

October 6, 2004

Refer to: HSA-10/WZ-192

Mr. John H. Mortensen
Vice President
NAFISCO Traffic Control and Protection
4152 Warren Avenue
Hillside, Illinois 60162

Dear Mr. Mortensen:

Thank you for your letter of July 21, 2004, requesting Federal Highway Administration (FHWA) acceptance of your company's Type I and Type II barricades as crashworthy traffic control devices for use in work zones on the National Highway System (NHS). Accompanying your letter were detailed specifications and conceptual drawings of your barricade. 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.

Your request is for FHWA acceptance of Type I and Type II barricades which are of the same materials and dimensions as the Manual on Uniform Traffic Control Devices (MUTCD) Type II barricades which were crash tested by the Bent Manufacturing Company and found acceptable in the FHWA acceptance letter WZ-06 of November 23, 1998, and distributed by the FHWA as generic models in the FHWA acceptance letter WZ-54 of September 15, 2000. Your barricades will be 24 and 36 inches wide whereas the crash-tested barricades were 36 inches wide.

Because the materials you propose to use are identical to those in the crash tested Type II barricade we concur that the Type I and Type II barricades detailed in the enclosures, can be expected to perform in a similar manner to the tested barricade. Therefore, it is acceptable for use on the NHS under the range of conditions the Type II barricade was tested, when proposed by a State.

Please note the following standard provisions that apply to the 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 MUTCD.
- 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 the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-192 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.
- 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,

/Original Signed by/

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

Enclosures

FHWA:HSA-10:NArtimovich:tb:x61331:10/4/04

File: h://directory folder/nartimovich/WZ192-NafiscoFIN

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

9/3/04 Rev. 1

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CERTIFICATE OF CRASHWORTHINESS #1

The intention of this certificate is to meet the requirements of NCHRP Report 350 and the FHWA for the crash testing of Category 2 work zone traffic control devices. Based upon FHWA Acceptance Letters WZ-54 (September 15, 2000) and/or WZ-85 (November 15, 2001) for generic barricade manufacture, ATSSA membership and Bent Manufacturing testing we certify that the Type I and Type II barricades as manufactured and supplied by Nafisco, Inc. are acceptable for use on the National Highway System.

DESCRIPTION OF ITEMS

TYPE I BARRICADE:

Frame manufactured of 12 ga painted steel angle 1 1/4" x 1 1/4" x 45"

Top Panel manufactured of 1/2" exterior grade plywood (painted or unpainted) 12" x 24" or 36" with reflective sheeting.

Hardware consists of 5/16" carriage bolts and nuts with 1/2" bolts and nuts for hinges.

May be constructed with or without a warning light fastened with a security bolt with a cupped washer bolt protector or equivalent device.

TYPE I BARRICADE WITH BOTTOM BOARD:

Frame manufactured of 11 ga or 12 ga painted steel angle 1 1/4" x 1 1/4" x 45"

Top Panel manufactured of 1/2" exterior grade plywood (painted or unpainted) 12" x 24" or 36" with reflective sheeting.

Bottom panel manufactured of exterior grade painted plywood 1/2" x 6" x 12" or 36"

Hardware consists of 5/16" carriage bolts and nuts or 1/4" steel rivets with 1/2" bolts and nuts for hinges.

May be constructed with or without a warning light fastened with a security bolt with a cupped washer bolt protector or equivalent device.

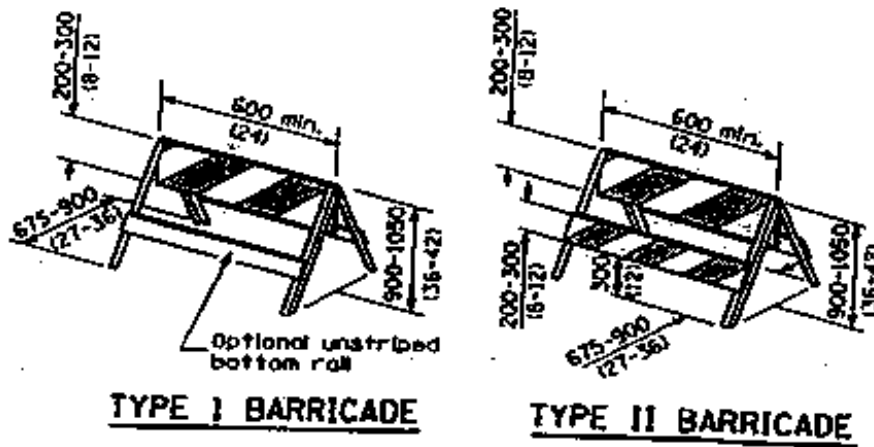
TYPE II BARRICADE:

Frame manufactured of 12 ga painted steel angle 1 1/4" x 1 1/4" x 45"

Top and bottom panels manufactured of 1/2" exterior grade plywood (painted or unpainted) 8" x 24" or 36" with reflective sheeting.

Hardware consists of 5/16" carriage bolts and nuts with 1/2" bolts and nuts for hinges.

May be constructed with or without a warning light fastened with a security bolt with a cupped washer bolt protector or equivalent device.



Typical barricade exhibit

This certificate should not be reproduced except in its entirety.

I accept the responsibility for the content of this certificate on behalf of Nafisco, Inc.

John H. Mortensen
Vice President