

Ethanolamines/Glycol Ethers

Tier 3 Procedure

Section Number: 7001
Issue Number: 1.1
Origination Date: 04-27-93 **Author:**
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Title: E-130 Cleaning Procedure
References: Glossary Of Equipment Identification (Text # 114)

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7001 E130 Cleaning Procedure

1.0 Objective:

- 1.1 To complete the preparation and cleaning of e-130 without injury to personnel or damage to equipment.

2.0 Responsibility:

- 2.1 It is the responsibility of the shift supervisor and the lead senior operations specialist to ensure that this procedure is fully complied with.
- 2.2 It is the responsibility of the senior operations specialist and the operations specialist to ensure that this procedure is executed in a safe and efficient manner.

3.0 Safety Notations:

- 3.1 Operations personnel will use block safety equipment in preparing equipment for this job.
- 3.2 Contract personnel will use safety equipment as described on the safework permit.

4.0 Preparation Of Equipment:

- 4.1 Pump dv-143b to dv-143a to get a level of >80,000 pounds. The tank will be dropping in level during the work on e-130.
- 4.2 Route t-120 bottoms through the rerun line to dv-114, and block the feed to t-130.
- 4.3 Block the bypass and upstream block valves on the steam to e-130.
- 4.4 Slowly break the vacuum on t-130 with n2 and allow the column to pressure up. Block in t-130 overheads.
- 4.5 Pump t-130 bottoms to dv-143b.

- 4.6 Blow out e-130 to dv-143b.
- 4.7 Install a nipple and elbow in the downstream bleed on the steam to E-130 control loop to direct flow to the trench.

4.0 Preparation Of Equipment: Cont'd.

- 4.8 Open the bypass around the d-130 level control valve to allow condensate to back fill e-130 and drain out the open bleed on the downstream side of the steam control valve.
- 4.9 After condensate flows for 5 minutes, block in the downstream block valve and bypass at the D-130 level control valve.
- 4.10 Attach a process water hose to the upstream bleed at the d-130 level control valve and start a flow through e-130 out the open bleed at the steam control loop.
- 4.11 Block the exchanger inlet and outlet.
- 4.12 Remove the plug on the top of the west end head and start a process water flow from the inlet line to the open nozzle to verify the exchanger is liquid full.
- 4.13 Once the exchanger is full, remove the process water hose on the process side, and use n2 pressure from the tower to blow out the water to the trench. Pressure up e-130 from the outlet side of the exchanger and drain the liquid at the low point bleed on the inlet.
- 4.14 Tag the block valves on the inlet and outlet of the exchanger closed and the low point bleed open.
- 4.15 Pull the exchanger heads and send them to the shop.
- 4.16 Hydrostat the exchanger and weld 2" nozzle in the return head. hydrostat the head.
- 4.17 Reassemble e-130.
- 4.18 Put N2 on the E-130 inlet bleed to blow out any water remaining in the exchanger and the piping to the slab through the low point bleed.
- 4.19 Pull a vacuum on T-130.
- 4.20 Route T-120 bottoms to T-130.
- 4.21 Put steam on e-130 and restart column.
- 4.22 Pump dv-143b to rerun.
- 4.23 Re-establish flows and get ready for dowfroth like you have never seen before.

5.0 Revisions:

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Yearly Review

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