Ammonia Cylinders shall be transferred from delivery vehicle to Ammonia Storage Shed by the ammonia distributor delivery personnel.

* **The cylinders must be...**
  1. **transported to shed in a manner that meets manufacturer's specifications.**
  2. **inspected and accepted by Amherst College Power Plant Staff before transfer to Ammonia Shed.**
     * Cylinders that are different type, unlabeled, rusted or otherwise compromised will not be received.

After ammonia cylinders are placed into the Ammonia Shed, the cylinders can be attached to the system using the following protocols. Connection of the cylinders must be...

1. **a two person operation, for safety reasons.**
2. **the person making connections to the cylinders must wear the following personal protective equipment...**
   * **Ammonia Resistant Coveralls**
   * **Goggles, not safety glasses**
   * **Face Shield**
   * **Neoprene or Nitrile Gloves**
3. **turn shed exhaust fan "on".**
4. **open both sets of doors to the shed.**

Before cylinders are attached to system, Power Plant staff must...

1. **check condition of main valve for tightness (stem nut).**
2. **check main valve for leak, using the *GasBadge Pro* Monitor.**
3. **close feed valve, before regulator on the side of the manifold system to be changed out.**
4. **turn off cylinder valves on the side being changed out.**
5. **open all manifold valves to cylinders.**
6. **open Nitrogen Purge Valve.**
   * **leave open until flow stops**
7. **shut Nitrogen Purge Valve and open vent until flow stops.**
   * **Repeat Process 5 times.**
8. **close manifold valves on cylinders being changed out.**

* **Remove empty, capped cylinders from Ammonia Shed following manufacturer's specifications.**
* **Place full capped cylinders into Ammonia Shed.**
  1. **Evaluate and change (as necessary) the teflon (white) or other manufacturer approved gasket on the hose assembly to the cylinder main valve.**
  2. **Connect hose assembly to ammonia cylinder and insure that connection is tight.**
     * make sure hose connection is installed upright

Ammonia Gas Distribution

1. **Close vent valve**
2. **Open ammonia cylinder valves to full open position.**
3. **Use Ammonia Gas Badge Monitor to check all cylinders for leaks.**
   * **If leak is detected, shut valve off.**
     * tighten hose assembly and replace gasket if necessary.
   * **If leak can not be repaired, contact Cenral Energy Plant Supervisor or EH&S Manager.**
4. **Open manifold valves.**
5. **Open feeder valve, before the regulator on the manifold to cylinders just changed out.**
6. **Switch arrow to opposite position to allow ammonia flow for new cylinders.**

* **Evaluate Ammonia System to insure proper installation and identify potential leaks.**