

August 11, 2003

Research and Special Projects Administration  
Dockets Management System  
U.S. Department of Transportation  
Room PL-401  
400 Seventh Street, SW  
Washington, DC 20590-0001

Re: Docket No. RSPA-03-15327 (HM-206B)

Dear Ms. Engrum,

Thank you for the opportunity to respond to the subject docket. We do as a leading supplier of highway safety materials and as a company that operates a large transportation fleet that often transports hazardous materials. We are recognized as a world leader in the areas of retroreflective materials, photometry and colorimetry. We believe we have a stake in our nation's transportation system and a keen interest in the decisions that help form our nation's transportation policy. That interest carries with it the responsibility to participate and contribute to the process, and it is in this spirit that we offer the following comments.

We support the update of regulations pertaining to the color of hazard communication placards in Section IV of the subject docket. We are concerned, however, that the proposed change is not consistent with the stated intent of the regulation.

The proposed rule would permit the use of materials conforming to ASTM D 4956-95 Type V white and red. The use of retroreflective materials can greatly increase the visibility of placards when viewed by a first responder in the dark. Type V materials are most often used as white and red conspicuity treatments to improve the visibility of trucks at night. But Type V materials are intended only for nighttime use and placards are viewed under both daytime and nighttime conditions. We suggest the following language be substituted:

**Retroreflective sheeting conforming to ASTM D4956 Type VII, VIII or IX may be used for hazardous material placards. When retroreflective materials are imaged for use as placards, both the backgrounds and image colors shall conform to Standard Highway Colors as defined in 23CFR Part 655 both day and night.**

Using this language would allow placards to be made from the durable materials used for rigid highway signs. Type V sheeting is excluded because it is designed for nighttime

delineation and is not suitable for daytime use. Placards made from Type VII, VIII or IX sheeting would be comparable in nighttime brightness to Type V and provide daytime luminance sufficient for signing purposes in the daytime.

The color of retroreflective signing is governed by the Federal Highway administration and is based on the same Munsell System and Color Tolerance Charts currently referenced by the RSPA. In 2002, FHWA updated the color rule in light of the latest technology for colorimetry and traffic control materials. Visually these materials are consistent with the current placard design but because they are retroreflectors, the measurement of the materials is unique.

Spectrophotometric measurements of retroreflective materials results vary significantly from values obtained when measuring “visually close” non-reflective specimens. This is due to the nature of the materials and the measurement equipment. Retroreflectors, by definition, return light to its source. Ordinary (non-retroreflective) materials diffuse or scatter light. In daylight, the light source is diffuse so retroreflectors scatter light. This diffusion is measured as the Daytime Luminance and is a major component of measured color.

In most spectrophotometers, the light source is not diffuse. Because one or more point sources are used and the light is returned to its source, the light is not scattered as it would be in true daylight situations. For this reason a true measure of the daytime luminance is not achieved for retroreflectors as compared to ordinary specimens.

The FHWA rule on Standard Highway Color covers both chromaticity and daytime luminance for retroreflectors. It also includes nighttime color requirements, which the ASTM D 4956 does not.

We would like to express our appreciation for RSPA’s efforts aimed at improving the safety of the nations highways and for the consideration of our comments regarding this proposal. We believe that placards made from materials conforming to ASTM Type VII, VIII or IX and 23CFR part 655 Standard Highway Color would improve Safety on our highways.

Respectfully submitted,

Thomas C Bliss  
3M Traffic Control Materials Division