

**Ethanolamines/Glycol Ethers
Tier 3 Procedure**

Section Number: 1301
Issue Number: 1.1
Original Date: 08-23-94 **Author:** Anthony Machie
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Title: Ammonia Tank Car Evacuation For Maintenance
References: Glossary of Equipment Identification (txt#114)

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1301. Ammonia Tank Car Evacuation For Maintenance

1.0 Objective:

1.1 To enable maintenance activities to take place in a safe and efficient manner preventing injury to personnel and damage to equipment.

2.0 Responsibility:

2.1 It is the responsibility of the Operations Personnel to ensure that this procedure is utilized to safely complete this activity

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 Monogoggles, Rubber Gloves (until evacuated and then cotton gloves can be used).

4.0 Special Notations:

4.1 The tank car must be properly secured in the same manner as a car to be off loaded. This includes chokes, lights, grounding, derailleurs, and flags.

4.2 The compressor (C-205) is limited in that it may be damaged if allowed to pull the tank car below 35 PSIG. The compressor should trip at about 38 lbs.

4.3 This procedure is just a general guide for the safe completion of this task. We should approach this job as non-routine and with caution. Call the area engineer should any questions arise.

4.4 Refer section 1301.6 of this procedure for proper valving alignment when using the AOV switching device.

5.0 Evacuation of Ammonia:

5.1 Completely off-load all liquid ammonia as per procedure (Refer tier 3 section 00, Ammonia Tank Car Off-loading, for details on off-loading Anhydrous Ammonia). When the NH3 tank car has finished off-loading, the liquid arm valving can be closed and the arm disconnected.

5.2 Switch the off-loading AOV's so the compressor can pull vapor from the tank car into DS-205 vapor space. Before starting compressor allow pressure to equalize for about 10 minutes.

5.3 Monitor tank car pressure or C-205 suction pressure and stop the compressor when it reaches 40 PSIG.

5.4 Now line up the ammonia tank car through the vapor line to the scrubber and allow the tank car to depressure to zero psig.

5.5 Hook up nitrogen to the tank car through the liquid leg and keep going to the scrubber for about 10 hours.

5.6 Disconnect nitrogen from the tank car and allow car to depressure completely. When ammonia tank car is completely evacuated, a tank car out bound inspection and release sheet needs to be filled out and faxed to railroad at extension 8640.

5.7 Then call railroad to come out and work on the car. This has to be done at block 55 tank car rack. A safe work permit must be issued to perform this task.

6.0 AOV Valving Alignment/Verification:

6.1 As of the original date of this procedure, manual valving of this system must occur as follows:

6.1.1 Open vapor solenoid on tank car when car has finished.

6.1.2 West manual B/V and AOV #1 should be open.

6.1.3 East manual B/V and AOV #2 should be closed.

6.1.4 S./East manual B/V and AOV #3 should be open.

6.1.5 Vapor manual B/V on discharge should be open.

6.1.6 Manual B/V and AOV #4 on suction to C-205 should be closed.

6.2 When AOV switching system is put in service the above positions will still apply. (refer amines check sheet master copy book, section titled special system diagrams, for valving description) this diagram is controlled the same as check sheets. The master copy should stay in this book. A copy may be run off as needed and destroyed when the job for which it was copied is complete.

7.0 Revisions

Revision No. 1

12-12-96

Modified 5.6, 5.7

T/C #	PRODUCT	PHYSICAL INSPECTION		RETAINER ANALYSIS OK/NOT OK	RELEASED FOR SHIPMENT	
		OK / NOT OK	BY		YES / NO	BY

DRAIN CARS

T/C #	PRODUCT	CAR DRAINED	DRAIN TAGS	INSPECTOR

AMMONIA TANK CARS T/C #	EVACUATED YES / NO	EVACUATION TAGS	INSPECTOR

DATE:	TRACKS CLEARED:
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COMMENTS:

HAS DISPATCHER BEEN NOTIFIED THAT TRACKS ARE CLEAR?

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