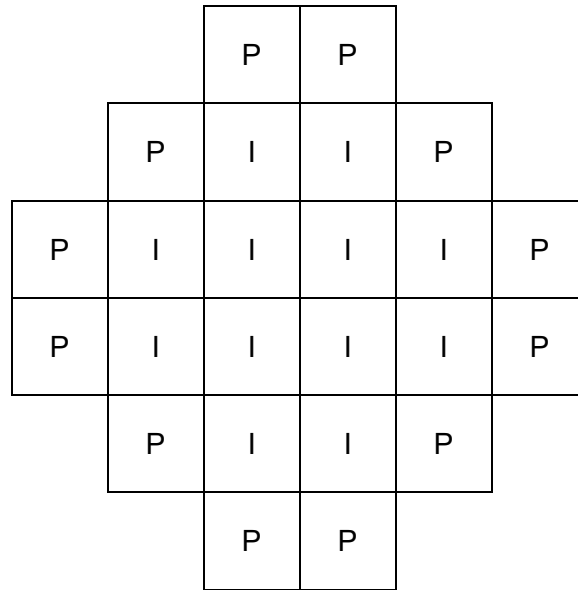
**Figure 1-15a**  
**Heat Load Zoning Configuration No. 6 for 24PTH-S and 24PTH-L DSCs with Type 1 Basket**



Notes:

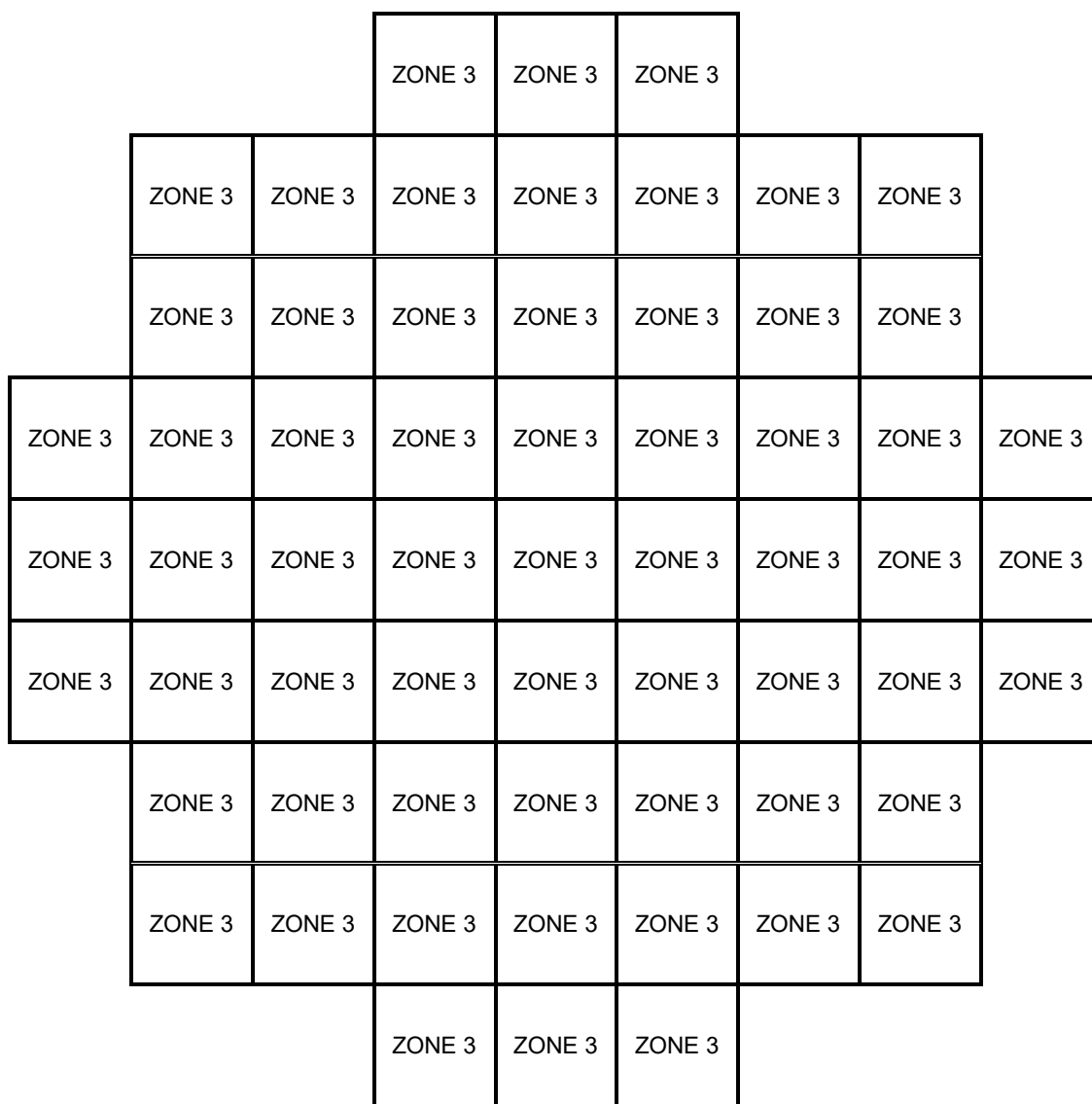
1. Locations identified as "A" are for placement of up to 8 damaged or failed fuel assemblies (balance intact).
2. Locations identified as "B" are for placement of up to 4 additional damaged fuel assemblies (Maximum of 12 damaged fuel assemblies allowed, Locations "A" and "B" combined, balance intact).
3. Locations identified as "C" are for placement of up to 12 intact fuel assemblies, including 4 empty slots in the center as shown in Figure 1-12.

**Figure 1-16**  
**Location of Failed or Damaged Fuel Inside 24PTH DSC<sup>(1)(2)(3)</sup>**



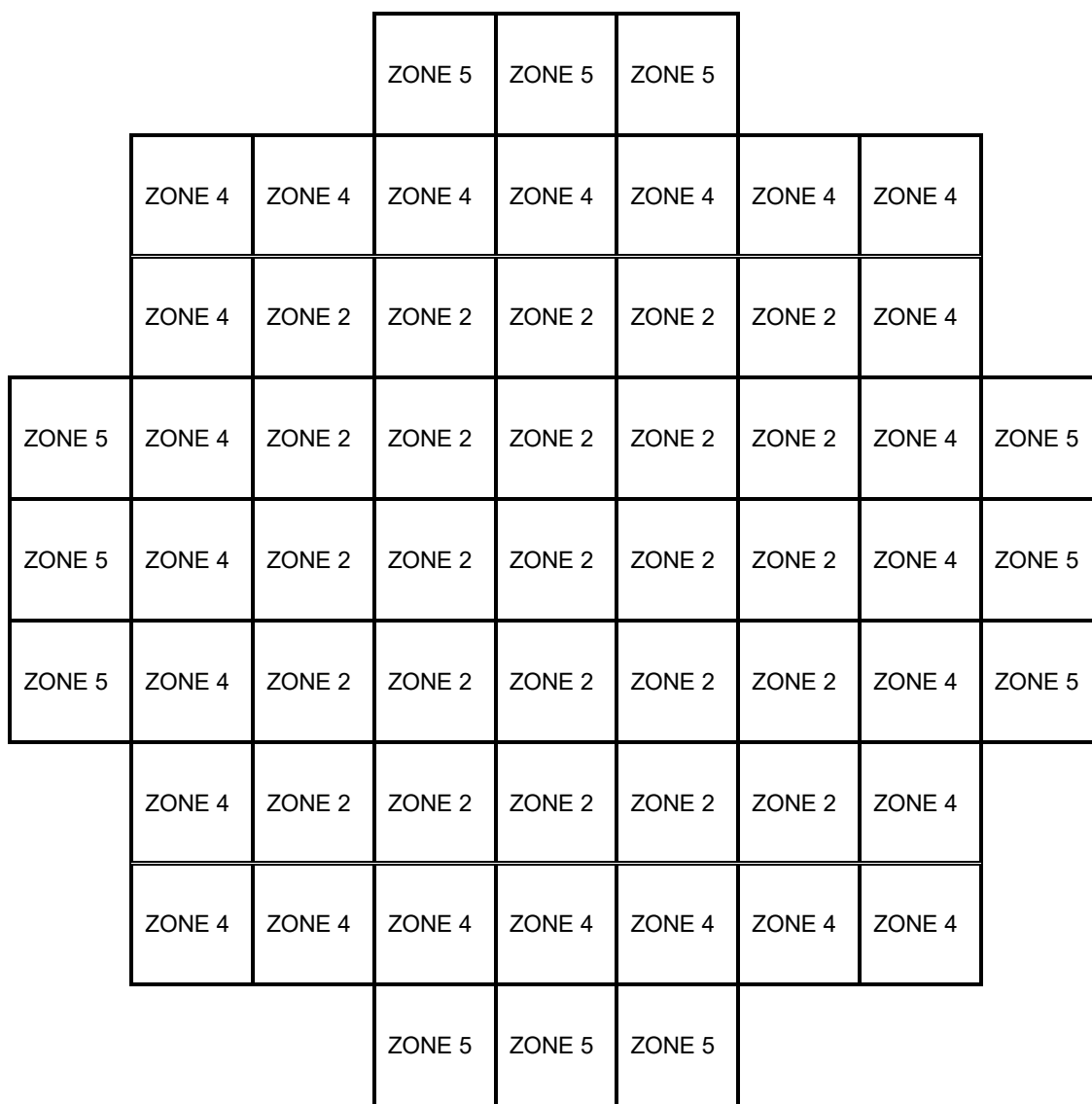
P = Peripheral Location  
I = Inner Location

**Figure 1-16a**  
**Location of Peripheral and Inner Fuel Locations for the 24PTH DSC**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Maximum Decay Heat (kW/FA)	NA	NA	0.393	NA	NA	NA
Maximum Decay Heat per Zone (kW)	NA	NA	22.0	NA	NA	NA
Maximum Decay Heat per DSC (kW)	22.0					

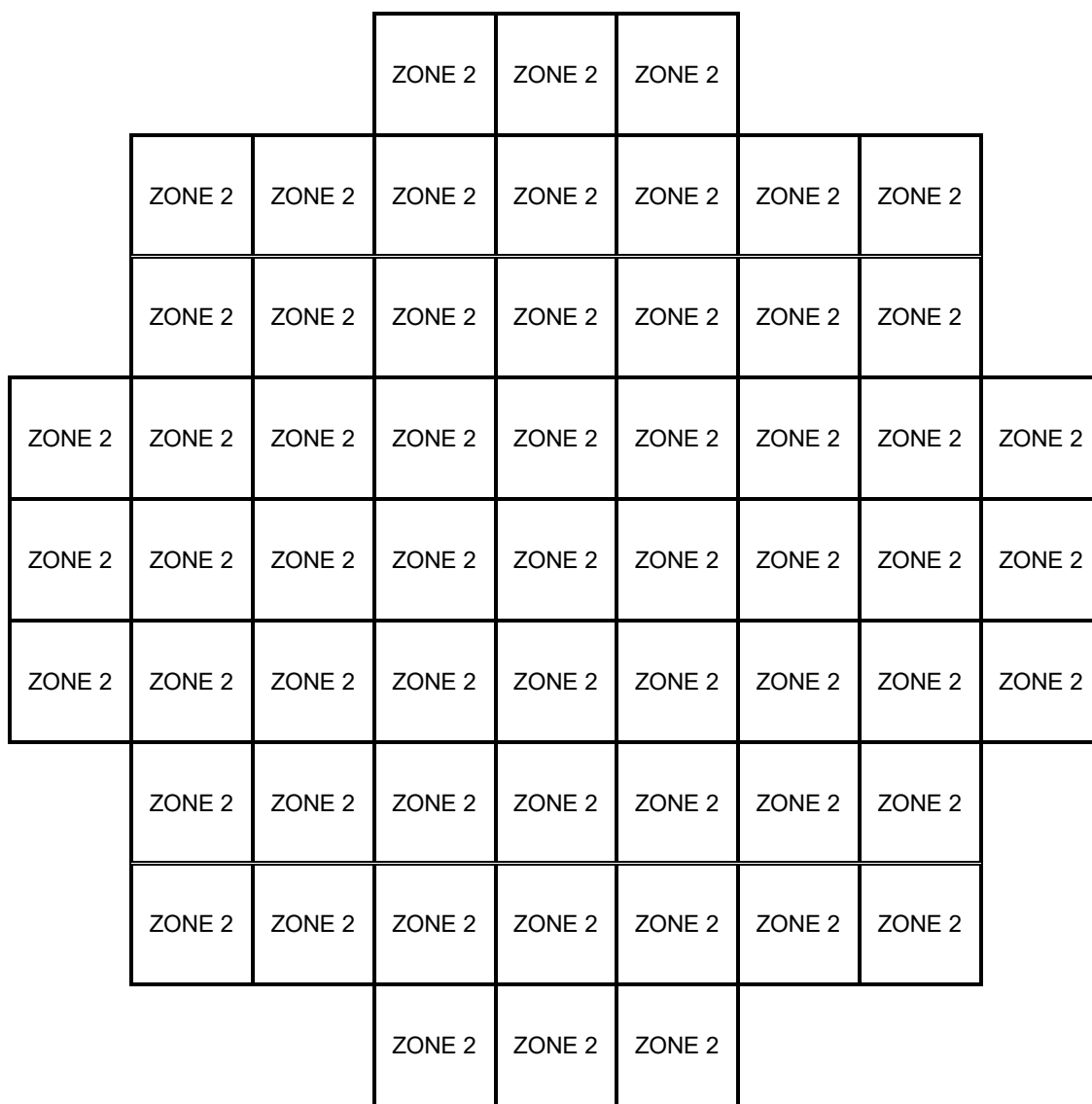
**Figure 1-17**  
**Heat Load Zoning Configuration Number 1 for Type 1 or Type 2 61BTH DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
<b>Maximum Decay Heat (kW/FA)</b>	NA	0.35	NA	0.48	0.54	NA
<b>Maximum Decay Heat per Zone (kW)</b>	NA	8.75	NA	11.52	6.48	NA
<b>Maximum Decay Heat per DSC (kW)</b>	22.0 <sup>(1)</sup>					

(1) Adjust payload to maintain total DSC heat load within the specified limit

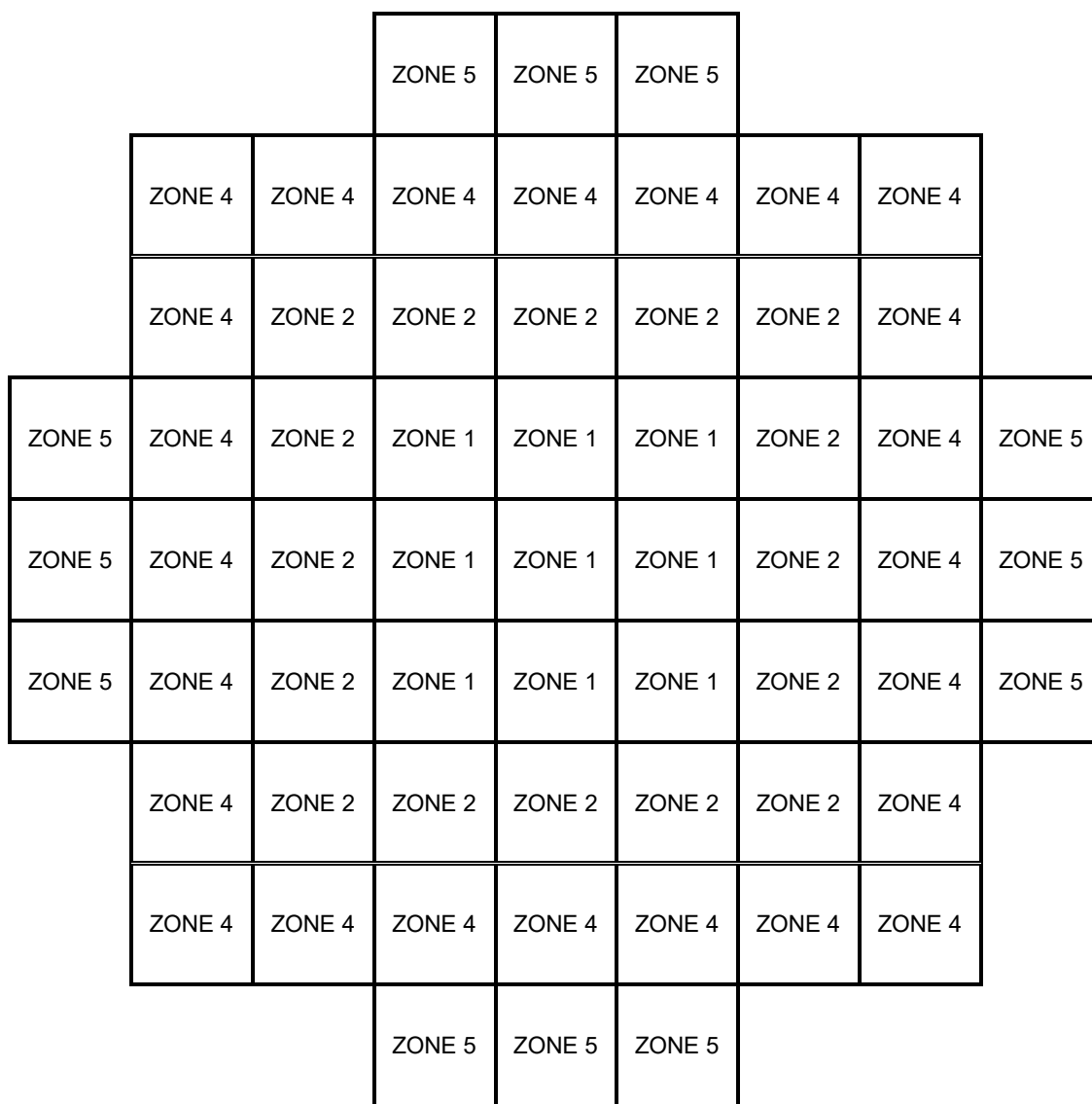
**Figure 1-18**  
**Heat Load Zoning Configuration Number 2 for Type 1 or Type 2 61BTH DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Maximum Decay Heat (kW/FA)	NA	0.35	NA	NA	NA	NA
Maximum Decay Heat per Zone (kW)	NA	19.4	NA	NA	NA	NA
Maximum Decay Heat per DSC (kW)	19.4					

**Figure 1-19**  
**Heat Load Zoning Configuration Number 3 for Type 1 or Type 2 61BTH DSCs**

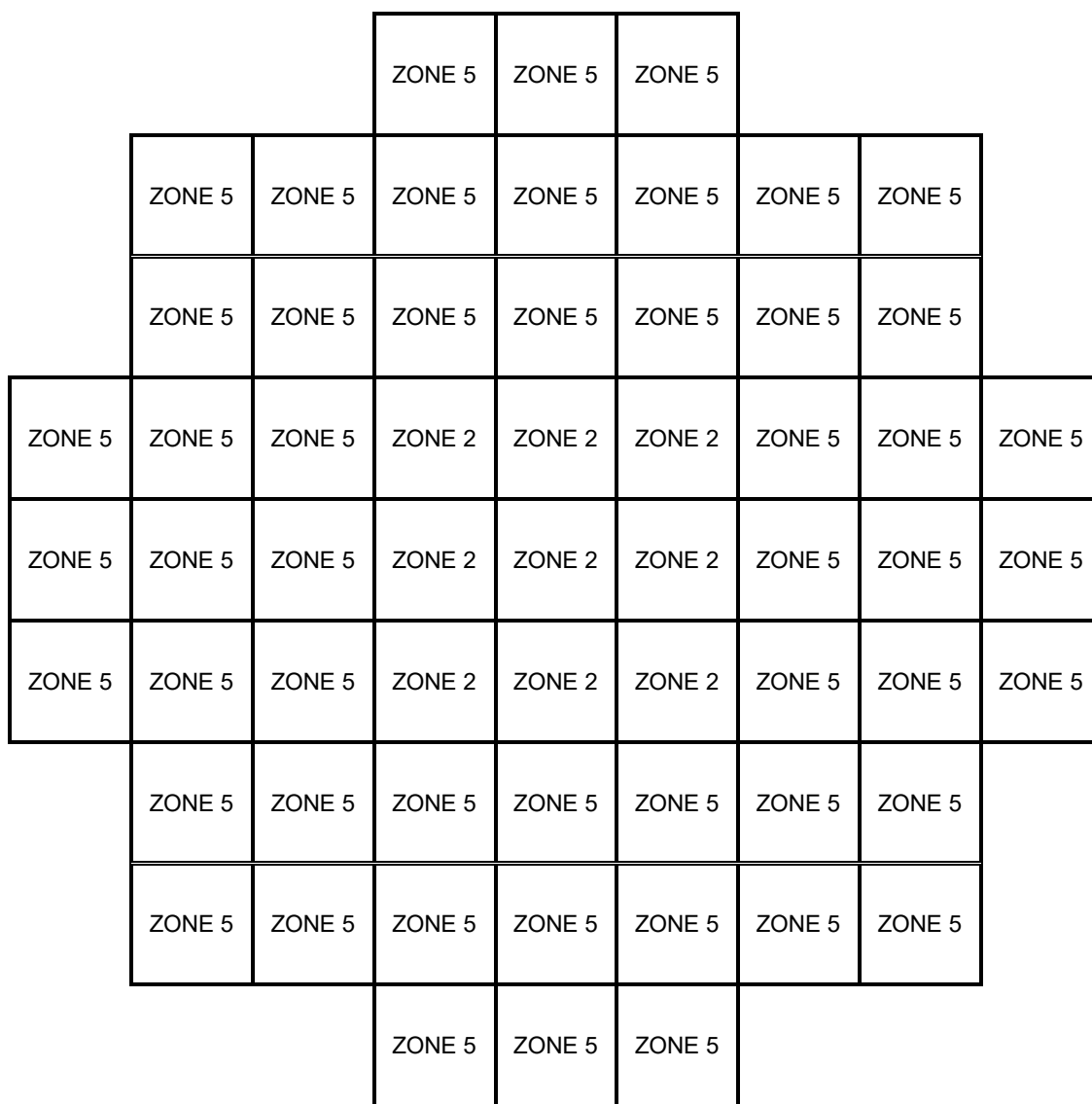




	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
<b>Maximum Decay Heat (kW/FA)</b>	0.22	0.35	NA	0.48	0.54	NA
<b>Maximum Decay Heat per Zone (kW)</b>	1.98	5.60	NA	11.52	6.48	NA
<b>Maximum Decay Heat per DSC (kW)</b>	19.4 <sup>(1)</sup>					

<sup>(1)</sup> Adjust payload to maintain total DSC heat load within the specified limit.

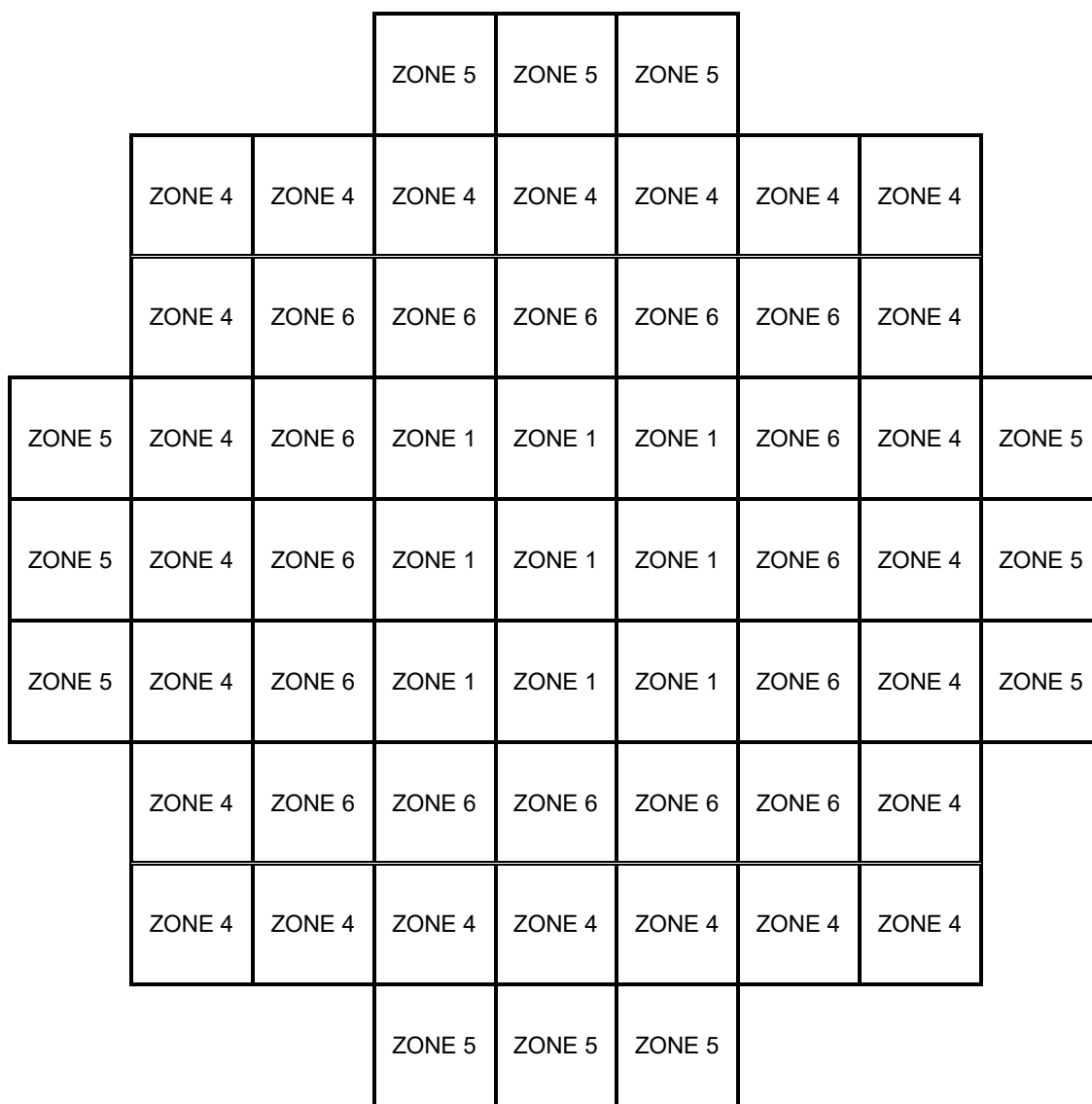
**Figure 1-20**  
**Heat Load Zoning Configuration Number 4 for Type 1 or Type 2 61BTH DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
<b>Maximum Decay Heat (kW/FA)</b>	NA	0.35	NA	NA	0.54	NA
<b>Maximum Decay Heat per Zone (kW)</b>	NA	3.15	NA	NA	28.08	NA
<b>Maximum Decay Heat per DSC (kW)</b>	31.2 <sup>(1)</sup>					

<sup>(1)</sup> Adjust payload to maintain total DSC heat load within the specified limit.

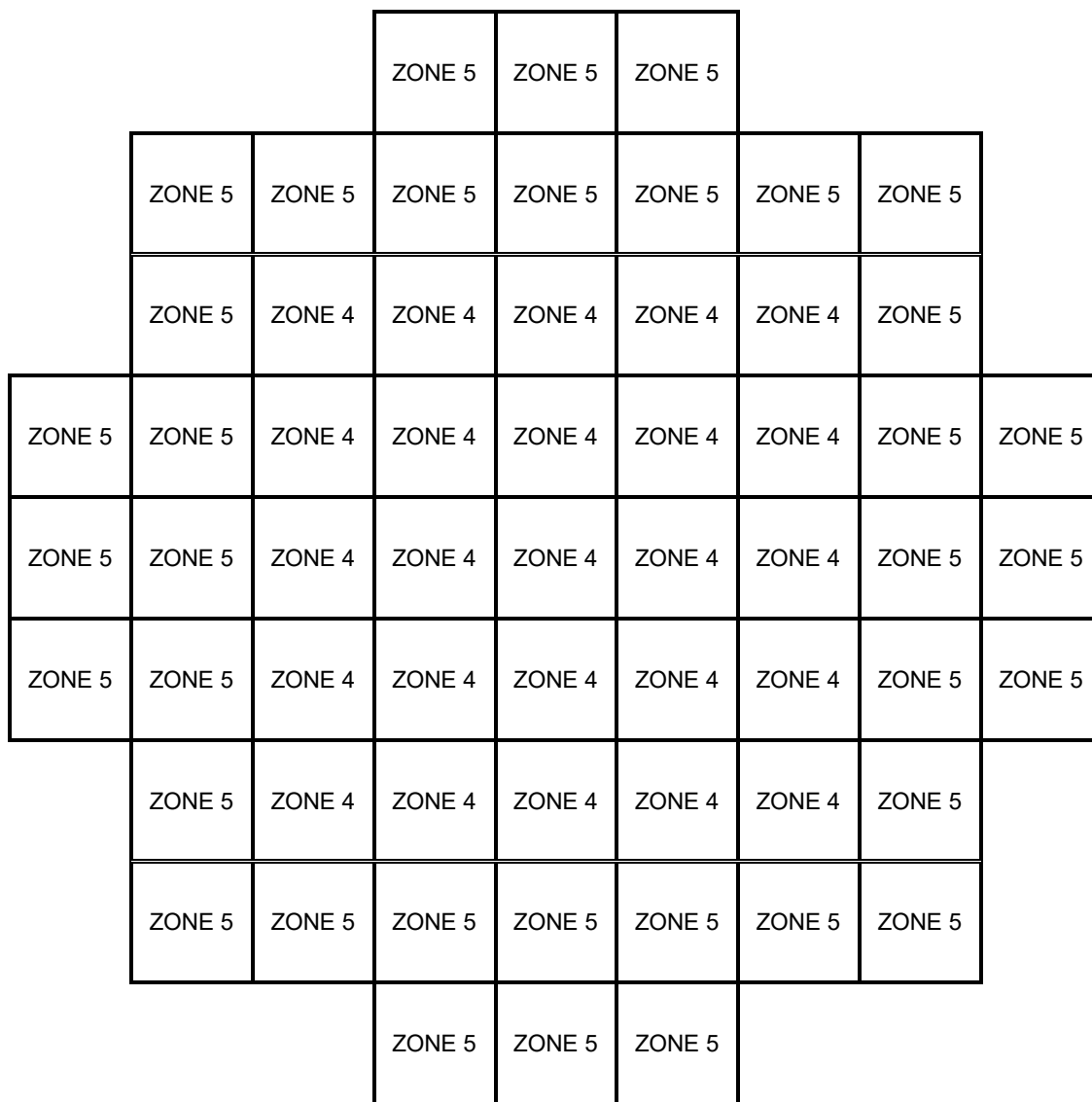
**Figure 1-21**  
**Heat Load Zoning Configuration Number 5 for Type 2 61BTH DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Maximum Decay Heat (kW/FA)	0.22	NA	NA	0.48	0.54	0.70
Maximum Decay Heat per Zone (kW)	1.98	NA	NA	11.52	6.48	11.20
Maximum Decay Heat per DSC (kW)	31.2 <sup>(1)</sup>					

<sup>(1)</sup> Adjust payload to maintain total DSC heat load within the specified limit.

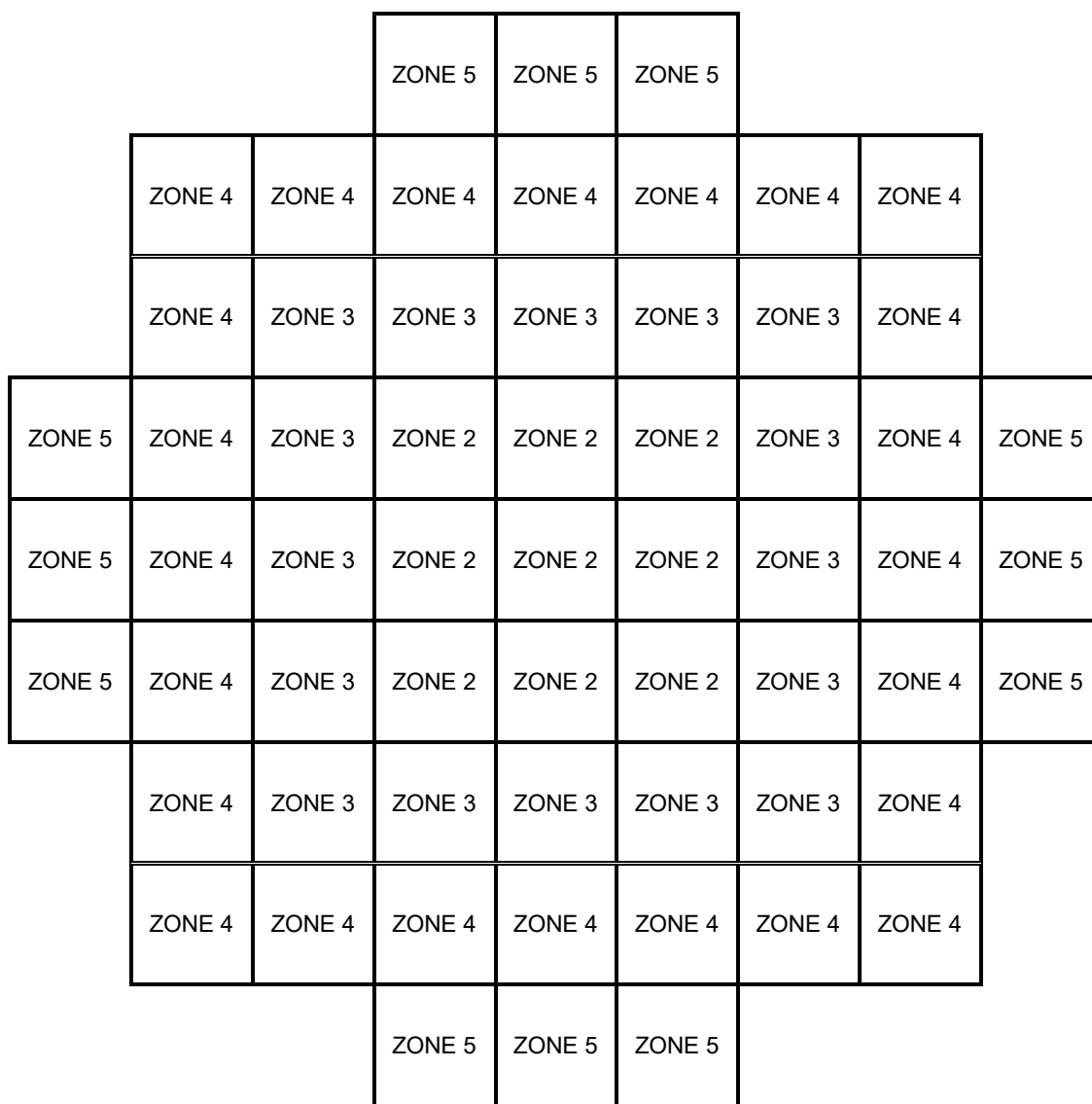
**Figure 1-22**  
Heat Load Zoning Configuration Number 6 for Type 2 61BTH DSCs



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
<b>Maximum Decay Heat (kW/FA)</b>	NA	NA	NA	0.48	0.54	NA
<b>Maximum Decay Heat per Zone (kW)</b>	NA	NA	NA	12.00	19.44	NA
<b>Maximum Decay Heat per DSC (kW)</b>	31.2 <sup>(1)</sup>					

<sup>(1)</sup> Adjust payload to maintain total DSC heat load within the specified limit.

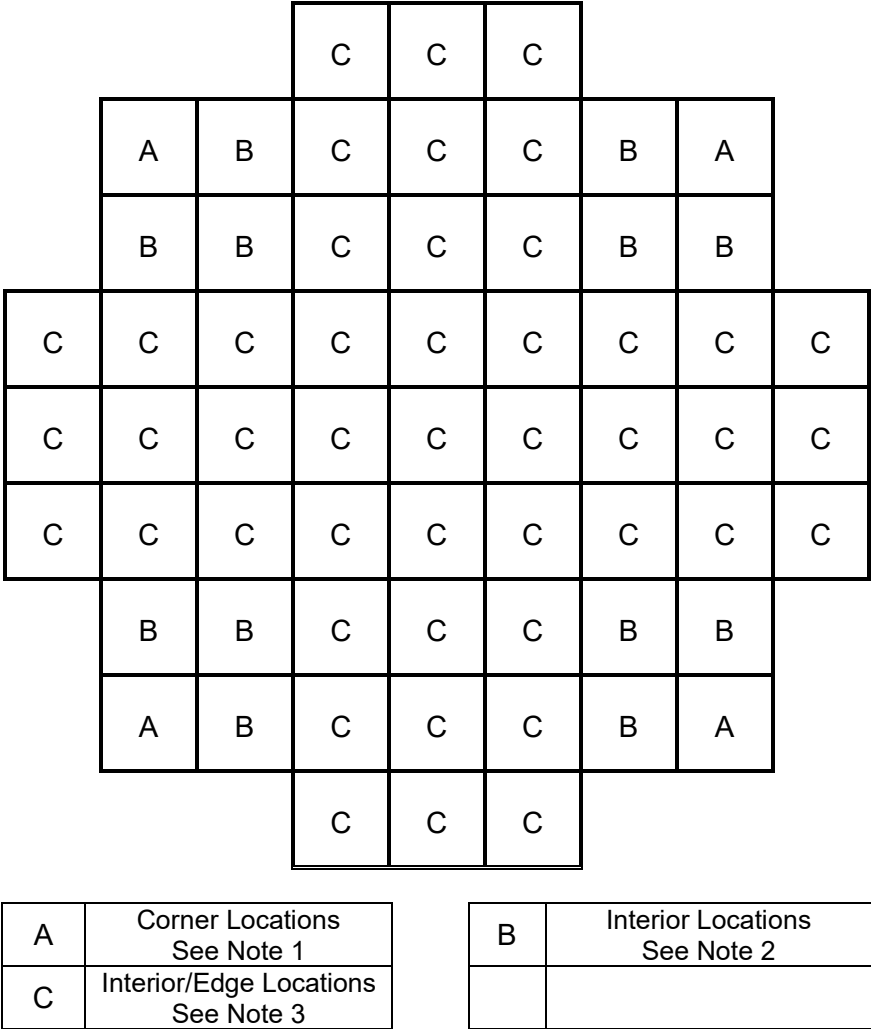
**Figure 1-23**  
**Heat Load Zoning Configuration Number 7 for Type 2 61BTH DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Maximum Decay Heat (kW/FA)	NA	0.35	0.393	0.48	0.54	NA
Maximum Decay Heat per Zone (kW)	NA	3.15	6.288	11.52	6.48	NA
Maximum Decay Heat per DSC (kW)	27.4 <sup>(1)</sup>					

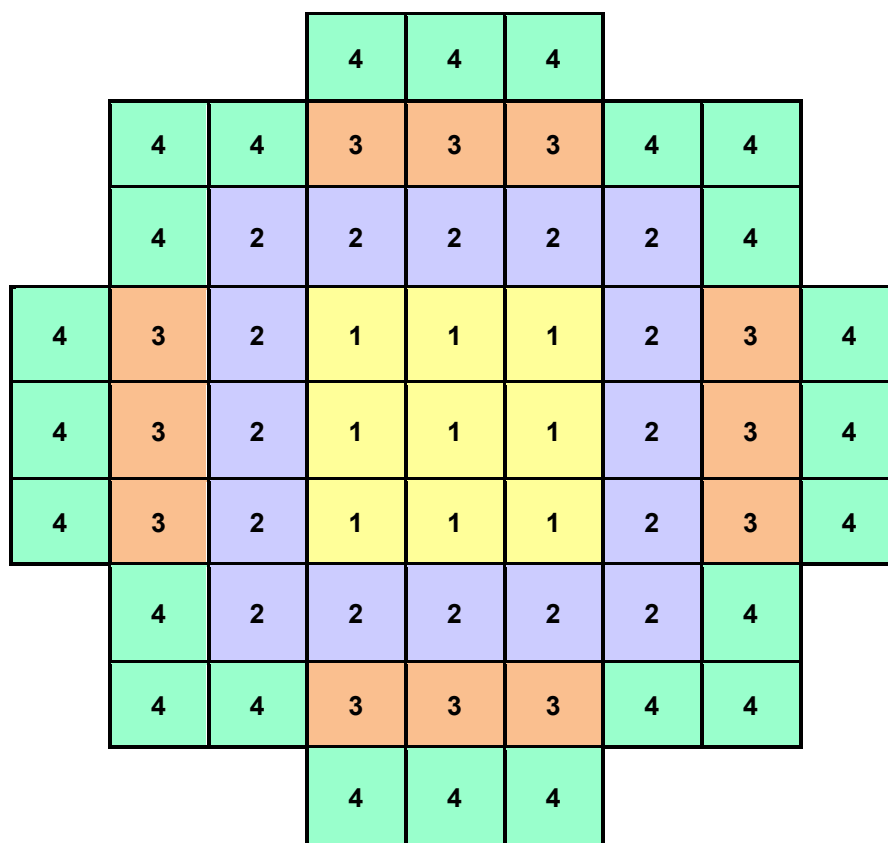
<sup>(1)</sup> Adjust payload to maintain total DSC heat load within the specified limit.

**Figure 1-24**  
**Heat Load Zoning Configuration Number 8 for Type 2 61BTH DSCs**



- Note 1: When loading up to 4 damaged or 4 failed assemblies, these must be placed in corner “A” locations, and the remaining locations “B” and “C” shall be loaded with intact fuel. If fewer than 4 damaged or 4 failed assemblies are to be stored, the remaining “A” locations may be loaded with intact fuel provided they meet the respective damaged or failed enrichment limits of Table 1-1w1. Damaged and failed fuel shall not be mixed, i.e., up to four damaged assemblies may be stored, or up to four failed assemblies may be stored in “A” locations.
- Note 2: If loading more than four damaged assemblies, place first four damaged assemblies in the corner “A” locations per Note 1, and up to 12 additional damaged assemblies in these interior “B” locations, with the remaining intact in a 61BTH Basket. The maximum lattice average initial enrichment of assemblies (damaged or intact stored in the 2x2 cells) is limited to the “Five or More Damaged Assemblies” column of Table 1-1w. For the Type 2 DSC containing failed fuel assemblies, this enrichment is limited to the “and up to 12 Damaged Assemblies” column of Table 1-1w1.
- Note 3: If loading more than 16 damaged assemblies, place the first 57 damaged assemblies in the interior/edge “C” and the interior “B” locations. Place the remaining four intact or damaged assemblies in the corner “A” locations. The maximum lattice average initial enrichments of assemblies is limited to the “Up to 4 Intact Assemblies” or “Up to 4 Damaged Assemblies” column of Table 1-1x.

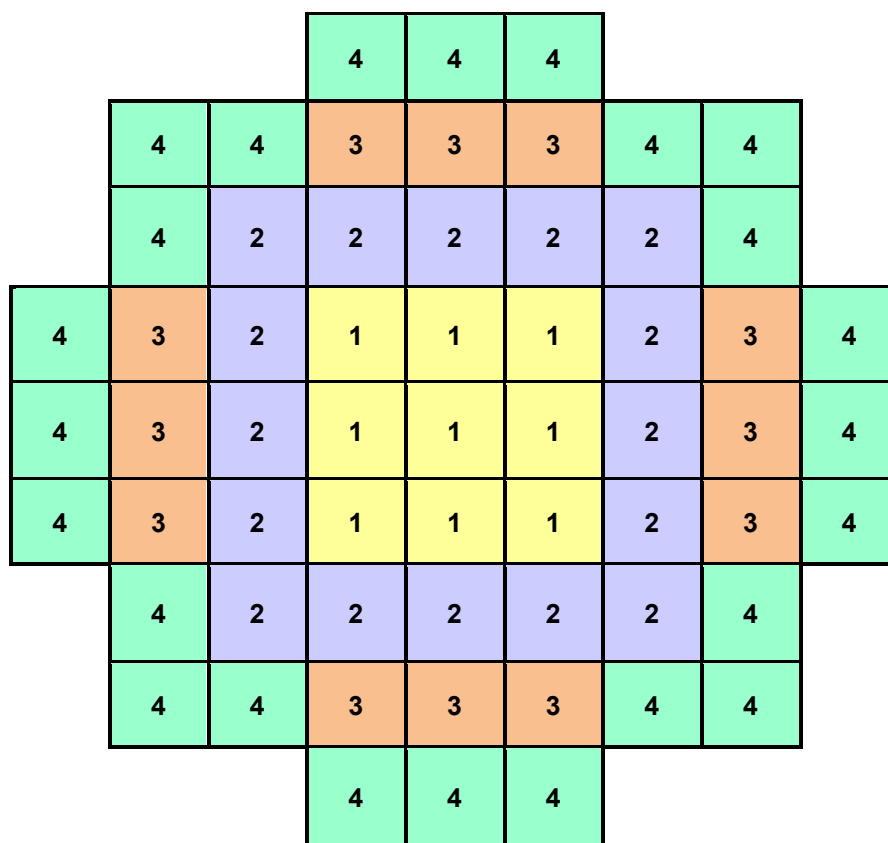
**Figure 1-25**  
**Location of Damaged and Failed Fuel Assemblies inside 61BTH DSC**



	Zone 1	Zone 2	Zone 3	Zone 4
Maximum Decay Heat (kW/FA)	0.393	0.48	0.35	0.35
Maximum Decay Heat per Zone (kW)	3.54	7.68	4.2	8.4
Maximum Decay Heat per DSC (kW)	22.0 <sup>(1)</sup>			

Note 1: Adjust payload to maintain total canister heat load within the specified limit.

**Figure 1-25a**  
**Heat Load Zoning Configuration No. 9 for Type 1 or Type 2 61BTH DSC**



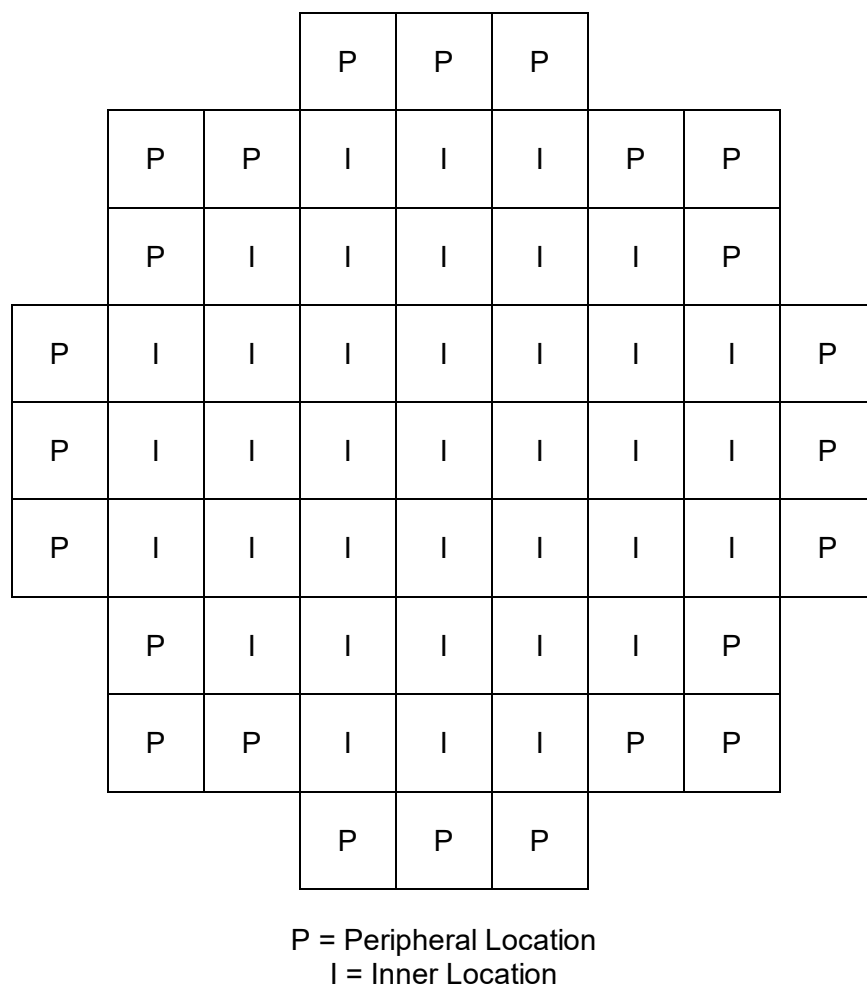
	Zone 1	Zone 2	Zone 3	Zone 4
<b>Maximum Decay Heat (kW/FA)</b>	0.393	0.48 <sup>(2)</sup>	1.20 <sup>(2)</sup>	0.48 <sup>(2)</sup>
<b>Maximum Decay Heat per Zone (kW)</b>	3.54	7.68	14.4	11.52
<b>Maximum Decay Heat per DSC (kW)</b>	31.2 <sup>(1)</sup>			

Note 1: Adjust payload to maintain total canister heat load within the specified limit.

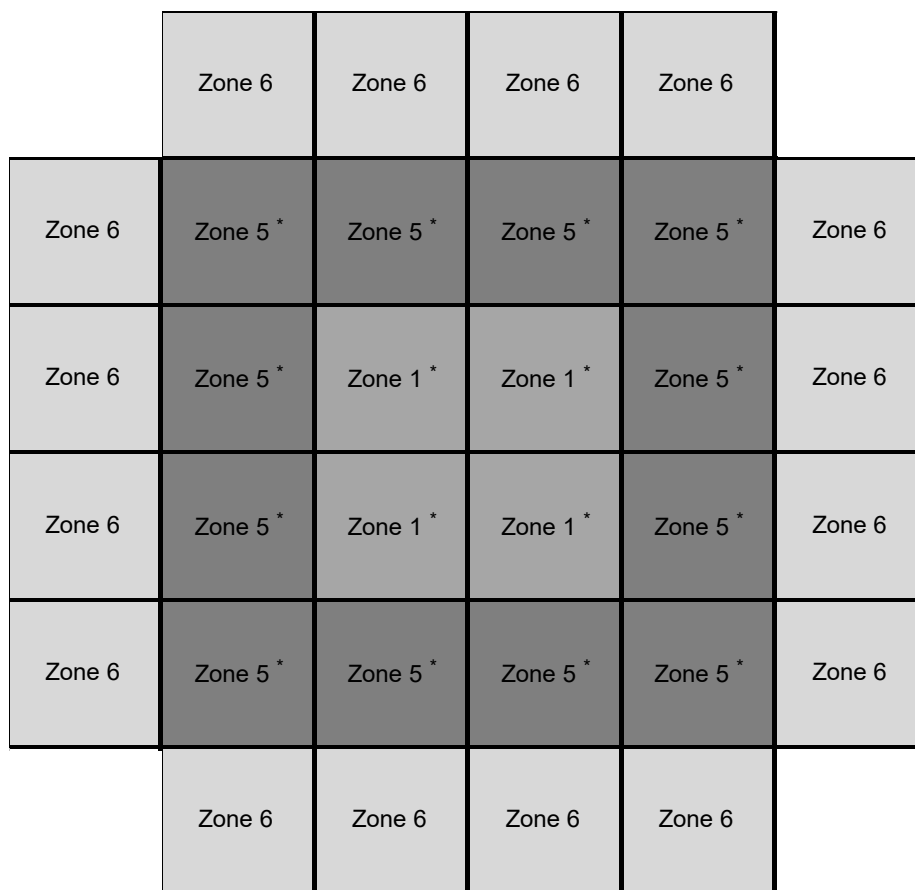
Note 2: If the maximum decay heat per SFA in Zone 3 is greater than 0.9 kW, the maximum decay heat per FA in Zone 2 and Zone 4 shall be less than or equal to 0.393 kW.

**Figure 1-25b**  
**Heat Load Zoning Configuration No. 10 for Type 2 61BTH DSC**





**Figure 1-25c**  
**Location of Peripheral and Inner Fuel Locations for the 61BTH DSC**



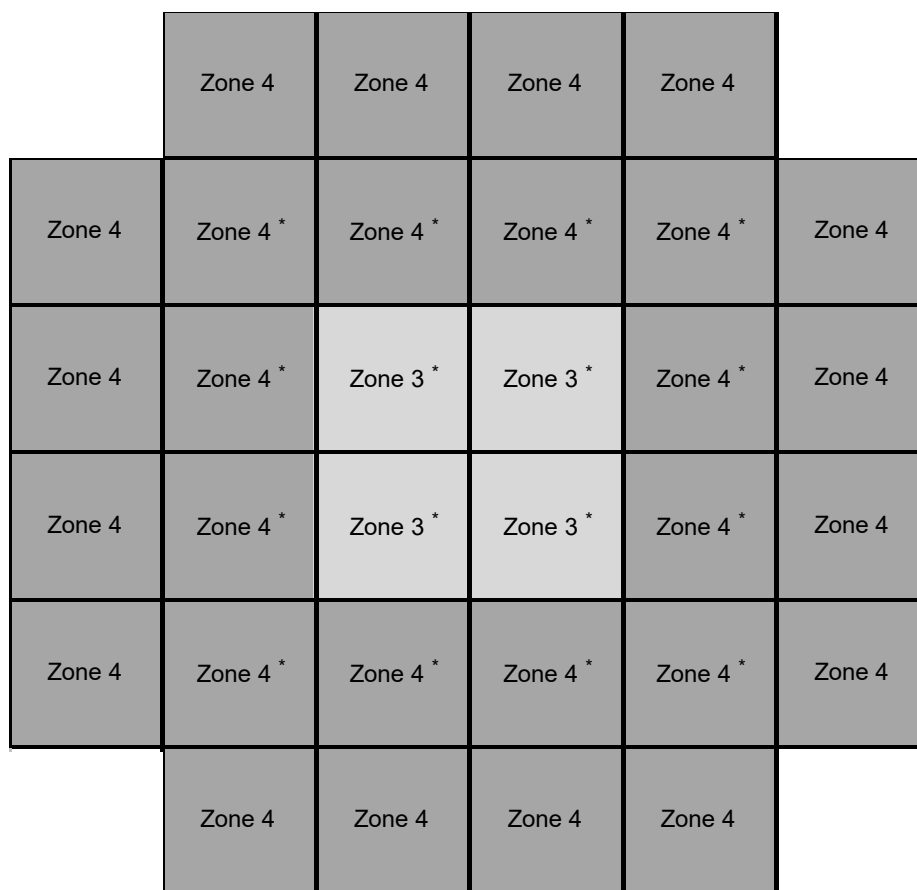
\* denotes location where INTACT or DAMAGED FUEL ASSEMBLY can be stored.

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Max. Decay Heat / FA (kW)	0.6	N/A	N/A	N/A	1.3 <sup>(1)</sup>	1.5
Max. Decay Heat / Zone (kW)	2.4	N/A	N/A	N/A	15.6	24.0
Max. Decay Heat / DSC (kW)	40.8 <sup>(2)</sup>					

Notes:

- 1: 1.2 kW per FA is the maximum decay heat allowed for damaged fuel assemblies.
- 2: Adjust payload to maintain 40.8 kW heat load.

**Figure 1-26**  
**Heat Load Zoning Configuration Number 1 for 32PTH1-S, 32PTH1-M and 32PTH1-L DSCs**  
**(Type 1 Baskets)**



\* denotes location where INTACT or DAMAGED FUEL ASSEMBLY can be stored.

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Max. Decay Heat / FA (kW)	N/A	N/A	0.96 <sup>(2)</sup>	0.98 <sup>(2)</sup>	N/A	N/A
Max. Decay Heat / Zone (kW)	N/A	N/A	3.84	27.44	N/A	N/A
Max. Decay Heat / DSC (kW)	31.2 <sup>(1)</sup>					

Notes:

- 1: Adjust payload to maintain 31.2 kW heat load.
- 2: The fuel qualification table corresponding to 1.0 kW/FA shall be used to determine burnup, cooling time, and enrichments corresponding to these heat loads.

**Figure 1-27**  
**Heat Load Zoning Configuration Number 2 for 32PTH1-S, 32PTH1-M and 32PTH1-L DSCs**  
**(Type 1 or Type 2 Baskets)**

	Zone 2 **	Zone 2	Zone 2	Zone 2 **	
Zone 2 **	Zone 2 *	Zone 2 */**	Zone 2 */**	Zone 2 *	Zone 2 **
Zone 2	Zone 2 */**	Zone 2 *	Zone 2 *	Zone 2 */**	Zone 2
Zone 2	Zone 2 */**	Zone 2 *	Zone 2 *	Zone 2 */**	Zone 2
Zone 2 **	Zone 2 *	Zone 2 */**	Zone 2 */**	Zone 2 *	Zone 2 **
	Zone 2 **	Zone 2	Zone 2	Zone 2 **	

\* denotes location where INTACT or DAMAGED FUEL ASSEMBLY can be stored.

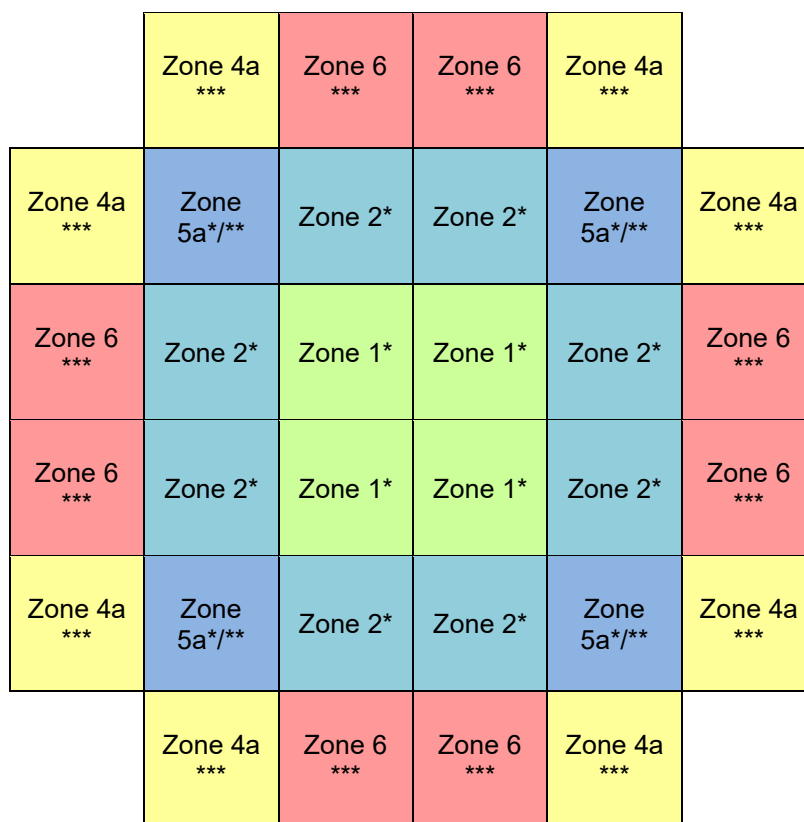
\*\* denotes location where FAILED FUEL can be stored.

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Max. Decay Heat / FA (kW)	N/A	0.8	N/A	N/A	N/A	N/A
Max. Decay Heat / Zone (kW)	N/A	24.0	N/A	N/A	N/A	N/A
Max. Decay Heat / DSC (kW)	24.0 <sup>(1) (2)</sup>					

Notes:

- 1: Adjust payload to maintain total canister heat load within the specified limit.
- 2: If FAILED FUEL is stored, the maximum canister heat load is 12.8 kW.
- 3: If FAILED FUEL is stored at any location denoted by \*\*, INTACT FUEL ASSEMBLIES shall not be stored in any Zone 2 location, and in addition DAMAGED FUEL ASSEMBLIES shall not be stored in any location denoted by \*.
- 4: If FAILED FUEL is stored at any location denoted by \*\*, the remaining \*\* locations shall be loaded with either FAILED FUEL, Dummy Assemblies or remain empty.

**Figure 1-28**  
**Heat Load Zoning Configuration Number 3 for 32PTH1-S, 32PTH1-M and 32PTH1-L DSCs**  
**(Type 1 or Type 2 Baskets)**

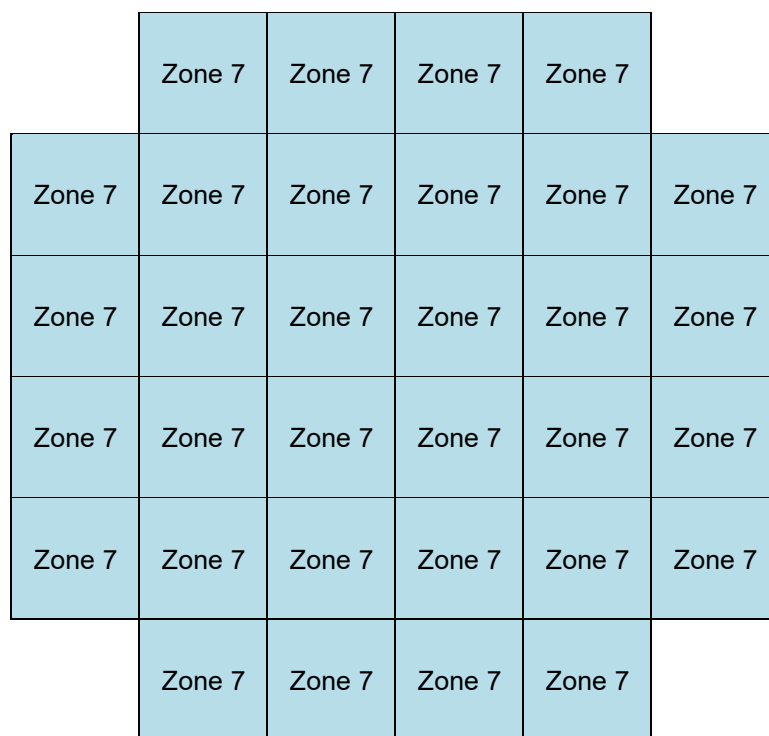


\* denotes an interior location where a DAMAGED FUEL ASSEMBLY can be stored.  
 \*\* denotes location where failed fuel can (FFC) can be stored.  
 \*\*\* denotes a periphery location where a DAMAGED FUEL ASSEMBLY can be stored.

	Zone 1	Zone 2	Zone 3	Zone 4a	Zone 5a	Zone 6
Max. Decay Heat /FA (kW)	0.6	0.8	N/A	1.0	1.2 <sup>(1)</sup>	1.5
Max. Decay Heat /Zone (kW)	2.4	6.4	N/A	8.0	4.8	12
Max. Decay Heat / DSC (kW)	31.2 kW <sup>(2)</sup>					

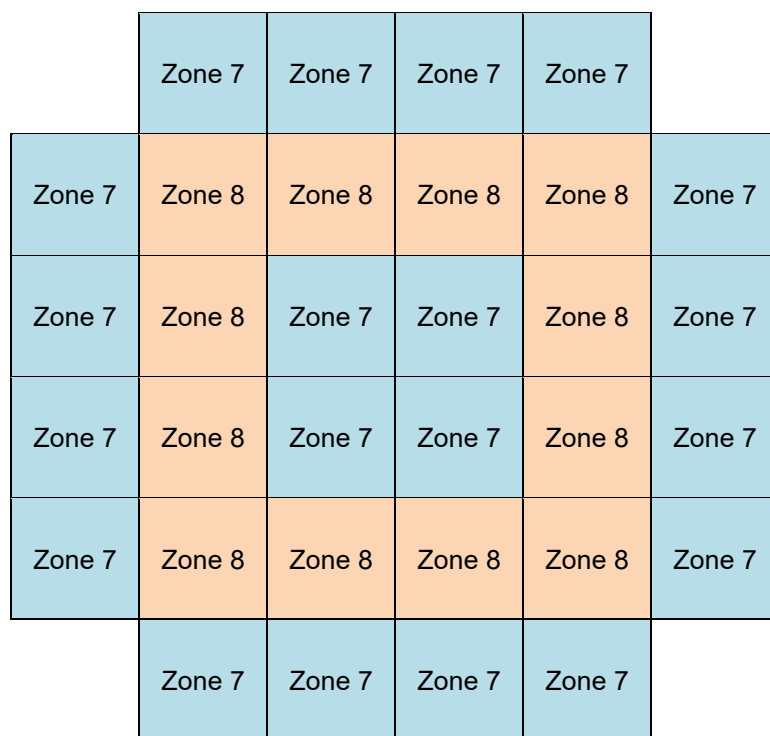
- Notes: (1) The maximum allowable heat load per FFC is 0.8 kW.  
 (2) Adjust payload to maintain total canister heat load within the specified limit.  
 (3) DAMAGED FUEL ASSEMBLIES may be loaded in locations denoted by \* or \*\*\*, but not both. If a DAMAGED FUEL ASSEMBLY is loaded in a location denoted by \*\*\*, FFC shall not be stored.

**Figure 1-28a**  
**Heat Load Zoning Configuration No. 4 for 32PTH1-S, 32PTH1-M and 32PTH1-L DSCs**  
**(Type 1 or Type 2 Baskets)**



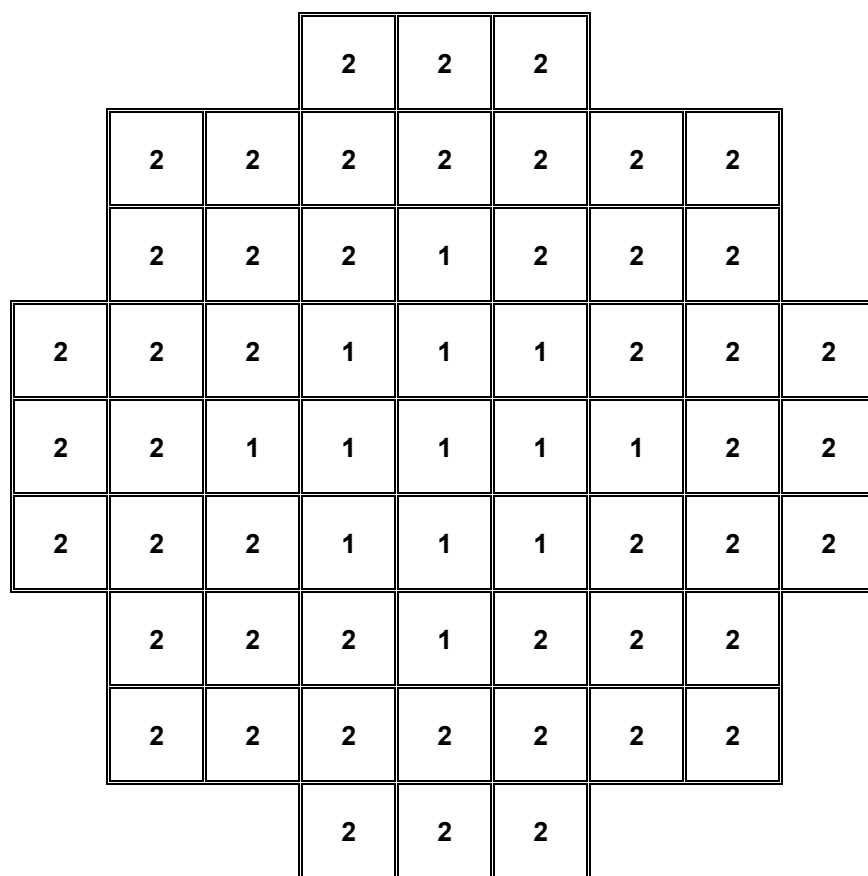
	Zone 7
Max. Decay Heat /FA (kW)	1.1
Max. Decay Heat / Zone (kW)	35.2
Max. Decay Heat / DSC (kW)	35.2

**Figure 1-28b**  
**Heat Load Zoning Configuration No. 5 for 32PTH1-S, 32PTH1-M and 32PTH1-L DSCs**  
**(Type 1 Basket)**



	Zone 7	Zone 8
Max. Decay Heat /FA (kW)	1.1	1.3
Max. Decay Heat / Zone (kW)	22.0	15.6
Max. Decay Heat / DSC (kW)	37.6	

**Figure 1-28c**  
**Heat Load Zoning Configuration No. 6 for 32PTH1-S, 32PTH1-M and 32PTH1-L DSCs**  
**(Type 1 Basket)**



Heat Zone Level	Zone 1	Zone 2
Max. Decay Heat/FA (kW)	0.3	0.17
Number of FAs/Zone	13	48
Max. Decay Heat/Zone (kW)	3.9	8.2
Max. Decay Heat/DSC (kW)	<b>12.0</b>	

**Figure 1-29**  
**Heat Load Zone Configuration for the 61BT DSC Contained in an OS197L TC**

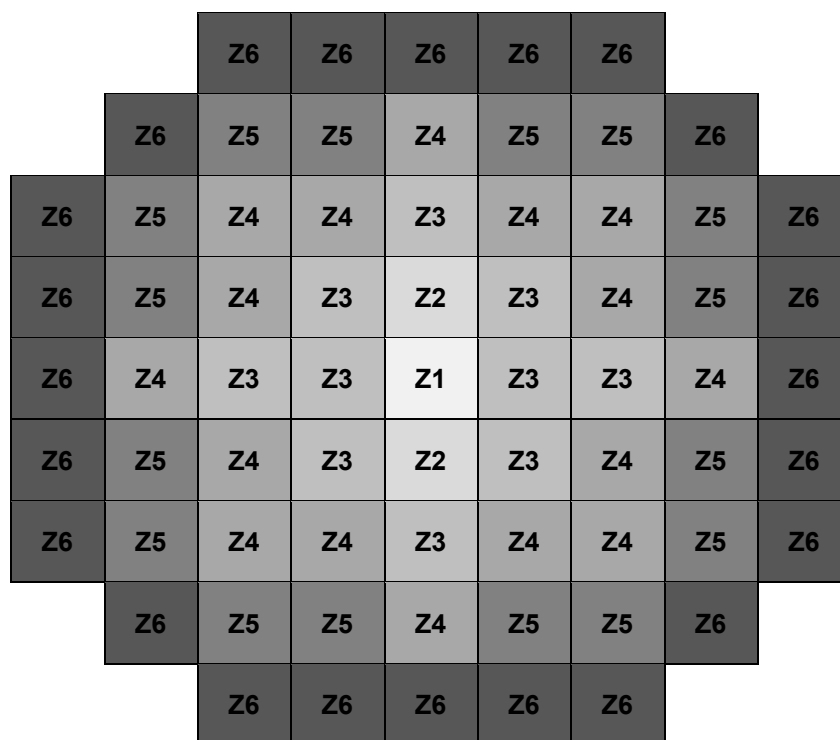


	2	2	2	2	
2	2	1	1	2	2
2	1	1	1	1	2
2	1	1	1	1	2
2	2	1	1	2	2
	2	2	2	2	

Heat Zone Level	Zone 1	Zone 2
Max. Decay Heat/FA (kW)	0.6	0.4
Number of FAs/Zone	12	20
Max. Decay Heat/Zone (kW)	7.2	8.0
Max. Decay Heat/DSC (kW)	<b>13.0</b> <sup>(1)</sup>	

<sup>(1)</sup> Maximum decay heat load allowed in the OS197L TC.

**Figure 1-30**  
**Heat Load Zone Configuration for the 32PT DSC Contained in an OS197L TC**



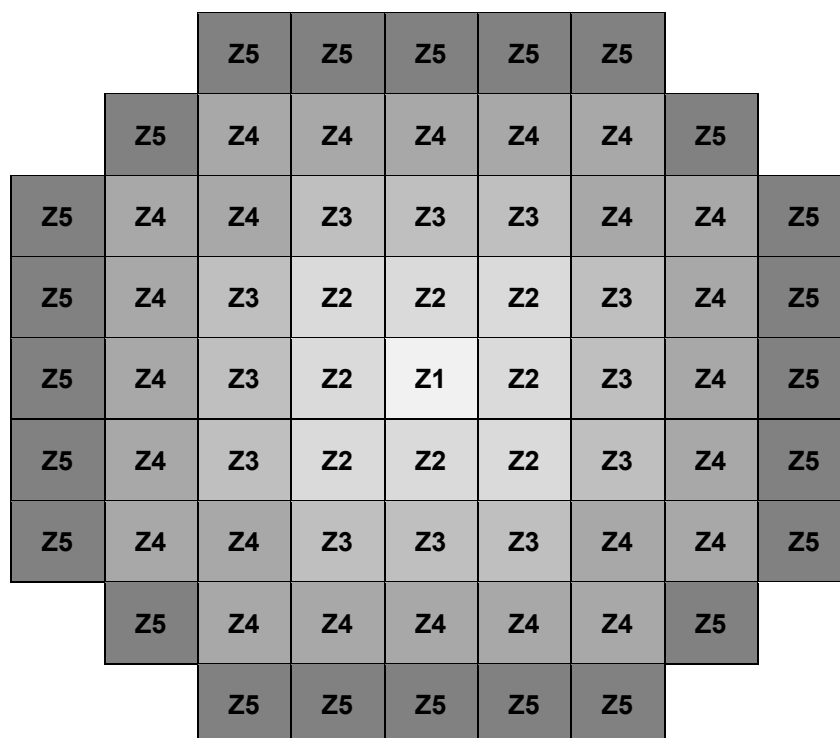
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Max. Decay Heat (kW/FA) <sup>(3)</sup>	0.10	0.27	0.30	0.40	0.55	0.45
Number of Fuel Assemblies <sup>(1)</sup>	1	2	10	16	16	24
Max. Decay Heat per Zone (kW) <sup>(3)</sup>	0.10	0.54	3.0	6.4	8.8	10.8
Max. Decay Heat per DSC (kW)	26.0 <sup>(2)(3)</sup>					

<sup>(1)</sup> Total number of fuel assemblies is 69.

<sup>(2)</sup> Adjust payload to maintain the total DSC heat load within the specified limit.

<sup>(3)</sup> Reduce the maximum decay heat to 70% of the listed values for LaCrosse fuel assembly. The total decay heat for LaCrosse fuel assembly is 18.2 kW per DSC.

**Figure 1-31**  
**Heat Load Zoning Configuration Number 1 for 69BTH DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Max. Decay Heat (kW/FA) <sup>(4)</sup>	0.25	0.0 <sup>(1)</sup>	0.40	0.60	0.50
Number of Fuel Assemblies <sup>(2)</sup>	1	0	12	24	24
Max. Decay Heat per Zone (kW) <sup>(4)</sup>	0.25	0	4.8	14.4	12.0
Max. Decay Heat per DSC (kW)	26.0 <sup>(3) (4)</sup>				

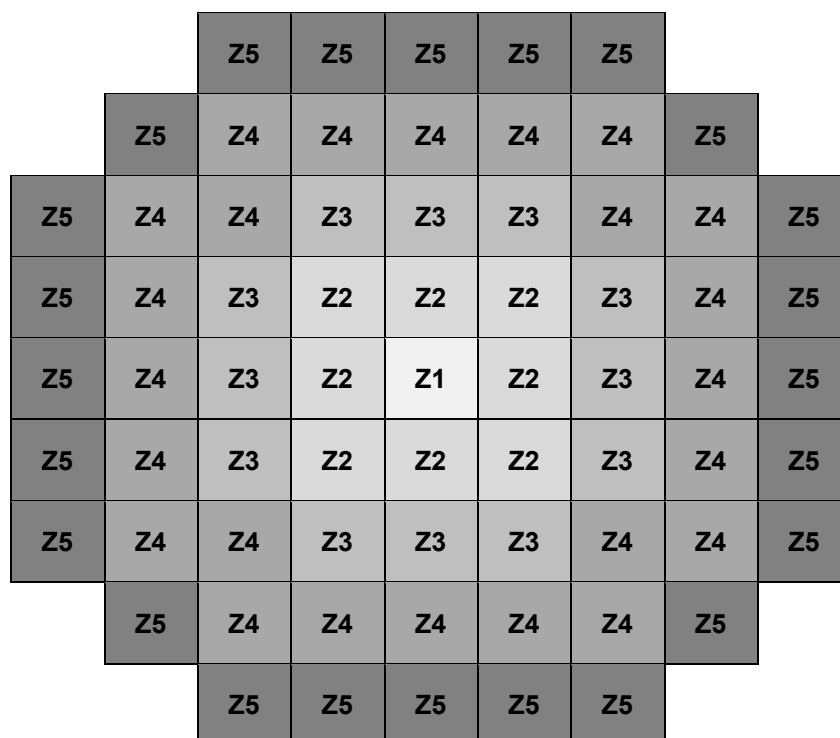
<sup>(1)</sup> Aluminum dummy assemblies replace the fuel assemblies in Zone 2.

<sup>(2)</sup> Total number of fuel assemblies is 61.

<sup>(3)</sup> Adjust payload to maintain the total DSC heat load within the specified limit.

<sup>(4)</sup> Reduce the maximum decay heat to 70% of the listed values for LaCrosse fuel assembly.  
The total decay heat for LaCrosse fuel assembly is 18.2 kW per DSC.

**Figure 1-32**  
**Heat Load Zoning Configuration Number 2 for 69BTH DSCs**



	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Max. Decay Heat (kW/FA) <sup>(4)</sup>	0.25	0.0 <sup>(1)</sup>	0.40	0.60	0.50
Number of Fuel Assemblies <sup>(2)</sup>	1	0	12	24	24
Max. Decay Heat per Zone (kW) <sup>(4)</sup>	0.25	0	4.8	14.4	12.0
Max. Decay Heat per DSC (kW)	29.2 <sup>(3)</sup> <sup>(4)</sup>				

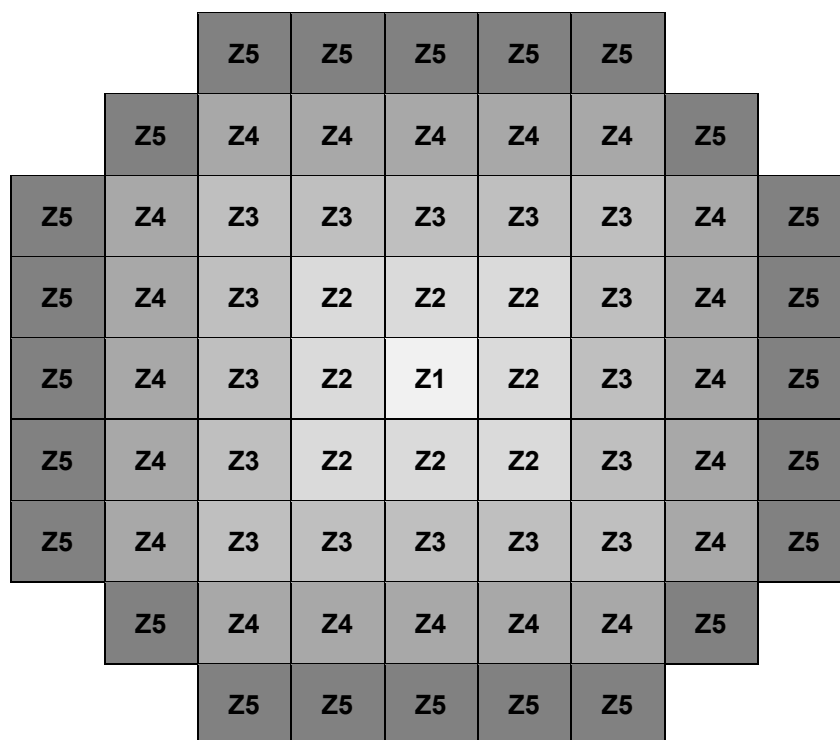
<sup>(1)</sup> Aluminum dummy assemblies replace the fuel assemblies in Zone 2.

<sup>(2)</sup> Total number of fuel assemblies is 61.

<sup>(3)</sup> Adjust payload to maintain the total DSC heat load within the specified limit.

<sup>(4)</sup> Reduce the maximum decay heat to 70% of the listed values for LaCrosse fuel assembly. The total decay heat for LaCrosse fuel assembly is 20.4 kW per DSC.

**Figure 1-33**  
**Heat Load Zoning Configuration Number 3 for 69BTH DSCs**



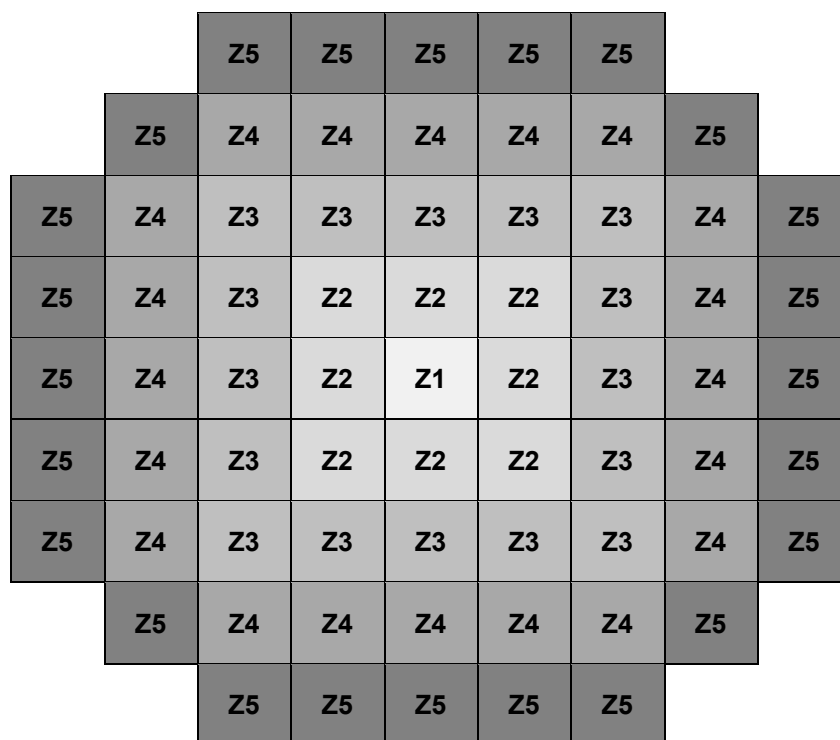
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Max. Decay Heat (kW/FA) <sup>(3)</sup>	0.0 <sup>(1)</sup>	0.45	0.0 <sup>(1)</sup>	0.70	0.60
Number of Fuel Assemblies <sup>(2)</sup>	0	8	0	20	24
Max. Decay Heat per Zone (kW) <sup>(3)</sup>	0	3.6	0	14.0	14.4
Max. Decay Heat per DSC (kW)	32.0 <sup>(3)</sup>				

<sup>(1)</sup> The fuel compartment in Zone 1 remains empty. Aluminum dummy assemblies replace the fuel assemblies in Zone 3.

<sup>(2)</sup> Total number of fuel assemblies is 52.

<sup>(3)</sup> Reduce the maximum decay heat to 70% of the listed values for LaCrosse fuel assembly. The total decay heat for LaCrosse fuel assembly is 22.4 kW per DSC.

**Figure 1-34**  
**Heat Load Zoning Configuration Number 4 for 69BTH DSCs**

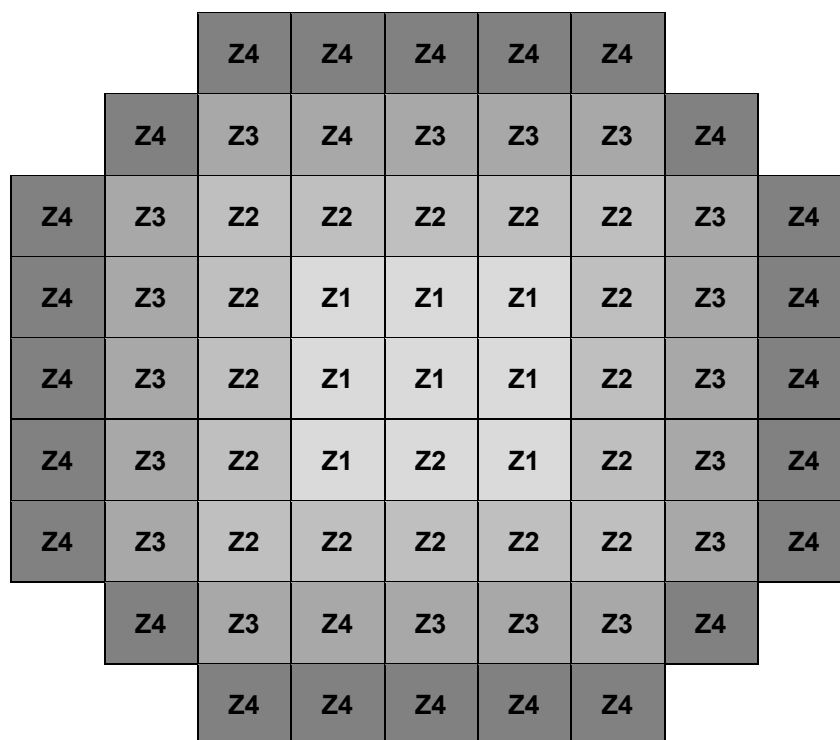


	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Max. Decay Heat (kW/FA) <sup>(2)</sup>	0.22	0.35	0.393	0.70	0.488
Number of Fuel Assemblies <sup>(1)</sup>	1	8	16	20	24
Max. Decay Heat per Zone (kW) <sup>(2)</sup>	0.22	2.80	6.29	14.00	11.71
Max. Decay Heat per DSC (kW)	35.0 <sup>(2)</sup>				

<sup>(1)</sup> Total number of fuel assemblies is 69.

<sup>(2)</sup> Reduce the maximum decay heat to 70% of the listed values for LaCrosse fuel assembly. The total decay heat for LaCrosse fuel assembly is 24.5 kW per DSC.

**Figure 1-35**  
**Heat Load Zoning Configuration Number 5 for 69BTH DSC**

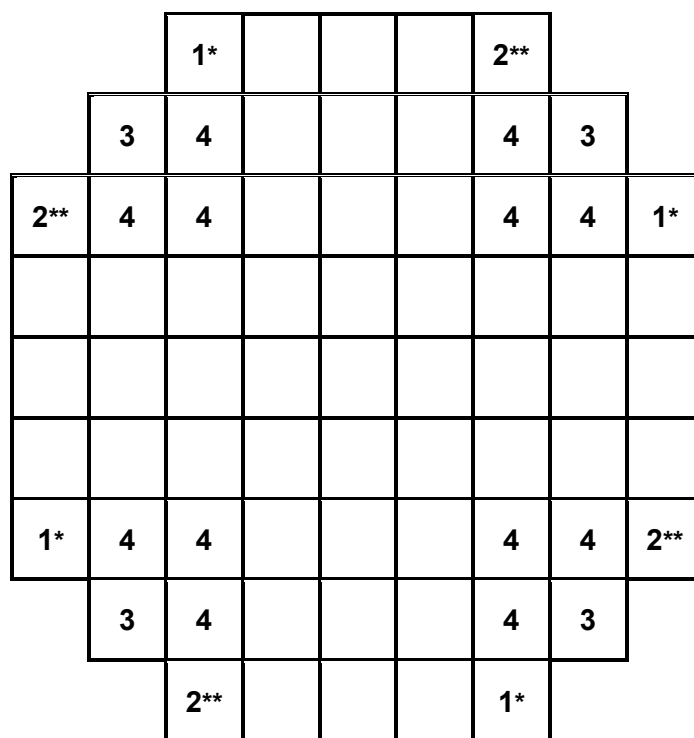


	Zone 1	Zone 2	Zone 3	Zone 4
Max. Decay Heat (kW/FA) <sup>(2)</sup>	0.22	0.35	0.393	0.35
Number of Fuel Assemblies <sup>(1)</sup>	9	16	20	24
Max. Decay Heat per Zone (kW) <sup>(2)</sup>	1.98	5.6	7.86	8.40
Max. Decay Heat per DSC (kW)	24.0 <sup>(2)</sup>			

<sup>(1)</sup> Total number of fuel assemblies is 69.

<sup>(2)</sup> Reduce the maximum decay heat to 70% of the listed values for LaCrosse fuel assembly. The total decay heat for LaCrosse fuel assembly is 16.8 kW per DSC.

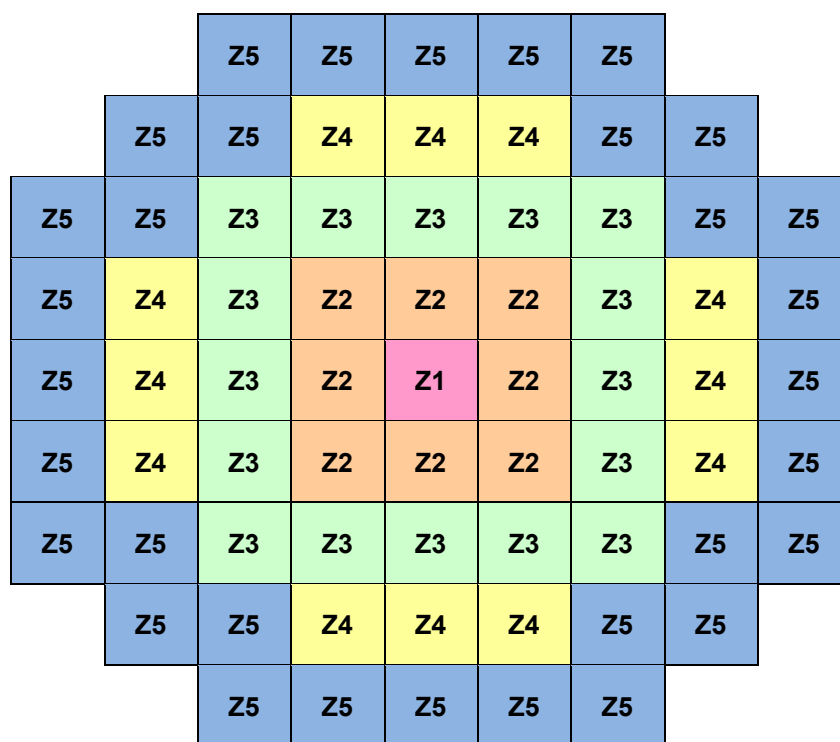
**Figure 1-36**  
**Heat Load Zoning Configuration Number 6 for 69BTH DSC**

Configurations<sup>(1)</sup> 1, 2, 3, and 4

Note (1)	Any one of these three sets of corner locations shall only be utilized to load up to four damaged assemblies with the remaining intact in a 69BTH Basket. The maximum lattice average initial enrichment of fuel assemblies (damaged or intact stored in either set of cells for configuration 1 or configuration 2, or set of cells for configuration 3) is limited to the “up to 4 damaged assemblies” column of Table 1-1kk.
	Following the placement of damaged fuel assemblies in either configuration 1 or 2, the remaining configuration 2 or configuration 1 locations shall be used to load up to 4 additional damaged assemblies, with the remaining intact in a 69BTH Basket. The maximum lattice average initial enrichment for these fuel assemblies (damaged or intact stored in configuration 2 or configuration 1 cells available) is limited to the “5 to 8 damaged assemblies” column of Table 1-1kk.
	Following the placement of eight damaged fuel assemblies in the set of corner locations marked with a “*” (configuration 1 cells) and a “**” (configuration 2 cells), the locations in configuration 4 cells or configuration 3 cells shall be used to load up to sixteen additional damaged assemblies, with the remaining intact in a 69BTH Basket. The maximum lattice average initial enrichment for all 24 fuel assemblies (damaged or intact stored in these 24 locations) is limited to the “9 to 24 Damaged Assemblies” column of Table 1-1kk.

**Figure 1-37**  
**Location of Damaged Fuel Assemblies Inside 69BTH DSC**

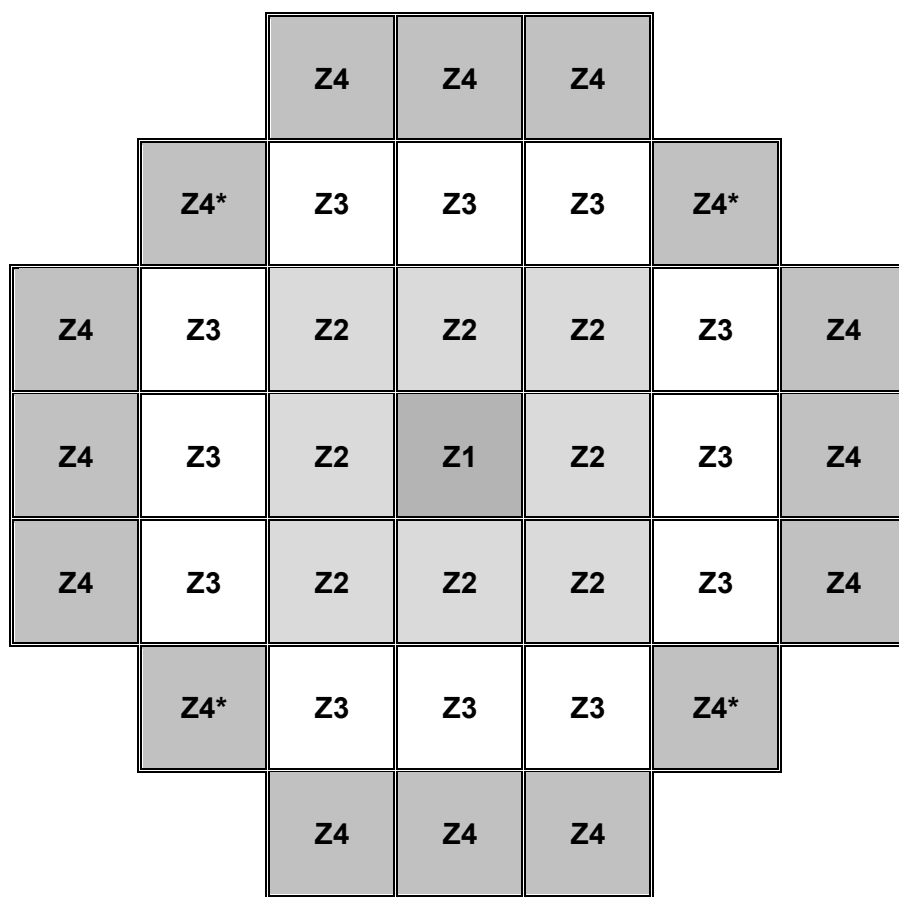




	Zone 1 <sup>(3)</sup>	Zone 2	Zone 3	Zone 4	Zone 5
Max. Decay Heat (kW/FA) <sup>(4)</sup>	0	0.35	0.40	0.9	0.5
No. of Fuel Assemblies <sup>(1)</sup>	0	8	16	12	32
Max. Decay Heat per Zone (kW)	0	2.80	6.4	10.8	16.0
Max. Decay Heat per DSC (kW)	35.0 <sup>(2) (4)</sup>				

- (1) Total number of fuel assemblies is 68 for HLZC #7  
 (2) Adjust payload to maintain the total DSC heat load within the specified limit  
 (3) Zone 1 does not require an aluminum dummy assembly.  
 (4) Reduce the maximum decay heat to 70% of the listed values for LaCrosse fuel assembly. The total decay heat for LaCrosse fuel assembly is 24.5 kW per DSC

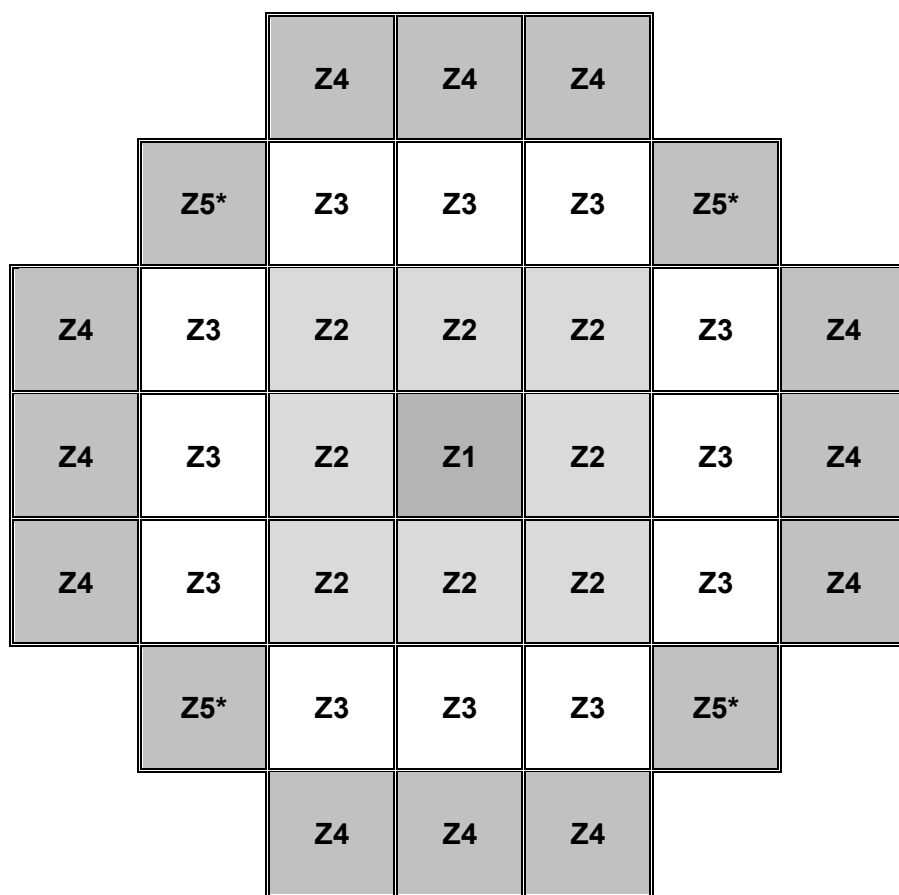
**Figure 1-38**  
**Heat Load Zoning Configuration No. 7 for 69BTH DSCs**



\* Denotes locations where damaged fuel assembly can be stored.

	Zone 1	Zone 2	Zone 3	Zone 4
Max. decay heat (kW/FA)	0.40	0.40	0.60	0.70
Number of fuel assemblies	1	8	12	16
Max. decay heat per zone (kW)	0.4	3.2	7.2	11.2
Max. decay heat per DSC (kW)	22.0			

**Figure 1-39**  
**Heat Load Zoning Configuration Number 2 for 37PTH-S and 37PTH-M DSCs**

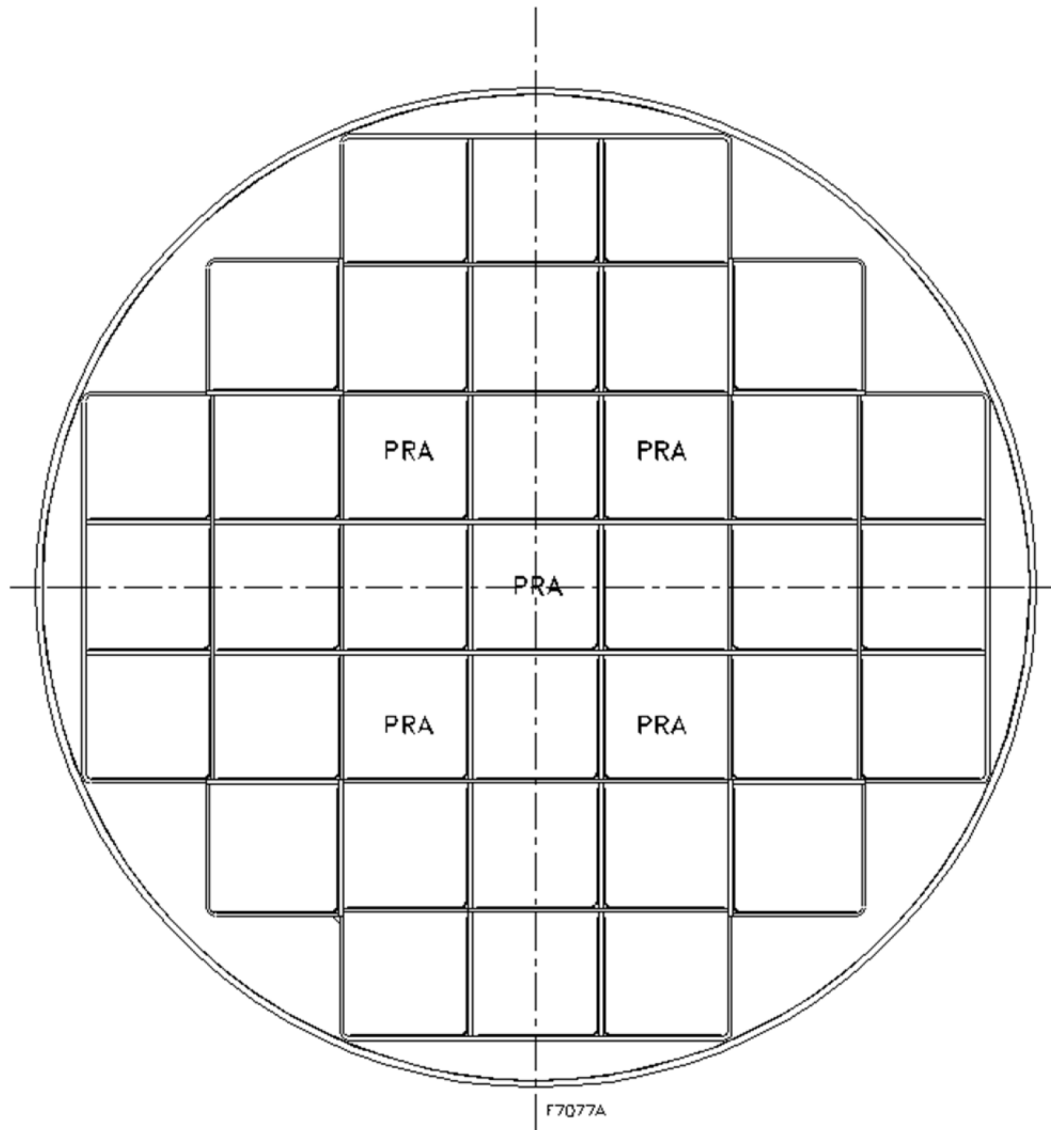


\* Denotes locations where either an intact or damaged fuel assembly can be stored.

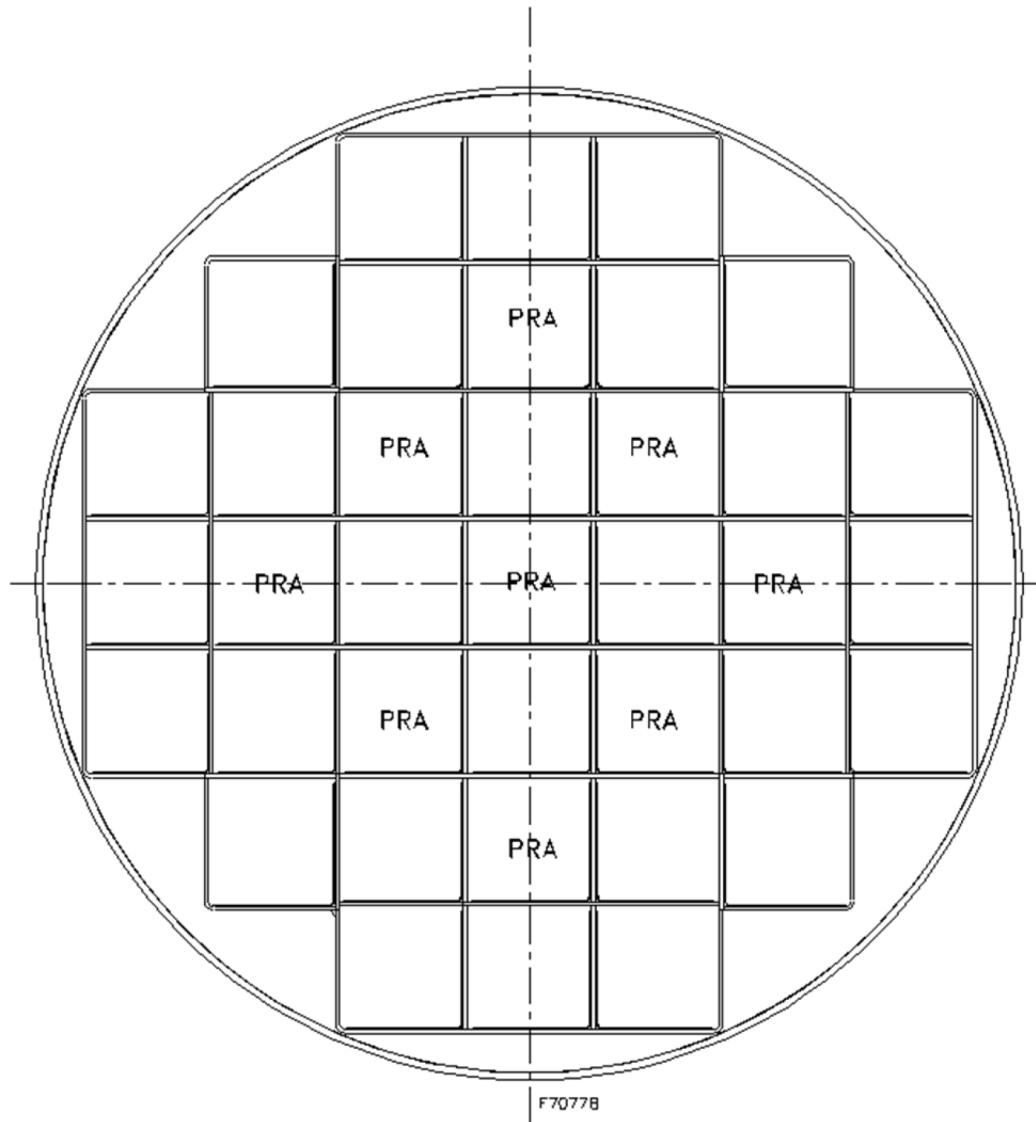
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Max. decay heat (kW/FA)	0.40	0.40	0.70	1.20	1.20
Number of fuel assemblies	1	8	12	12	4
Max. decay heat per zone (kW)	0.4	3.2	8.4	14.4	4.80
Max. decay heat per DSC (kW)	30.0 <sup>(1)</sup>				

<sup>(1)</sup> Adjust payload of fuel assemblies to maintain the total DSC heat load within the specified limit.

**Figure 1-40**  
Heat Load Zoning Configuration Number 3 for 37PTH-S and 37PTH-M DSCs



**Figure 1-41**  
**Required PRA Locations for the NUHOMS®-37PTH DSC Configuration with Five PRAs**



**Figure 1-42**  
**Required PRA Locations for the NUHOMS®-37PTH DSC Configuration with Nine PRAs**