



THE CHLORINE INSTITUTE  
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Mr. Thomas Galassi, Director  
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Mr. Galassi:

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, and hydrogen chloride, are used throughout the U.S. economy and are paramount to the protection of public health.

The June 5, 2015 Memorandum for Regional Administrators and State Plan Designees<sup>1</sup> outlines a change in the enforcement policy of the Process Safety Management of Highly Hazardous Chemicals (PSM) standard (29 C.F.R. § 1910.119). Specifically, a change in the way it is determined if a particular chemical in Appendix A is covered under PSM.

**Please confirm that enforcement guidance issued June 5, 2015 was not intended to include hydrochloric acid, UN1789, (commercial name Muriatic acid).**

Only hydrogen chloride gas (anhydrous) is listed in Appendix A. It is listed twice, once as hydrogen chloride and once with the erroneous name of hydrochloric acid (anhydrous). An acid cannot be anhydrous. An acid is formed by the disassociation of water and gas molecules creating an increase in +H ions<sup>2</sup>. In the preamble for 29 CFR § 1910.119<sup>3</sup>, the differences between anhydrous gas and aqueous solutions were identified and discussed “..(1) a change in the amount of anhydrous ammonia from 5,000 to 10,000 pounds to better reflect its hazards; (2) a change in the stated threshold quantity of ammonia solutions from 10,000 to 15,000 pounds to better reflect its dilution by water and its consequent decreased flammability and potential adverse health effects.” Similarly, hydrochloric acid (UN1789) and hydrogen chloride (UN1050 or UN2186) are distinct chemicals.

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<sup>1</sup> [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=29411](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=29411)

<sup>2</sup> <http://chemed.chem.purdue.edu/genchem/topicreview/bp/ch11/acidbase.php>

<sup>3</sup> [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=PREAMBLES&p\\_id=1041](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=PREAMBLES&p_id=1041)



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The distinction between the chemical Hydrogen Chloride and the chemical Hydrochloric Acid is widely recognized. The *Transport of Dangerous Goods - Model Regulations Seventeenth Revised Edition*<sup>4</sup>, for example, have separate listings, identification numbers, and hazards classes for Hydrogen Chloride and Hydrochloric Acid.

The listing in appendix A for Hydrogen Chloride clearly was intended to pertain to anhydrous gas and not aqueous solutions. This is apparent in the response given in March 21, 1994 interpretation letter<sup>5</sup> "Reply: No. Aqueous solutions of hydrogen chloride, that is, hydrochloric acid, are not covered by the PSM standard." which shows a knowledge and distinction between the chemical Hydrogen Chloride listed in Appendix A and the chemical Hydrochloric Acid which was not included in Appendix A.

40 CFR 68 identifies these differences as well as the different hazards associated with the two chemicals. The EPA has indicated that Hydrochloric Acid solutions less than 37% do not present the types of hazards and health concerns attributed to HHCs. Therefore the list of covered chemicals in 40 CFR 68 includes Hydrogen Chloride and 37% Hydrochloric Acid while specifically not including the commercial grades of Hydrochloric Acid less than 37% in concentration.

**Is a process containing 500,100 pounds of hydrochloric acid (UN1789) at 1 wt% covered by 29 C.F.R. § 1910.119?**

This change in interpretation has wide ranging implications for Chlorine Institute members and their customers. **If hydrochloric acid at 1% is indeed covered under the PSM rule, will there be a grace period for enforcement purposes?** Some facilities, specifically customer facilities, may lack the regulatory staff support and may need time to establish policies, procedures, and practices to comply with the PSM rule.

Your response is greatly appreciated. Thank you for your time and attention.

Best Regards,

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<sup>4</sup> [http://www.unece.org/trans/danger/publi/unrec/rev17/17files\\_e.html](http://www.unece.org/trans/danger/publi/unrec/rev17/17files_e.html)

<sup>5</sup> [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=21427](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=21427)