

## **Ethanolamines/Glycol Ethers**

### **Tier 3 Procedure**

**Section Number:** 640  
**Issue Number:** 2.4  
**Original Date:** 06-16-92      **Author:** Michael R. Viator  
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**Title:** In-Process Sample Collection And Analysis  
**References:** Glossary Of Equipment Identification (Text # 114)  
Individual sample analysis procedures in lab directory  
IPT module for sample collection and analysis  
QSP07 Inspection and Testing

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### **640. In-Process Sample Collection And Analysis**

#### **1.0 Objective:**

1.1 To perform this task in a safe and efficient manner without damage to equipment or injury to personnel.

#### **2.0 Responsibility:**

2.1 It is the responsibility of the operations personnel to ensure that this procedure is fully complied with in a safe and efficient manner.

#### **3.0 Safety Notations:**

3.1 Monogoggles and rubber gloves are required when performing this job.

3.2 Collect samples from sample coolers. If the cooler is not in service find out what is wrong and put it in the maintenance system to have it repaired.

#### **4.0 Special Notations:**

4.1 Do not pour any sample on the ground. Do not leave any buckets containing product in the area. All buckets should be dumped into the correct blow back pots.

4.2 Do not leave sample buckets hanging on sample points.

4.3 If sample point is frozen, place a light steam flow on the sample tubing until it is free flowing. If it is plugged due to other reasons, put into the GEMTS system to have repaired. While repairs are being made use the portable sample cooler designed for this purpose.

#### **5.0 Procedure:**

5.1 Use a sample bottle that is labeled, and use it only for that particular stream for which it is labeled.

5.2 When taking a sample, flush the sample bottle out with the stream of product before taking a final sample.

5.3 When flushing sample bottle, dispose of the flush sample into bucket or flush bottle.

5.4 After flushing samples into bucket or bottle. Dispose of the flushed product into the appropriate blow back pot. (refer blow back pot procedure)

5.5 Return to the laboratory and perform the necessary analysis. (refer to individual analysis procedures)

5.6 After all analysis have been run on the sample and it is no longer needed. Dispose of the remainder of the sample into the proper 1 gallon container in the lab.

5.7 If there is any doubt as to the identity of a sample, do not pour it in the waste container. Put unknown samples in the lab hazardous waste containers or hazardous waste trailer. Avoid cross contamination in the lab.

## **6.0 Sample Locations:**

### **6.1 Ethanolamines:**

6.1.1 T-230 bottoms = P-230 a/b sample cooler

6.1.2 T-271 overheads before filter = T-271 at sample cooler  
T-271 overheads between filters = bottom of CF-271  
T-271 overheads after filter = at E-271p  
T-271 bottoms = at sample cooler

6.1.3 T-260 overheads = at E-262P

6.1.4 T-260 bottoms = P-260 A/B at sample cooler

6.1.5 T-250 overheads = cooler E-252

6.1.6 T-240 overheads = P-241A/B

6.1.7 T-240 bottoms = cooler E-243

### **6.2 Glycol ethers:**

6.2.1 Reactor effluent = E-102 sample cooler

6.2.2 T-110 overheads = overhead cooler

6.2.3 T-110 bottoms = bottoms c/l cooler

6.2.4 T-115 overheads = DV-122A/B or P-121's

6.2.5 T-115 bottoms = DV-143A

6.2.6 T-120 overheads = P-121A/B or DV-122 A or B

6.2.7 T-120 bottoms = P-120 A/B sample cooler

6.2.8 T-130 overheads = DV-132A/B or @ E-132

6.2.9 T-130 bottoms = E-144 or E-143

6.2.10 T-140 overheads = DV-142A/B

6.2.11 T-140 bottoms = E-143

## **7.0 Sample Frequency:**

7.1 Samples are taken from the process every 12 hours (7am and 7pm).  
(Exact times may vary dependent on operational work load.) In the event that a process change is underway or the plant is in an unstable situation, the boardman has the final decision on which samples should be caught.

PM Series 1/Shift

EB Series 1/Shift

Amines 1/Shift

## **8.0 Timing Of Extra Samples:**

8.1 Extra samples may be taken from the process when:

8.1.1 A routine analysis result is atypical.

8.1.2 A rate/concentration change causes tower temperature profiles to change.

## **9.0 Collecting CT-500, Sumps, D-180, D-280 And Vent Stack Samples**

9.1 Frequency: 1/day

## **10.0 Revisions:**

|             |          |                                                                                                                                          |
|-------------|----------|------------------------------------------------------------------------------------------------------------------------------------------|
| Revision #1 | 06-12-95 | Added exceptions to 7.1.                                                                                                                 |
| Revision #2 | 02-17-96 | Minor wording changes in sections 2, 3, 4, 5, 8 & 9<br>Corrected sample locations in section 6<br>Change sample frequencies in section 7 |
| Revision #3 | 10/14/96 | Modified 6.2.5 and 7.1                                                                                                                   |
| Revision #4 | 03/13/98 | Modified 2.1, 5.1, 7.1<br>Deleted 2.2, 9.1, 9.1.1,<br>Added 6.2.5 and renumbered                                                         |