



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: December 17, 2007

In reply refer to: H-07-43

Mr. Alan Bishop
Chief Operating Officer
Equity Transportation Company, Inc.
3685 Dykstra Drive
Grand Rapids, Michigan 49544

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating transportation accidents, determining their probable cause, and making recommendations to prevent similar accidents from occurring. We are providing the following information to urge your organization to take action on the safety recommendation in this letter. The Safety Board is vitally interested in this recommendation because it is designed to prevent accidents and save lives.

This recommendation addresses improvements to your company's safety program. It is derived from the Safety Board's investigation of a multiple-vehicle accident that occurred on July 16, 2004, near Chelsea, Michigan,¹ and is consistent with the evidence found and the analyses performed. As a result of this investigation, the Safety Board has issued three safety recommendations, one of which is addressed to your company. Information supporting this recommendation is discussed below. The Safety Board would appreciate a response from you within 90 days addressing the actions you have taken or intend to take to implement this recommendation.

On Friday, July 16, 2004, about 12:00 p.m., a 1999 Sterling tractor towing a 1997 Great Dane semitrailer was part of a traffic queue moving slowly² east on Interstate 94 (I-94), behind a 2004 Saturn station wagon approaching the Fletcher Road overpass. The queue had formed following an earlier accident in the eastbound lanes of a highway maintenance zone. At the same time, a 2000 Kenworth tractor towing a 2000 Hyundai semitrailer, owned by Equity Transportation Company, Inc. (Equity), was traveling behind the queue on I-94, approaching the Fletcher Road overpass at a witness-estimated speed of 60 mph. The Kenworth driver failed to slow in time for the traffic queue ahead. A 115-foot preimpact skid mark indicated that the Kenworth driver applied the brakes and swerved to the right almost immediately before his truck collided with the Sterling's semitrailer. The left front of his truck struck the right rear of the

¹ For additional information, see National Transportation Safety Board, *Rear-End Chain Reaction Collision, Interstate 94 East, Near Chelsea, Michigan, July 16, 2004*, Highway Accident Brief NTSB/HAB-07/01 (Washington, DC: NTSB, 2007) at <http://www.nts.gov/publictn/2007/HAB0701.pdf>.

² According to the driver of the Sterling tractor, traffic slowed from 70 mph to 30 mph about a mile before the accident location.

Sterling's semitrailer, compressing the cab of the Kenworth about 6 feet to the rear, trapping and fatally injuring its driver. The impact propelled the Sterling tractor-semitrailer into the Saturn in front of it, resulting in minor injuries to the Sterling driver and to a passenger in the Saturn.

The National Transportation Safety Board determined that the probable cause of the July 16, 2004, multiple-vehicle accident near Chelsea, Michigan, was the accident driver's failure to stop upon encountering traffic congestion in a temporary traffic control zone likely due to a reduced state of alertness associated with failure to obtain adequate rest. Contributing to the accident were Equity Transportation Company, Inc.'s, insufficient regard for, and oversight of, driver compliance with Federal commercial motor vehicle hours-of-service regulations, which endangered the safety of its drivers and the traveling public; the Federal Motor Carrier Safety Administration's failure to require motor carriers to use tamperproof driver's logs; and the Michigan Department of Transportation's failure to conduct a merge traffic capacity analysis as part of a bridge rehabilitation project.

Safety Board investigators examined the driver's record-of-duty-status logs to determine his activities prior to the accident. Several days' pages from the driver's logs were found in the accident vehicle: these covered June 30, July 1 and 2, July 6 through 9, and July 12. In addition, investigators found a crumpled and torn log sheet for July 16, which indicated that the driver had been on duty from midnight until 1:45 a.m., had conducted pretrip inspections at 5:00 a.m., and had begun driving at 5:15 a.m.

The driver's missing logs for July 13 through 15 and a second, more complete log for July 16 were obtained from family members.³ These logs indicated that the driver was off duty for 18.5 hours before beginning his last trip at 4:15 p.m. on July 15. According to the logs, he was on duty until 1:45 a.m., at which time he rested for 6.25 hours. The driver then noted that he went back on duty at 8:00 a.m., was on duty and driving from 8:15 a.m. until 10:45 a.m., and changed status to "on duty, not driving," until 11:00 a.m.

Investigators compared the driver's written logs to global positioning system (GPS) electronic data obtained from Equity. GPS data are collected automatically at prescribed time intervals, without requiring driver input, and they include such information as a vehicle's latitude, longitude, and ignition status. These data indicated that the driver had been on duty continuously for 19.75 hours, from 4:15 p.m. on July 15 until the accident about 12:00 p.m. on July 16, exceeding the maximum continuous duty time allowed by Federal regulations by 5.75 hours. The driver had also driven almost 14 hours without resting, nearly 3 hours beyond the time allowed by Federal regulations.⁴

According to Equity's safety director, the company has a log review program in place, under which it electronically scans the written logs of all its drivers and checks them for hours-of-service violations. Additionally, 50 percent of the logs are verified by comparing them with supporting documentation such as fuel receipts, toll receipts, and driver trip information. The

³ After the accident, most of the driver's effects were given to his family.

⁴ Title 49 *Code of Federal Regulations* (CFR) Part 395 states that a driver may be on duty for up to 14 hours, of which 11 hours can be spent driving, only after spending 10 consecutive hours off duty. A driver may not drive after accumulating 60/70 hours on duty in 7/8 consecutive days without being off duty for 34 or more consecutive hours.

logs of drivers placed out of service during roadside inspections or involved in accidents are included in the verification process. Drivers who violate hours-of-service regulations may be disciplined by having their tractor's top speed reduced,⁵ by not being reimbursed for expenses, by being suspended, or by being dismissed.

Although the apparent objective of Equity's log review program is to deter drivers from violating Federal hours-of-service regulations, the company's drivers have a history of violations. From July 18, 2002, through July 18, 2004, Equity drivers underwent 500 roadside inspections, which resulted in 76 drivers being placed out of service. The resulting 15.2-percent out-of-service rate was more than double the national driver out-of-service rate of 7.2 percent. Of the 76 drivers who were placed out of service, 73 had exceeded hours-of-service limits.

The Federal Motor Carrier Safety Administration (FMCSA) took enforcement action against Equity in February 1996 and again in February 2003, after compliance reviews uncovered violations of hours-of-service regulations. Another compliance review was initiated in 2004 after two former employees charged that Equity scheduled trips that would force drivers to exceed Federal hours-of-service limits.⁶ This compliance review, the results of which were issued on July 27, 2004, after the Chelsea accident, resulted in a conditional rating.⁷ The FMCSA discovered a 20-percent falsification rate of drivers' logs and cited Equity for permitting drivers to drive more than 11 hours in a 1-day period, to drive after being on duty more than 14 consecutive hours, and to drive after being on duty for more than 70 hours in an 8-day period.⁸

In September 2004, following the July 2004 FMCSA compliance review, Safety Board investigators examined the paper logs and supporting documents of 11 drivers who drove frequently from July 27 through August 3, 2004.⁹ Paper records and electronic data for six drivers were also examined for the period from August 30 through September 7, 2004. The paper logs of one driver were illegible and could not be reviewed.¹⁰ Violations were found in the logs of all the remaining drivers, including 51 false entries, 1 violation of the 70-hour driving rule, 5 violations of the 14-hour driving rule, and 6 violations of the 11-hour driving rule. The Safety Board therefore concludes, based on data from roadside inspections, FMCSA compliance reviews, and the Safety Board's own investigation, that Equity operated with insufficient regard for, and oversight of, driver compliance with Federal commercial motor vehicle hours-of-service

⁵ An Equity vehicle's normal electronically regulated speed of 67 mph would be reduced to 64 mph.

⁶ This charge was substantiated during the July 2004 compliance review, and Equity was fined.

⁷ The FMCSA has since conducted two compliance reviews of Equity, the latest on March 22, 2007. The carrier was rated satisfactory on both occasions.

⁸ In addition to the regulations governing driving time in any given 24-hour period, 49 CFR Part 395 also states that drivers may not drive after 60 hours on duty in 7 consecutive days or 70 hours on duty in 8 consecutive days. A driver may restart a 7- or 8-consecutive-day on-duty period after taking 34 or more consecutive hours off duty.

⁹ Investigators were able to identify these drivers because Equity pairs each driver with a tractor and advertises the availability of its tractors and semitrailers on the Internet at <<http://www.equityinc.com>>. Electronic records were unavailable for these drivers at the time of the request due to Equity's limited retention period for such records.

¹⁰ Illegible logs are in violation of 49 CFR 395.8(f)(2), which requires that entries be legible and in the driver's own handwriting.

regulations, thereby endangering the health and safety of its drivers, as well as the safety of the traveling public.

During its investigation, the Safety Board identified management practices that make it easier for drivers to falsify written logs and more difficult for management and inspection agents to identify abuse of hours-of-service regulations. These practices include the following:

- Allowing drivers to use loose-leaf paper logs and
- Not collecting and retaining electronic data to track driver activity.

Equity provides its drivers with unbound paper logs to record and track their hours of service, allowing them to replace or modify the information without leaving a record of changes, which makes it difficult for inspectors and the carrier to determine whether drivers have violated hours-of-service regulations. This problem was well illustrated by the Chelsea accident investigation, in which Safety Board investigators found two different versions of the accident driver's July 16 log. Federal regulations permit a corrected log to be submitted at any time and do not require that the corrected log be marked as such and attached to the original log. As a result of the Chelsea investigation, the Safety Board is recommending that the FMCSA prevent log tampering and submission of false paper logs by requiring motor carriers to create and maintain an audit control system that includes, at a minimum, the retention of all original and corrected paper logs and the use of bound and sequentially numbered logs. Such audit controls would make it easier for roadside or compliance review inspectors and motor carriers to determine whether a driver's log is an original rather than an altered, revised, or falsified copy.

Equity's safety director indicated that the company uses supporting documentation, such as fuel receipts, toll receipts, and driver trip information, to verify company drivers' hours of service. When Safety Board investigators requested these supporting documents from Equity, they were provided with fuel receipts, scale slips, and toll receipts. Some of these documents were not time-stamped, including the fuel receipts from Equity's own home terminal, eliminating their usefulness as tools to corroborate the duty hours recorded on drivers' logs. In addition, Equity does not use location and time data provided by GPS to verify drivers' logs.

Equity tracks the location and ignition status of its trucks via GPS at least once an hour, without input from the drivers. Because these data are automatically collected and time-stamped, Safety Board investigators were able to use them to develop an accurate timeline of the Kenworth driver's activities prior to the Chelsea accident. According to the Equity safety director, the data gathered from GPS are typically stored only for about 2 or 3 days because of limited electronic storage.

Although the electronic data gathered by Equity are time-stamped, Equity does not use this information to verify driver logs. The FMCSA does not require carriers to collect and retain electronic supporting documentation, as it does for paper documents. Nevertheless, Equity's high driver out-of-service rate, history of compliance review fines, and hours-of-service violations discovered by Safety Board investigators, as well as the circumstances of the Chelsea accident, suggest that Equity should take further action to reduce its incidence of hours-of-service violations. By not retaining and utilizing electronic supporting documents, Equity is neglecting a reliable, valid, and readily available means of verifying the accuracy of driver log entries. The

Safety Board concludes that Equity's practices of not using bound paper logs with sequentially numbered pages and of not collecting and retaining electronic supporting documentation to verify the accuracy of its drivers' hours-of-service records facilitated the accident driver's violation of Federal hours-of-service regulations, which led to his operating his vehicle in a condition of reduced alertness.

The National Transportation Safety Board therefore recommends that Equity Transportation Company, Inc.:

Implement a driver log review program that accounts for, tracks, and audits all modifications to paper logs and that also collects and retains all available electronic supporting documentation to verify driver compliance with Federal commercial driver hours-of-service regulations. (H-07-43)

The Safety Board also issued safety recommendations to the Federal Motor Carrier Safety Administration.

Please refer to Safety Recommendation H-07-43 in your reply. If you need additional information, you may call (202) 314-6177.

Chairman ROSENKER, Vice Chairman SUMWALT, and Members HERSMAN, HIGGINS, and CHEALANDER concurred in this recommendation.

[Original Signed]

By: Mark V. Rosenker
Chairman