

**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



Norris Hirota, Director, Generation
Electric Power Research Institute
3420 Hillview Avenue
Palo Alto, CA 93404-1338

MAR 12 2012

Dear Mr. Hirota:

As you know, the CSB issued the following recommendation to the Electric Power Research Institute (EPRI) pursuant to our investigation of the February 7, 2010 natural gas explosion at Kleen Energy in Middletown, CT:

Recommendation No. 2010-7-I-CT-UR18:

Work with the six turbine manufacturers identified in [the CSB Urgent Recommendations document]—General Electric, Siemens, Solar, Mitsubishi Power Systems, Pratt & Whitney, and Rolls-Royce— to publish technical guidance addressing the safe cleaning of fuel gas piping supplying gas turbines. At minimum:

- a. For the cleaning methodology, require the use of inherently safer alternatives such as air blows and pigging with air in lieu of the use of flammable gas.*
- b. Provide technical guidance for the safe and effective use of alternative methods for cleaning such as air and pigging with air.*

I am writing to notify you that the Board voted on February 22, 2012 to designate this recommendation with the status "**Closed- Acceptable Action.**" This status reflects the Board's determination that EPRI has fulfilled the intent of the CSB's recommendation. No further action is required. The Board is pleased that EPRI collaborated with CEC Combustion Safety, Inc., and the turbine manufacturers listed above to produce the publication, *Guidelines for Fuel Gas Line Cleaning Using Compressed Air or Nitrogen*.

The Board appreciates your leadership on this effort, which we hope will encourage affected parties in the power generation industry to move away from inherently unsafe flammable gas blows. Thank you for your efforts to secure the safety of workers and the general public.

Sincerely,

A handwritten signature in black ink that reads "Daniel Howling for RME". The signature is written in a cursive style.

Rafael Moure-Eraso, PhD, CIH
Chairperson

cc: Don Holmstrom, Investigations Supervisor, CSB
Manuel R. Gomez, Director of Recommendations, CSB
Christina Morgan, Recommendations Specialist, CSB