

# 2015 Anhydrous Ammonia (NH<sub>3</sub>) Compliance Alert

Preventing NH<sub>3</sub> Incident in the Field

Report Incidents to the MN Duty Officer at 1-800-422-0798

The Minnesota Department of Agriculture (MDA) requires that NH<sub>3</sub> is used, handled and stored in accordance with MN law which includes preventing incidents that endanger the public.

Every year, the MDA responds to and investigates NH<sub>3</sub> incidents caused from ruptured withdrawal hoses between the nurse tank and the toolbar. MDA's investigations commonly document that the ruptured withdrawal hoses are too long and hang below the trailer hitch and/or rub on tires, equipment or the ground. Excessively long withdrawal hoses can also get pinched in the trailer assembly and/or become worn and damaged. Damaged withdrawal hoses rip and tear resulting in the unintended release of NH<sub>3</sub> in the field. Persons who apply NH<sub>3</sub>, first responders and the public are at risk of exposure and harm from these dangerous releases. Yearly people are hospitalized, injured or die from exposure to NH<sub>3</sub>.

## Remember:

1. Excessively long withdrawal (WD) hoses that are too long is a common cause of many incidents.

**Solution:** An expert with a hose manufacturer indicates that "the appropriate length is defined as the distance between nurse tank connection and tool bar connection with approximately twelve inches added in order to accommodate travel while making turns. It is also hazardous to operate with a WD hose which is too short as it may be pulled apart or pull out of the end fittings."

### Other indicators of correct WD hose length are:

- (a) The WD hose is positioned above the nurse tank hitch when nurse tank(s) and application unit are connected; and
- (b) No chance of the WD hose of being caught, pinched, or tearing when the application assembly is taking sharp turns. This is particularly true when setting/locking adjustable nurse tank and/or toolbar hitch connections.

## Also be aware that:

2. Break-away coupling devices not correctly installed per manufacturer recommendations and failure to disengage is also a common cause of many incidents.

**Solution:** Review and follow manufacturer's instructions & recommend to frequently inspect/test before/during use season.

3. Personal Protective Equipment (PPE), NH<sub>3</sub> gloves & goggles, not available and worn for NH<sub>3</sub> handling or maintenance has resulted in injuries to applicators and maintenance workers.

**Solution:** Make NH<sub>3</sub> gloves and goggles available. Wear NH<sub>3</sub> goggles & gloves for NH<sub>3</sub> handling & maintenance.

4. Safety Water not provided of sufficient quantity and accessibility during NH<sub>3</sub> handling or maintenance.

**Solution:** Facility Accessible 150 gallons or deluge shower with plumbed eyewash at facility or area of NH<sub>3</sub> handling/maintenance (ex. shop area).

**Solution:** Field Five (5) gallons on nurse tank (1 container on each nurse tank for dual nurse tank assemblies). Recommend that an additional accessible five (5) gallons during freezing conditions.

## Conduct Self Inspections:

The MDA strongly recommends that self-inspections be conducted & non-compliance issues corrected as soon as possible before and during each use season.

**Questions:** Contact an MDA inspector if you have questions regarding WD hose lengths, installation of break-away quick couplers or any NH<sub>3</sub> related questions.

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