***Distillation & Hydrocarbon Processing Practices* - Errata**
Ashis Nag
Required corrections / inserts / replacements/ deletions highlighted in GREY.
(sheet 1 of 4)

Chapter & Page	Place on page	Comments
2 - 133	5th paragraph 3rd line end. After *(by pass line).*	**Insert:** (Condenser outlet extended inside the liquid level to avoid contact with dew point vapor and avoid vapor collapse and resultant pressure fluctuations)
2 - 133	3rd paragraph 3th line end. After *(line to drum).*	**Insert:** And condensates enter from the bottom to avoid contact of subcooled liquid with dew point vapor to avoid vapor collapse.
2 - 135	In Fig. 2.3.7	Condenser outlet line to extend below liquid level in vessel and hot vapor to join directly to the vessel top (with no connection with condensate line).
2 - 137	In Fig. 2.3.10	Condenser outlet line to extend below liquid level
2 - 147	2nd paragraph 2nd line.	**Insert:** 0.4 - 0.8 m/sec. (Lower velocity for higher pressure column).
2 - 150	Point no. 2 in sub-heading, Typical dimension of internals	**Insert:** Hole diameter 5 mm for sieve trays and typical valve diameter of **47.6 mm** for valve trays.
2- 150	Point no.10 in Typical dimension of internals	**Replace the text with:** Pressure drop per tray: **0.07 to 0.12 pounds per square inch (psi)**
3- 198	1st line below subheading **3.1.6** Chloride ---systems	**Replace:** parts per thousand barrels with pounds per thousand barrel (ptb).
3- 221	In Fig. 3.2.1	The water over flow line to originate from the upper part of the vessel and the inverted U may stand replaced with a goose neck.
3 - 222	In 11th line under, sub -heading, The Problem of air ingress	**Replace:** pitot tube by flow meter
3 - 226	In the 10th line from bottom of page	**Insert after:** slop tray and no entrainment to slop tray. However, in reality considerable entrainment takes place (typically around 15 - 40 %) and can be evaluated best by a sodium balance.
4 - 271	After point No 4	**Insert in 5:** Naphtha and straight-run kerosene
4 - 271	In 2nd paragraph after end of 2nd line	**Insert:** Naphtha is treated to lower sulfur and saturate olefins.

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4 - 274	In 2nd paragraph in 5th line	**Insert after**: HPAC or REAC (reactor effluent air cooler)
4 - 279	In Fig. 4.2.7 NH4HS deposition chart	**Replace the ordinate with: NH4HS DISSOCIATION CONSTANT, Kp in psia^2** **$K_P = (P_{H2S})(P_{NH3})$.** Replace *NH4CL* with NH4HS in the shaded area of the figure.
4 - 281	In Fig. 4.3.1	The first reactor should also show a cross line like the 2nd reactor.
4 - 282	Fig. 4.3.2	The first reactor should also show a cross line like the 2nd reactor.
4 - 287	Above 7th line from bottom after: HPAC inlet	I**nsert:** HPAC inlet. A continuous recycle gas purge can be also provided to increase recycle gas purity.
4 - 294	In Fig. 4.4.2	The first reactor should also show a cross line like the 2nd reactor.
4 - 296	In the 1st paragraph 2nd sentence.	**Delete**: the entire 2nd sentence of 1st paragraph.
4 - 315	In Abbreviations after HLPS	**Insert**: HTHA: high-temperature hydrogen attack
5 - 322	After the end of last line in 3rd paragraph.	**Insert:** Alternatively, the acid gas feeding arrangement to the sulfur unit can be modified with acid gas and air preheating or an acid gas split flow arrangement to maintain (increase) the MCC temperature of the sulfur (Claus) unit.
6 - 335	In second line from top	**Replace**: *a kerosene layer with* nitrogen blanketing
6 - 337	7th -11th paragraph up to subheading **6.5** Fundamentals in Amine Regeneration	**Replace with and Read as**: The additional heat requirement in the ARU reboiler will increase considerably mainly due to requirement of higher boil-up to maintain the same H2S loading in lean amine and is best computed using simulation.
6 - 338	Above last line	**Read as**: Reboiler Steam requirement with MDEA
6 - 339	1st line	**Read as:** Reboiler Steam requirement with DEA

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Chapter & Page	Place on page	Comments
10 - 395	The two paragraphs above subheading **10.5** Capacity Augmentation through Revamp	**Replace the *two paragraphs* with** Earlier, Coker furnace tubes were single fired (tubes heated from one side only), and that resulted in low average heat flux mentioned earlier and consequently needed relatively higher residence time to attain the required temperature. Modern furnaces are double fired to increase the average heat flux (by around 50%) with almost no increase in peak heat flux compared to single-fire furnaces. This has helped in reducing residence time in tubes and consequently reduced the rate of coke lay-down in tubes. In this arrangement the coil is put in the center and rows of **gas burners** placed on both sides, directing flames against walls so that the tubes are heated from both sides without flame impingement. Coker furnace tubes are periodically decoked by steam-air decoking, on-line spalling, or pigging (most effective) to contain tube skin temperatures. On-line spalling is done in one coil and others operate thus, increases run length. Pigging is performed by shutting down one block (comprised of one furnace and two associated coke drums), while the other blocks continue to operate.
10 - 397	3rd paragraph 2nd line	**Insert**: the drum vapors are first quenched / de-superheated in drum overhead line and then fractionated in wash section
11- 416	1st line below the equation **11.2.1**	**Insert**: W2 = nearly 1,187.4 MT/hr.
11- 409	In 3rd paragraph 6th line	**Read as:** are usually also dipped below the catalyst level
11- 431	Case 2, 4th line	**Read as:** pounds per thousand barrel (ptb)
11- 433	In abbreviations	**Read as:** pounds per thousand barrel (ptb)
12- 442	2nd line in catalyst circulation	**Insert:** Lock hopper to facilitate continuous flow of catalyst to the regenerator
14- 474	4th line from top	**Insert:** The catalyst uses is a noble metal, promoter (platinum) dispersed on chlorinated alumina,
14-474	5th line from top	**Read as:** As a chlorinated alumina catalyst (imparting isomerization capability) is used,

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Chapter & Page	Place on page	Comments
14 - 475	5th (last) paragraph 1st line	**Read as:** The equilibrium concentration of I-C5 is around 64%
14 - 475	5th (last) paragraph 5st line	**Read as:** The equilibrium concentration of 2,2-DMB at 260°C is around 23%,