Anhydrous Ammonia Storage Facility Inspection Checklist

Firm Name (As Licensed or Producer): 
Location (City/State): 
Date: 

INSTRUCTIONS: UNLESS OTHERWISE NOTED, specify non-compliance by entering “[X]” in the boxes or next to item number.

PERIODIC INSPECTION REQUIRED—MN Rules 1513.0160. Subpart 13., requires that pressure relief devices (PRDs — hydrostats and pressure relief valves) receive a periodic visual external inspection to determine that PRDs: (A.) are free of evidence of tampering, damage, corrosion, or foreign material that might prevent proper operation; (B.) are free of leakage when subject to pressures below the minimum allowable start to discharge setting; (C.) has a properly secured rain cap or other device to avoid entry of moisture or other matter into the relief valve outlet; and (D.) has an open weep hole to permit moisture to escape (weep holes – only for pressure relief valves)

MIN CITATION SITE IDENTIFICATION / LICENSING / RIGHT TO KNOW TRAINING SAFETY EQUIPMENT (1513.0040)

1513.0380 1. LEGIBLE SIGN AT SITE WITH SITE ID, ADDRESS, PHONE #S OF SITE AND AFTER HOURS STAFF.
18C.415 2. CURRENT FERTILIZER LICENSE AND FERTILIZER LICENSE POSTING REQUIRED
18C.235 3. IRP – INCIDENT RESPONSE PLAN REQUIRED

STORAGE TANK 1 STORAGE TANK 2 STORAGE TANK 3 STORAGE TANK 4

TANKS IDENTIFICATION / LOCATION

1513.0130 13. Clean area within 10 ft. of tank(s) of weeds, combustible materials, and materials not required for facility operation and access to emergency personnel and vehicles.

TANK NAMEPLATE DATA & NON-CODE WELDING

1513.0140 20. Tank manufacturer

R = Repair  RP = Replace  TANK FOUNDATION / SUPPORTS / SADDLE CONTACTS (1513.0340)

22. Foundation / Support type - Concrete (C), Metal (M), Skid (SK), etc. Supports: Foundation: Supports: Foundation: Supports: Foundation: Supports: Foundation:

23. Tank foundation (F) / supports (S) R or RP required. Saddle support corrosion protection contacts (SC) requires R or RP.

24. Saddle supports covers at least 1/3 circumference of newly installed / relocated tank.

25. Tank bottom at least 18 inches from ground level?

TANK APPURTENANCES

1513.0140 26. 85% fixed liquid level gauge–operates properly, etc.

PIPING & PIPING APPURTENANCES (System)

1513.0160 31. NH3–rated pipe/fittings required

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38. List area(s) between each pair of liquid and vapor shutoff valves LACKING 350–400 PSI / NH3–RATED HYDROSTAT (S), CLEANING (C), RAINCAP (RC)

39. Periodic inspection required – on all hydrostatic relief valves in storage system piping/valves, nurse tank risers, and other NH3 transfer areas. Refer to the top of page 1 for instructions.

40. Compressor and/or pump/mixte, pump inlet and outlet piping:

41. 0-400 PSI / NH3-rated pressure gauge and compressor PRV

42. ANNUAL TEST REQUIRED (Every 12 months):

External pressure actuated (PA) bypass system installed at the discharge side of pump(s) must take the full flow capacity of the pump at a safe pressure differential (PSID) and without undue stress on pump(s)/motor(s).

Refer to MDA Fact Sheet, Procedure for Testing Pressure Actuated Bypass System. Place test data (i.e. Bypass PSI, Static PSI and PSID) in adjacent boxes/spaces.

Any undue stress/pulldown on pump(s) & motor(s) during the PA bypass system test?

43. Manual bypass: Must be closed during normal operations (filling nurse tanks, etc.) to allow full/compliant operation of pressure actuated bypass.

44. Meter(s)

45. Circle each riser valve without a properly sized excess flow value

Note in #46 if Fisher Snappy Joe Emergency Shutoff Valve does not have an extra outer spring

Emergency shut-off valve (ESV) with bulkhead = ESVB; Tripod = T; other shear/weakness fittings = SW

46. Type of required pull away device

Circle pull away device that is NOT adequate - Impeded, leaky, etc.

47. Periodic inspection required – Each hose riser NOT protected with a 350–400 PSI hydrostat: Cleaning (C); Rain cap (RC)

48. NH3-rated hose out of condition

50. Traffic Protection for riser area(s)

51. Liquid unload piping requires backcheck (BC) or other suitable flow protection (Excludes ESV’s)

52. Vapor unload requires properly sized excess flow valve or other suitable flow protection (Excludes ESV’s)

53. Periodic inspection required – Liquid & vapor unload hose(s) requires 350-400 PSI / NH3-rated hydrostat(s); Cleaning (C); Rain cap (RC)

54. NH3 rated hoses for unload area out of condition

55. Type of required cargo tank (transport) area pull-away protection (i.e. bulkhead, weakness/shear fittings). Circle if NOT adequate or impeded – i.e. transport transfer hosing catches on fencing, etc.

56. Rail = Caution signs required for placement on tracks to warn of connections? Rail = Wheel chokes required for use in unloading car(s)?

57. Non Permitted Storage: Rail Tank cars and Cargo Tank (transport) being loaded from or unloaded into an approved/permitted fixed storage facility.