

Subject Actinide – Mass Effect Solution Testing

Bruno:

DTGS conducted testing of the Mass Effect Solution (Actinide) in the decontamination of equipment being removed from Bldg. 771 at Rocky Flats. The formula sent contained cellulose acetate to improve adherence to the surface and prevent run-off which it did. We unfortunately lost access to water for rinsing at about the time testing began so we had to resort to wiping the surface with Kimwipes instead of the recommended water rinses. The equipment had surface contamination that had resulted from liquid leaks from a water processing system that had dried and left a mineral residue.

The decon solution was applied using a hand spray bottle, was allowed to set for approximately one minute and then wiped free using a kimwipe. Smears were taken on the surface before decon began and after the surface had dried after the decon solution had been wiped off. The table below shows the results:

Surface	Before (dpm alpha)	After Decon (dpm alpha)	DF
#1 Painted	600	12 (free released)	50
#2 Stainless	1200	17 (FR)	67
#3 Painted	54,000	70	771

DTGS was very please with the results and may have expected Surface #3 to come clean if water had been available to rinse the surface. DTGS recommends that the Mass Effect Solution product be tried for similar applications at other DOE facilities dealing with Actinide contamination.

Sincerely,
DTGS, LLC



Dennis Brunsell
VP Technology