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DATE

June 14, 1966

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BATTELLE-NORTHWEST

RICHLAND, WASHINGTON

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TITLE AND AUTHOR

COMPOSITION OF ENDING INVENTORY

MAY 1966

R. O. Budd

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H. R. Freitag, Chief
Nuclear Materials Management Branch
U. S. Atomic Energy Commission
Richland Operations Office
Richland, Washington

Dear Mr. Freitag:

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By Authority of W A Snyder
PR-24, 2-17-94
By J E Savely 2-22-94
Verified By Jerry Maley
3-5-94

COMPOSITION OF ENDING INVENTORY

Submitted herewith are Source and Special Nuclear Material Composition of Ending Inventory Reports for the month of May, 1966.

Yours very truly,

Manager
Nuclear Materials Management Section
ENVIRONMENTAL HEALTH AND
ENGINEERING DEPARTMENT

RO Budd:fo

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**BATTELLE NORTHWEST
ENVIRONMENTAL HEALTH AND ENGINEERING DEPARTMENT
NUCLEAR MATERIALS MANAGEMENT SECTION**

**BNWL-CC-474 5
Hanford Code C-44a**

**NORMAL URANIUM
COMPOSITION OF ENDING INVENTORY**

MAY 1966

(Material Type Code 81)

<u>Line</u>	<u>(In Kilograms)</u>	<u>Total</u>
35	Production Processes and Products	
53	Intermediate Products	
69	In Production Research and Devel	29 002
75	Total Prod Proc and Prod	<u>29 002</u>
76	Weapons Processes and Products	
89	In Weapons Research and Develop	
90	General	29
92	Total in Weapons Res/Devel	<u>29</u>
103	Total Weap Proc and Prod	<u>29</u>
126	Total	<u>29 031</u>
400	<u>NONPRODUCTION REACTORS AND R & D</u>	
405	<u>Inventory By Status of Material</u>	
420	Usable, Stored for Definite Use	21 801
490	Total - Nonproduction Reactors and R & D	<u>21 801</u>
	Total Normal Uranium	<u>50 832</u>

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DEPLETED URANIUM
COMPOSITION OF ENDING INVENTORY

MAY 1966

<u>Line</u>	(In Kilograms)	<u>Total</u>		<u>Type Code</u>
		<u>U</u>	<u>U-235</u>	
1	Feed Material			
2	Preliminary to Processing			
4.1	In Cooling Basins	214	1	16
5	Total Preliminary to Proc	214	1	
10	Total Feed Material	214	1	
11	Material In Process			
12	In Processes			
22	Slugs - Bare - 15 Material	16 866	32	12
25	Total In Processes	16 866	32	
36	Total Material In Process	16 866	32	
62	Inactive Material			
63	Metal	181	Negl	11
71	Compounds	13	Negl	17
75	Total Inactive Material	194	Negl	
198	Total	17 274	33	
400	<u>NONPRODUCTION REACTORS AND R & D</u>			
405	<u>INVENTORY BY STATUS OF MATERIAL</u>			
420	Usable, Stored for Definite Use	2 139	6	15
		2 885	7	13
480	Irradiated Material in Storage	5 230	30	17
490	<u>Total - Nonproduction Reactors and R & D</u>	10 254	43	
	Total Depleted Uranium	27 528	76	

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ENRICHED URANIUM - LESS THAN 75 PERCENT
COMPOSITION OF ENDING INVENTORY

MAY 1966

Line	(In Grams)	Total		Type Code
		U	U-235	
1	Material In Process			
15	Intermediate Products			
21	Slugs - Bare	425 468	4 196	22
23	UNE Solution	90 990	2 739	28
27	Total Intermediate Products	516 458	6 935	
28	Total Material in Process	516 458	6 935	
30	In Cooling Basins	260 000	2 212	22
65	Awaiting Recovery			
66	Available			
68	Miscellaneous Compounds	177 447	3 558	25
70	Turnings	680 839	7 043	22
71	Other Metal	30 386 039	338 550	23
77	Total Available	31 244 325	349 151	
83	Total Awaiting Recovery	31 244 325	349 151	
84	Inactive Material			
85	Metal	499	6	23
90	Total Inactive Material	499	6	
115	Total	32 021 282	358 304	
400	<u>NONPRODUCTION REACTORS AND R & D</u>			
405	<u>INVENTORY BY STATUS OF MATERIAL</u>			
420	Usable, Stored for Definite Use	2 628 393	59 836	25
450	In Miscellaneous R & D	45	1	28
470	Unirradiated Scrap Stored for Recovery	206 236	8 468	31
480	Irradiated Material in Storage	17 000	502	28
490	Total - Nonproduction Reactors and R & D	2 851 674	68 807	
	Total Enriched Uranium LT 75%	34 872 956	427 111	

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ENRICHED URANIUM - MORE THAN 75 PERCENT
COMPOSITION OF ENDING INVENTORY

MAY 1966

(Material Type Code - 38)

<u>Line</u>	(In Grams)	<u>Total</u>	
		<u>U</u>	<u>U-235</u>
69	Awaiting Recovery		
70	Available		
72	Miscellaneous Compounds	306	285
75	Other Metal	4	4
81	Total Available	<u>310</u>	<u>289</u>
88	Total Awaiting Recovery	<u>310</u>	<u>289</u>
98	Total	<u>310</u>	<u>289</u>
400	<u>NONPRODUCTION REACTORS AND R & D</u>		
405	<u>INVENTORY BY STATUS OF MATERIAL</u>		
420	Usable Stored for Definite Use	202 675	188 908
450	In Miscellaneous R & D	633	590
470	Unirradiated Scrap Stored for Recovery	59	55
480	Irradiated Material in Storage	76	71
490	<u>Total - Nonproduction Reactors and R & D</u>	<u>203 443</u>	<u>189 624</u>
	Total Enriched Uranium MT 75%	<u>203 753</u>	<u>189 913</u>

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PLUTONIUM
COMPOSITION OF ENDING INVENTORY

MAY 1966

<u>Line</u>	(In Grams)	<u>Total</u>	<u>Type Code</u>		
			<u>51</u>	<u>52</u>	<u>53</u>
1	Material in Process				
2	In Processes				
4.1	In Cooling Basins	416		416	
4.3	In Cooling Basins-LT 75	362		362	
20	Total In Processes	<u>778</u>		<u>778</u>	
34	Total Material In Process	<u>778</u>		<u>778</u>	
84	Inactive Material				
85	Metal	2 224	2 224		
86	Compounds	710	710		
87	Solutions	65	65		
90	Total Inactive Material	<u>2 999</u>	<u>2 999</u>		
93	Total	<u>3 777</u>	<u>2 999</u>	<u>778</u>	<u>-0-</u>
100	<u>NONPRODUCTION REACTORS AND R & D</u>				
105	<u>INVENTORY BY STATUS OF MATERIAL</u>				
120	Usable, Stored for Definite Use	544 200	502 246	24 861	17 093
150	In Miscellaneous R & D	1 287	1 279	8	
170	Unirradiated Scrap Stored for Recovery	12	7	5	
180	Irradiated Material in Storage	40 843	12	38 949	1 882
190	<u>Total - Nonproduction Reactors</u>	<u>586 342</u>	<u>503 544</u>	<u>63 823</u>	<u>18 975</u>
	Total Plutonium	<u>590 119</u>	<u>506 543</u>	<u>64 601</u>	<u>18 975</u>

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THORIUM
COMPOSITION OF ENDING INVENTORY

MAY 1966

(Material Type Code 88)

<u>Line</u>	(In Kilograms)	<u>Total</u>
400	<u>NONPRODUCTION REACTORS AND R & D</u>	
405	<u>INVENTORY BY STATUS OF MATERIAL</u>	
420	Usable, Stored for Definite Use	5 105
480	Irradiated Material in Storage	17
490	<u>Total - Nonproduction Reactors and R & D</u>	<u>5 122</u>
	Total Thorium	<u>5 122</u>

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URANIUM-233
COMPOSITION OF ENDING INVENTORY

MAY 1966

Line	(In Grams)	Total		Type Code			
		U	U-233	U	U-233	U	U-233
1	Material In Process						
2	In Processes						
4	In Cooling Basins	22	22	22	22		
18	Total In Processes	22	22				
32	Total Material In Process	22	22	22	22		
80	Inactive Material						
83	Solution	21	21	1	1	20	20
86	Total Inactive Material	21	21	1	1	20	20
89	Total	43	43	23	23	20	20
100	<u>NONPRODUCTION REACTORS AND R & D</u>						
105	<u>INVENTORY BY STATUS OF MATERIAL</u>						
120	Usable, Stored for Definite Use	294	281	294	281		
190	<u>Total - Nonproduction Reactors & R&D</u>	294	281	294	281		
	Total Uranium Enriched with U-233	337	324	317	304	20	20

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Hanford Code C-44a

DEUTERIUM
COMPOSITION OF ENDING INVENTORY

MAY 1966

(Material Type Code 86)

<u>Line</u>	<u>(In Kilograms)</u>	<u>Heavy Water</u>	<u>Total</u> <u>Deuterium</u>
100	<u>NONPRODUCTION REACTORS AND R & D</u>		
105	<u>INVENTORY BY STATUS OF MATERIAL</u>		
120	Usable, Stored for Definite Use	21 826.8	4 387.2
140	In Reactors or Critical Assemblies	28 051.8	5 638.4
170	Unirradiated Scrap Stored for Recovery	9 054.1	1 819.9
190	<u>Total - Nonproduction Reactors and R & D</u>	<u>58 932.7</u>	<u>11 845.5</u>
	<u>Total Deuterium</u>	<u>58 932.7</u>	<u>11 845.5</u>

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ENRICHED LITHIUM
COMPOSITION OF ENDING INVENTORY

MAY 1966

(Material Type Code 61)

<u>Line</u>	(In Kilograms)	<u>Total</u>	
		<u>Lithium</u>	<u>Lithium⁶</u>
100	<u>NONPRODUCTION REACTORS AND R & D</u>		
105	<u>INVENTORY BY STATUS OF MATERIAL</u>		
120	Usable, Stored for Definite Use	<u>5</u>	<u>2</u>
190	<u>Total - Nonproduction Reactors and R & D</u>	<u>5</u>	<u>2</u>
	Total Enriched Lithium	<u>5</u>	<u>2</u>

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Line	
100	REPRODUCTION REACTORS AND R & D
105	INVENTORY BY STATUS OF MATERIAL
150	In Miscellaneous R & D
190	Total - Reproduction Reactors and R & D
211	Total Neptunium-237
211	
211	
Total	

(Material Type Code 82)

May 1966

NEPTUNIUM-237
COMPOSITION OF EXISTING INVENTORY

BATTILLE NORTHWEST
ENVIRONMENTAL HEALTH AND ENGINEERING DEPARTMENT
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[REDACTED]

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

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PLUTONIUM-238
COMPOSITION OF ENDING INVENTORY

MAY 1966

(Material Type Code 83)

<u>Line</u>	<u>(In Grams)</u>	<u>Pu</u>	<u>Total</u> <u>Pu-238</u>
100	<u>NONPRODUCTION REACTORS AND R & D</u>		
105	<u>INVENTORY BY STATUS OF MATERIAL</u>		
150	<u>In Miscellaneous R & D</u>	<u>1.6</u>	<u>1.3</u>
190	<u>Total - Nonproduction Reactors and R & D</u>	<u>1.6</u>	<u>1.3</u>
	<u>Total Plutonium-238</u>	<u>1.6</u>	<u>1.3</u>

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**TRITIUM
COMPOSITION OF ENDING INVENTORY**

MAY 1966

(Material Type Code 87)

<u>Line</u>		<u>Total</u>
1	Material in Process	
2	In Processes	
4	In Cooling Basins	0.79
9	Total In Processes	0.79
17	Total Material in Process	0.79
67	Total Tritium	0.79

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10/24/94

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