

H-247

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: October 21, 1980

Forwarded to:

Honorable John S. Hassell, Jr.
Administrator
Federal Highway Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

H-80-58

A National Transportation Safety Board review has found that at least five States ^{1/} do not conform with the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD) pavement marking policy on no-passing zones and that the Federal Highway Administration (FHWA) has allowed these States to continue to use these nonconforming pavement marking policies on Federal-aid projects. This is contrary to the requirements of 23 USC 109(d).

On June 6, 1980, about 11 p.m., two vehicles collided in the westbound lane of the south frontage road to U.S. 40 in Clayton, Missouri. The driver of an eastbound vehicle was passing two other eastbound vehicles, which were traveling at driver-estimated speeds of 50-55 mph, near a hill crest when he saw a westbound vehicle approaching in the lane. He braked and steered his vehicle to the left toward a clear, grass-covered area, but the westbound vehicle struck the right passenger door. A passenger in the eastbound vehicle and all four persons in the westbound vehicle were killed; the driver of the eastbound vehicle sustained minor injuries.

U.S. 40 at this location is a four-lane, divided, east-west highway with a two-lane frontage road on either side. The accident occurred on the south frontage road which consists of two 10-foot-wide traffic lanes for two-way traffic, with 3-foot-wide gravel shoulders. Traffic control consists of a dashed yellow centerline and a solid white edgeline on both edges. The road in this area has an off-peak 85th percentile speed of 54.5 mph and has a posted speed limit of 55 mph. The average daily traffic flow on the south frontage road near the accident site is 5,855. Road alignment is straight over rolling terrain. The accident occurred at the crest of a hill with a 2.65 percent descending grade to the west and 3.02 percent descending grade to the east. According to plan and profile sheets provided by the Missouri Highway and Transportation Commission, beginning at a point 850 feet west until a point 190 feet west of the point of impact, the passing sight distance is less than 900 feet. There were no "no-passing zones" marked.

^{1/} Missouri, Iowa, Nebraska, Washington, and Oregon.

The MUTCD states that, where centerlines are installed and a curve warrants a no-passing zone, it should be so marked where the sight distance is equal to or less than that listed below for the prevailing off-peak 85th percentile speed:

85th Percentile Speed (mph)	Minimum Passing Sight Distance (feet)
30	500
40	600
50	800
60	1,000
70	1,200

Section 3B-3 of the MUTCD makes the installation of no-passing zone markings mandatory when centerlines are installed. Thus, the MUTCD requires a passing sight distance of 900 feet at the location where the accident occurred. Since this 900 feet was not available, no-passing zone markings should have been in place at this accident location. Thus, in this particular incident, the State of Missouri was not in compliance with the MUTCD. Further investigation revealed that the Missouri pavement marking policy on no-passing zones was not consistent with the MUTCD. The Missouri Highway and Transportation Commission's policy as furnished by letter from its chief engineer states:

"No Passing Zones" are placed on main line routes with an Average Daily Traffic of 1000 or more. Local collector roads such as outer roadways, service roads, etc., are considered on an individual basis as to need, considering the type of traffic, speed of traffic, access points, terrain, and other factors for all types of stripings.

The FHWA has approved the MUTCD as the national standard for all highways open to public travel in accordance with Title 23, U.S. Code, Sections 109(b), 109(d), and 23 CFR 1204.4 Section 109(d) which states:

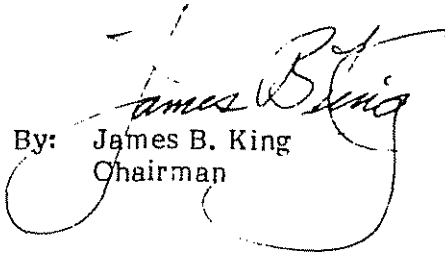
On any highway project in which Federal funds hereafter participate, or on any such project constructed since December 20, 1944, the location, form and character of informational, regulatory and warning signs, curb and pavement or other markings, and traffic signals installed or placed by any public authority or other agency, shall be subject to the approval of the State highway department with the concurrence of the Secretary, who is directed to concur only in such installations as will promote the safe and efficient utilization of the highways.

Since the FHWA has issued the MUTCD to fulfill the requirements of Section 109(d), the only pavement marking policy which the FHWA can concur in are those policies that conform to the MUTCD.

Therefore, as part of the Board's oversight responsibility to insure that transportation safety standards are used, the National Transportation Safety Board recommends that the Federal Highway Administration:

Review the pavement markings policies in each State to evaluate compliance with the MUTCD, and require the State to revise any policies which are found to be substantially not in compliance. (Class II, Priority Action) (H-80-58)

KING, Chairman, DRIVER, Vice Chairman, McADAMS and GOLDMAN, Members, concurred in this recommendation. BURSLEY, Member, did not participate.


By: James B. King
Chairman

