



U.S. Department
of Transportation
Federal Highway
Administration

JUL 192000

WZ-47
400 Seventh St, s w.
Washington, D c 20590

Refer to: HSA-1

Mr. Jeffrey Michael Giannelli
The Cortina Companies
10706 West Grand Avenue
Franklin Park, Illinois 6013 1

Dear Mr. Giannelli:

Thank you for your March 27 letter requesting Federal Highway Administration acceptance of two of your company's plastic barricades as crashworthy traffic control devices for use in work zones on the National Highway System. You referenced the crash test report by Midwest Roadside Safety Facility (RSF) and the devices therein that were found acceptable by the Federal Highway Administration (FHWA) in our letter WZ-17 to Dicke Tool Company on July 20, 1999. Because your company manufactures these barricades, you requested that we find them acceptable for use on the National Highway System under your company's name.

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 were those lightweight devices which could be self-certified by the vendor, Category II devices were other lightweight devices which needed individual crash testing, Category III devices were barriers and other fixed or massive devices also needing crash testing, and Category IV devices were trailer mounted lighted signs, arrow panels, etc. The second guidance memorandum was issued on August 28, 1998, and is titled "INFORMATION: Crash Tested Work Zone Traffic Control Devices." This latest memorandum lists devices that are acceptable under Categories I, II, and III. Your company's devices are classified as Category II.

The crash tests that these barricades were subjected to are documented in our July 20, 1999, letter to Dicke Tool, numbered WZ-17. Drawings of the barricades are enclosed for reference. Because the devices are free-standing and have a mass such that significant vehicle velocity change was not expected, measurement of occupant impact velocities and ridedown accelerations were not conducted. The primary purpose of the tests was to assess the potential for occupant compartment intrusion and the test vehicle's post-impact trajectory.

The following devices were tested with successful results:

Systems 1 and 2, a 626-mm wide x 984-mm tall Type I plastic barricade with a NightFlasher warning light mounted at the top.

System 3, a 318-mm wide x 1035-mm tall Type I plastic barricade with a NightFlasher mounted at the top.

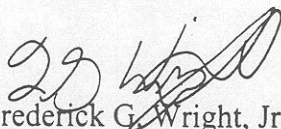
During the tests the most extensive windshield damage was minor cracking. There was no occupant compartment intrusion or deformation observed, nor did any test article debris show potential for penetrating the occupant compartment. The results of this testing met the FHWA requirements and, therefore, the devices listed above are acceptable for use on the National Highway System under the range of conditions tested, when proposed by a state. The barricades are acceptable with the warning lights as tested.

Please note the following standard provisions which 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 the 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-47, shall not be reproduced except in full.
- Your company's barricades have portions which are patented 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 for use on Federal-aid projects, except exempt, non-NHS 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.

Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411, a copy of which is enclosed.

Sincerely yours,


Frederick G. Wright, Jr.
Program Manager, Safety

FHWA:HSA-1:NArtimovich:lb:x61331:7/18/00

cc: Chron 3407 - Reader 3407

HSA-1(NArtimovich)

System 3, a 3 1 8-mm wide x 103%mm tall Type I plastic barricade with a NightFlasher mounted at the top.

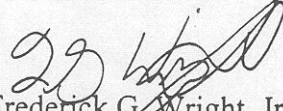
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