

July 30, 2018

MEMO TO: ASABE Lighting & Marking Committee
FROM: Concerned State Agribusiness Associations
RE: New Standard for Lighting on Non-Self-Propelled Equipment

Dear ASABE Committee Members:

On behalf of the concerned national and state agribusiness associations, we are writing to request reconsideration of the application of ASABE Standard 279.14, specific to the lighting requirement, as it applies to anhydrous ammonia nurse wagons.

While the new standard provides uniformity and consistency for the manufacturing sector, there are unique issues with the use of anhydrous ammonia nurse wagons that pose serious concerns for ag retailers regarding lights on these trailers.

We provide the following example from Illinois, relative to that State's use of anhydrous ammonia as the leading source of nitrogen fertilizer for corn production. This ag retail industry in Illinois has a long history of safely storing, transporting and applying anhydrous ammonia to supply the nitrogen needs of Illinois' farmers.

1. **Scope of Ammonia Nurse Tanks in Use:** USDOT estimates there are 200,000 anhydrous ammonia trailers nationwide. In Illinois, there are approximately 28,000 anhydrous ammonia trailers. The IFCA has determined that manufacturers sell approximately 800 new ammonia trailers each year in US, which is less than 3% of the total trailer fleet in service on an annual basis. Therefore, ammonia nurse wagons without lights will continue to dominate the marketplace for many years to come. The primary concern is confusion with enforcement officials as they see a few trailers equipped with lights, while the clear majority have no lights. This could lead to major enforcement related issues by state officials not fully aware of the ASABE standards. In many states, including Illinois, the state Vehicle Code specifically exempts these trailers from any lighting or braking requirements due to the unique nature and use of these trailers in agricultural production.
2. **Farmer Utilization of Retailer Owned Ammonia Nurse Tanks.** Ammonia nurse tanks are unique in terms of implements of husbandry in that they are not predominately operated by the owner of the tank (the ag retailer). Rather, ag retailers commonly allow farmers to take possession of ammonia trailers when the farmer is applying the ammonia. In fact, most of the anhydrous ammonia in Illinois is farmer-applied. This is due to high demand for ammonia in a 2-4 week period in the spring and fall.

While many ag retailers do provide custom application for ammonia, there are not enough employees in the ag retail sector to handle the peak demand for application services, thus the application of ammonia remains largely farmer-applied. This is a unique equipment situation compared to the utilization of other implements of husbandry. Tractors, pull-type sprayers, grain wagons, etc., are nearly always operated only by their owners (farmers) and thus the owners are responsible for the maintenance and operations of appurtenances such as lights. But with equipment that is largely "borrowed" from ag retailers, the responsibility for the lights being hooked up properly and maintained in working condition when the retailer does not have possession of the tank is a serious concern for our industry, because the responsibility for

violations or accidents that may occur when the farmer has the nurse wagon will still fall back upon the nurse tank owner, the ag retailer.

3. **Lighting Connections.** When pulling an ammonia nurse tank trailer behind a pick-up, many farmers may not have the 7-pin terminal on their rear hitch to accommodate the new trailer lights. Many ag retailer pick-up trucks will also face this challenge. We acknowledge that “adapters” are available, but the reality is that most farmers will not have them on hand when they arrive at the ag retail location to pick up tanks (even if we inform them of this need). Thus, the retailers will be expected to stock and supply adapters at an additional cost to the retailer. There is no guarantee that the adapters will be returned by the farmer, thus perpetuating the need for retailers to continually supply them, at their cost. This may seem to be a minor point but is a realistic concern to the ag retailers, and it will be an on-going issue for many years plus an added expense to the ag retailers.
4. **Acceptance of New Nurse Wagons with Lights.** Many retailers will be hesitant to purchase new trailers with lights since they will not feel comfortable with them being legal at any given time when they are in the farmer’s possession, due to the challenges previously discussed. And for the same reasons, farmers will likely ask for tanks without lights, knowing that they will be subject to enforcement if they are pulled over and the lights are not hooked up or working. It will be easier to just request an older tank without lights to avoid all these issues. This unfortunately works against the benefit of having newer nurse wagons on the road—nurse tanks with new and dependable running gears, tires and tanks.
5. **Compliance When in Combinations.** The lighting requirement for ammonia nurse wagons is even more problematic when farmers move from field to field with the nurse tanks, because they often pull them in this combination of vehicles:

- The tractor,
- tool bar, and
- the ammonia trailer as the third vehicle in combination (see photo).



While newer toolbars may have lights, older toolbars will not, and even those equipped with lights are also not likely equipped with compliant terminals into which to plug the ammonia trailers resulting in the same problem as described in item #2. We are not sure what kind of mechanism would have to be provided to run the lights from the tractor to the nurse tank, by-passing the toolbar. And if the lights are flashing, will they be required in the standard to flash in unison? If so this is another issue of concern in terms of complying with this standard.

6. **Field Conditions and Impact on Lights.** Ammonia trailers are used in the field of application and exposed to extremely rough, dusty field conditions that contributes to continuous wear and tear on current trailers. Trailers with lighting kits would add another maintenance component for the ag retailer to constantly repair the lighting kits if they are damaged. It is important to keep in mind that retailers have no control over how the farmer treats the trailers when the trailers are in the farmer’s possession. If the farmer breaks a terminal or light, the farmer is not likely to repair or even agree to the cost of the repair. This creates a problem with customer relations.

7. **Customer Relations.** Retailers already have a very difficult task ensuring farmers properly hook up nurse trailers with the required hitch pins, clips and safety chains. This is a perpetual issue. Therefore, we are not at all confident that farmers will take the time to properly connect lights to the ammonia nurse wagons. Thus, even with lights on the trailers, the likelihood of them being operational while on the roadway is questionable and will result in issues with law enforcement. If a farmer gets a ticket for the lights not properly working, they will blame the retailer and that will work against good retailer-customer relationships.
8. **Exposure to Ammonia's Corrosive Properties.** During anhydrous ammonia application, the trailers are exposed to constant residual amounts of ammonia that occur when the applicator knives are lifted from the ground during turns in the field. Most electrical lighting systems utilize copper or aluminum wiring. Anhydrous ammonia will react quickly with copper, brass, zinc and many alloys, especially copper which will cause corrosion. Aluminum is an alternative for copper but is not compatible with the nitrogen stabilizers that are injected into the anhydrous ammonia tanks. Again, the practicality of these lights continuing to work over the long-term, on a regular basis without constant maintenance and replacement, is very problematic for the owners of the trailers.
9. **The Industry's Record of Safety.** We do not question the value of lights overall for their safety benefits, but the reality is that accidents that occur with ammonia nurse wagons during highway transportation are rarely, if ever, attributed to the lack of visibility of the tanks. The tanks are white, they are equipped with reflective SMVs, and the lights from the towing vehicle are visible. In Illinois, and in many other states, the operation of ammonia nurse tanks in low-light conditions or at night is highly discouraged, and if they are operated in such conditions (which is rare), they must be equipped with an amber flashing light (accomplished by a magnetic light kit). We can provide statistics from the Illinois State Police and the Illinois Department of Agriculture that show that most highway accidents involving ammonia nurse wagons are attributed to failure of the operator to maintain control of the equipment. In training, we stress the 25-mph speed limit for pulling ammonia nurse wagons to address this safety issue. Lack of visibility leading to a collision with another vehicle is extremely rare and in fact we know of no recent incidents of rear-end collisions due to a driver's inability to see the nurse tank.

We do feel that the use of reflective markings is a reasonable and practical safety measure compared to the many problematic issues of requiring trailer lights, and we can support the new reflective marking requirement outlined in ASABE 279.14. We feel this is a good addition to improve overall visibility without a great deal of expense or operational issues. We would help promote the inclusion of these markings and encourage their use on existing equipment.

We appreciate the opportunity to share our concerns and offer our expertise to the ASABE to fully discuss alternatives before the new standards result in increased frustration and an ever-growing industry problem. Retailers want to comply with applicable laws and regulations. However, we believe they must be reasonable and achievable in real world conditions in which we conduct the business of anhydrous ammonia application.

Thank you for considering the concerns of the ag retail industry in this matter. You may contact Daren Coppock at (202) 595-1724 or Jean Payne at (309) 827-2774.

Sincerely,

W. Daren Coppock, President & CEO
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