**Refer to Coulson & Richardson – S& T HE.pdf**

* The check at step 11

0 < is true i.e. there is no modulus involved and it is always that Uo,calculated is > Uo,assumed.

The following corrections are required in your design problem.

1. Uo,assumed should be taken from page no: 639 (kerosene can be taken as paraffins and water as cooling tower water)
2. The no of passes should be increased if we obtain Uo,calculated < Uo,assumed (refer to page no: 683).
3. The fouling factor should be taken from standard tables table no: 12.2 (refer to Page no: 640, kerosene as light hydrocarbon).
4. Calculate the pressure drops and if the calculated pressure drop is more than the permissible, reiterate whole things by changing no of tubes (refer to page no: 685).

***Hints:***

***Read and follow the workout Example 12.2 (page no: 679)***

*Your design calculations (process design) would continue till step # 12 (refer to page no: 680).*