

**MyRMP Hazard Review Worksheet**  
**for**  
**Program 2 Facilities With Anhydrous Ammonia**  
**(40 CFR 68.50)**

**Instructions:** This worksheet provides a convenient format to help answer the basic Hazard Review questions offline. This worksheet contains the basic questions that require an answer on the website. Please note the online website form will require additional information for certain questions. A negative response will require the user to provide the following information:

- Action(s) to be taken to mitigate the hazard
- Who is designated as the person responsible for these actions
- Date by which the mitigative action(s) will be completed

For your convenience this list of questions matches exactly the order of the online website form. It will be important to complete a worksheet for each covered process, if applicable. Please follow these guidelines:

1. Perform the Hazard Review and record your answers on this worksheet offline.
2. Walk around your Anhydrous ammonia installation and perform the Hazard Review. Using this worksheet, record the answer for each question.
3. Log on the website and proceed to Step 2.

**Please Note:** This worksheet does not constitute a complete Hazard Review. The information from this worksheet must be entered into the MyRMP website to produce the final copy of the completed Hazard Review.

## Section A: General Facility Considerations

	Yes	No	N/A
1 Have written operating procedures been prepared specifically for this facility?	<input type="checkbox"/>	<input type="checkbox"/>	
2 Have all operators been trained on the written operating procedures required for this facility?	<input type="checkbox"/>	<input type="checkbox"/>	
3 Have the potential consequences of this facility being located in close proximity to the following been considered?			
• School, college or university	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Daycare or pre-school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Hospital, clinic or medical facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Industrial park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Residential area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Is this ammonia installation equipped with a remote-activated emergency shut-down system?	<input type="checkbox"/>	<input type="checkbox"/>	
5 Can the entire ammonia installation be shut down from:			
• the bulkhead or receiving area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• the riser(s) used for nurse tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• the riser(s) used for railcars?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• a strategically placed remote location such as an office, etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Has the possibility and consequences of each of the following been considered for this facility?			
• Flooding (Flash or Flood Plain)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Tornado	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Earthquake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Is the appropriate personal protective equipment available onsite and ready for use by operators performing handling, inspection, repair and maintenance duties?	<input type="checkbox"/>	<input type="checkbox"/>	
8 Is this installation protected from vandalism, sabotage or otherwise secured by a fenced perimeter?	<input type="checkbox"/>	<input type="checkbox"/>	
9 Is this ammonia installation protected from vandalism, sabotage or otherwise secured by security devices such as locks, etc?	<input type="checkbox"/>	<input type="checkbox"/>	
10 Is a 150 gallon "emergency jump tank" of clean water or an emergency safety shower always available to workers during transfer operations?	<input type="checkbox"/>	<input type="checkbox"/>	
11 Has this facility provided an emergency contact notification sign at the entrance to the facility?	<input type="checkbox"/>	<input type="checkbox"/>	
12 At any time or point is air introduced into equipment used for anhydrous ammonia?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section B: Storage Tank Considerations

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	Yes	No	N/A
1 Are any storage tanks located in close proximity to the following activities?			
• Roadway, street or path with substantial traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Movement of railcars of grain, fertilizer, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Airport or air strip with planes landing/taking off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Movement of a forklift, end loader or heavy equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of nitrate (Ammonium, Potassium or Sodium)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of flammable materials (Gasoline, Diesel or Propane)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of combustible materials (Brush, Pallets, Tires, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of shop materials such as oxygen or acetylene gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Are all tanks protected from vehicular impact by barriers of sufficient design and construction?	<input type="checkbox"/>	<input type="checkbox"/>	
3 Are all tanks protected from being overfilled beyond the 85% safe level?	<input type="checkbox"/>	<input type="checkbox"/>	
4 Has the possibility and consequences been considered that the contents of a storage tank filled to 85% during cold weather will increase in pressure resulting in the tank being overfilled?	<input type="checkbox"/>	<input type="checkbox"/>	
5 Do all tanks have a legible ASME dataplate?	<input type="checkbox"/>	<input type="checkbox"/>	
6 Are all components utilized on tanks constructed of materials compatible with anhydrous ammonia?	<input type="checkbox"/>	<input type="checkbox"/>	
7 Are all tanks equipped with properly sized excess flow valves?	<input type="checkbox"/>	<input type="checkbox"/>	
8 Are all tanks equipped with positive shutoff globe valves?	<input type="checkbox"/>	<input type="checkbox"/>	
9 Are all tanks equipped with emergency shutoff valves?	<input type="checkbox"/>	<input type="checkbox"/>	
10 Are all tanks equipped with current pressure relief valves and weatherproof rain caps?	<input type="checkbox"/>	<input type="checkbox"/>	
11 Are all tanks protected from vibration/movement by use of flexible connectors, swing joint or other means?	<input type="checkbox"/>	<input type="checkbox"/>	
12 Are all flexible connectors stainless steel and double-braided?	<input type="checkbox"/>	<input type="checkbox"/>	
13 Is a fire extinguisher mounted and ready for use in the storage tank area?	<input type="checkbox"/>	<input type="checkbox"/>	
14 Are all tanks painted, labeled and maintained in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
15 Are all tanks inspected periodically to ensure the safe mechanical operating condition?	<input type="checkbox"/>	<input type="checkbox"/>	
16 Is the appropriate personal protective equipment available onsite and ready for use in the storage tank area?	<input type="checkbox"/>	<input type="checkbox"/>	
17 Have all operators involved with the storage tank process received training?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section B: Storage Tank Considerations

	Yes	No	N/A
18 Has the person with responsibility for the maintenance and repair of the storage tank process received training?	<input type="checkbox"/>	<input type="checkbox"/>	
19 Are all storage tanks shut down with valves closed and locked when not attended or in use?	<input type="checkbox"/>	<input type="checkbox"/>	
20 Are all tanks installed with at least 18 inches of clearance from the bottom of the tank to ground level?	<input type="checkbox"/>	<input type="checkbox"/>	
21 Are all tanks mounted on saddles of sufficient design and construction?	<input type="checkbox"/>	<input type="checkbox"/>	
22 Are all tanks free of unacceptable dents or gouges?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section C: Compressor Considerations

Section is N/A: 

	Yes	No	N/A
1 Has the person with responsibility for the maintenance and repair of compressors received training?	<input type="checkbox"/>	<input type="checkbox"/>	
2 Are all compressors inspected periodically to ensure the safe mechanical operating condition?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section D: Liquid Pump Considerations

Section is N/A: 

	Yes	No	N/A
1 Has the person with responsibility for the maintenance and repair of liquid pumps received training?	<input type="checkbox"/>	<input type="checkbox"/>	
2 Are all liquid pumps inspected periodically to ensure the safe mechanical operating condition?	<input type="checkbox"/>	<input type="checkbox"/>	
3 Are all liquid pumps used for ammonia equipped with a pressure-activated bypass?	<input type="checkbox"/>	<input type="checkbox"/>	
4 Are all pressure-activated bypass devices tested periodically?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section E: Piping, Hose & Fitting Considerations

	Yes	No	N/A
1 Is there any piping located in close proximity to the following activities?			
• Roadway, street or path with substantial traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Movement of railcars of grain, fertilizer, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Airport or air strip with planes landing/taking off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Movement of a forklift, end loader or heavy equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of nitrate (Ammonium, Potassium or Sodium)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of flammable materials (Gas, Diesel or Propane)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of combustible materials (Brush, Pallets, Tires, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of shop materials such as oxygen or acetylene gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Is all piping protected from vehicular impact by barriers of sufficient design and construction?	<input type="checkbox"/>	<input type="checkbox"/>	
3 Is underground piping utilized at this facility?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section E: Piping, Hose & Fitting Considerations

	Yes	No	N/A
4 Are all underground runs of piping tested at least every 5 years for leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Are all valves and fittings free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	
6 Are all threaded/welded connections free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	
7 Are all fittings, piping and hose constructed of materials compatible with anhydrous ammonia?	<input type="checkbox"/>	<input type="checkbox"/>	
8 Is all piping painted and maintained in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
9 Are all liquid and vapor lines properly labeled or color-coded?	<input type="checkbox"/>	<input type="checkbox"/>	
10 Have the colors used to identify liquid and vapor lines been recorded in the written operating procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Is all piping utilized in the system of seamless construction?	<input type="checkbox"/>	<input type="checkbox"/>	
12 Are all pipe supports of sufficient design and construction?	<input type="checkbox"/>	<input type="checkbox"/>	
13 If Schedule 40 piping is utilized in the system are all connections welded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Are all hydrostatic relief valves rated 350-400 Psig so as not to exceed the installation's engineered design pressure?	<input type="checkbox"/>	<input type="checkbox"/>	
15 Are all flexible connectors stainless steel and double-braided?	<input type="checkbox"/>	<input type="checkbox"/>	
16 Are all flexible connectors installed per the manufacturer's instructions and limited to a length no longer than required for proper installation?	<input type="checkbox"/>	<input type="checkbox"/>	
17 Are all fittings, piping and hose inspected annually to ensure safe mechanical operating condition?	<input type="checkbox"/>	<input type="checkbox"/>	
18 Has the person with responsibility for the selection, repair and maintenance of piping, hose and fittings received training?	<input type="checkbox"/>	<input type="checkbox"/>	
19 Are any hoses utilized for ammonia service made onsite?	<input type="checkbox"/>	<input type="checkbox"/>	
20 Are all hoses made onsite for ammonia service tested annually to ensure satisfactory working pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Has the practice of making hoses onsite and the consequences of failure been reviewed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Are all hoses with expiration dates within the current operating timeframe?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section F: Bulkhead Considerations

	Yes	No	N/A
1 Are all bulkheads designed and constructed to withstand the force exerted in the event of a pull-away?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section F: Bulkhead Considerations

	Yes	No	N/A
2 Are all bulkheads equipped with devices designed to "shear" and protect the plumbing?	<input type="checkbox"/>	<input type="checkbox"/>	
3 Are all bulkheads equipped with positive shutoff globe valves?	<input type="checkbox"/>	<input type="checkbox"/>	
4 Are all bulkheads equipped with emergency shutoff valves?	<input type="checkbox"/>	<input type="checkbox"/>	
5 Are all bulkheads equipped with back-check valves?	<input type="checkbox"/>	<input type="checkbox"/>	
6 Are all bulkheads inspected periodically to ensure the safe mechanical operating condition?	<input type="checkbox"/>	<input type="checkbox"/>	
7 Has the person with responsibility for the maintenance and repair of bulkheads received training?	<input type="checkbox"/>	<input type="checkbox"/>	
8 Are chock blocks available and ready for use in the bulkhead/receiving area?	<input type="checkbox"/>	<input type="checkbox"/>	
9 Are all incoming trucks checked to confirm the transfer hose provided is constructed of materials that are compatible and approved for use with anhydrous ammonia?	<input type="checkbox"/>	<input type="checkbox"/>	
10 Are "STOP-Tank Car Connected" sign(s) available and ready for use in the railcar bulkhead/receiving area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Is the appropriate personal protective equipment available onsite and ready for use in the bulkhead/receiving area?	<input type="checkbox"/>	<input type="checkbox"/>	
12 Are all bulkheads equipped with a "bleed-off" tank of water for use in capturing liquid ammonia?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section G: Riser Considerations

	Yes	No	N/A
1 Are all operators involved with using risers to load out ammonia properly trained on the process?	<input type="checkbox"/>	<input type="checkbox"/>	
2 Are all risers equipped with pull-away protection designed and constructed to withstand a pull-away event?	<input type="checkbox"/>	<input type="checkbox"/>	
3 Is all pull-away protection equipment properly installed so as to facilitate the shearing or breakaway in a pull-away event?	<input type="checkbox"/>	<input type="checkbox"/>	
4 Are all risers equipped with properly sized excess flow valves?	<input type="checkbox"/>	<input type="checkbox"/>	
5 Are all risers equipped with positive shutoff globe valves?	<input type="checkbox"/>	<input type="checkbox"/>	
6 Are all risers equipped with emergency shutoff valves?	<input type="checkbox"/>	<input type="checkbox"/>	
7 Are all valves properly labeled or color-coded?	<input type="checkbox"/>	<input type="checkbox"/>	
8 Are all risers protected from vehicular impact by barriers of sufficient design and construction?	<input type="checkbox"/>	<input type="checkbox"/>	

## Section G: Riser Considerations

	Yes	No	N/A
9 Are all risers inspected periodically to ensure the safe mechanical operating condition?	<input type="checkbox"/>	<input type="checkbox"/>	
10 Has the person with responsibility for the maintenance and repair of the risers received training?	<input type="checkbox"/>	<input type="checkbox"/>	
11 Are chock blocks available and ready for use in the riser/loading area?	<input type="checkbox"/>	<input type="checkbox"/>	
12 Is the appropriate personal protective equipment available onsite and ready for use in the bulkhead/receiving area?	<input type="checkbox"/>	<input type="checkbox"/>	
13 Is a fire extinguisher mounted and ready for use in the riser/loadout area?	<input type="checkbox"/>	<input type="checkbox"/>	
14 Are all risers equipped with a means to secure hose end valves and other connections when unattended?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Section H: Nurse Tank/Wagon Considerations

Section is N/A:

	Yes	No	N/A
1 Are any areas used to park nurse tanks located in close proximity to the following activities?			
• Roadway, street or path with substantial traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Movement of railcars of grain, fertilizer, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Airport or air strip with planes landing/taking off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Movement of a forklift, end loader or heavy equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of nitrate (Ammonium, Potassium or Sodium)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of flammable materials (Gasoline, Diesel or Propane)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of combustible materials (Brush, Pallets, Tires, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Storage of shop materials such as oxygen or acetylene gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Are all nurse tanks protected from being overfilled beyond the 85% safe level?	<input type="checkbox"/>	<input type="checkbox"/>	
3 Has the possibility and consequences been considered that the contents of nurse tanks filled to 85% during cold weather will increase in pressure resulting in the tank being overfilled?	<input type="checkbox"/>	<input type="checkbox"/>	
4 Do all nurse tanks have legible ASME dataplates?	<input type="checkbox"/>	<input type="checkbox"/>	
5 Have all nurse tanks with missing or illegible ASME dataplates passed the visual inspection, tank thickness and pressure test required by DOT to remain in service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Are all components utilized on nurse tanks constructed of materials compatible with anhydrous ammonia?	<input type="checkbox"/>	<input type="checkbox"/>	
7 Are all nurse tanks equipped with properly sized excess flow valves?	<input type="checkbox"/>	<input type="checkbox"/>	
8 Are all nurse tanks equipped with current liquid withdrawal valves?	<input type="checkbox"/>	<input type="checkbox"/>	
9 Are all nurse tanks equipped with current liquid fill valves?	<input type="checkbox"/>	<input type="checkbox"/>	
10 Are all nurse tanks equipped with current pressure relief valves and weatherproof rain caps?	<input type="checkbox"/>	<input type="checkbox"/>	

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## Section H: Nurse Tank/Wagon Considerations

Section is N/A:

Yes

No

N/A

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- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| 11 Are all nurse tanks equipped with current vapor return valves?   | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 12 Are all nurse tanks painted, marked and maintained in good condition?  | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 13 Are all nurse tanks inspected periodically to ensure the safe mechanical operating condition?  | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 14 Is the appropriate personal protective equipment available and ready for use with nurse tank operations?   | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 15 Are all nurse tanks equipped with a supply of clean emergency water?   | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 16 Have all operators involved with nurse tanks received training?  | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 17 Has the person with responsibility for the maintenance and repair of nurse tanks received training?  | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 18 Have all repairs involving welding on the pressure vessel been performed by a qualified "R-Stamp" welder?  | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 19 Are all nurse tanks secured when not attended or in use?   | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| 20 Are all ACME valves hand tightened and inspected often to ensure a gasket is present and the assembly is free of leaks?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21 Has the plumbing used to connect "double" or "triple" nurse tank configurations been plumbed according to best management practice to include properly sized excess flow valves? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22 Are all nurse tanks free of unacceptable dents or gouges?  | <input type="checkbox"/> | <input type="checkbox"/> |                          |