

Turnaround Info for Low

K. E. Bruck
9-10-73
WCK

Distillation rate

Turnaround (chg, heat, cool, pumps)

Drain trays	2 HR
Pumps out	1 1/2 HR
Charge	1 1/2 HR
Heat-up	3 HR
Total	= 6 HR

Assume 70 M lbs / HR Boil-up

	<u>lbs</u>	<u>R.R</u>	<u>Boil-up lbs</u>	<u>θ, HRS</u>
Fresh chg.	184,000			
Recycled	25,300			
Cham feed new	83,700			
① Byproduct cut	83,700	5/1	502,000	7.2
② " "	4,100	5/1	24,600	.35
③ " "	21,200	8/1	199,800	2.85
④ Recycle cut	22,000	8/1	198,000	2.8
⑤ " "	39,000	15/1	543,000	7.75
⑥ Product	56,000	8/1	504,000	7.2
⑦	15,000	15/1	240,000	3.45
			2,211,400	31.60 HRS
		Turnaround		6.00 HRS
				<u>39.60 HRS</u>

$$\text{Rate} = \frac{71,000\#}{39.6 \text{ HR}} = 180\#/\text{HR}$$

$$\text{lbs/mo} = 71,000\# \times \frac{720}{39.6} \times .85 = 1.1 \text{ M} \# \quad \text{@ } 10.5 \text{ MBSW/}$$

turnaround rate

MOHO REQUIRED 12 M #

$$\text{MO} = \frac{12 \text{ M}}{1.1 \text{ M/mo}} = 11 \text{ mo}$$

Increased production needed

DSW 297581

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