

Log H-321 AI-4

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: March 30 , 1982

Forwarded to:

Mr. Ray A. Barnhart, Jr.  
Administrator  
Federal Highway Administration  
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

H-82-8 and -9

On July 22, 1981, about 5:50 a.m., a 1978 Ford van occupied by seven persons was traveling eastbound on the Ohio Turnpike in a construction zone near Cleveland, Ohio, where traffic was operating in the eastbound lanes. Shortly after the van entered the construction zone, it drifted into the opposing traffic lane and collided nearly head-on with a GMC tractor-semitrailer traveling westbound. The van driver and five van passengers were killed, and one van passenger was seriously injured. The driver of the tractor-semitrailer received minor injuries. 1/

Because of the continued frequency of severe head-on accidents occurring on normally divided highways which have been reduced to two-lane, two-way operation due to construction and maintenance, the Federal Highway Administration (FHWA) has issued the following regulations covering Federal-aid construction and maintenance projects in the last 3 years:

<u>Item</u>	<u>Title</u>	<u>Date issued</u>
Final Rule (FHWA Docket No. 76-14)	Traffic Safety in Highway and Street Work Zones	October 12, 1978
Emergency Final Rule (FHWA Docket No. 79-31)	Traffic Safety in Highway and Street Work Zones; Separation of Opposing Traffic	September 17, 1979
Advance Notice of Proposed Rulemaking (ANPRM) (FHWA Docket No. 79-37)	National Standards for Traffic Control Devices: Manual on Uniform Traffic Control Devices	January 3, 1980

1/ For more detailed information read Highway Accident Report—"Collision of North American Van Lines Tractor-Semitrailer and Ford Van in Construction Zone, Ohio Turnpike, near Cleveland, Ohio, July 22, 1981" (NTSB-HAR-82-1).

Notice of Proposed  
Rulemaking (NPRM)  
(FHWA Docket No. 79-31)

Traffic Safety in  
Highway and Street  
Work Zones; Separation  
Of Opposing Traffic  
and Edge of Pavement  
Excavation Requirements

October 16, 1980

In summary, these regulatory directives outline strict procedures and guidelines for separating opposing traffic in construction and maintenance work zones.

FHWA Docket No. 79-31, Notice 2, October 16, 1980 (45 FR 68664) proposed that 23 CFR 630.1010(i) be revised to state:

Where two-way traffic must be maintained on one roadway of a normally divided highway, opposing traffic shall be separated with positive barriers (concrete safety-shape or approved alternate) throughout the length of the two-way operation including transition areas. Where project conditions are such that the added risk of using other types of separation devices is considered minimal, drums, cones, tubular markers, or vertical panels may be used in place of positive barriers. The use of striping and complementary signing alone is prohibited.

The construction work zone where the accident occurred was not subject to Federal regulations and did not have to comply with any of the requirements specified.

The Safety Board investigated a similar accident in August 1979 in which a westbound tractor-semitrailer sideswiped an eastbound tractor-semitrailer and then struck an eastbound motor home on Interstate 80 about 30 miles northwest of Laramie, Wyoming. <sup>2/</sup> Interstate 80 was under construction and both eastbound and westbound traffic was traveling on the undivided two-way westbound lanes. Two persons in the westbound truck and six of the seven persons in the motor home were killed.

Just as in the Cleveland accident, there was no separation of traffic—only white dashed lane lines—in the construction zone. There was no Federal funding involved in either of these construction projects. The FHWA's September 17, 1979, emergency rule would not have applied to the Wyoming I-80 construction project since 23 CFR 630.1010 applies only to Federal-aid projects and is not retroactive.

As a result of the Safety Board's investigation of the Wyoming accident, the following recommendations were made to the FHWA concerning construction zones:

Expand the Emergency Final Rule, 23 CFR 630.1010 to apply to all construction and maintenance zones on divided Federal-aid roads. (H-80-9)

Promote the development of a traffic control device [<sup>3/</sup>] to fill the gap between the shaped concrete barrier and traffic cones to serve as a continuous visual barrier to separate traffic in work zones. (H-80-11)

<sup>2/</sup> Highway Accident Report—"Multiple-Vehicle Collision in a Construction Zone, U.S. Interstate 80, near Laramie, Wyoming, August 22, 1979" (NTSB-HAR-80-1).

<sup>3/</sup> In lieu of existing channelizing devices (i.e., drums, barrels, barricades, vertical panels, flexible tubes, etc.).

The FHWA's response to recommendation H-80-9 was, in part:

The FHWA does not agree that it is appropriate to extend the emergency final rule revising 23 CFR, Part 630, Subpart J (FHPM 6-4-2-12). This was a revision to previously adopted regulations concerning traffic safety in highway and street work zones and is intended to apply only to Federal-aid projects.

An alternative approach has already been initiated by FHWA. An Advance Notice of Proposed Rulemaking was published in the Federal Register on January 3, 1980, announcing proposed changes to the Manual on Uniform Traffic Control Devices (MUTCD). One of the proposals (Request VI-14) is to include provisions similar to the emergency rule as part of the MUTCD. This will make the provisions applicable to all roadway work zones, Federal-aid as well as non-Federal-aid. 4/

The Safety Board has been informed by FHWA officials that the proposal to change the MUTCD and incorporate these foregoing provisions is being delayed until the final rule on 23 CFR 630.1010 has been issued in order to insure compatible language. The final rulemaking on 23 CFR 630.1010 is pending clearance through the FHWA. The Safety Board strongly supports a change in the MUTCD to incorporate provisions to provide for positive separation of two-way traffic on a normally divided highway. The Safety Board urges the FHWA to expedite the approval of the proposed rulemaking.

The FHWA's response to recommendation H-80-11 was:

It is very difficult to promote a device which has not been clearly identified and possibly not invented. The FHWA continues to identify needs and develop solutions to improve work zone safety. With an active and continuing research and development program in the area of work zone safety, the FHWA has the ability to identify, test, improve, and promote the use of new devices suitable for delineating a work zone. We are unable to respond positively to all the ideas implicit in this recommendation; however, we believe we have programs which will accomplish the same end results. 5/

The FHWA Office of Research has proposed a project titled "Development of a Low-Cost, Low-Maintenance Channelizing Device" under Project 1Y, Traffic Management in Construction and Work Zones. The Safety Board believes that this accident once again demonstrates the need for a safe, inexpensive, lightweight, strongly anchored, structurally sound, small-based device that would function as a visual barrier separating traffic flow. The Safety Board believes that the FHWA should expedite the proposed project.

Therefore, the National Transportation Safety Board recommends that the Federal Highway Administration:


Promptly adopt the final rule changing the Manual on Uniform Traffic Control Devices to incorporate the provisions of the "Emergency Final Rule, 23 CFR 630.1010." (Class II, Priority Action) (H-82-8)

4/ October 8, 1980, letter from Federal Highway Administrator to the National Transportation Safety Board.

5/ Ibid.

Expedite the proposed research project titled "Development of a Low-Cost, Low-Maintenance Channelizing Device." (Class II, Priority Action) (H-82-9)

BURNETT, Acting Chairman, and McADAMS, GOLDMAN, and BURSLEY, Members, concurred in these recommendations.

  
By: Jim Burnett  
Acting Chairman