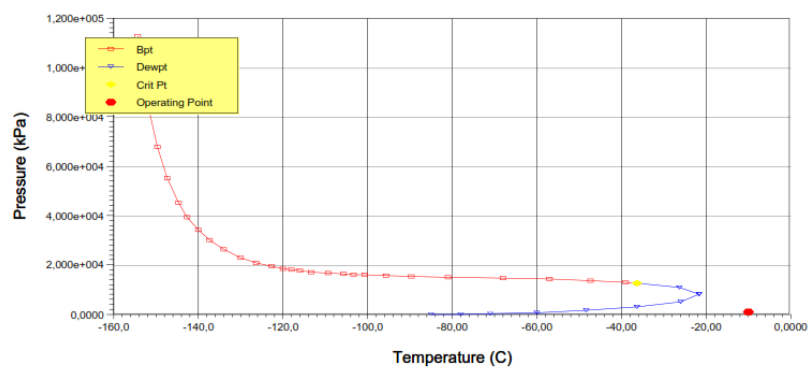
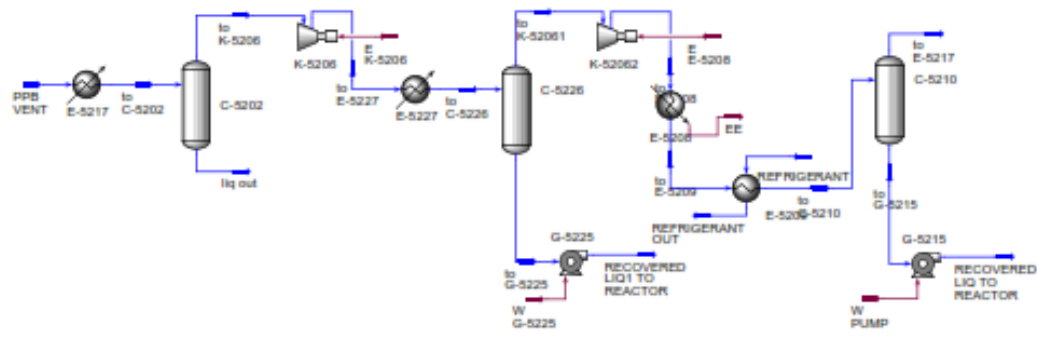


LAMPIRAN

Lampiran Administratif

NPE TRAINING AGENDA FOR KP		SEPTEMBER																																	
TOPICS	FIC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
SAFETY INDUCTION	Wibi																																		
GENERAL PROCESS OVERVIEW (NPE) - PLANT TOUR	Wibi																																		
PURIFICATION																																			
ETHYLENE PURIFICATION																																			
COMONOMER PURIFICATION																																			
NITROGEN PURIFICATION																																			
MINERAL OIL & ALKYL SYSTEM																																			
CATALYST																																			
UCAT-I	Wibi																																		
UCAT-G	Wibi																																		
REACTOR																																			
REACTOR																																			
PRODUCT SDCHARGE SYSTEM																																			
RESIN DE GASSING AND VENT RECOVERY																																			
PRODUCT PURGE BIN																																			
VENT RECOVERY SYSTEM																																			
FINISHING																																			
RESIN ADDITIVE HANDLING	Wibi																																		
PELLETIER	Wibi																																		
PRODUCT HANDLING																																			
BAGGING SYSTEM																																			
UTILITAS																																			
STEAM CONDENSAT SYSTEM																																			
PEPARATION REPORT																																			
GENERAL REPORT																																			
SPECIAL REPORT																																			
PRESENTATION																																			
Catatan																																			
Jadwal dan materi bisa berubah sewaktu-waktu, begitu juga yang ngisi :)																																			
	aktualisasi																																		
	libur																																		

Lampiran Tugas Khusus



Perhitungan Flash Calculation

Apakah 1-butene akan mengkondensasi pada kondisi $T = -10^{\circ}\text{C}$ dan $P_{\text{tot}} = 10,4$ bar. Melalui pendekatan ideal, kondensasi terjadi jika *partial pressure* 1-butene $P_i = y_i \times P_{\text{tot}}$ lebih besar atau sama dengan tekanan uap jenuhnya $P_i^{\text{Sat}}(T)$?

1. Tekanan Uap jenuh 1-butene pada -10°C

Koefisien antoine:

$$\begin{aligned}\log_{10} P^{\text{sat}} &= A - \frac{B}{T+C} \\ &= 4,24696 - \frac{1099,207}{263,15 \text{ K} - 8,256}\end{aligned}$$

$$P_{c4=1}^{\text{sat}} = 0,8601 \text{ bar atau } 86 \text{ kPa}$$

2. Partial pressure 1-butene pada kondisi feed

$$y_{c4} = 0,00465$$

$$p_{c4} = y_{c4} \times P_{\text{tot}}$$

$$= 0,00465 \times 10,4 \text{ Bar}$$

$$= 0,04836 \text{ bar atau } 4,84 \text{ kPa}$$

3. Perbandingan P_{c4} vs P_{c4}^{sat}

$$P_{c4} = 4,84 \text{ kPa vs } P_{c4}^{\text{sat}}(-10^{\circ}\text{C}) = 86 \text{ kPa}$$

Karena $P_{c4} < P^{\text{sat}}$ (17,8 kali lebih kecil)

Maka, kondisi uap tidak jenuh terhadap 1-butene pada $T = -10^{\circ}\text{C}$ dan $P = 10,4$ bar **tidak terjadi kondensasi**

4. Interpretasi K-value (pendekatan Raoult/ideal)

$$K_{c4} = \frac{P^{\text{sat}}}{P_{\text{tot}}} = \frac{0,8601}{10,4} = 0,0827$$

Untuk flash ideal, jika $K_i < 1$ maka komponen cenderung ke fase cair, tetapi meskipun $K_{c4} < 1$, kondensasi membutuhkan bahwa partial pressure aktual $(y \cdot P) \geq P^{\text{sat}}$. Di sini yP_{tot} jauh kurang, jadi tidak tercapai kondisi jenuh $\Rightarrow$ **liquid fraction ≈ 0** (semua tetap fase gas).