Log H-319

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

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Forwarded to:

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SAFETY RECOMMENDATION(S)

H-82-6

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/

The Ohio Turnpike is a major transportation corridor which extends across Ohio from Pennsylvania to Indiana. The turnpike is a toll road which was constructed and is currently maintained by the Ohio Turnpike Commission without public or Federal funding. The highway was opened in October 1955 and has been incorporated into the National System of Interstate Highways. The turnpike is 241.6 miles long and has 19 interchanges. The section of turnpike where the accident occurred is designated as Interstate 80.

National statistics indicate that two-lane roadways experience higher accident rates than divided interstate roadways. Interstate-type highways have about one-half the fatal accident rate and about one-third the injury rate of two-lane, two-way roadways. One reason for safer travel on interstate roadways is the positive separation of two-way traffic by a median and/or barriers.

In the construction work zone where the accident occurred, the westbound lanes had been temporarily closed. All westbound traffic was being diverted and the eastbound

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).

lanes were accommodating two-way traffic. When a normally divided highway is reduced to a two-lane, two-way situation, measures should be taken to maintain the safe driving conditions expected by the public when traveling on a divided interstate roadway.

There was no positive separation of the eastbound lanes in the construction zone to insure that two-way opposing traffic would remain within their proper lane. If positive separation, such as barriers, drums, cones, or vertical panels, were not feasible, then temporary striping should have been used in conjunction with appropriate warning signs and delineation devices to clearly indicate the required vehicle path. The Ohio Turnpike Commission opted to use dashed lane lines and complementary warning signs in the construction zone. The use of dashed lane lines may not have alerted the driver that he was in a temporary two-way opposing traffic situation, especially during early morning hours. The same type of pavement markings were being used as a lane division line on the divided highway prior to the construction zone.

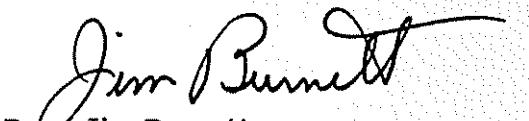
The Manual on Uniform Traffic Control Devices (MUTCD) recommends that the double yellow centerline be used in conjunction with other temporary delineation devices, such as raised pavement markers, in construction zones to denote the intended vehicle path. The double yellow centerline denotes the separation of traffic traveling in opposite directions, and the raised pavement marker provides a visual/audible indication to drivers that cross into another traffic lane. Raised pavement markers are normally more visible to drivers than dashed lane lines, especially in inclement weather conditions. The use of dashed lane lines in lieu of the normal double yellow centerline may have confused the van driver and led him to falsely assume that he was still on the divided roadway.

The Ohio Turnpike has been incorporated into the National System of Interstate Highways. Because the turnpike's construction and maintenance is financed solely by private revenue, it is not subject to any local, State, or Federal guidelines and regulations applicable to construction and maintenance projects. The highway industry associations and organizations representing toll roads and turnpikes of this type have not sanctioned any uniform body of guidelines for highway improvements, although most adhere voluntarily to the applicable standards of the State involved. Transportation organizations should develop and adopt uniform voluntary standards with respect to signing, marking, and separation, such as those in the MUTCD, which will be applicable to all phases of design, construction, and maintenance of highways not funded with public revenue or subject to public regulation.

Therefore, the National Transportation Safety Board recommends that the International Bridge, Tunnel and Turnpike Association and the American Road and Transportation Builders Association:

> Develop and adopt voluntary standards similar to those required in the Manual on Uniform Traffic Control Devices by the Federal Highway Administration with respect to signing, markings, and separation which will be applicable to the design, construction, and maintenance of highways funded by private revenue but intended for public use. (Class II, Priority Action) (H-82-6)

BURNETT, Acting Chairman, and McADAMS, GOLDMAN, and BURSLEY, Members, concurred in this recommendation.



By Jim Burnett
Acting Chairman