

Ethanolamines/Glycol Ethers In Plant Training (IPT)

Section Number :9
Issue Number :1.2
Origination Date :08-18-91 **Author:** Mike Viator
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Section Test :9

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Ethanolamines/Glycol Ethers Process Familiarization - Utilities Service and Utility Lines System

Answers:

1. **Physically locate the following incoming or outgoing utility lines at the block limits.**

A. 475# steam	D. Instrument air
B. 235# steam	E. Process water
C. Nitrogen	F. Condensate

2. **Physically locate the following incoming or outgoing service lines at the block limits.**

A. Propylene oxide from Glycol I	D. Methanol from Methanes
B. Ethylene oxide from Glycol II	E. Environmental Operations
C. N-Butanol from Block 5	

3. **State what 475 and 235 psig steam is used for in Block 55.**
475 and 235 psig steam is used to drive reboilers, heaters, and ejectors.

4. **State what steam is generated within the block.**
30 psig steam and low pressure steam.

5. **State what process water is used for in block 55.**
Makeup water to the cooling tower, utility stations, process vent stacks, fire water and the ammonia scrubber.

6. **State what nitrogen is used for in block 55.**

A. Pad storage tanks
B. Pad tank car, tank truck, and marine shipment.
C. Break vacuum on columns
D. Pig marine lines

7. **State what cooling tower water is used for.**
Cooling tower water is used to remove the heat generated by the process.

8. **State what instrument air is used for.**

Instrument air is used to operate control valves and supply the division air header.

9. State what is done with condensate from condensed steam

- A. Heat the hot water tracing system
- B. Drive the E-219 (reboiler)
- C. Mix low freeze grade products
- D. The excess is level controlled to the Power plant.

Revisions:

Revision No. 1	06-16-93	Yearly review
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Revision No. 2	12-18-94	Yearly review
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