

Ethanolamines/Glycol Ethers

Tier 3 Procedure

Section Number: 1703
Issue Number: 1.5
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Title: Blowing Out Product Lines And Equipment With Nitrogen
References: Glossary Of Equipment Identification (Text # 114)

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1703 Blowing Out Product Lines And Equipment With Nitrogen

1.0 Objective:

1.1 To clear process lines or equipment of liquid product that are either contaminated or is to be prepared for maintenance.

2.0 Responsibility:

2.1 It is the responsibility of the operations personnel to ensure that this procedure is fully complied with.

2.2 It is the responsibility of the operations personnel to ensure that this procedure is executed in a safe and efficient manner.

3.0 Safety notations:

3.1 Gloves and monogoggles are required to perform this task.

4.0 Special notations:

4.1 Deviating from this procedure may allow product to back up into the nitrogen hose and cause a spill.

5.0 Example:

5.1 Refer to S-313 in the S&LP book for appropriate design of a nitrogen station.

6.0 Procedure:

6.1 Hook up nitrogen at tank truck rack, drumming building, and check tank.

6.2 With the recirculation valve open on the storage tank start nitrogen blowing from all three stations.

6.3 When it is evident that nitrogen is reaching the storage tank. Block in the recirculation valve and allow the header to pressure up. Open the recirculation valve and allow header to depressure into the tank. Repeat this line popping until you feel that most of the liquid is out of the header.

6.4 Block in the nitrogen at all three locations and disconnect.

6.5 Pump from the storage tank back into the check tank to help eliminate excess nitrogen in the header. An initial level rise is sufficient. Leaving excess nitrogen in the system causes hammering during loading due to two phase flow.

7.0 Revisions:

Revision #1	03-26-93	Deleted 5.1, 5.2, 5.3, 5.4, and 5.5. Added new 6.1, 6.2, 6.3, 6.4, and 6.5.
Revision #2	10-27-94	Revised 6.5
Revision #3	12-23-94 12-23-94	Deleted note about wafer valves in section 6.1. Remove work "cotton" as description of gloves in Section 3.0
Revision #4	04-28-95	Deleted the "note section" in 6.1 due to new new piping modification change.
Revision #5	01-27-98	Revised 2.1, 2.2