



National Transportation Safety Board

Washington, D.C. 20594

Office of Railroad, Pipeline and Hazardous Materials Investigations

May 9, 2025

RE: Bordulac, North Dakota (NTSB# RRD24LR012)

From: Paul L. Stancil, CHMM, Sr. Hazmat Accident Investigator

Subject: Video conference call with CPKC regarding train placement procedures, May 9, 2025

On May 9, 2025, between 2:00 – 2:30 p.m. NTSB accident investigators David Casaceli, Benjamin Strot, and Paul Stancil met in a video conference call with CPKC officials, including James Kozey, managing director for hazmat, Darlene Nagy, hazmat program director, and Paul Weiss, dangerous goods documentation specialist. The purpose of this meeting was to clarify CPKC procedures for placement of hazardous materials in freight trains, such as inhalation hazard materials and flammable liquids, as well as logistics for marshaling the accident train 242-03.

Questioned about the current and previous versions of CPKC's train placement charts listed on the position-in-train charts contained in document HM1 (Hazardous Materials Transportation Instructions for Rail, 2022 and 2024), CPKC officials explained the following:

- The HM1 train placement charts are intended to provide train crews with an easy-to-understand visual representation of the train placement requirements contained in 49 *CFR* 174.85. The current 2024 version of HM1 is harmonized with the U.S. regulation.
- The 2024 version completely replaced the earlier 2022 version, in which Hazard Zone A and all other inhalation hazard chemicals (for Canadian shipments only) were placed in Placard Group C. For U.S. shipments, non-Hazard Zone A inhalation hazard materials were placed in Placard Group B along with various flammable materials. Among other things, the chart indicates that loaded tank cars in Placard Group C should not be placed next to placarded cars from other placard groups.
- The placards listed in Placard Group C reflect the special placarding provisions in 49 *CFR* 172.510, in which the placard is displayed within a white square background to denote Hazard Zone A materials. The other inhalation hazard placards (including anhydrous ammonia) contained in Placard Group B reference inhalation hazards in Hazard Zones B through D.
- Thus, according to CPKC 2024 train placement instructions, there are no separation requirements for anhydrous ammonia and flammable liquids.
- In the pre-2022 version of HM1 the Hazard Zone B through D placards were originally in Placard Group B, but they were erroneously moved in 2022 to Placard Group C for Canadian shipments in order to comply with Transport Canada Transport of Dangerous Goods (TDG) rules on placement of Packing Group 1 materials near occupied locomotives. The 2022 change may also have also attempted to respond to confusion over a new anhydrous ammonia placard introduced by Transport Canada. The 2024 revision of HM1 corrects the train placement instructions to coincide with both the TDG and DOT

Hazardous Materials Regulations (HMR) on placement of inhalation hazard materials next to tank cars containing materials in another Placard Group.

Next, we discussed NTSB concerns about the placement of anhydrous ammonia tank cars within a block of methanol flammable liquids tank cars, in which the less-robust general service cars breached to immerse poison inhalation hazard tank cars in a pool fire. Asked whether CPKC shares concerns about such marshaling practices and whether it has any plan to make adjustments that could avoid such interactions in a derailment, CPKC officials responded:

- Regarding the regularity of trains carrying both anhydrous ammonia and methanol tank cars, train 242-03 was a standard manifest train.
- As to the events that led to anhydrous ammonia and methanol tank cars being placed together in the consist, the waybills indicate the blocks of cars were brought to the CPKC yard on different dates (July 1, and July 2). Therefore, extra switching would have been required to arrange the tank cars in different order.
- A major consideration for marshaling has to do with timing when customers release cars and when CPKC picks them up and brings them into the rail yard, and the scheduling of departing trains.
- Typically, when train crews are picking up enroute with a train, they will marshal additional cars near the head end to avoid having to walk long distance toward the back of a train.
- CPKC does not have any current plan to modify its procedures for train placement of hazardous materials. CPKC would have to consider how changes to train placement procedures could create risks to employees from additional switching moves, the effect of different placement protocols to train design, and potential scheduling delays.
- Therefore, CPKC intends to wait for NTSB to publish findings from this investigation and proceed accordingly.

Mr. Kozey also pointed out in a follow up email:

“Rail carriers receive trains in interchange with each other and no work is performed. It is not really feasible to remarshal trains at interchange based on an individual carrier’s marshalling requirements because interchange points are not set up to perform this kind of work and this would have a significant impact on network fluidity. Which is why we have federal rules that the carriers comply with.”