

BEST MANAGEMENT PRACTICES SAFETY REQUIREMENTS FOR STORAGE & HANDLING OF ANHYDROUS AMMONIA

CHECKLIST BASED ON ACCEPTED INDUSTRY STANDARDS

Safety Requirements for Storage and Handling of Ammonia	Checklist / Notes
Are all persons required to handle, transfer, transport, or otherwise work with anhydrous ammonia trained to understand the properties of anhydrous ammonia, to a competent level in safe operating practices, and to take appropriate actions in the event of a leak or an emergency?	Yes No N/A
Does any person making, breaking, or testing any anhydrous ammonia connections, transferring anhydrous ammonia, or performing maintenance or repair on an anhydrous ammonia system under pressure, wear appropriate personal protective equipment?	Yes No N/A
Will only personnel trained for and designated to handle emergencies attempt to stop a leak?	Yes No N/A
Do you have readily accessible: • 2 full-faced gas masks • 1 pair chemical splash goggles • 1 pair protective gloves • 1 pair protective boots • 1 slicker or protective pants and jacket • Emergency shower or tub with 150 gallons of clean water within 100 feet?	Yes No N/A
Are storage tanks at least 50 feet from wells or other sources of potable water supply?	Yes No N/A
Are storage areas accessible to emergency vehicles and personnel?	Yes No N/A
Are storage areas maintained clear of dry grass and weeds and other combustible materials?	Yes No N/A
Does each vessel have a nameplate present, legible and accessible for inspection?	Yes No N/A
Are excess flow valves plainly and permanently marked with the name or trademark of the manufacturer, the catalog number, and the rated capacity?	Yes No N/A

Is all piping supported in accordance with good piping practices?	Yes	No	N/A
Is all piping protected from physical damage, which might result from impact by moving machinery, automobiles or trucks or any other equipment at the facility?	Yes	No	N/A
Are all hoses marked with "Anhydrous Ammonia", XXX psig, Manufacturer's Name, and Year of Manufacture?	Yes	No	N/A
Are all hoses re-qualified periodically (replaced by the manufacturer's "replace by" date) in accordance with the requirements of CGA P-7?	Yes	No	N/A
Are all pressure relief valves permanently marked? (i.e., "AA250-4200 (air) 4/95")	Yes	No	N/A
Is a hydrostatic relief valve or equivalent installed in each section of piping (including hose) to isolate liquid anhydrous ammonia between shut-off valves?	Yes	No	N/A
Is every pressure relief device subjected to a systematic, periodic, visual external inspection at least annually to determine that it is free of evidence of tampering, damage, corrosion, or foreign matter that might prevent proper operation; free of leakage; has a properly installed rain cap; and has an open weep hole to permit moisture to escape?	Yes	No	N/A
Are pressure relief valves on containers replaced no later than five years following the date of its manufacture, last repair or the replacement date as specified by the manufacturer?	Yes	No	N/A
Is there always at least one qualified operator experienced in the procedures monitoring the transfer of anhydrous ammonia from the time the connections are first made until they are finally disconnected?	Yes	No	N/A
Are pumps used for transferring anhydrous ammonia recommended and labeled for anhydrous ammonia service by the manufacturer?	Yes	No	N/A
Does the pump have a pressure actuated by-pass valve on the discharge side with a pressure gauge graduated from 0 psig to 400 psig before the by-pass valve line and equipped with shut-off valves located as close as practical to pump connections?	Yes	No	N/A
Are compressors used for transferring anhydrous ammonia recommended and labeled for anhydrous ammonia service by the manufacturer?	Yes	No	N/A

Does the compressor have a pressure relief valve connected to the discharge side and pressure gauges graduated from 0 psig to 400 psig on the suction and discharge line before any shut-off valve, are such shut-off valves located as close as practical to compressor connections?	Yes	No	N/A
Is the storage tank protected from a catastrophic release if a transfer hose ruptures during filling a nurse tank from the transport truck?	Yes	No	N/A
At the tanker truck connections, do the lines have release protection devices, an approved emergency shut-off valve in the vapor line, an approved safety valve or a back check flow valve in the liquid line, both protected from pull away damage by a steel or concrete bulkhead or shear fittings?	Yes	No	N/A
At the nurse tank riser connections, do the lines have release protection devices, an approved emergency shut-off valve in both the vapor line and the liquid line, both protected from pull away damage by a steel or concrete bulkhead or shear fittings?	Yes	No	N/A
Does each container (except those filled by weight) have an approved liquid level gauging device and thermometer?	Yes	No	N/A
Is each container equipped with a fixed maximum liquid level gauge?	Yes	No	N/A
Does each container have a well-maintained reflective surface?	Yes	No	N/A
Are containers marked with the letters ANHYDROUS AMMONIA (letters not less than 4" high) and with hazardous warning label (OSHA 29 CFR 1910.1200)?	Yes	No	N/A
Do saddles extend over at least one third of the circumference of the shell?	Yes	No	N/A
Is secure anchorage or adequate pier height provided against container flotation?	Yes	No	N/A
Are the main shut-off valves on all storage tanks kept closed and locked when the facility is unattended?	Yes	No	N/A

Is emergency notification information (name and phone number of the emergency roster of employees) readily visible?	Yes	No	N/A
Have containers of propane, gasoline, or other highly flammable substances been located a safe distance from storage tanks of anhydrous ammonia?	Yes	No	N/A

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