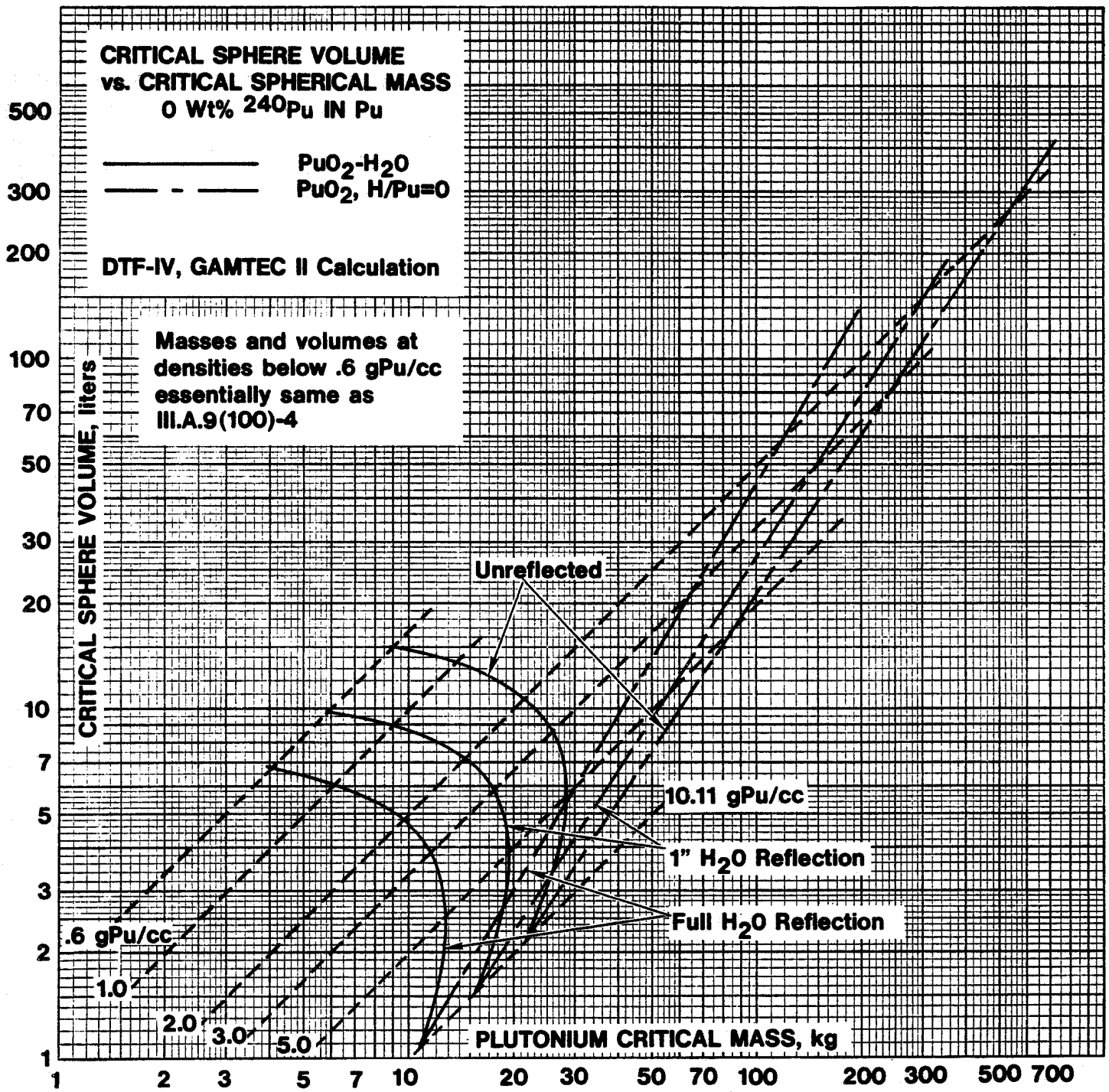
CRITICAL SPHERE VOLUME
vs. CRITICAL SPHERICAL MASS
0 Wt% 240Pu IN Pu
PuO2-H2O
PuO2, H/Pu=0
DTF-IV, GAMTEC II Calculation
Masses and volumes at densities below .6 gPu/cc essentially same as III.A.9(100)-4
CRITICAL SPHERE VOLUME, liters
PLUTONIUM CRITICAL MASS, kg
Unreflected
10.11 gPu/cc
1" H2O Reflection
Full H2O Reflection
.6 gPu/cc
1.0
2.0
3.0
5.0
500
300
200
100
70
50
30
20
10
7
5
3
2
1
1
2
3
5
7
10
20
30
50
70
100
200
300
500
700