

5-8-64

SNM-8
70-36

Mallinckrodt Chemical Works

Plan to Mfg. for Allis Chalmers several thousand
 fuel pins cont. UO₂ of this density. Pins 18" long x 7/16" dia.
 Each pin 255 g UO₂, 1.8 g/cm Will ship 170 pins
 7 gal, 10 3/4" ID x 20 1/2" height 34 05 x 38 7/8" C.H.T.
 in w.t. drum, packed in polystyrene foam, in outer 55 gal drum
 braced with steel angle iron Tee 1" x 1" x 3/16"

$$170 \times \frac{255 \text{ g}}{40000} \times .8815 = \frac{38,200}{32,216} \text{ g. U} \times .018 = \text{687.89 g U-235}$$

Single Vol 7.95 cu ft

Shipping drum as drum in 55 gal drum = $\frac{654}{7.95} = 87 \text{ g/cu ft}$
 max allowable 1000 g/cu ft by T.M.C.; T.M.C. 1000
 net 112 lbs

By K-1217, done 5/8/64
 1.8 g/cm³ UO₂ in 18" x 7/16" pins
 in 150 lbs

7.35 cu ft
 2000 g / 7.35 = 270 g/cu ft (max total)
 2 kg safe max

B-189