

Ethanolamines/Glycol Ethers

Tier 3 Procedure

Section Number: 6
Issue Number: 1.3
Original Date: 12-03-91 **Author:** Mike Viator
Revision Date: 12-29-95
Title: N-Butanol Transfer To Dv-103 Without P-3
References: Glossary Of Equipment Identification (Text # 114)

=====

6. N-Butanol Transfer To DV-103 Without P-3

1.0 Objective:

- 1.1 To achieve a flow of raw material from DV-3 to DV-103 without damage to equipment or injury to personnel.

2.0 Responsibility:

- 2.1 It is the responsibility of the operations supervisor and the senior operations specialist to ensure the safe and efficient completion of this procedure.
- 2.2 It is the responsibility of the senior operations specialist and the operations specialist to ensure the safe and efficient completion of this procedure.

3.0 Special notations:

- 3.1 This is a special procedure for use when P-3 is either out of the hole or electrical power is off at block five.

4.0 Procedure:

- 4.1 Obtain a portable air compressor in order to operate the air driven diaphragm pump.
- 4.2 After flushing two 2" flex hoses and the diaphragm pump with condensate, dry them out with air.
- 4.3 Take all materials to DV-3.
- 4.4 Hook up pump to the 2" valve off of the suction line with the flex hose and connect the discharge of the pump with a flex hose to the discharge pipe off of P-3.
- 4.5 P-3 must be isolated with red tags on the suction and discharge valves and drained to install a pancake blind on the discharge flange of P-3.
- 4.6 After this blind is installed, remove the tags.

- 4.7 When a transfer of n-butanol is needed, open the suction piping to the diaphragm pump and the discharge pipe from the pump to the transfer line to DV-103.

4.0 Procedure: Cont'd.

- 4.8 Partially open the recirculation valve on DV-3.
- 4.9 Start air compressor and begin transferring. Check with the control room to verify level rise in DV-103.
- 4.10 If level is not rising, restrict the recirculation flow more to make flow go to DV-103.
- 4.11 Try to make the transfer with some recirculation.
- 4.12 During the entire transfer, a person must be on site with a radio to check for leaks or stop the transfer should problems arise.
- 4.13 When the transfer is complete, shut the pump down first, then block in DV-103 inlet valve. Close the 2" suction block valve to the diaphragm pump.
- 4.14 Leave P-3 discharge and recirculation valves closed. The valve at DV-103 is open to relieve line pressure.
- 4.15 When the diaphragm pump is down with both suction and discharge valves closed, bleed a little butanol off the flex hoses so the lines are not liquid full.

5.0 Revisions

Revision No. 1	05-19-93	Yearly Review
Revision No. 2	12-19-94	Yearly Review
Revision No. 3	12-29-95	Yearly Review