#50

National Safety Council

Position/Policy Statement

Traffic Control Devices

Traffic control devices are vital components of the driver information system. Their purpose is to safely guide and regulate traffic under the entire range of environmental conditions. In periods of restricted visibility, traffic control devices are critical for providing information to the driver that otherwise would not be available or readily apparent.

The National Safety Council strongly supports the establishment of performance standards for all traffic control devices. These standards should be based upon the visibility needs of motorists. No performance standards now exist to maintain signs, markings and other traffic control devices in a state serviceable to the motorist. Thus, standards on minimum performance are necessary and vital to decreasing nighttime and adverse weather motor vehicle crashes and the consequent deaths, injuries and property damage attributed to such crashes.

This position statement reflects the opinions of the National Safety Council but not necessarily those of each member organization.

Approved by the Committee on the Roadway Environment, December 1985
Approved by the Policies and Issues Committee, May 1986
Approved by the HTSD Executive Committee, March 1987
Approved by the Highway Traffic Safety Division, October 1987
Approved by the Board of Directors, April 29, 1988

Supersedes Traffic Control Devices #34

PRO

As vital components of the driver information system, traffic control devices (signs, markings, etc) must safely guide and regulate traffic under the entire range of environmental conditions. Nighttime performance, a time when traffic control devices are of critical concern to the roadway user in providing direction and important information, imposes additional requirements beyond those necessary for daytime visibility. Traffic accident statistics compiled by the National Safety Council for the twenty years from 1965 through 1984 indicate that 56% of all traffic fatalities occur at night. The fatality rate on a mileage basis for nighttime is more than three times that of day.

Unfortunately, many traffic control devices in service today are not being maintained or replaced when they no longer perform. Ensuring a minimum maintained level of retroreflectivity of traffic control devices will reduce the chance for error on the part of drivers when confronted with situations of restricted visibility or other adverse conditions, where perception is a major factor in vehicle control.

Although the Manual on Uniform Traffic Control Devices requires that traffic control devices be illuminated or be retroreflective to show the same shape and color at night as during the day for any application of a control in force at night, no national standards exist to carry out the requirement. Although the Federal Highway Administration and several states have instituted purchase specifications for sign sheeting for construction and maintenance work zones in recent years, no standard exists to stipulate a minimum maintained level or retroreflective performance for all traffic control devices.

Signs and markings that do not perform their intended purpose to warn, regulate, and guide traffic fail their very purpose to insure the safety of the motoring public. Instituting performance standards for retroreflectivity will compel highway and street departments to provide what the public expects.

The technology to measure retroreflectivity of signs and markings is known and several devices are available today to make measurements in the field. Research is being carried out by the FHWA to improve upon this technology and to develop simpler devices. Initial minimum levels of maintained retroreflectivity will be set low in order for street and highway departments to adapt to the new procedures, yet will identify those traffic control devices that are non-performing for replacement.

CON

Replacing old signs and repainting traffic markings will cost local governments over $200 million dollars to conform with new standards for retroreflectivity and over $50 million annually to maintain traffic control devices to these stricter standards.

Mandating performance standards for traffic control devices will place state and local highway agencies in greater risk of adverse judgments in tort liability cases. The failure to either maintain devices to the standards or to convince the court that the devices were performing adequately will divert limited resources from highway safety and maintenance efforts to the legal profession. While the attorneys and, to a limited extent, some victims might benefit, the governmental agencies and the public at large will not.

The technology for measuring the retroreflective performance of traffic control devices is expensive and labor intensive. Few agencies will be able to afford the means of checking on the performance of their devices. This will result in inefficient programs of maintenance as highway agencies try to estimate the service lives and life expectancy of the traffic control devices. Some devices will fail early and go undetected and others will be replaced even though they were serviceable and could have lasted several more years.