



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

April 11, 2005

Mr. Daryl L. Hosler
Chairman, ANSI Z21/83 Technical Committee
WE Associates
1037 Cardiff
Anaheim, California 92806

Re: Results of the CPSC Staff's Combustion Sensor Testing

Dear Mr. Hosler:

In 2003, the staff of the U.S. Consumer Product Safety Commission (CPSC) conducted limited testing of two distinct gas sensor technologies.* This testing was done to further demonstrate the concept of using available gas sensing technology to provide a means to directly or indirectly monitor carbon monoxide (CO) concentrations within the flue passageways of a gas appliance and initiate shutdown in response to harmful levels of CO. I am pleased to announce that the results of that testing are now available and have been enclosed with this letter. The report, titled "Combustion Sensor Test Results" can also be accessed at CPSC's website at <http://www.cpsc.gov/library/foia/foia05/os/combust1.pdf>. This testing is an extension of similar work performed in 2001. That report, titled "Furnace Combustion Sensor Test Results" can also be accessed at CPSC's website at <http://www.cpsc.gov/library/foia/foia01/os/furnace.pdf>.

Issues such as sensor reliability, durability, expected life, and performance in higher temperature environments (e.g., 300°F to 500°F) were not addressed in this test program. Future test and evaluation of sensors should consider these variables and encompass a wider variety of sensor technologies, target gases, and exposure to potential contaminants. These issues are addressed in the test criteria of the Request for Proposals (RFP) and Statement of Work (SOW) that were developed by the Canadian Standards Association (CSA)/American National Standards Institute (ANSI) Z21/83 Ad Hoc Working Group for CO/Combustion Sensors. The test criteria are part of a work plan to evaluate sensor usage in gas appliances developed by this working group for consideration by the CSA/ANSI Z21/83 Technical Committee.

I look forward to your review and comment and hope that this test report will support the evaluation of sensors and the development of a performance standard. Please share this

* Please note that these views are those of CPSC staff and have not been reviewed or approved by, and may not necessarily reflect the views of the Commission.

information with members of the ANSI Z21.83 Technical Committee and any of its subordinate gas appliance Technical Advisory Groups. If you have any questions please call me at (301) 504-7575 or email me at jordan@cpsc.gov.

Sincerely,



Ronald A. Jordan
Mechanical Engineer
Directorate for Engineering Sciences

Cc: Robert Stack, Canadian Standards Association-America
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John Girman, U.S. Environmental Protection Agency
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