

Ethanolamines/Glycol Ethers Tier 3 Procedure

Section Number: 27
Issue Number: 3.5
Original Date: 12-22-92 **Author:** Tim Dill
Revision Date: 12-29-97
Title: Isolating, Blowing, Dumping, And Charging Of D-51A
References: Glossary Of Equipment Identification (Text # 114)
1713 Use of Flexible Hoses
1703 Blowing Out Product Lines and Equipment with Nitrogen
2000 Quick Disconnects and Bleeds

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27. Isolating, Blowing, Dumping, And Charging Of D-51A

1.0 Objective:

1.1 To blow out DB from the charcoal inside D-51A so that it can be dumped, and replaced with fresh charcoal. D-51A must be charged and in-service for all DB production to insure color stability and quality. This procedure also identifies when the charcoal is spent and must be changed.

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 Charcoal Spent/Inactive Identification:

3.1 If the delta color before and after the charcoal filter is 0.6 units or less, sample the filter again in one hour. If the delta is still 0.6 units or less, change the charcoal in the filter. Past experience has shown that the DB must pass through active charcoal to provide a stable color. Without the charcoal or if the charcoal is spent, the DB color will increase in the storage tank.

4.1 Method:

4.1 D-51A is blown with Nitrogen into DV-132B. D-51 is then flushed with process water into a T/T trailer. After flushing the charcoal, it is then dumped into the charcoal bins.

5.0 Inventory:

5.1 Ensure that we have enough charcoal in inventory to complete this job. The charcoal to be used is Calgon PCB 12x30.

5.2 Ensure that two super sacks Calgon PCB 12x30 have been ordered for the next recharge/if the existing inventory is less than 4 super sacks.

5.3 Ensure that the office professional has been notified of the amount of charcoal used for this job.

6.0 Safety Notation:

6.1 Monogoggles, safety glasses, gloves and a dust mask are required to perform this task.

7.0 Special Notation:

7.1 We should not leave our charcoal beds full of product and not flowing. This can create a potential fire hazard.

7.2 Make sure that the D-51A tag on the G/E board reflects the status of the charcoal filter.

7.3 Do not isolate D-51A without a vent or bleed open. This is to prevent D-51A from over-pressuring and blowing a rupture disc.

8.0 Procedures:

8.1 Blowing:

8.1.1 Tag and isolate D-51A for charcoal replacement.

8.1.2 Connect N2 hose to the vent line on D-51A. Be sure all lines are isolated to prevent contamination.

8.1.3 Connect a flex hose to the 1" bleed at the bottom of D-51A to the EB bullet trailer, if DV-132B does not contain DB. Connect the flex hose to the P-132B suction block valve if DV-132B contains DB.

8.1.4 Start a flow through D-51A (N2) to the EB bullet trailer or the P-132B suction block valve.

8.1.5 Blow until the D51-A is empty.

8.2 Flushing:

8.2.1 Flush D-51A with process water by connection water hose to the vent line and flex hose from 1" bleed at bottom of D-51A to T/T trailer. Flush D-51A until TOD is less than 15,000ppm.

8.3 Dumping:

8.3.1 Connect flex hose to the dump valve.

8.3.2 Open the dump valve into charcoal bin. Open process water into D-51A to start dumping the charcoal into the charcoal bins. Do Not block in dump valve while process water is open to D-51A. This will prevent the rupture disc from being blown.

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8.3.4 After charcoal is removed from D-51A, block in process water into D-51A and let all water drain from D-51A. After D-51A is drained, block in dump valve and prepare D-51A for charcoal recharge.

8.3.5 Catch a sample on T/T trailer of flush material, label sample and bring to environmental operations. Secure T/T trailer, label trailer, and have trailer move to environmental operations.

8.4 Charging D-51A with fresh charcoal:

8.4.1 Inspect D-51A through manway to insure that a significant amount of charcoal is not left inside the vessel.

8.4.2 Fill the bed with charcoal to about 80% (approximately 1600#) of capacity. (leave 2-3 feet of the bed top section empty to allow for charcoal expansion. Begin dumping charcoal through the top open man way. (Dust mask, gloves and monogoggles are required for this task)

8.4.3 Put the man way back on and bolt it up.

8.5 Ordering Charcoal

8.5.1 It is the responsibility of the operations personnel to replenish the supply of charcoal for the next recharge.

8.5.2 The operator must complete the Glycol Ethers Charcoal Request Form (attached to this procedure) and fax it to the Material Flow Specialist designated on the procedure.

8.5.3 The original Glycol Ethers Charcoal request form must be placed in the area engineer's mailbox after the faxing is complete.

8.5.4 The operator must complete the amines inventory depletion form (attached to this procedure) and place it in the office professional's mail box on her desk.

8.6 Placing D-51A in service:

- 8.6.1 Connect a nitrogen hose to the bottom of the charcoal bed and purge the bed for 30 minutes through the top bleed. This will ensure that all oxygen is purged from the "system".
- 8.6.2 Fill the bed with DB using the top bleed to remove vapor space.
- 8.6.3 Empty a DV-132 check tank to be used for flushing the filter.
- 8.6.4 Backwash D-51A with overheads flow into the check tank until 3000 pounds has been put into the check tank. This step is completed to remove the fines from the charcoal.
- 8.6.5 Recirculate the check tank and pump it to rerun.
- 8.6.6 Start the DB overheads flow forward through D-51A and using only one cotton filter, flow DB into check tank until the color is good or 4000 pounds has been put into the check tank (use whichever is highest. recirculate and pump the tank to rerun.
- 8.6.7 Swap the flow to the other cotton filter and go to the other check tank if necessary.
- 8.6.8 Change out the first used cotton filter so it will be ready for service.
- 8.6.9 Record the pressure drop across the cotton filter on the check sheet.
- 8.6.10 Check D-51A rupture disc piping to insure that there are no drips or leaks.

9.0 Revisions:

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| Revision #1 | 9/10/96 | Added last sentence to 1.1
Added Section 3.0 |
| Revision #2 | 2/14/97 | Added last sentence to 8.3.2 or replaced last sentence of 8.3.2 to reflect piping modifications. |
| Revision #3 | 2/17/97 | Added Section 8.5.1 and renumbered. |
| Revision #4 | 7/10/97 | Added 7.3, 8.5.10, changed charcoal from Petrodarco to Calgon |
| Revision #5 | 12/29/97 | Added information to sections 4.1, 8.2-8.6 |

EA/GE MATERIAL REQUEST (Glycol Ethers Charcoal)

FAX TO GERALD SANDERS AT 6914

DATE: _____

CURRENT INVENTORY = _____ Super sacks target inventory = 4 super sacks

JOB DESCRIPTION: Order Charcoal for Glycol Ethers

REQUESTED BY: _____

COST CENTER: 78 Source #: 172870

SUGGESTED VENDOR: Calgon

CONTACT: Chris Dobbs PHONE #: 504-558-0047

ACTUAL NEED DATE: Within 3 weeks of the above date.

QUANTITY	CODE #	FULL DESCRIPTION WITH PART NUMBER IF NOT CODED	P.O.#
2 supersacks	2070302	PCB 12 x 30	

SPECIAL INSTRUCTIONS: _____

GLYCOL ETHERS CHARCOAL INVENTORY DEPLETION FORM

Complete and Return to : Brenda Carbo

Date: _____

Number of bags of Charcoal used: _____

Type of Charcoal used: Calgon PCB 12 x 30

Special Notes:

Operator: _____

LAD MATERIAL REQUEST

FAX TO INVENTORY MANAGEMENT AT 6021

DATE: _____

JOB DESCRIPTION: Dak Packs and Wooden Pallets

REQUESTED BY: _____

Master No. _____ Phone No. _____

COST CENTER: 77 Source #: 172880

Priority: Routine

ACTUAL NEED DATE: WITHIN TWO DAYS OF THE ABOVE DATE

DELIVER TO: BLOCK 55

QUANTITY	CODE #	FULL DESCRIPTION WITH PART NUMBER IF NOT CODED	P.O.#
40 ea.	1160302	25 Gallon Dak Packs	
10 ea.	2902650	48" x 48" Wooden Pallets	