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Preliminary Report HWY23MH017

This information is preliminary and subject to change.

Cargo Tank Combination Vehicle Roadway Departure Crash and Subsequent Release of Anhydrous Ammonia

Teutopolis, Illinois
September 29, 2023

On Friday, September 29, 2023, about 8:41 p.m. central daylight time, a 2005 International 9900ix truck-tractor in combination with a 1978 Mississippi Tank Company MC331 cargo tank semitrailer (combination vehicle), was traveling west on United States Highway 40 (US-40), a two-lane roadway near Teutopolis, Effingham County, Illinois. The combination vehicle was owned and operated by Prairieland Transport, LTD., of Brownstown, Illinois, and the cargo tank was loaded with approximately 7,500 gallons of UN1005, anhydrous ammonia, which is a Hazard Class 2.2 material and an inhalation hazard.¹ At the same time, an oncoming eastbound vehicle was approaching the westbound combination vehicle, and a westbound passenger vehicle was passing the combination vehicle in a no-passing zone. The driver of the combination vehicle stated that to prevent a collision between the westbound passenger vehicle and the oncoming eastbound vehicle, he took evasive action by steering to the right. The combination vehicle departed the roadway and traveled into a shallow roadside drainage ditch. The truck-tractor struck the end of a 12-inch-diameter corrugated metal pipe culvert installed beneath a field entrance, and the combination vehicle jackknifed and rolled onto its right side with its cargo tank sliding forward. The exposed front end of the cargo tank struck the tow ring of a utility trailer that had been parked adjacent to the roadway on private property. The tow ring punctured the front of the cargo tank, which led to the release of anhydrous ammonia into the atmosphere as a toxic gas in the form of a white cloud.

¹ See 49 Code of Federal Regulations 172.101, "[Hazmat Table.](#)"

The driver of the combination vehicle sustained injuries as a result of the crash and exposure to the anhydrous ammonia gas. Additionally, five people in the area of the crash died and 11 others sustained injuries ranging from minor to severe due to their exposure to anhydrous ammonia.

At this location, US-40 was a non-divided, two-lane asphalt roadway consisting of one 12-foot-wide travel lane in each direction of travel flanked by 1-foot-wide asphalt-paved and 2-foot-wide crushed-aggregate shoulders. Adjacent to the north shoulder was a shallow drainage ditch. The posted speed limit on US-40 was 55 mph.



Figure 1. Aerial image of crash scene showing final rest positions of truck-tractor cargo tank semitrailer combination and utility trailer.² (Source: Illinois State Police; annotated by NTSB)

Parties to the National Transportation Safety Board (NTSB) investigation are:

- Federal Motor Carrier Safety Administration
- Pipeline and Hazardous Material Safety Administration
- Illinois State Police
- Illinois Department of Transportation
- Teutopolis Fire Protection District
- Mississippi Tank Company

All aspects of the crash remain under investigation while the NTSB determines the probable cause, with the intent of issuing safety recommendations to prevent similar events.

² The red object parked on the centerline of US-40 in this photograph is a fire department lighting trailer, which was used to illuminate the scene the night before the photograph was taken and was not involved in the crash.