**Section 215.120 Equipment for the Application of Anhydrous Ammonia**

a) All nurse tank valves shall be closed, the liquid transfer hose shall be bled, and no liquid transfer hose shall be joined between any nurse tank unit and any tool bar during transport upon a public right-of-way.

b) The following requirements apply when liquid transfer hoses are permanently attached to nurse tank units or tool bars:

1) Only the end of the liquid transfer hose, that is attached to a male acme-threaded fitting of the tool bar breakaway device shall be equipped with a straight-type hose end valve with a bleeder valve on its coupling side.

2) The hose end valve specified in subsection (b)(1) shall not be attached to a container fill valve of the same nurse tank unit.

3) A dummy acme adapter or parking plug shall be provided on the nurse tank or tool bar. The dummy acme adapter or parking plug shall be affixed into a position that prevents either end of the hose from being kinked or stowed under undue strain. The hose end valve of the liquid transfer hose shall be connected to the dummy acme adapter or parking plug at all times, except when the transfer hose is used for field application or other active transfer of ammonia through the hose end valve.

c) When nurse tanks are utilized to supply an application device, some means of break-away protection shall be provided, including, but not limited to, the following:

1) The nurse tank hose that crosses the hitching point and attaches to the application device requires installation of the appropriate equipment to protect against an accidental unhitching event. Deployment of the equipment designed to achieve this protection shall be installed and maintained in accordance with the manufacturer's instructions.

2) Multiple breakaway coupling devices mounted on a tool bar shall not interfere with one another in a turn or an unhitching event.

3) When nurse tanks are pulled in tandem, a breakaway coupling device or other means of protection shall be installed at each point where the hose crosses a hitching point. Deployment of the equipment designed to achieve this protection shall be installed and maintained in accordance with the manufacturer's instructions. Compliance with this subsection (c)(3) shall be achieved on or before December 31, 2020.

d) The manufacturer of a tool bar refrigeration unit shall provide with each unit documentation of recommended operation and maintenance procedures for any refrigeration unit manufactured after July 1, 2016.

1) The tool bar refrigeration unit shall be installed, maintained and operated in accordance with the manufacturer's specifications and limitations of use.

2) A manual shutoff valve shall be installed directly upon the inlet of the heat exchanger so that the operator may close the shutoff valve to prevent any backflow of refrigerated ammonia through the delivery line from the heat exchanger unit while connecting, disconnecting or otherwise servicing the tool bar breakaway device.

e) Hose and hose connections located on the low-pressure side of flow control, or pressure-reducing valves on devices discharging to atmospheric pressure, shall be designed for the maximum low-side working pressure. EVA hoses for tool bars shall be inspected for leaks and documented prior to each application season. The hoses shall not exceed the service life specified by the tubing manufacturer and shall comply with the properly rated operating pressure specified by the equipment manufacturer.

f) Any application device designed to tow two nurse tanks with a total static capacity greater than 4000 gallons shall employ the following:

1) The device shall include two separate distribution systems on the tool bar, one for each nurse tank.

2) The device and/or nurse tanks shall have enhanced protection systems that include the capability for emergency shutoff with immediate response. In addition, other systems may be deployed pending approval by the Department.

g) The hose length from the towed implement mechanically secure point to the break-away coupler on the towing implement shall have sufficient length to allow break-away couplers to articulate freely but prevent the hose from contact with the nurse tank tongue. This shall be achieved without securing the hose mechanically through the use of chains, elastomeric straps, wire ties or other means, by December 31, 2020. New technologies and methods that allow for mechanical hose securement that do not affect the coupler functionality will be accepted, but may later be denied for observed "non-performance".

(Source: Amended at 44 Ill. Reg. 18281, effective October 29, 2020)