

Refer to: HSA-10/WZ-108, Amendment #1

Mr. Dave Gertz  
TraFFix Devices, Incorporated  
220 Calle Pinteroesco  
San Clemente, California 92672

Dear Mr. Gertz:

This is in response to your email message of August 7, 2003, requesting that Federal Highway Administration (FHWA) issue a revision to our acceptance of your company's Big Buster Sign Stand with 48x48 inch aluminum sign as a crashworthy traffic control device for use in work zones on the National Highway System (NHS). You requested that we find this sign stand acceptable with an Empco 4.5 pound warning light mounted at the top of the stand 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.

### **Findings**

The Big Buster Sign Stand with 48x48 inch aluminum sign was crash tested, and accepted by FHWA in our Acceptance Letter WZ-108 dated February 8, 2002. In our letter, under the heading "Test 2. Big Buster Sign Stand with 48x48 inch aluminum sign" we inadvertently omitted the fact that the sign was tested with the Empco warning light mounted at 142 inches above the pavement. During the test the sign stand's mast struck the windshield causing moderate damage, but no holes were made in the windshield, nor was the extent of the cracking judged to severely impair the driver's ability to see through the windshield. Therefore, the subject stand as described and illustrated in FHWA Acceptance Letter WZ-108 is acceptable for use with or without warning lights up to 4.5 pounds.

Please note the following standard provisions that apply to FHWA letters of acceptance:

- Our acceptance is limited to the crashworthiness characteristics of the devices and does not cover their structural features, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance letter.
- Should FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the device being marketed is significantly different from the version that was crash tested, it reserves the right to modify or revoke its acceptance.
- You will be expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You will be expected to certify to potential users that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that they will meet the crashworthiness requirements of FHWA and NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-108, Amendment #1, shall not be reproduced except in full. This letter, and the test documentation upon which this letter is based, is public information. All such letters and documentation may be reviewed at our office upon request.
- Many TrafFix devices are patented products and considered "proprietary." The use of proprietary work zone traffic control devices in Federal-aid projects is generally of a temporary nature. They are *selected by the contractor* for use as needed and removed upon completion of the project. Under such conditions they can be presumed to meet requirement "a" given below for the use of proprietary products on Federal-aid projects. On the other hand, if proprietary devices are *specified by a highway agency* for use on Federal-aid projects they: (a) must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with existing highway facilities or that no equally suitable alternative exists or; (c) they must be used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes. These provisions do not apply to exempt Non-NHS projects. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411, a copy of which was enclosed with prior correspondence.
- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented device. Patent issues are to be resolved by the applicant and the patent owner.

Sincerely yours,

John R. Baxter, P.E.  
Director, Office of Safety Design  
Office of Safety

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File: WZ108TraFixAmendFIN.wpd

cc: HSA-10 (Reader, HSA-1; Chron File, HSA-10;  
N. Artimovich, HSA-10)

