

Ethanolamines/Glycol Ethers

Tier 3 Procedure

Section Number: 1103
Issue Number: 1.4
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Title: Massive Ammonia Spill At DS-205
References: Glossary Of Equipment Identification (Text # 114)

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1103. Massive Ammonia Spill At DS-205

1.0 Objective:

- 1.1 To create a standard response to the release of anhydrous ammonia to the atmosphere. (with the understanding that conditions will never be the same with any given spill) to respond to this emergency in a way that minimizes release to the atmosphere.

2.0 Responsibility:

- 2.1 It is the responsibility of the operations supervisor and the senior operations specialist to ensure that this procedure is reviewed annually and it is understood that conditions may alter the response.
- 2.2 It is the responsibility of the senior operations specialist to ensure that this procedure is executed in a safe manner with minimum risk to personnel and maximum consideration for the surrounding plants and public.

3.0 Special Notations:

- 3.1 Emergency procedures are written with the intention of having in black and white what procedure should be followed under ideal circumstances. They do not take the place of common sense. If there is a fire, we have a fire department to handle it. Don't tackle something that could injure you because you don't have the experience or training to handle it. Small fires in trash cans or some insulation fires can be handled by most of us. Don't wind up making the problem worse by getting hurt or rushing in and doing the wrong thing. The same thing applies to spills and other emergencies.

-----use common sense-----

4.0 Conditions At The Time Of The Spill:

- 4.1 Simulated:
 - 4.1.1 Two people unloading ammonia tank car.
 - 4.1.2 DS-205 level is at 60%.

4.1.3 Wind direction is out of the west.

4.1.4 Wind speed is 15 knots.

4.0 Conditions At The Time Of The Spill: Cont'd.

4.1.5 The gasket on the top flange of the gate valve under the sphere blows out.

4.1.6 Spill can't be isolated.

Note: Do not expect everything to fall in order as listed below.

5.0 Safety Notations:

5.1 Investigation of spill should be conducted from a location upwind of the spill.

5.2 Investigator should be equipped with an emergency radio and scott air pack.

6.0 Procedure:

6.1 Supervisor or lead senior operations specialist:

6.1.1 Investigate the spill if possible. Call plant security (333) and report that the ethanolamines/glycol ethers plant has a massive anhydrous ammonia spill that cannot be isolated. The sphere contains 500,000 pounds of anhydrous ammonia. We are preparing to evacuate all non-essential personnel to gate 9.

6.1.2 Call plant superintendent if time permits, and inform him or her of the emergency. (if this is not possible plant security will follow through on a call list that they have including the plant superintendent and major manager for any fire or spill of flammable material after announcing it on the emergency page system)

6.1.3 Instruct board person to shutdown the amines and glycol ethers plants.

6.1.4 Evacuate all personnel from spill area.

6.1.5 Proceed to evacuate from spill area. Once clear of spill area, communicate with plant security, account for all personnel, offer help to block roads and assist security in putting water on the spill if needed.

6.2 Senior operations specialist (board person):

6.2.1 Sound the emergency horn.

6.2.2 At the lead senior operations specialist direction announce over the pa, "we have a massive anhydrous ammonia spill at DS-205, all non essential personnel evacuate to gate 9".

6.2.3 Trip all air handlers in office building.

6.2.4 Trip all sprinkler systems except the drumming building and cooling tower. The sprinkler system at DS-205 will be very important.

6.2.5 Put on breathing air mask, and proceed to shutdown both plants from inside on the control board.

6.0 Procedure: Cont'd.

6.2.6 On lead senior operations specialist instructions evacuate from the block and be available to help security with the spill.

6.3 Operations specialist duties (off loading ammonia tank car):

6.3.1 Activate loading emergency shutdown switch on loading rack.

6.3.2 Call control room and report emergency.

6.3.3 Put as many deluge guns on the spill and trip the sprinkle system at DS-205 if possible.

6.3.4 Call control room for instructions.

6.3.5 Get a radio as soon as possible.

6.3.6 Put on a scot air pack.

6.3.7 On lead operations instructions evacuate from the block and be available to help security with the spill.

6.3.8 Make sure board person has a scot air pak to evacuate with.

6.3.9 Get a radio as soon as possible.

6.3.10 If we do not evacuate, and personnel are available direct security to the spill area.

7.0 Revisions:

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Revision No. 1	06-30-92	Changed 1103.1.1 to reflect environmental concerns.	
Revision No. 2	07-14-93	Yearly Review	
Revision No. 3	12-22-94	Yearly review	
Revision 4	12-11-95	Yearly Review	