

November 6, 2002

HSA-10/CC36C

Mr Michael Kempen
Impact Absorption, Inc.
46-06 245th Street
Douglaston, NY 11362

Dear Mr. Kempen:

Your October 6 letter to Mr. Richard Powers of my staff requested formal acknowledgement that the modified Vanderbilt Truck-Mounted Attenuator (VTMA) successfully passed NCHRP Report 350 test 3-52. The modified VTMA design, originally deemed crashworthy by Mr. Frederick G. Wright, Jr. in a February 13, 2001 letter, added support wheels and an impact face to the original VMTA, which was cantilevered from the support vehicle and supported by a wire rope/steel boom assembly. As you noted in your letter, test 3-52 is currently one of two optional TMA tests identified in Report 350. To support your request, you also submitted a copy of the Transportation Research Center Inc. April 2002 test report, "NCHRP Report 350 Test 3-52 of the Vanderbilt Truck-Mounted Attenuator" and a videotape of the crash test.

Test 3-52 requires a 100-km/h impact at zero degrees with a 2000-kg pickup truck striking the attenuator with the centerline of the pickup truck offset one-third of the pickup truck width from the centerline of the TMA. Your test was run within these parameters with a maximum reported occupant impact velocity of 11.8 m/s and a maximum ridedown acceleration of 13.1 g's. Vehicle pitch and roll did not exceed 5 degrees. Following impact, the 8736 kg support vehicle rolled ahead 8.4 m.

Based on the reported test results, I concur that the VMTA met NCHRP Report 350 evaluation criteria for test 3-52.

Sincerely yours,

(original signed by Harry W. Taylor)

for:

Carol H. Jacoby, P.E.
Director, Office of Safety Design