

Ethanolamines/Glycol Ethers In Plant Training (IPT)

Section Number :13
Issue Number :1.4
Origination Date :06-25-92
Revision Date :12-23-97

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Section Test 13
Control Board
Ethanolamines Finishing End

Objectives/Answers:

- 1. State what type cooling tower water should be used on E-241.**
All fresh water.
- 2. Explain how the bottoms temperature control scheme works on T-240.**
Steam to feed ratio
- 3. State what you would do if T-240 bottoms percent water were .09.**
Increase the steam to feed ratio.
- 4. Explain what process variable would cause the pressure on T-240 to raise. State what should be done to correct this problem.**
T-230 bottoms temperature (tray #4) is too cool, ammonia in T-230 bottoms feed to T-240. Increase T-230 temperature control set point and flush VP-240 with fresh water. Also too much CO₂ in EO could cause a swing.
- 5. State the areas you would suspect as the source of water in T-250 overheads.**
T-240 bottoms, E-251 or E-252 and E-250.
- 6. State what adjustment you would make if T-250 overheads contained .22% impurities and T-260 overheads contained .20% MEA.**
Lower the steam/feed ratio point on T-250.
- 7. State what adjustment you would make if T-250 overheads contained .22% impurities and T-260 overheads contained .39% MEA.**
Increase the control temperature and steam/feed ratio.
- 8. Demonstrate how to put T-250 reflux flow on VAX control.**

9. **State the set pressure of PSV-T250.**
50 pounds per square inch.
10. **State the purpose of MEA recycle.**
To drive the reactor toward more DEA production.
11. **State what adjustment you would make if the TEA in T-260 overheads was .03% and the DEA in T-271 overheads was .85%.**
Increase the feed/steam ratio set point on T-260.
12. **State what adjustment you would make if the TEA in T-260 overheads was .20% and the DEA in T-271 was .45%.**
Lower the feed/steam ratio set point on T-260.
13. **State the set pressure on PSV-T260.**
50 pounds per square inch.
14. **State the set pressure on PSV-T271.**
100 pounds per square inch.
15. **State the parameter(s) on T-271 controlled by the VAX computer.**
None (as of the date of this module)
16. **State the set pressure of PSV-E273 A/B.**
100 pounds per square inch.
17. **State the conditions that need to exist for packing auto ignition.**
Product saturated packing exposed to air at high temperatures.

Revisions:

Revision No. 1	07-21-93	Yearly review
Revision No. 2	12-02-94	Yearly review
Revision No. 3	12-28-95	Made changes to #2, 3, 4, 6, 7, 11, 12
Revision No. 4	12-23-97	Yearly review