Establish a process whereby the respiratory hazards associated with chemical unloading at customer sites are evaluated. The evaluations should, at a minimum, determine whether drivers need emergency escape respirators in the event of an accidental reaction and/or release of chemicals. If the results of the evaluations indicate that respiratory protection is needed, provide the equipment and training for such protection as appropriate. The equipment and training should be provided in accordance with OSHA’s Respiratory Protection Standard (29 C.F.R § 1910.134). The equipment should also be stored in an area that allows for immediate access.

A. Rationale for Recommendation

On October 21, 2016, a chemical release occurred at the MGPI Processing, Inc. (MGPI) plant in Atchison, Kansas. The release occurred when a chemical delivery truck, owned and operated by Harcros Chemicals, Inc. (Harcros) was inadvertently connected to a tank containing incompatible material. The plume generated by the chemical reaction led to a shelter-in-place order for thousands of residents. At least 120 employees and members of the public sought medical attention.

The U.S. Chemical Safety Board (CSB) found that when the release occurred, the driver could not activate the emergency shut-off devices on either side of the vehicle without being exposed to the gas and was not aware of the emergency shut-off device in the cab of the vehicle. As a result, the CSB issued two recommendations to Harcros to address those issues. This status change summary addresses CSB Recommendation No. 2017-01-I-KS-R4 (R4).

B. Response to the Recommendation

Harcros responded in January 2018, informing us that they had already began purchasing the emergency escape respirators and were developing the necessary training for the truck drivers. Specifically, they took the following actions:

- Harcros purchased fully encapsulating Chemical Escape-Only Respirators for every delivery truck in the Harcros fleet to include tankers and box trailers in December of...
2017 (before the CSB issued the recommendations). The respirators were delivered in January of 2018.

- A training program was developed prior to the arrival of the equipment that incorporated the manufacturer's user instructions. In addition to the in-person presentation they showed a training video.

- Once all respirators were delivered, the training program was administered and the respirators were placed inside the trucks.

- Training for all the truck drivers was completed in March of 2018. After the initial training it was then incorporated as annual training.


In lieu of evaluating site safety at their various customer sites, putting emergency escape respirators on trucks that delivered to sites with potential respiratory hazardous atmospheres, and training the drivers of those trucks, Harcros took a more holistic safety approach. They took immediate action before the CSB issued the recommendation and dedicated the monetary resources necessary to equip their entire trucking fleet and train all of their drivers. This approach maximizes safety for all of their drivers enhancing the extent of reduction of future risk and, therefore, exceeds the intent of the recommendation.

C. Board Analysis and Decision

Harcros took actions that provided a higher level of safety for all of their truck drivers than the recommendation intended, fully implemented all of the other requirements of this recommendation, and began the implementation of the recommendation prior to receiving it. As the above actions enhance the extent of reduction of future risk above the intent of the CSB recommendation, the Board applauds the actions of Harcros and voted to change the status of CSB Recommendation No. 2017-01-I-KS-R4 to: “Closed – Exceeds Recommended Action.”