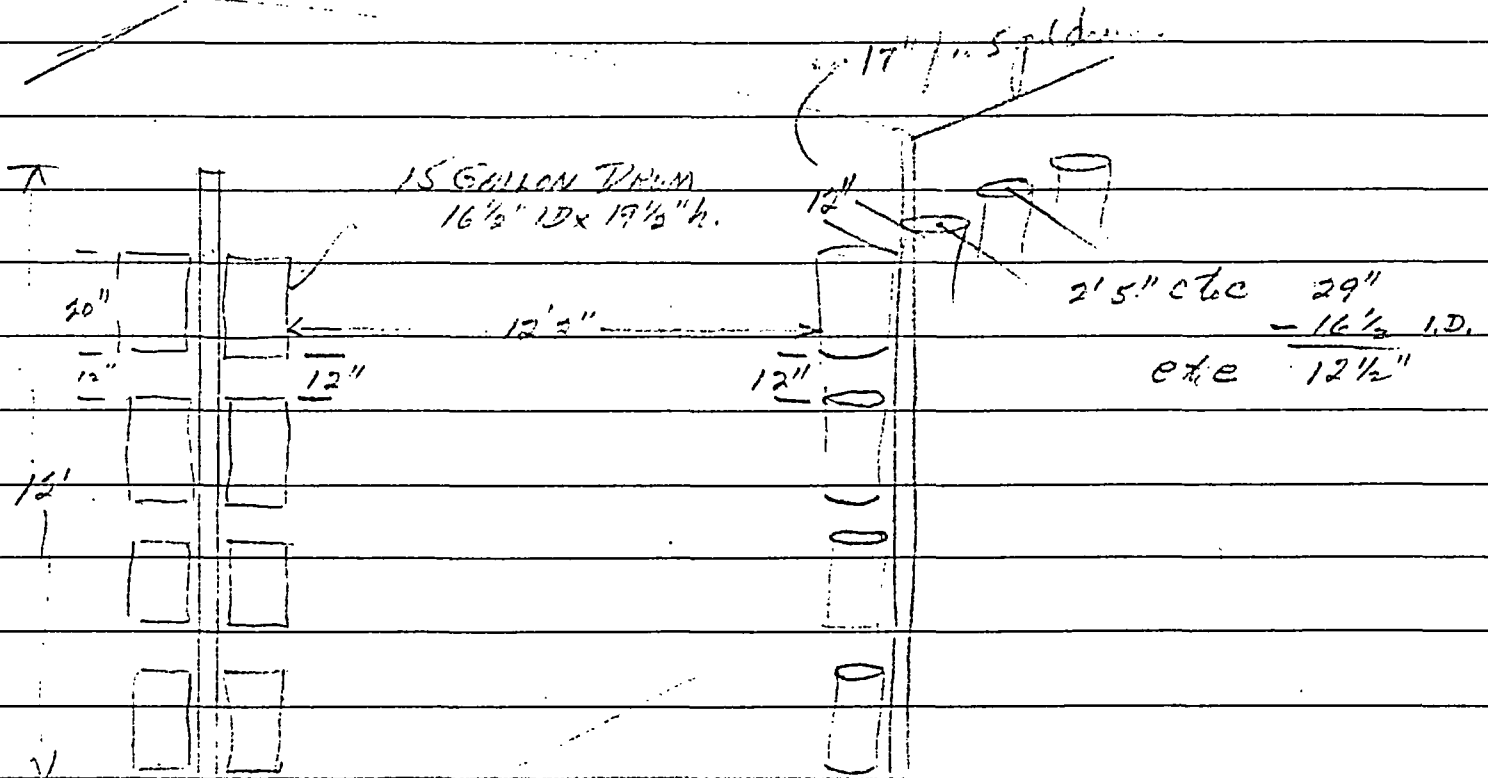


Request for approval of new storage fac at Hematite
for material enriched & 5%



b-56

Mat. (2)

Facility will be used for storing 5 and 15 gallon drums

Est. Dr.

L.S. Mass
Vol. Mat.

15 gal drums for enr < 3% $12\frac{1}{2}$ 16 1/2" dia x 19 1/4" h. 3.75 gal

5 gal drums for enr 3-5% $10\frac{1}{2}$ 11 1/4" dia x 13 1/2" h. 1.49 gal

from 1 1/2 drums 540 lb

29" x 31 1/2"
diameter
= 6.35 lb

Kg U-235 2.11×10^3 $2.11 \times 10^3 \div 88$ $2.11 \times 10^3 \div 21.7 =$ $2.11 \times 10^3 \div 9 \times 10^4$

3.6 1.5 529 600 22.5 567

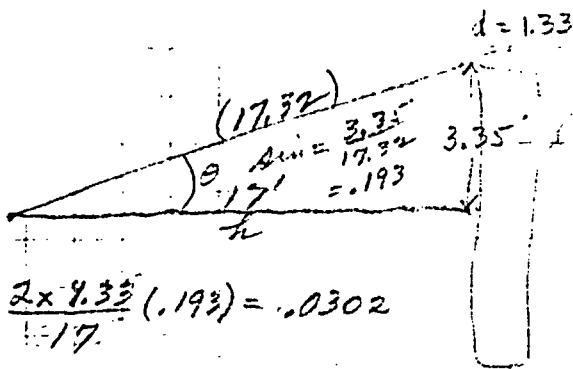
2.5 1.75 320 364 13.6 394

2 2 220 250 9.4 315

1.2 3 88.2 100 3.75 189

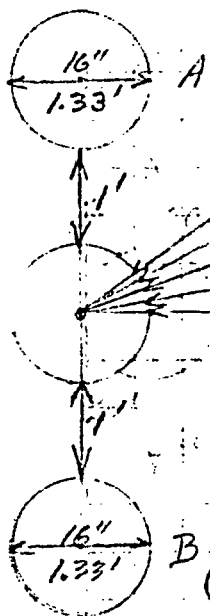
.8 5 (may 35.3 40 1.50 126
be used
for power)

.6 10 13.2 15 .562 95



$$\Omega = \frac{2 \times 4.32}{17} (0.193) = .0302$$

$$\Omega_f = \frac{.0302}{4\pi} = .0024$$



$$\sigma_B = \sigma_A = \frac{\epsilon t \epsilon}{d} = \frac{1'}{1.33} = 0.75$$

$$\lambda_A = \frac{\text{length}}{d} = \frac{6.7'}{1.33} = 5.05$$

(Same for all)

Note - consider L, ht. of column = $4 \times 20' = 80' = 6.7'$

$$\bar{\Omega} = .078 = \Omega \text{ for } 2$$

$\sigma_1 = 12.2/1.33 = 9.2$	$\sim .004$ for 1	$.004$
$\sigma_6 = \sigma_2 = 12.4/1.33 = 9.3$	" for 2	$.008$
$\sigma_7 = \sigma_3 = 13.0/1.33 = 9.8$	" "	$.008$
$\sigma_8 = \sigma_4 = 14.0/1.33 = 10.5$	" "	$.008$
$\sigma_9 = \sigma_5 = 15.3/1.33 = 11.5$	" "	$.008$
Next 6 $\sim 17.0/1.33 \sim 12.8$	$\Omega = .002$	$\bar{\Omega} = 0.192$

Assume $k = 0.65$, $\Omega_f = 0.20$

$$\text{Next } 8 @ .002 = 0.016$$

$$\Omega = 2\pi(1 - \cos \theta) = 2\pi(1 - \frac{928}{1072}) = .452$$

This is a rough check of solid angle using K& 1309