

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

July 15, 2005

The Honorable Annette M. Sandberg
Administrator
Federal Motor Carrier Safety Administration
400 Seventh Street S.W.
Washington, D.C. 20590

**Driver Hours of Service; Xora, Inc. Application for Exemption
from Design Requirements for Automatic On-Board Recording Devices
Docket No. FMCSA-2005-21338**

Dear Ms. Sandberg:

In numerous communications during the past two decades, the Insurance Institute for Highway Safety (IIHS) has urged the Federal Motor Carrier Safety Administration (FMCSA) to require on-board recorders to increase compliance with truck drivers' hours-of-service (HOS) rules (e.g., IIHS, 1986, 1995, 2004a, 2005). We also have provided documentation of widespread noncompliance with work rules and the availability of affordable tamper-resistant on-board recorders (e.g., IIHS, 1995, 2000a, 2000b, 2005). IIHS believes global positioning systems (GPS) represent a technology that is capable of collecting much more accurate information on drivers' schedules than the current paper-based system, and we supported granting a two-year exemption to Werner Enterprises, Inc., for the continued use of GPS technology to document and monitor drivers' work hours (IIHS, 2004b). We also urged FMCSA to publish a systematic summary of the results of the pilot program with Werner so others could benefit from the lessons learned.

Xora, Inc., working with Nextel Communications, has developed a software system for recording HOS based on wireless GPS-enabled handheld telephones. Xora has requested an exemption from the requirement that an automatic on-board recording device be integrally synchronized with the specific operations of the vehicle on which it is installed (49 CFR 395.15). According to Xora, the system performs all of the functions required of on-board recorders except this requirement. However, the system has several glaring deficiencies, and we urge FMCSA to deny Xora's application.

A major shortcoming is that, because Xora's system operates independently of vehicle operations, it lacks a mechanism for verifying the accuracy of the GPS-based estimates of hours and distances driven. Whether and how on-board recording systems must be linked to engine operations in future regulations is a topic of the agency's September 2004 advance notice of proposed rulemaking (ANPRM) on electronic on-board recorders for HOS compliance (Docket no. FMCSA-2004-19040). In the ANPRM, FMCSA reports potential inaccuracies in

the original Werner system resulting from reliance on GPS-based computations of mileage rather than linkage to vehicle operations. Modifications were made to the underlying algorithms to address this problem, but it is unclear whether the issues have been adequately resolved.

A second deficiency in the Xora system is that it resides in a cell phone, operating independently and removable from a particular vehicle. This would make it easy for drivers to exceed their daily or weekly driving limit by failing to carry the phone in the vehicle for some portion or all of a given trip. The system is entirely reliant on the honesty of drivers and carriers to comply with the work rules. No independent checks are built in to monitor compliance. Xora reports that an advantage of its system is that GPS readings can be as regular as one reading per minute, but the interval is "customer configurable." This could lead to potential abuse of the system by carriers and drivers.

A third deficiency is that the system fails to provide the information needed by enforcement personnel to verify drivers' compliance with HOS rules. According to the Xora application, only highly summarized HOS information (e.g., total hours driven during the past 7-8 days) would be available on a driver's phone handset. The detailed schedules needed to check compliance for the last 24 hours and during the past week are available only via the internet. Thus, inspectors or traffic enforcement officers without internet access would be unable to check compliance at roadside inspections or in the event of a crash or traffic violation.

A fourth deficiency is the failure to address how minimum expectations about security and driver identity verification would be met. These are especially important concerns given the portability of the system.

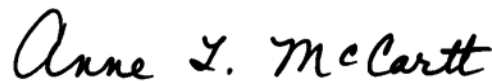
Xora's application references the exemption awarded to Werner, but the Werner pilot and subsequent two-year exemption and the current Xora application represent wholly different situations. The Werner pilot involved a single carrier working with FMCSA to test a unique GPS-based system that functioned as part of a carrier computer network and with specified system parameters. If FMCSA approves Xora's application, its system would be available to many carriers but without a prescribed method for assuring the accuracy of the data collected or system parameters.

Because of all these problems, Xora's application should not be approved. Although the system may support more efficient carrier operations under certain conditions, it is not a tamper-resistant system that can ensure accurate records of driving and nondriving work

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time. The application reinforces the need for FMCSA to move expeditiously to issue an on-board recorder requirement with performance standards that ensure systems are tamper resistant and provide complete and accurate information on drivers' work schedules. This would assist technology vendors in developing systems that meet both government safety standards and the operational needs of drivers and carriers.

Sincerely,



Anne T. McCartt, Ph.D.
Vice President, Research

cc: Docket Clerk Docket No. FMCSA-2005-21338

References

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Insurance Institute for Highway Safety. 2004b. Comment to the Federal Motor Carrier Safety Administration concerning exemption to allow Werner Enterprises, Inc., to use global positioning system technology to monitor and record drivers' hours of service. Docket Document no. FMCSA-2003-15818, January 12, 2004. Washington, DC: U.S. Department of Transportation.

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