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RE: HM-218H NPRM - Miscellaneous Amendments

The Chlorine Institute ("CI" or the "Institute") is a 190 member, not-for-profit trade association of chlor-alkali producers worldwide, as well as packagers, distributors, users, and suppliers. The Institute's North American producer members account for more than 93 percent of the total chlorine production capacity of the U.S., Canada, and Mexico. The Institute's mission chemicals, namely chlorine, sodium hydroxide and potassium hydroxide (hereafter referred to as "caustic"), sodium hypochlorite and hydrochloric acid, are used throughout North America's economy and are crucial to the protection of public health.

Safe transportation is a key aspect to CI achieving its mission of eliminating incidents involving its mission chemicals, so the proposed changes in the HM-218H Notice of Proposed Rulemaking (NPRM) are of particular interest to CI. Following are specific items on which CI would like to comment.

A. §171.7 – Incorporation by Reference the AAR M-1002 Tank Car Manual

CI has concerns with how PHMSA is choosing to incorporate the Association of American Railroads (AAR's) *Manual of Standards and Recommended Practices, Section C-III, Specification for Tank Cars, Specification M-1002* ("M-1002 Tank Car Manual"). The hazardous materials regulations ("HMR") currently have an older version of the M-1002 Tank Car Manual incorporated in its entirety. What PHMSA is proposing in the HM-218H NPRM is to incorporate each chapter and appendix individually, with different effective dates depending on which version the agency supports. This means that not every chapter or appendix proposed for incorporation is from the same year.

PHMSA states in the background that the reason for this is because FRA does not support all of the amendments that have taken place in the M-1002 Tank Car Manual since the October 2000 version. This leaves PHMSA to incorporate sections from different version years, including October 2007, April 2010, July 2012, October 2013 and January 2014. PHMSA states that FRA does not support certain amendments of a given

chapter or appendix due to "safety concerns." CI believes that those concerns should be explained in the rulemaking.

To ensure continued safety throughout the hazardous materials rail transportation industry, any safety concerns that any DOT agency has should be transparent and shared with industry. This is of particular concern because, in addition to complying with what is included in the HMR, CI's members who ship and/or own chlorine tank cars must also comply with the current M-1002 Tank Car Manual (current version being November 2014) with regard to AAR quality audits. Also, railroads believe they have the right to refuse tank cars for interchange if they are not compliant with the current version of M-1002. While CI believes that it is DOT's authority alone to determine tank cars authorized for shipment, any disconnect between the HMR and M-1002 creates even further confusion and burden when tank car owners are expected to build, ship and repair cars while in compliance with multiple versions of M-1002. If FRA has determined that specific standards or practices are unsafe, then should industry even be required to comply with a different version of the M-1002 Tank Car Manual, per AAR requirements, compared to what is currently in the HMR?

DOT extends certain authority to AAR with regard to tank car standards and practices with FRA oversight. FRA participates in the AAR's Tank Car Committee ("TCC"), which has undergone extensive efforts to develop amendments to the M-1002 Tank Car Manual. Many discussions have taken place during task force calls and TCC meetings, in which FRA representatives participated, regarding all of the relevant amendments. These meetings give FRA an opportunity to voice their safety concerns to industry. Currently, industry is unaware of the concerns FRA has with the various amendments to the M-1002 Tank Car Manual.

If PHMSA incorporates the M-1002 Tank Car Manual as proposed, CI urges the agency to include more explanation regarding the safety concerns FRA has with certain amendments to the M-1002 Tank Manual. Also, FRA's participation in the TCC should be used as an opportunity to better coordinate and reduce the number of versions of standards and practices with which the tank car owners have to comply. In the future, CI believes that FRA should use its oversight authority more effectively when there is a difference of opinion on amendments due to safety concerns in order to avoid incidents, confusion and unnecessary burdens throughout industry.

B. §173.21(e) – Prohibiting Transport of Certain Materials in the Same Transport Vehicle

CI has significant concerns with PHMSA's proposed amendment to §173.21(e) to prohibit transport of certain materials in the same transport vehicle. This proposed amendment will adversely impact essentially all of CI's chemical distributing members,

which includes more than 25 companies having more than 60 facilities among them that ship various products by highway.

Based on the background provided, CI believes the proposed change was not analyzed as extensively as it should have been, if at all. If implemented as written, this amendment is guaranteed to have significant impacts on the hazardous materials distribution community and other unintended consequences. Following are specific concerns CI has with this proposed amendment.

1. PHMSA Strays from Previously Stated Position

   CI reviewed PHMSA's letter of interpretation (Ref. No. 13-0111), as well as the initial request for interpretation, that was referenced in the NPRM background. The company that requested the interpretation provided a specific example of the materials they ship and the product created if these materials were to comingle in transport. While the reaction product, chlorine dioxide, is prohibited from transportation on its own, PHMSA states that §173.21(e) does not forbid transporting the example materials on the same transport vehicle. PHMSA states further that the agency believes that "the packaging requirements for these materials mitigates the potential for comingling and subsequent dangerous evolution of gas."

   CI agrees with the statement made by PHMSA in interpretation 13-0111 that the current HMR packaging requirements are sufficient to prevent the comingling of products that would create forbidden materials such as chlorine dioxide. Extensive work and analysis has been conducted by the agency over the years to develop the current packaging, securement and segregation requirements that are designed to avoid comingling of products while in transport. Take 49 CFR Part 177 Subpart C, Segregation and Separation Chart for Hazardous Materials, for example. That section of the HMR provides a segregation table, with instructions, for all of the various classes of regulated hazardous materials. It is presumed that the segregation table is based on extensive analysis conducted by the agency. CI believes the segregation table is effective and reasonable as it relates to how hazardous materials are transported in the U.S. If PHMSA follows through with implementing the proposed change in §173.21(e), it would essentially negate Part 177 Subpart C entirely, as well as the work that was done by the agency to establish those regulations.

   CI believes PHMSA's current packaging and segregation regulations are effective and our members strive to comply with these requirements to ensure safe transportation. If industry complies with these requirements, then there should

not be any comingling of materials under normal transportation conditions. The amendment PHMSA has proposed assumes that the current regulatory requirements are not effective and sufficient enough to prevent releases. It is concerning to CI that PHMSA did not provide supporting evidence in the NPRM that supports the change to §173.21(e).

2. No Scientific Evidence Provided to Support Amendment

Based on the background provided, PHMSA appears to have solely based this proposed change on a concern raised by *one* company through the referenced interpretation request. Furthermore, this company's concern is only based on one reaction product, chlorine dioxide (ClO_2), which is prohibited from transport by DOT, and only one container type (intermodal bulk containers (IBCs)). The company states that they distribute chlorite solution (UN1908), hypochlorite solution (UN1791) and hydrochloric acid solution (UN1789). The concern they raise is that the mixing of chlorite solution (UN1908) or hypochlorite solution (UN1791) with hydrochloric acid (UN1789) will "instantly create chlorine dioxide," as confirmed by their "chemical engineers."

CI disagrees with this statement, because chlorine dioxide does not result from mixing hypochlorite solution (UN 1791) and hydrochloric acid solution (UN1789). Rather, the reaction of these two materials creates salt water ($NaCl + H_2O$) and chlorine gas (Cl_2), both of which are authorized for transport in compliant packaging.

CI's membership includes chlor-alkali industry experts that have extensive knowledge of reactions of various chlor-alkali materials. CI works with these industry experts to develop various guidance and publications to ensure safe transportation of chlor-alkali materials. The guidance CI has published does not identify a concern with transporting these materials, in their DOT specified packaging, on the same transport vehicle.

The company that requested the interpretation does not provide any further scientific evidence beyond their general statement. Also, PHMSA does not appear to have done its own independent scientific analysis of these specific products, let alone the vast array of materials that are potentially impacted by the proposed change. There are hundreds, if not thousands, of chemical distributors that transport a variety of hazardous materials that will potentially be impacted by this proposal. CI finds it inappropriate to propose this type of amendment based on one concern raised by one company when the change has

the potential to impact nearly the entire hazardous materials distribution industry.

CI urges PHMSA to conduct a comprehensive analysis on all materials and packaging types that might be transported on the same transport vehicle to determine if any comingling of those materials creates the conditions defined in §173.21(e), due to an accident or failure of the package, which indicates a need to prohibit transporting them on the same vehicle.

3. No Incident Data Provided to Support Amendment

Sometimes PHMSA proposes to amend its regulations based on analysis of their incident database. However, this proposed amendment is not one of them. There was zero discussion of incident data when explaining this proposed change. CI believes the omission of discussing incident data is because of one of two reasons: PHMSA did not analyze incident data as part of developing this proposal, or the incident data does not indicate a concerning trend and therefore does not support the change.

As noted above, CI's members transport materials such as hypochlorite solution (UN1791) and hydrochloric acid solution (UN1789) in the same transport vehicle. As part of our mission to reduce chlor-alkali transportation incidents, we analyze incident data available in DOT's 5800 database. Upon review of the incident data for hypochlorite solution, hydrochloric acid solution, sodium hydroxide solution and potassium hydroxide solution over the last five years, we did not find any incidents/releases that resulted from comingling of these products in transport. It is likely this track record extends beyond the last five years.

Before proposing to make the proposed change to §173.21(e), PHMSA should analyze its incident data to determine the likelihood of certain materials comingling during transport. This analysis should be done in conjunction with the scientific analysis discussed above.

4. Amendment Needs Further Definition

The proposed amendment in §173.21(e) provides a very general definition of the reaction conditions and effected materials. By expanding the statement to include "transport vehicle," PHMSA is prohibiting what is potentially an infinite number of combination shipments. CI believes that PHMSA should further define this requirement in terms of specific packaging types and specific forbidden materials, because the proposed amendment does not specify either.

Therefore, the new rule would prohibit single shipments having multiple materials in any combination of container types, including drums, intermodal bulk containers (IBCs), cylinders, multi-unit tank car tanks and railcars. Multiply that by the number of materials that are transported in those containers, that when comingled could create a "dangerous evolution of heat, produce flammable or poisonous gases or vapors, or produce corrosive materials," and it results in a potentially infinite number of effected shipments.

Only IBCs were referenced in the background PHMSA provided. Because there was no additional analysis provided, CI questions whether or not this change is intended only for materials transported in IBCs, or if PHMSA truly intended to capture all packaging types.

Similarly, the only reaction product described in the background is chlorine dioxide. PHMSA appears to primarily be concerned with this specific material because it is forbidden from transport as its own packaged material per §172.101. However, there are a multitude of products that might be created by the comingling of materials that meet the current, vague criteria of §173.21(e) which are not necessarily materials forbidden from transport, if packaged properly per the HMR.

PHMSA should withdraw its proposal and conduct a comprehensive analysis to determine if there is only a subset of materials that should be forbidden from transporting in the same transport vehicle and develop an amendment that provides clear definition, accordingly.

5. Increased Highway Traffic

If PHMSA implements the proposed amendment, as written, it will have an unintended consequence of increased highway traffic. This, in turn, would result in an increased probability of hazardous materials accidents.

CI's members often ship a combination of materials (the types of materials previously noted) in the same transport vehicle to reduce the number of trips in a given geographic area. Also, many of their customers purchase more than one material at a time, so these materials are often delivered at the same time in the same truck. If §173.21(e) is revised to include the same transport vehicle, many of CI's members' shipments will more than double. This will result in increased costs (to be discussed further below), increased highway traffic and an increased probability of highway accidents.

Part of PHMSA's mission is to implement regulations that will help reduce the number of hazardous materials transportation incidents. CI urges PHMSA to conduct a traffic analysis to determine how much highway traffic would increase and how much that would increase the risk of incidents.

6. Overall Cost Impacts

The proposed amendment, if implemented, will result in an overall increase in costs to CI's members. Costs will likely increase because CI members might have to purchase more trucks to increase their fleet in order to maintain the current status of their business. This might also require the companies to hire more employees to cover all the necessary deliveries, which will result in added salary costs. If the company hires a third party carrier, it could potentially result in an even higher cost due to an increase in the number of contracted shipments. A third party carrier might also charge more per shipment to cover the costs they incurred from making changes in order to comply with the new rule.

The proposed rule will not only impact the chemical distributors, it will also impact their customers. There is no doubt that distributors will likely try to recover their own costs through the price of the products they sell. For example, these customers include the numerous municipalities that operate water and wastewater treatment plants. Many water/wastewater treatment plants use multiple hazardous materials, including chlorine, sodium hypochlorite, hydrochloric acid and sulfuric acid, for various applications. If the new rule goes into effect, these municipalities would potentially have to pay for separate deliveries of each of these materials. Under the current regulations, deliveries of some of these materials can be consolidated into a single truck shipment, which reduces the cost. Municipalities already have very limited budgets, which the new amendment would strain even further.

The NPRM provides no evidence that PHMSA conducted a cost-benefit analysis of this proposed change. In fact, the NPRM states that the HM-218H proposed rule "is not expected to have an impact on a substantial number of small entities." We beg to differ with that statement.

For example, one CI member that is considered a small business informed us that they will be severely impacted by this rule. This small company distributes many different hazardous materials, including sodium hypochlorite, various acids, ammonia compounds and other materials, in various combinations on a single truck. Their total shipments equate to as many as 10 shipments per day.

If this proposed rule goes into effect, they expect they would have to triple their shipments to maintain current business conditions. In order to meet that need, it would require them to purchase enough trucks to triple their fleet and double the number of employees. The resulting costs are significant enough that they would have to consider closing their business. This is coming from a company who has transported hazardous materials responsibly for more than forty years without an incident that involved two different hazardous materials comingling in the same transport vehicle. We expect many other small companies to be in a similar situation.

CI's comments are only focused on the chlor-alkali chemical distributors, which we believe will experience significant cost impacts that will threaten their ability to continue business. We expect it to be an even greater cost impact when you expand the scope outside of the chlor-alkali industry. Therefore, CI urges PHMSA to conduct a comprehensive cost-benefit analysis that will capture all effected entities throughout the hazardous materials transportation industry.

For the reasons discussed above, CI does not support PHMSA's proposed change to §173.21(e) and requests that PHMSA withdraw the proposed amendment. If PHMSA feels a revision to §173.21(e) is still necessary, based on review of comments and comprehensive analysis, then CI recommends the proposal be addressed in a separate rulemaking and be more focused on certain packaging types and materials that are of concern.

C. §179.13 – Clarify FRA Approval of Certain Tank Car Designs

CI fully supports PHMSA's proposed correction to §179.13 to make it clear that tank cars meeting the current regulations for gross rail loads up to 286,000 pounds do not require FRA approval to operate. After PHMSA issued the previous rulemakings noted in the background, there was a lot of confusion in the TIH tank car industry on what did and did not require FRA approval. CI appreciates PHMSA's effort to correct this issue and make the approval requirement clear in the HMR.

CI appreciates the opportunity to comment on the HM-218H proposed rule. Please feel free to contact us if PHMSA has any questions.

Sincerely,

Robyn Kinsley

Robyn Kinsley
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