# Anhydrous Ammonia Industry Tank Testing Survey

CAAR | June 2016

Information will be gathered regarding two concerns to be discussed at the June 16-17, 2016, CSA B620 Committee Meeting:

**1. Increased testing frequency under the pending B622-14 for non-spec tanks is both unnecessary and damaging to nurse tanks.**

a) Regarding the argument that increased testing frequency is unnecessary, CAAR is gathering information about tank failures, including:

- Total number of tanks in the fleet, and the average number of times the tanks have been hydrotested over what period;
- If available, what proportion of the fleet is tanks with a volume over 10,000 L;
- The number of tank failures, either during hydrotesting or in service;
- Specifics about each failure, including reason for failure and details about the tank such as make, capacity, and year of manufacture;
- A history of date(s) on which the failed tank has been tested;
- The time span between tank failure and last test date if the failure did not occur during testing;
- Any history of damage to the tank (i.e. involved in a previous accident) that failed.

b) Regarding the argument that increased testing frequency is damaging to tanks, as well as expert opinion on whether there is a need for increased testing frequency, CAAR is also asking:

- How will hydrotesting every 3 years vs. every 5 years impact the integrity of a tank?
- Is increased hydrotesting necessary? Why or why not?
- Is increased external visual inspection from 2 or 3 years to annual necessary? Why or why not?
- What is the cost per tank for conducting hydrotesting every 5 years? And visual inspection every 3 years?
- How would that cost change if the frequency is increased to 3 years for hydrotesting and annual for visual inspection?

**2. Phasing out non-spec (ASME spec) and TC51 spec tanks will significantly impact the ammonia industry.**

CAAR is seeking to understand the impact of this change, which would currently leave TC331 as the only remaining spec, asking:

- How will this change impact the cost of replacing non-spec or TC51 tanks with TC331 tanks?
- How will it impact the function of the ammonia industry? (i.e. can TC331 effectively replace non-spec or TC51 tanks for field application?)
- Do you see any safety concerns with moving to TC331 TDUs from TC51 or ASME tanks?

**3. Would your company be willing to file your Out of Service reports and details of any future tank failures with CAAR going forward, to re-establish a repository of tank testing results?**

Please contact Delaney Ross Burtnack at CAAR if you have information to share at 204-989-9303 or delaney@caar.org.