

## ABSTRACT

Pavement marking materials other than conventional paint must be evaluated as environmental standards become more restrictive. The new EPA classification for solvents state that all oil paints are photochemically reactive and, therefore, contribute to smog. This will eventually result in the elimination of organic solvents from all paints, which may occur in Iowa by 1985.<sup>①</sup>

The Special Investigations Section of the Office of Materials field reviewed all urban and rural applications of pavement marking materials in the spring of 1979. The field review consisted of a visual estimation of percent marking missing, percent satisfactory, and percent non-satisfactory; reflective readings by ERMA; and notation of special conditions which may have affected performance. ERMA was not effective in evaluating the reflective quality of pavement marking materials.

No pavement marking materials evaluated have been successful enough to date to totally replace conventional painting methods. Preformed cold-lay marking materials such as 3M's Stamark and Prismo's Plastix are generally performing well, especially where rolled into new asphaltic concrete, but hot-lay extruded and non-extruded thermoplastics such as Perma-Line and Pave Mark have not performed well to date. H. B. Fuller's epoxy resin has performed well when applied to properly cleaned and sandblasted pavement. Raised pavement markers have been damaged by snowplows, but they

may still have merit at high accident locations for their safety value.

New pavement marking materials should be evaluated as they become available. One promising new product is Safeline, a thermosetting unsaturated polyester, which has been used successfully in Ohio.

① See Appendix "C", Memo from Sheeler to Given, Code 435.193, Dated July 11, 1978.