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**Recommendations for Consideration by the Agriculture and Natural Resources Committee
Concerning North Dakota Century Code 19-20.2, 19-20.3 – Anhydrous Ammonia Facilities**

**Presented by Eric Delzer, Fertilizer Program Director for the North Dakota Department of
Agriculture**

**February 4, 2016
Roughrider Room, State Capital
Bismarck, North Dakota**

Chairman Onstad and members of the Agriculture and Natural Resources committee, I am Eric Delzer, Fertilizer Program Director with the North Dakota Department of Agriculture (NDDA). I am here to testify regarding proposed changes to North Dakota Century Code (N.D.C.C.) 19-20.2 and 19-20.3 entitled “Anhydrous Ammonia Facilities” and “Anhydrous Ammonia Risk Management.”

The NDDA is recommending that the committee consider revising the anhydrous ammonia chapter of the N.D.C.C. and updating it to more modern standards to provide better clarity and safety over regulated facilities. While North Dakota has long been regarded as having one of the most well written anhydrous ammonia legislations in the country, there are still areas of the law that are overly vague and open to interpretation, or that do not address new regulatory challenges in the industry that were not present when the current law was originally written.

For example the current law references many different sections of code such as the American National Standards Institute (ANSI), the American Society of Mechanical Engineers (ASME), and the National Board of Boiler and Pressure Vessels. In some instances the language of the referenced code, actually has even further references to separate codes. As you can imagine this leads to challenges in interpreting and enforcing the law and provides much frustration to members of the regulated public who are searching for where they can find written clear and concise rules that they must follow.

Another challenge anhydrous ammonia owner/operators face is falling under several different local and federal authorities that regulate the storage and handling of anhydrous ammonia. In some instances the current standard North Dakota is outdated and not in harmonization with other authorities having jurisdiction. This may lead to substantial fines and penalties for some facilities that strictly adhere to only North Dakota laws and rules.

There are several other shortfalls of the current language of the N.D.C.C., such as the accepted methods for the testing of storage containers (anhydrous storage tanks). While the adopted testing methods are still relevant, there are currently other new and industry accepted

technologies that would suffice. With the current language we have in place, these new tests could not be accepted.

The Department believes it would be in the best interest of the regulated public and the state to explore further substantive clarification and updating of the current N.D.C.C. language concerning anhydrous ammonia. Mr. Chairman if there are no objections or questions I would like to proceed in outlining the Departments suggestions to be considered by the committee at this time.

NDDA Recommended Edits to the First Draft Presented to the Agriculture and Natural Resources Committee by Legislative Council Staff.

Page 1, lines 6-10 – Adoption of Standards

Firstly the NDDA recommends the exploration of adopting the newest version of the accepted industry standard (ANSI/CGA 2.1-2014).

Currently the state of North Dakota has adopted the 1989 version of the American National Standards Institute's (ANSI) K61.1 (requirements for the storage and safe handling of anhydrous ammonia) as the official code of construction and safe handling of anhydrous ammonia. This standard is promulgated by the Compressed Gas Association (CGA) which is an independent organization of industry members and the standard represents a consensus of interested parties concerning minimum safety requirements for the storage, transportation, and handling of anhydrous ammonia and is accredited by the American National Standards institute.

The code is only updated when there is an identified need for revision of specific sections and thusly has only been revised twice since 1989 (1999, 2014). The adoption of the latest industry standard would address several shortfalls not currently addressed in the current North Dakota law without the need to make significant revisions to the chapter. The adoption of the latest standard would not pose any additional significant expenses or regulatory burdens on the industry and would not affect farmers.

The ANSI/CGA 2.1-2014 represents minimum codes of construction and safe handling for states to adopt as they see necessary and is intended to allow flexibility to best fit different segments of industry. Section 1.2 of the standard states "*Where certain provisions of this standard impose undue hardship or where literal adherence to such provisions fails to provide adequate safety in the opinion of the authority having jurisdiction (AHJ), the AHJ may permit deviation from the standard.*"

This new version of the standard also has provisions to allow the grandfathering of existing facilities built to older versions of the code. While the Department recommends adopting this standard in its entirety, we have identified several sections that may be unnecessary or unenforceable that we would recommend exemptions be created for if the latest code were to be adopted.

The NDDA would be happy to provide the committee with breakdown of what new requirements this proposed update would entail that differ from the current standard and would also be willing

to chair or facilitate a workgroup to provide recommendations and industry feedback to the committee for their consideration in exploration of adopting this most recent standard.

Page 1, lines 11-23; page 2, lines 1-15 – Exemptions to Standard

This section contains the exemptions to the 1989 ANSI K61.1 standard that were created by the North Dakota legislature when this standard was adopted. These edits North Dakota created to the standard have since been incorporated into the newest version of the standard (ANSI/CGA 2.1-14). By adopting the latest version of the standard, this whole section could be omitted.

Page 3, lines 16-18 – Licensing

Anhydrous ammonia storage facility licenses are issued by the Ag Commissioner after the facilities have been inspected and determined to be constructed in compliance with the applicable laws and rules. The North Dakota Insurance Commissioner also has jurisdiction over the “storage containers” (tanks) themselves. While NDDA inspectors are experts in the installation and piping of storage facilities, they are not mechanical engineers nor are they commissioned boiler and pressure vessel inspectors and do not have expertise or resources to make “storage container” determinations. As a result, the NDDA does not allow tanks into service unless approved by the Chief Boiler Inspector of the ND Insurance Department since they have overlapping authority under their unfired pressure vessel rules and they are experts in this field. It is highly recommended to add a provision to the law that a license cannot be issued unless the Chief Boiler Inspector of the ND Insurance Department has approved of the “storage container”.

Page 4, line 15 – Expansion of Facilities

The mandate that “all siting requirements must be met” poses significant limitations for existing grandfathered facilities that were licensed before July 1, 1985. These facilities were grandfathered from the siting requirements because they could not meet them when siting requirements were established. The expansion of a facility and the addition of any other storage containers would be nearly impossible. NDDA believes that if the local officials (county/state) approve of the addition of another storage container to the facility, then there should be no reason to not allow it.

Page 3, lines 8-13 – Container Testing

There are now other accepted technologies for non-destructive testing available. This language limits the testing to only two available methods. The newest ANSI/CGA standard, if it were to be adopted, has allowances for these newer technologies included.

Page 5, lines 11-13 – Approval of Testing

Due to the overlapping authority, a provision should be inserted to require that the test reports must also be furnished to and approved by the Chief Boiler Inspector of the North Dakota Insurance Department before a container can be allowed into service.

Page 7, line 12 – Inspection Authority

The word “conveyance” should be defined if it is used in place of “farm transportation wagon or vehicle.” The acceptable industry terminology that could also be suitable would be “implement of husbandry.”

Page 7, lines 20-21 – Terminology

The word “conveyance” again should be defined if it is to replace the accepted industry term of “implement of husbandry.”

Page 8, lines 14-23 – Prohibitions

In addition to these listed prohibitions, N.D.A.C. Title 7-12-01-04-11 identifies a number of other directly prohibited acts. NDDA recommends they be incorporated into the law so all prohibitions are listed in one location.

Another prohibition should be added to address the dangerous issue of pressurizing anhydrous ammonia nurse tanks with air in order to increase product flow. An anhydrous tank should only be allowed to be pressurized with anhydrous ammonia vapor due to the fact that even the slightest bit of air contamination in a system can lead to stress corrosion cracking that can compromise the structural integrity of the vessel. This prohibition is already incorporated into the latest version of the ANSI/CGA standard if it were to be adopted.

Page 11, lines 21-27 – Effective Date

The contingent effective date that the Department received the official delegation from the United States Environmental Protection Agency was January 29, 2014.

Other Concerns

Section 5.2.3 of the 1989 ANSI K61.1 standard states that all storage containers (anhydrous ammonia storage tanks) must be inspected by a “a person who holds a valid National Board Commission as an Authorized Inspector or as an Owner-User Inspector as defined in the National Board Inspection Code.” The NDDA has no commissioned boiler inspectors nor do we have the available resources to hire one. There needs to be an exemption created to eliminate this restriction to avoid future legal challenges.

A clearly written provision requiring the use of an approved break-away coupling, installed in accordance with manufacturer recommendations, any time two nurse tanks are coupled together and towed one behind the other should be added. The Department currently enforces this requirement, however the language that gives that authority is very vague and poorly worded and we are frequently questioned on it and have relied more on Department policy to enforce it.

Mr. Chairman, if there are no questions, this concludes my testimony.