



September 26, 2007

Mr. Peter Wolfenden
Commonwealth Laminating & Coating, Inc.
345 Beaver Creek Drive
Martinsville, VA 24112

Reference: Explosive Test Summary Letter

Subject: ARA Project 17947

Dear Mr. Wolfenden:

To expedite the distribution of the results from the recent explosive tests, we are submitting this Explosive Test Summary Letter. A full report documenting both tests will follow in the upcoming weeks.

On August 29, 2007 Applied Research Associates, Inc. conducted two high-explosive tests to evaluate the hazard mitigation characteristics of window film systems produced by Commonwealth Laminating & Coating, Inc. Four windows were evaluated in each test. This letter documents the results of both explosive tests.

The window/film samples were tested at GSA Level C (ISC Medium) loading. The average measured exterior pressure was 4.40 psi for Test 1 and 4.43 psi for Test 2. The average exterior impulse was 31.20 psi-msec for Test 1 and 30.78 psi-msec for Test 2.

All eight test windows achieved an ISC Performance Condition of 3b or better during the tests. Properly designed and installed windows can be developed which provide a high level of protection against the GSA Level C (ISC Medium) loading of 4 psi and 28 psi-msec, however, quality control during installation is very important and can drastically affect window response.

The tested windows measured 48 inches by 66 inches. Only window systems of the tested size and smaller in a similar configuration (framing and support conditions) can be directly compared to the test data from this test series. *Other configurations must be designed by a qualified blast consultant for the specific application.*

A summary of the test results follows.

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