

The NSF concluded, "Where science is clear, we state the proposed rules conform to the best available science. Where science is less well developed, we state the proposed rules represent a reasonable balance between operational considerations and broad principals of sleep practice." (sic) It also noted that the proposed rules tracked closely the NSF's policy statement and the Expert Panel's recommendations, and that they provided significant improvement over the current rules.

The Insurance Institute for Highway Safety (IIHS) mentioned several drawbacks in studies trying to link fatigue to crashes. IIHS stated that one cannot calculate fatigue-related crashes by looking at police reports or National Automotive Sampling System (NASS) reports because they will always understate fatigue. IIHS believes the correct method, called "population percent attributable risk calculations," is to take the increased risk of crashes from driving longer hours and to put that into a formula together with the rate of drivers driving longer hours.

Many commenters urged the use of pilot studies to test some of the rules before generally mandating them on the industry. There was particular interest in piloting the use of on-board recorders.

There was also interest in developing a more holistic approach to the fatigue problem through the use of education and training programs, and screening for sleep apnea and other sleep disorders. This was usually mentioned in the context of fatigue management.

FMCSA Response

There was no serious challenge to the scientific findings that human beings are subject to a circadian, biological clock of about 24 hours, which controls the natural wake/sleep cycles. Nor was there any serious doubt about the science concluding that humans require about eight hours of restorative sleep daily and that a longer off-duty period than currently required is necessary so that the needed sleep can be obtained. The studies citing police accident reports for the causal factors consistently show a lower proportion of crashes with fatigue/drowsiness as a causal factor than do detailed studies of crash causation.

The agency sought to develop rules that were science-based. It did not promise rules that were science-"controlled" to the point of being completely impractical in operational environments.

After the agency completed reviewing the 53,000 comments, including the hearing and roundtable transcripts, it

began deliberating whether all the provisions of the proposal continued to be feasible.

Discussion of Specific Issues of Concern to Commenters

The agency will discuss the comments received in the docket about each of the following issues: categories of operations; passenger carrier operations; NHS exemptions; sleeper berth requirements; carrier notification of drivers during their off-duty hours; daily work/rest cycle; 24-hour work/rest cycle; daily off-duty time; daily on-duty time; daily driving time; distinctions in duty time; weekly or longer cycle; weekly recovery periods; restarts; short rest breaks during a work shift; economic impacts; electronic on-board recorders; proposed compliance and enforcement; and regulatory impact analysis.

Categories of Operations

The FMCSA proposed a categorization of motor carrier operations intended to address the diversity of the industry. The NPRM proposed five types of operations, into which most motor carriers subject to federal jurisdiction would fall. For each category a separate set of duty restrictions was proposed for the drivers in that type of operation. Types 1 and 2 were intended to cover all long-haul drivers, *i.e.*, national and regional operations, respectively. The remaining three types were intended to include the various practices of local operations. The agency proposed the additional requirement of electronic on-board recording (EOBR) devices to monitor drivers in Type 1 and 2 operations, while reducing the paperwork burden for most local operations. Type 3 was intended to cover local split shift drivers who spend most of their on-duty time driving, but most are local (or home-based), and their driving shifts are generally separated by several hours. Type 4 was intended to cover drivers who work in the vicinity of their normal work reporting location, have regular schedules extending less than 12 consecutive hours from the time they report in until they check out. Driving would have been a significant part of Type 4 drivers' work, more than half of their on-duty hours. Drivers currently operating under the 100 air-mile radius exception in 49 CFR 395.1(e) would have been considered Type 4 drivers, and would have been absorbed into this category, eliminating the need for that exception. The FMCSA also intended that most existing exemptions would be absorbed into one of the local types of operations, primarily Type 5, to reduce

the need and the demand for individualized exemptions.

The comments from industry on the categories of carrier operation were generally unfavorable. While many comments applauded the agency's efforts to remove the "one size fits all" concerns about existing regulations, most stated the proposal missed the mark. The National Private Truck Council's (NPTC) comments perhaps best captured the industry perception: "It's true that one size does not fit all, but neither should the agency decide how many sizes there are nor anticipate how many sizes there will be in the future."

The most consistent objection from motor carriers was that the proposed categories unnecessarily complicated regulation for both the industry and for enforcement.

Many carriers expressed concern that they had trouble finding the type that best described their operation or that their operations spanned more than one type, and sometimes as many as four. When a driver's duties changed from one type to another within a workweek, there was much confusion about whether the proposal required a "weekend" to intervene, whether EOBRs would be required for a single run, and which daily or weekly limitations applied. Uniformly, however, comments stated that some productive time would be lost in the transition.

The industry comments did not offer significant advice as to whether a better defined classification system was preferable or workable.

Industry commenters did not seem uncomfortable with the concept of "long-haul" trucking, as that is a common term and generally associated with freight movements over a considerable distance, as opposed to local service. Comments, however, did have difficulty with some of the other distinctions used in the NPRM.

Nearly all of the local carriers responding found some problems with the attempted classification, often calling it confusing. However, many found the effort to be supportive of their persistent attempts to secure broad exemptions from HOS regulation for their type of operations.

Types 3, 4, or 5 drew much attention from the other-than-long-haul sectors, but a major focus of many comments was why the rules could not or should not apply to their particular circumstances. Many noted that their operations might fit into Type 4 but for the occasional trips that take more than 12 hours or may require an overnight stay by the driver, while others found