

various paving machines ("pavers"). The Flow Boy, with its hydraulically controlled horizontal discharge system, discharges hot mix asphalt at a controlled rate into a paver which overlays the road surface with asphalt material.

Standard No. 224 requires, effective January 26, 1998, that all trailers with a GVWR of 4536 kg or more, including Flow Boy trailers, be fitted with a rear impact guard that conforms to Standard No. 223 *Rear Impact Guards*. Dan Hill argued that installation of the rear impact guard will prevent the Flow Boy from connecting to the paver. Thus, Flow Boy trailers will no longer be functional. Paving contractors will be forced to use either competitors' horizontal discharge trailers that comply with Standard No. 224 or standard dump body trucks or trailers which, according to Dan Hill, have inherent limitations and safety risks. In spite of continued exemptions since the effective date of the standard, Dan Hill avers that it has been unable to engineer its trailers to conform. Dan Hill and Red River jointly filed a petition for rulemaking with NHTSA to amend Standard No. 224 to exclude horizontal discharge trailers. The petition was filed on March 23, 2001. Dan Hill requests an exemption of two years with the hope that the petition will be granted and rulemaking completed by April 1, 2005. We discuss below its efforts to conform in greater detail.

Red River. Red River has previously applied for exemptions on the basis that compliance would cause it substantial economic hardship. The company now applies for an exemption on the basis that absent an exemption it would be otherwise unable to sell a vehicle whose overall level of safety is at least equal to that of a nonexempted motor vehicle. Red River believes "petitioning on the basis of equal overall safety ([49 CFR] 555.6(d)) is more appropriate because Red River is now part of a larger family of companies and because the merits of Red River's requested renewal of its exemption under § 555.6(d) are straightforward and clear." Red River references its continuing but unsuccessful efforts to develop a means to conform its horizontal discharge trailers to Standard No. 224, and its petition for ameliorative rulemaking, filed jointly with Dan Hill.

Dan Hill's Reasons Why It Believes That Compliance Would Cause It Substantial Economic Hardship and That It Has Tried in Good Faith To Comply With Standard No. 224

Dan Hill is a small volume manufacturer. Its total production in the

12-month period preceding its latest petition was 55 units, a substantial decline from the 151 units reported in the petition preceding the current one. In the absence of a further exemption, Dan Hill asserts that the majority of its "work force in the Norman, Oklahoma plant would be laid off resulting in McClain County losing one of its largest single employers." If the exemption were not renewed, Dan Hill's gross sales in 2003 would decrease by approximately \$5,526,522. Its cumulative net income after taxes for the fiscal years 2000, 2001, and 2002 was \$271,058. It projects a net income of \$46,267 for fiscal year 2003.

The **Federal Register** notices cited above contain Dan Hill's arguments of its previous good faith efforts to conform with Standard No. 224 and formed the basis of our previous grants of Dan Hill's petitions. Dan Hill originally asked for a year's exemption in order to explore the feasibility of a rear impact guard that would allow the Flow Boy trailer to connect to a conventional paver. It concentrated its efforts between 1998 and 1999 in investigating the feasibility of a retractable rear impact guard, which would enable Flow Boys to continue to connect to pavers. The company examined various alternatives: Installation of a fixed rear impact guard, redesign of pavers, installation of a removable rear impact guard, installation of a retractable rear impact guard, and installation of a "swing-up" style tailgate with an attached bumper. Its efforts to conform, from September 1999 until December 2000, involved the design of a swing-in retractable rear impact guard. A review of its design, by Tech, Inc., showed that this, too, was not feasible. Among other things, Tech, Inc., was concerned that "the tailgate, hinges, and air cylinders will not meet the criteria of the Standard 224-plasticity requirement," and that "the bumper is a potential safety hazard" because if the gate were raised and "a flagman or a trailer stager is in between the paver and the bumper while the gate and bumper is rising, the bumper could cause serious injury or death." A copy of Tech Inc.'s report has been filed in the docket as part of Dan Hill's 2001 petition. The report also indicated that the costs associated with this design may be cost prohibitive "when trying to win business in a highly competitive, yet narrow marketplace." Having concluded that compliance of horizontal discharge trailers with Standard No. 224 was unattainable, Dan Hill filed the petition for permanent relief through rulemaking, mentioned above.

Red River's Reasons Why Compliance Would Preclude Sale of Its Horizontal Discharge Trailers and Why These Trailers Provide an Overall Level of Safety at Least Equal to That of Nonexempted Trailers

Under 49 U.S.C. 30113(b)(3)(B)(iv), as implemented by 49 CFR 555.6(d), we may grant a temporary exemption on finding that compliance with Standard No. 224 "would prevent the manufacturer from selling a motor vehicle with an overall safety level at least equal to the overall safety level of nonexempt vehicles."

A requirement that its horizontal discharge trailers comply with Standard No. 224 would preclude their sale, according to Red River. The petitioner discusses a range of options using fixed and retractable guards, concluding that "the design and manufacturing problems associated with the development of a retractable rear impact guard for construction horizontal discharge trailers are enormous—perhaps, even insurmountable."

Nonexempted trailers are equipped with rear underride guards. Red River's horizontal discharge trailers will not be equipped with these guards, but, in Red River's opinion, an equivalent level of safety exists because the geometry of these trailers is similar to that of "wheels-back" trailers that are specifically exempted from Standard No. 224. Further, if measurements were based "on the traditional dry van approach, and a plane was passed through the rear door and rear frame of the Red River trailers, the plane would be less than six inches beyond the rear tire."

In addition, according to Red River, the design affords protection against passenger compartment intrusion in rear-end collisions in that the maximum forward movement of a motor vehicle involved in a rear-end collision is 24 inches; it is not likely that any part of the trailer would strike the colliding vehicle's windshield.

Red River notes that the trailer beds of end dump trailers have to be raised in order for their cargo to be off-loaded by gravity, contrasted with the more controlled discharge of cargo by horizontal discharge trailers. Further, use of end dump trailers is problematic on uneven terrain or where overhead obstacles such as bridges and power lines are present.

For all these reasons, Red River submits that its horizontal discharge trailers have an overall level of safety at least equal to that of end dump trailers that comply with Standard No. 224.