7575 U-005-307.6

HISTORICAL URANIUM METAL PRODUCTION - (USED AS A REFERENCE IN OU3 RI/FS/PP)

05/11/95

KISPERT HARTWICK
3
MEMO

HISTORICAL URANIUM METAL PRODUCTION

May 11, 1995

Wayde:

Attached are 2 compilations of historical uranium production that I obtained from Shirley Kaushiva yesterday, as follows:

- METAL PRODUCTION (MTU) - FINAL PRODUCTION ONLY
- FMPC PRODUCTION TONNAGE (MTU) - BY EACH PLANT

The 1st compilation shows the breakdown of the 180,113 MTU between both DOE and DOD users. On the 2nd sheet, I have entered arrows at the bottom of the page beneath those columns that include final metal products. Only "Plant 6 Machining Fuel Elements" is entirely product. Subtracting its production of 142,700 MTU from the total of 180,113 MTU leaves a balance of 37,411 MTU to be identified.

The 8,188 MTU produced for the DOD were flat billets produced in "Plant 5 Casting". Subtracting this quantity from the balance leaves 29,223 MTU that would have come mostly from machining enriched uranium ingots in Plant 9. The column for this production totals 59,225 MTU, and includes the machining of normal and depleted uranium ingots that were produced in Plant 5. Since enriched ingot production was about 15% of the total, I estimate that 8,884 MTU would have been product billets (machined ingots) sent to RMI. Subtracting this quantity from the balance of 29,223 MTU leaves a final balance of 20,339 MTU to be explained.

Part of the final balance include depleted uranium derbies that were shipped to both Rocky Flats and the Oak Ridge Y-12 Plant. Together, they would not come close to the final balance. The remainder probably arises during the period from 1966 to 1971, when ingot production supported; the "Plant 6 Rolling Mill", Enriched U NPR production, and Depleted U Core production for Savannah River. It would require some effort to break this out. It's probably not worth the effort.

I feel confident that using the 180,311 MTU total final metal products, that corresponds to 400 million U pounds, is correct. Please call me at 738-9219 if you have any questions.

Bob K.

Bob Kispert

METAL PRODUCTION
METRIC TONS URANIUM WEIGHT
(FINAL PRODUCTS ONLY)

FISCAL YEAR	DOE	DOD	TOTAL
1953	1608	0	1608
1954	3581	0	3581
1955	6752	0	6752
1956	8086	0	8086
1957	8629	0	8629
1958	8378	0	8378
1959	7320	0	7320
1960	9131	0	9131
1961	7552	0	7552
1962	8211	0	8211
1963	9232	0	9232
1964	9279	0	9279
1965	11674	0	11674
1966	8184	0	8184
1967	7440	0	7440
1968	6101	0	6101
1969	4371	0	4371
1970	3613	0	3613
1971	1968	0	1968
1972	1521	0	1521
1973	2333	0	2333
1974	1900	0	1900
1975	1531	0	1531
1976	1113	0	1113
1976A	256	0	256
1977	1566	0	1566
1978	2099	0	2099
1979	1763	0	1763
1980	1724	0	1724
1981	2604	92	2696
1982	3446	105	3551
1983	4137	230	4367
1984	4489	1018	5507
1985	3721	740	4461
1986	4028	597	4625
1987	1485	2722	4207
1988	1075	2157	3232
1989	24	527	551
TOTAL	171925	8188	180113

Production was shut down officially in July 1989.
Last derby charged: February 6, 1989; last derby breakout date: March 27, 1989.
Last 2" flat charged: June 27, 1989; last 2" flat poured: June 29, 1989.
Note: Above figures are FINAL products only -- no intermediate production processes included.

SLKAUSHIVA:FILE:HISTPROD.WK1
07/14/92

FMPC
PRODUCTION TONNAGE (MTU)
FISCAL YEARS 1953 THROUGH 1988

FISCAL YEAR	PLT.2 (A) REFINERY (UO3)	PLT.8 (B) RECOVERY (REF.FEED)	PLT. 4 (A) (UF4 PROD.)	PLT. 4 (C) (PACKAGING DEPL. UF4)	PLT. 5 (A) REDUCTION (DERBIES)	PLT. 5 CASTING (PROD.INGOTS & PRIMARIES	PLT.9 CASTING (PROD.INGOTS & PRIMARIES)	PLT.9 MACHINING (INGOTS & BILLETS)	PLT.6 (A) ROLLING (RODS)	PLT.6 (A) MACHINING (FUEL ELEMENTS)	P.P. UF6 - UF4 (UF4)	TOTAL
1953	0	0	0	0	45	90	0	0	1966	1608	0	3709
1954	642	266	1568	0	2099	3976	0	0	5679	3581	0	17811
1955	3288	1160	3314	0	5824	9528	0	0	9973	6752	0	39839
1956	5329	1764	5029	0	8459	12037	0	0	12470	8086	0	53174
1957	8370	1927	9358	0	6113	12680	0	0	15074	8629	0	62151
1958	10039	2018	12117	0	6749	12727	732	0	13665	8378	0	66425
1959	11540	2568	9454	0	7759	13365	1251	0	14033	7320	0	67290
1960	12187	3188	11388	0	10586	16708	1388	0	18532	9131	0	83108
1961	11039	2902	10642	0	8470	12691	2364	0	15370	7552	0	71030
1962	6288	2820	9468	0	8563	12865	2663	0	15430	8211	1342	67650
1963	0	2657	10482	0	10243	14285	3660	0	14507	9232	1197	66263
1964	0	3505	7203	0	7648	11655	5297	0	11313	9279	1468	57368
1965	543	2134	6797	0	6432	10234	5361	0	12310	8674	658	53143
1966	1347	1617	6174	107	5166	11239	1197	3296	7683	6987	478	45291
1967	1835	1837	6263	677	7172	10969	1258	3753	7576	5837	13	47190
1968	3251	2222	4809	1549	5339	10144	691	4165	5029	5105	0	42304
1969	2028	1036	2821	1386	4017	6638	778	2980	3380	3227	0	28291
1970	880	649	1923	943	2885	5425	499	1720	3309	2882	0	21115
1971	809	307	580	876	1344	2375	422	2182	1068	1413	0	11376
1972	2761	111	347	1028	1217	1683	599	1839	0	922	0	10507
1973	3534	66	0	2159	2139	3292	452	3067	0	1881	0	16590
1974	7114	3	342	980	1317	1711	1031	2221	0	870	0	15589
1975	8189	43	634	1144	1121	1167	1189	1532	0	797	0	15816
1976*	9752	51	0	1276	1703	2142	304	1996	0	1065	0	18289
1977	2191	386	0	1950	1780	2175	381	2074	0	1110	0	12047
1978	0	122	544	1735	2139	1968	480	1932	0	1172	0	10092
1979	0	184	0	1513	1618	1386	604	1558	0	900	0	7763
1980	0	118	479	2059	2023	1989	380	1788	0	999	0	9835
1981	103	41	562	2105	2608	2047	796	2214	0	1127	0	11603
1982	203	237	366	3999	4159	3732	974	3566	0	1821	0	19057
1983	319	376	1145	3599	4802	4569	1366	4391	0	2191	0	22758
1984	306	261	1240	5828	6290	3933	1516	4254	0	1924	0	25552
1985	145	188	1146	4292	5075	4559	1074	3428	0	1860	622	22389
1986	2	176	1068	5043	6205	4310	1640	4222	0	1743	462	24871
1987	170	1106	280	5093	4606	3356	745	709	0	426	542	17033
1988	93	261	388	1387	2667	2365	394	338	0	8	1642	9543
1989					24	527 ★						
TOTAL	114297	38307	127931	50728	~~166382~~ 166406	~~236015~~ 236542	41486	59225	188367	142700	8424	~~1173862~~ 1174413

↑(Derbies) ↑(8188 MTU For DOD) ↑(Depleted & Enriched NPR Billets) ↑(Cores)

13

2575