

## **SUPPLEMENTAL INFORMATION SHEET FOR ANHYDROUS AMMONIA STORAGE HANDLING APPLICATIONS**

In addition to items required on the general application, Form PI-1, several other items are needed to adequately evaluate an application for an anhydrous ammonia storage facility. These items include, but are not limited to, the following:

1. A cover letter giving a brief description of the expansion, replacement, or construction proposal and what action is being requested from the TCEQ (i.e. construction, amendment, revision, renewal). Any previous contact with the TCEQ should be discussed and this letter should indicate where copies of the application are being sent.
2. A complete history of the facility indicating dates and descriptions of original construction, ownership changes, and expansion projects. See Compliance history instructions attached to Form PI-1, General Application.
3. Due to the fact that ammonia (NH<sub>3</sub>) is considered a disaster chemical by the Environmental Protection Agency (EPA), consult the EPA Prevention Reference Manual: Chemical Specific, Volume 11. Control of Accidental Releases of Ammonia, EPA/600/8-87/034k. It will be necessary for the facility to be compared to the Baseline, Level 1, and Level 2 controls. If less than Level 2 controls are proposed, justification should be provided for the less stringent control option. Describe any additional equipment or operational controls which would reduce the probability or magnitude of a catastrophic release from this facility. Information for obtaining the manual can be received by contacting the National Technology Information Service (NTIS) at 1-800-553-6847. The publication number for this manual is PB-87-231262 and its cost is \$27.00.
4. A mitigation plan that describes the methods and procedures utilized by the facility to reduce the risk of a catastrophic release of NH<sub>3</sub> traveling off site from this facility. Some precautionary controls include, but are not limited to sprinkler systems, fire extinguishers, lock-out systems, dikes, barricades, and alarms. The above referenced EPA manual will be useful in addressing this issue.

5. A contingency plan that describes the actions used at this facility to notify persons in the immediate area of a sudden release of NH<sub>3</sub>. This plan needs to include procedures to contact police and fire departments, as well as discuss emergency protocol by employees and the installation of special equipment to prevent NH<sub>3</sub> vapors from becoming airborne. The above referenced EPA manual will be useful in addressing this issue.
6. A detailed description of any existing precautionary measures taken to prevent casual use of your facility by persons other than qualified employees. Do customers load their own nurse tanks? Are there any physical barriers on your property to prevent vehicle accidents?
7.
  - a. What is the percentage of NH<sub>3</sub> received by truck? By railcar?
  - b. What is the maximum hourly throughput of NH<sub>3</sub> received by truck during a peak seasonal day and the maximum hourly throughput received by railcar during a peak seasonal day?
  - c. What is the maximum hourly throughput of NH<sub>3</sub> received by truck during a regular seasonal day and the maximum hourly throughput of NH<sub>3</sub> received by railcar during a regular seasonal day?
  - d. What is the maximum annual throughput of NH<sub>3</sub> received by truck and the maximum annual throughput of NH<sub>3</sub> received by railcar?
  - e. Are there any schools within 3000 feet of this operation?
  - f. What is the normal operating season/schedule for this operation?
8. The number of above ground valves, flanges, and pipe connections at the facility. This number will be used to calculate the amount of NH<sub>3</sub> lost due to fugitive leaks. Please use the enclosed example diagrams and lists as guides in preparing the response to this item.
9. A thorough discussion on the nurse tanks maintained on this property. In this discussion, give the maximum number of nurse tanks that are on the property. Do all of the nurse tanks belong to the applicant, or do all or some belong to customers? Give the sizes of the nurse tanks. If the nurse tanks vary in size, give the different capacities. Are the nurse tanks stored year round? What is the normal operating season for using the nurse tanks? Discuss maintenance procedures for the removal of all NH<sub>3</sub> left in any returned nurse tanks to be stored on-site and discuss checks to ensure no holes or leaks exist in the nurse tanks.

10. A block flow diagram of the operation. This should identify any control equipment, ground valves, flanges, pipe connections, and any other pieces of equipment. For expansion projects, the changes or additions should be highlighted and it may prove helpful to show a before and after block flow diagram. Everything on the diagram should be labeled and assigned an I.D. (such as F1 for fan #1 or C1 for cyclone #1) that can be referred back to in other portions of the application (i.e. process description, plot plan).
11. A plot plan showing all details on the property including all buildings, the unloading dock, water containers, property line, fence lines, traffic pathways, distances from the storage and nurse tanks to the property line, distances from the storage and nurse tanks to the nearest off-property receptors (residences, businesses, and schools). The plot plan should also include all parking lots, traffic pathways, an approximate scale, and a north arrow. Label any areas paved or treated with dust suppressants.
12. A written process description of the operation that carries the reader smoothly through the process. This discussion shall also include details on procedures for unloading the NH<sub>3</sub> storage tanks and loading the nurse tanks. How are the tanks connected? When are valves turned on and off?
13. Control of Emissions. This discussion should identify potential emission sources and the control devices or methods utilized for controlling/eliminating these sources. Discuss the possibility of adding rupture disks and pressure gauges upstream or downstream of the relief valves on the tanks to eliminate fugitive emissions from these sources. Give the height of the valves from ground level. Also, provide a thorough discussion for bleeding the emissions from the disconnection of hoses to a volume of water during loading and unloading operations.
14. A detailed description of all maintenance and housekeeping procedures employed by the facility. Discuss the inspection/maintenance of control equipment (valves, flanges, dikes, barricades, alarms, etc.).

15. Completed storage tank tables (table 7) for each ammonia storage tank.
16. An area highway map with the proposed location clearly marked. If needed, provide additional instructions for locating the proposed site by vehicle.
17. A land use map. This map should have a north arrow, an approximate scale, and should identify the property line, major structures on-site, storage and nurse tanks, and the distance and direction to any residences, schools, businesses or occupied structures within a 3000 foot radius of the proposed location. Any surrounding farmland or ranchland should be identified and any off-site structures owned or operated by the applicant should be identified. The prevailing wind patterns during the operating season should also be identified on the map. If requested, the Austin office of the TCEQ can provide wind rose data for the different areas around the state.
18. The capital cost of the proposed operation or the proposed expansion (Not required for renewal applications). (See TCEQ Table 30).
19. Application Fee. A minimum fee of \$450.00 is required for all construction and amendment applications. This fee is based on the capital cost of the proposed project (See Item 18 above). A minimum fee of \$300.00 is required for all renewal applications. This fee is based on the permitted allowable emission rates negotiated in the renewal process. The application fee should be mailed to the Austin office with the application.
20. A Certificate of Good Standing from the Comptroller's Office for incorporated facilities (Not required for renewals, revisions or amendments). The Comptroller's Office (phone # 1-800-252-1386) can provide a statement of exemption for corporations exempt from paying a franchise tax. Facilities not incorporated should supply a statement identifying their capital structure (i.e. sole proprietorship, partnership, cooperatives etc.).
21. Copies of all supplemental information sheets and references should be submitted with the application.

The attached general application and application forms should be completed and mailed with the information requested above to the Austin Office, the appropriate regional office of the TCEQ and to any city or county air programs with jurisdiction over the area of the proposed operation.