



U.S. Department
of Transportation
**Federal Highway
Administration**

February 12, 2004

400 Seventh St., S.W.
Washington, D.C. 20590

Refer to: HSA-10/WZ-170

Mr. John Richardson
President, Premier Plastics, Ltd.
8328 River Way
Delta, British Columbia V4G 1C4 Canada

Dear Mr. Richardson:

Thank you for your letter of November 27, 2003, requesting Federal Highway Administration (FHWA) acceptance of your company's "Road Runner" portable traffic barricades as crashworthy traffic control devices for use in work zones on the National Highway System (NHS). Accompanying your letter were reports of crash testing conducted by Karco Engineering and video clips of the test. You requested that we find these devices acceptable for use on the NHS under the provisions of National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

Introduction

The FHWA guidance on crash testing of work zone traffic control devices is contained in two memoranda. The first, dated July 25, 1997, titled "INFORMATION: Identifying Acceptable Highway Safety Features," established four categories of work zone devices: Category I devices are those lightweight devices which are to be self-certified by the vendor, Category II devices are other lightweight devices which need individual crash testing but with reduced instrumentation, Category III devices are barriers and other fixed or heavy devices also needing crash testing with normal instrumentation, and Category IV devices are trailer mounted lighted signs, arrow panels, etc. for which crash testing requirements have not yet been established. The second guidance memorandum was issued on August 28, 1998, and is titled "INFORMATION: Crash Tested Work Zone Traffic Control Devices." This later memorandum lists devices that are acceptable under Categories I, II, and III.

A brief description of the devices follows:

The Premier Plastics Road Runner UT portable traffic safety barricades have a rectangular base and taper to the top, giving them a trapezoidal side profile. Each unit is approximately 980 mm (3.2 feet) high and has a base that measures 1700 mm (5.6 feet) long and 760 mm (2.5 ft) wide. While these barriers have hollow walls to allow them to be filled with water, this test was run without water. The weight of each unit was 25 kg (55 pounds.) For use near high-speed traffic, a maximum of 45 pounds of water is recommended to bring the total weight of the barricade unit to 100 pounds. A drawing is enclosed for reference.

