

**U.S. Chemical Safety and  
Hazard Investigation Board**

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Hon. Rafael Moure-Eraso  
Chairperson

Hon. John S. Bresland  
Board Member

Hon. Mark Griffon  
Board Member



The Honorable Dannel Malloy  
Office of the Governor  
210 Capitol Avenue  
Hartford, CT 06106

**MAR 19 2012**

Dear Governor Malloy:

As you know, the U.S. Chemical Safety and Hazard Investigation Board (CSB) conducted an investigation of the February 7, 2010 natural gas explosion at the Kleen Energy power generation facility in Middletown, Connecticut, where workers were cleaning fuel gas piping using a "gas blow", a procedure that forced natural gas through the piping at a high volume and pressure to remove debris. The investigation resulted in two recommendations to the Governor and Legislature of the State of Connecticut, as follows:

**Recommendation No. 2010-07-I-CT-UR16:**

*Enact legislation applicable to power plants in the state that prohibits the use of flammable gas that is released to the atmosphere to clean fuel gas piping.*

**Recommendation No. 2010-07-I-CT-UR17:**

*Adopt the current version of NFPA 54 as amended pursuant to [CSB Recommendation No.] 2010-07-I-CT-UR2.<sup>1</sup>*

I am writing to notify you that the Board voted to designate the status of Recommendation No. 2010-07-I-CT-UR17 with the status "**Closed- No Longer Applicable.**" This status designation reflects the Board's determination that events subsequent to the issuance of the recommendation rendered the recommendation no longer applicable.

As you may be aware, the National Fire Protection Association took an alternate approach to the recommendation referenced in Recommendation No. 2010-07-I-CT-UR17. Rather than revise NFPA 54/National Fuel Gas Code, NFPA opted to create a new standard applicable to pipe cleaning operations at power generation facilities like Kleen Energy. NFPA 56 PS: *Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems* was released in August 2011. Therefore, Connecticut's adopting the latest edition of NFPA 54 into state law would no longer achieve the intent of CSB's recommendation, which was to ensure statewide prohibition of gas blows at power generation facilities akin to Kleen Energy.

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<sup>1</sup> CSB Recommendation No. 2010-07-I-CT-UR2 was issued to the National Fire Protection Association pursuant to the Kleen Energy investigation. That recommendation called for revisions to NFPA 54/National Fuel Gas Code to remove exemptions for facilities akin to Kleen Energy, and to require the use of non-flammable pipe cleaning methodologies. NFPA 54/National Fuel Gas Code is adopted into state law in more than 35 states, including the State of Connecticut, which has adopted the 1996 edition.

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Furthermore, as you know, the Board voted to designate Recommendation No. 2010-07-I-CT-UR16 with the status "Closed- Acceptable Action" in September 2011, after Connecticut's enactment of Public Act No. 11-101: AN ACT ADOPTING CERTAIN SAFETY RECOMMENDATIONS OF THE THOMAS COMMISSION. This act, as we understand it, permanently prohibits the unsafe practice of "gas blows" in the State of Connecticut, and therefore meets the fundamental intent of both CSB recommendations to the Governor and Legislature of the State of Connecticut.

In closing, allow me to thank you and your colleagues in the Connecticut General Assembly for making the State of Connecticut the first U.S. state to enact a permanent prohibition of inherently unsafe gas blows. Although no further action is required, we encourage you and your colleagues to adopt NFPA 56 PS: *Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems* into Connecticut law to further demonstrate your commitment to protecting workers involved in pipe cleaning operations at Connecticut's power generation facilities. This standard prohibits gas blows, but also contains important safety requirements for conducting pipe cleaning operations.

Finally, though NFPA 54/National Fuel Gas Code does not address pipe cleaning operations, we also encourage you to consider adopting the latest (2012) edition of this standard into Connecticut law. This standard was recently revised per a CSB recommendation to incorporate important safety requirements for a similar activity with potential to cause devastating explosions. Purging flammable gas lines is a common practice which, like gas blows, may result in the release of large quantities of flammable gas that could ignite and/or explode. Conducting a purging operation unsafely resulted in a devastating accident at the ConAgra SlimJim facility in Garner, NC, in June 2009, which killed four and injured dozens more, some severely. For more information about this incident and the hazards of purging, please visit our website at [www.csb.gov](http://www.csb.gov).

Thank you again for your commitment to protecting the health and safety of Connecticut's workers and public at large. If you have any questions, or if we may be of assistance in the future, please contact Ms. Christina Morgan, Recommendations Specialist, at 202-261-7642 or [Christina.Morgan@csb.gov](mailto:Christina.Morgan@csb.gov).

Sincerely,



Rafael Moure-Eraso, PhD, CIH  
Chairperson

CC: Senator John Fonfara, Deputy Majority Leader  
Representative Matthew Lesser  
Christina Morgan, Recommendations Specialist, CSB  
Donald Holmstrom, Investigation Supervisor, CSB  
Manuel R. Gomez, Director of Recommendations, CSB