
MOTOR CARRIER SAFETY ADVISORY COMMITTEE

C/O: Federal Motor Carrier Safety Administration

1200 New Jersey Avenue, SE

Washington, DC 20590

September 21, 2015

T. F. Scott Darling, III

Chief Counsel

Federal Motor Carrier Safety Administration

1200 New Jersey Avenue, SE

Washington, DC 20590

Dear Mr. Darling:

In March and June 2015, the Federal Motor Carrier Safety Administration (FMCSA) tasked its Motor Carrier Safety Advisory Committee (MCSAC) with conveying its views on the potential benefits and feasibility of a voluntary compliance program and ways to credit carriers and drivers who initiate and establish programs that promote safety beyond the standards established in FMCSA regulations.

The MCSAC met in public meetings on March 30-31 and June 15-16, 2015, to develop and discuss ideas related to this concept. The attached report includes all of the ideas relating to a “Beyond Compliance Program” that the MCSAC developed during those meetings. In formulating its ideas and recommendations, the Committee considered, where possible, whether the concepts identified were supported by research, data, and/or cost benefit considerations.

On behalf of the MCSAC, I respectfully submit this report to FMCSA for its consideration.

 Sincerely,

 //signed//

Scott Hernandez

Chairman, Motor Carrier Safety Advisory Committee

Enclosure

**MCSAC Task 15-1: Recommendations to the Agency on the Potential Benefits and Feasibility of Voluntary Compliance and Ways to Credit Carriers and Drivers Who Initiate and Establish Program that Promote Safety Beyond the Standards Established in FMCSA Regulations**

Introduction

In Task Statement 15-1, FMCSA requested that the Motor Carrier Safety Advisory Committee (MCSAC) consider the benefits and feasibility of a voluntary compliance program and ways to credit carriers and drives that initiate and establish programs to promote safety beyond the standards established in FMCSA regulations. For purposes of this Task 15-1 Report, the Committee refers to such a voluntary compliance program as a “Beyond Compliance Program.” Specifically, FMCSA requested the views of the MCSAC on this concept, with any data or analysis to support it with regard to three basic areas:

1. What voluntary technologies or safety program best practices would be appropriate for beyond compliance?
2. What type of incentives would encourage motor carriers to invest in technologies and best practices programs?
3. How would FMCSA verify the voluntary technologies or safety programs were being implemented?

It is important to note that the ideas in this report are not based on a full discussion on the merits; rather, these ideas were suggested and supported by a variety of MCSAC members. The Committee’s intention is to provide FMCSA with a broad range of ideas that address the questions the Agency laid out in the Task Statement from the diverse group of stakeholders that constitute the MCSAC membership. Finally, the MCSAC notes that the inclusion of ideas in this report was not based on a discussion of whether sufficient data exists to support the use of the relevant incentive or on cost/benefit considerations. For this reason, several of the Beyond Compliance Program ideas suggest that FMCSA examine a particular issue to explore the merits/safety benefits and feasibility of the relevant concept.

1. **General Comments on a Beyond Compliance Program**
	1. Several members expressed that a Beyond Compliance Program would be feasible but a challenge to implement. Some of the challenges mentioned include the following:
		1. Challenges in monitoring a Beyond Compliance Program.
		2. Challenges in measuring whether a Beyond Compliance Program is working, i.e., of developing a metric to measure improvement.
		3. Lack of resources from the Agency are a concern. Some members commented that a Beyond Compliance Program should not divert resources from FMCSA enforcement to identify and remove bad actor carriers from the road.
			1. One member urged FMCSA to focus on actions that are proven to reduce crashes.
			2. FMCSA should also consider whether devoting some resources to a Beyond Compliance Program might result in greater crash reduction than an enforcement-only approach.
		4. The timeframe for FMCSA to implement a Beyond Compliance Program and approve safety programs and technologies as part of the program would be a challenge.
			1. Some members commented that a Beyond Compliance Program would not be efficient or effective if it had to be done through the rulemaking process.
			2. Some suggested that a third party that would identify standards is a way that could help a Beyond Compliance Program move faster.
	2. Standard for inclusion of a safety technology or practice into a Beyond Compliance Program:
		1. Some members argued that the standard for inclusion in a Beyond Compliance Program should be high.
		2. However, others argued that allowing a lot of carriers into the program by using several different levels might better encourage the relevant behaviors.
	3. Role of FMCSA:
		1. Many MCSAC members advocated for the substantial involvement of a third party regarding implementation of a Beyond Compliance Program.
		2. For example, third-party involvement in creating a rating system might make it more likely that carriers would adopt and be motivated by such a rating system.
		3. Some members suggested that the industry innovators will always be moving quicker and beyond what FMCSA includes in any program.
		4. Many agreed that the Agency should work with the industry to recognize carriers that are taking positive steps towards safety.
	4. A Beyond Compliance Program would provide an opportunity to raise the safety standard of industry practice by encouraging the adoption of safety programs and technologies to reduce crash risk.
		1. Some members suggested that the goal of a Beyond Compliance Program should be to incentivize those carriers that choose not to adopt safety programs and technologies to do so.
		2. Such carriers need to understand the business case arguments for adopting safety programs and technologies that could reduce crash risk or crash severity.
	5. One member expressed concern with how a Beyond Compliance Program would relate back to the Safety Fitness Determination (SFD) and the Compliance Safety Accountability (CSA) program and suggested that once those other programs are finalized, a Beyond Compliance Program should be combined with those.
2. **Potential Technologies or Safety Programs for a Beyond Compliance Program**
	1. Technology (not an exhaustive list)
		1. Technologies that are designed to reduce loss of control or frequency and severity of crashes:
			1. Collision mitigation.
				1. This technology has been most effective for rear-end collision reduction for some carriers.
			2. Roll stability.
			3. Navigation.
			4. Automated transmissions.
			5. Speed governors, including speed limit controls.
			6. Side and rear underride guards.
				1. Not applicable for school buses.
			7. Driver ergonomics.
				1. Driver ergonomics technology is anything that makes the truck more productive or reduces muscular skeletal stressors for the driver.
				2. For example, steps, technologies that reduce full body vibration, automated transmission, comfortable seat, audio system, heating and cooling, auxiliary power unit (APU), etc.
		2. Technologies that capture information related to crash mitigation:
			1. Capturing critical events/Zonar technology.
			2. Lytx (formerly DriveCam) – event-based.
			3. Fatigue monitoring systems.
			4. Electronic logging devices.
			5. If incidents captured by these technologies are followed by coaching sessions with drivers, these types of technology can change driver behavior.
			6. Note: These technologies are ineffective unless carrier management is monitoring and addressing driver behavior revealed by these technologies in a positive and instructive way.
		3. Vehicle design safety features.
			1. For example, safety features such as non-manual-adjusting and auto-defrost mirrors and blind spot monitoring cost money.
		4. Electronic inspections.
			1. Can incentivize carriers because there is a productivity benefit for drivers and carriers.
			2. An ancillary safety benefit can result because electronic inspections would help ensure that dispatch, driver, and law enforcement are in communication via telematics informing about vehicle concerns earlier than they otherwise would be discovered.
	2. Management Practices (not an exhaustive list)
		1. Daily fitness for duty assessment.
			1. This safety practice addresses alertness and could reduce fatigue-related crashes if such an assessment is tied to dispatching.
			2. Technology to assist with this practice is not commercially mature yet (e.g., psychomotor vigilance testing).
			3. However, carriers could engage in this practice manually via engagement with the driver to determine how to task the driver based on their current physical and fatigue-related circumstances.
		2. Hiring practices (e.g., hiring drivers with relevant experience).
			1. Data has shown that large truck commercial motor vehicle (CMV) drivers with more experience generally have fewer crashes.
			2. For the vision exemption program, 3 years of intrastate experience and a clean record is required before applying for an interstate commercial driver’s license (CDL).
			3. This management practice applies more to trucking rather than passenger carriers and school bus operator hiring practices.
				1. In the bus world, it might not make sense to give preference to experienced drivers because starting with a new CMV driver allows a clean slate on which to train with good practices. It may be more difficult to undo poor habits in more experienced drivers.
			4. Policies of only hiring drivers above a certain age may have to change because of the aging driver population. There will be an influx of younger, inexperienced drivers as that aging driver population retires.
			5. For this reason, some members would argue that this type of hiring practice should not be used as a means of differentiation in a Beyond Compliance Program.
			6. Having criteria for screening drivers for purposes of hiring or a comprehensive, consistent hiring practice could be an alternative way to credit this safety management practice.
		3. Compensation.
			1. Paying by the hour, rather than by mile, could motivate drivers to make more safety-conscious decisions.
			2. Paying by the hour may also increase retention of experienced drivers in the trucking industry, rather than choosing other careers.
			3. One 2006 study on driver compensation indicates that there is some safety correlation with higher compensation.[[1]](#footnote-1)
			4. FMCSA will have a report coming out in late 2015 on the impact of driver compensation on CMV safety.[[2]](#footnote-2)
			5. Some members said that economic incentives in the competitive trucking industry are such that they suppress driver pay to low levels.
		4. Incentives for good safety record.
			1. For example, providing incentives for no violations during an inspection or after a certain period of time with no crashes.
		5. Disallowing drivers to use Schedule II opiates.
		6. Pre-employment screening.
		7. Employer notification system.
			1. This safety practice involves the automated pushing of records of driver violations to employers.
			2. It allows for the monitoring of driver violations and licensure status in a proactive way.
			3. More timely notification of problematic behavior would allow carriers to address it sooner.
			4. The pre-employment screening database allows carriers to check, but not all carriers do and it could be done more frequently.
			5. Not all States have carrier notification of actions against licenses, although some do:
				1. California has automatic notification.
				2. Texas has a notification program for which carriers can sign up
				3. New York State’s Vehicle and Traffic Law Article 19-A addresses how school bus drivers are registered with the Department of Motor Vehicles (DMV). Any incident in which those drivers are involved gets automatically sent to the carrier employer and the customer.
		8. Wellness/health incentives.
			1. This relates to fatigue management.
			2. Awareness of the tie between lifestyle (e.g., high Body Mass Index [BMI]) and safety is important to communicate to drivers, dispatch, and managers.
			3. Con-way Freight has data on their wellness program.
		9. Fatigue management plan.
			1. The North American Fatigue Management Program[[3]](#footnote-3) could provide a good framework for best practices and could be a place to start in terms of determining the type of program for which to give carriers credit as part of a Beyond Compliance Program.
		10. Proactive diagnosis and treatment of sleep disorders.
		11. Additional drug testing.
			1. For example, hair testing, oral fluids, etc.
			2. Some members disagree as to the science behind hair testing.
		12. Driver coaching/mentoring.
			1. Training is not just about skills and knowledge; behavior and discipline are also important and relevant to safety decisions. Coaching and mentoring can contribute to improved discipline and decision-making.
		13. Pre-CDL training.
			1. FMCSA’s Entry Level Driver Training Advisory Committee is currently working on developing recommended minimum requirements for pre-CDL training as part of a negotiated rulemaking process.
			2. Some members suggested that getting credit for this management practice as part of a Beyond Compliance Program should include pre-CDL training plus some sort of finishing training and ongoing training.
		14. Ongoing on-the-job training.
			1. It is important to have minimum standards for drivers that can train new drivers. It should be a full time job for that person and trainers should be well compensated.
			2. Smaller carriers may not be able to incorporate ongoing training themselves, but could utilize third parties.
		15. Safety meetings/driver engagement.
			1. These are meetings where carriers can access driver feedback and engage them in the process to see their views of where they see opportunities for safety improvement.
			2. This is not necessarily in-service training, which may have more value in influencing driver behavior.
			3. Canada has a requirement for employers to have regular safety meetings and report to the government on those meetings.
		16. Recognition for milestones.
			1. If you can make one driver a positive example for other drivers, others would be motivated to reach that milestone.
			2. Carriers should consider milestones other than hitting each million miles, which can take 10 years to accomplish.
		17. Tasking based on age-, physical-, and medical-related deficits.
			1. Some data exists on this issue. For example, one study showed that younger drivers in their early-20s are high risk, there is a trough of lowest risk in a driver’s late-40s, and then risk starts to rise again with age.
			2. Eleven States have physical performance dexterity tests that are administered to school bus drivers to screen for performance deficits that may not come out in a medical examination.
		18. Screening based on age-related deficits.
			1. This could be post pre-employment screening as well as ongoing.
		19. Fire prevention practices.
			1. Thermal event prevention is critical for passenger carriers.
			2. Passenger carriers having a pre-trip safety briefing is an open National Transportation Safety Board (NTSB) recommendation to FMCSA.
			3. Pre-trip inspections would be more applicable to charter operations rather than school buses.
		20. Maintenance practices that lead to a safer vehicle.
			1. Many carriers spend extra money on preventative maintenance, going beyond periodic inspections. For example:
				1. Tying vehicle telematics to scheduled maintenance.
				2. Having standards for the quality and frequency of training of mechanics.
			2. Some members said that there are many aspects of vehicle structure and maintenance that impact occupant protection and crashworthiness of a vehicle, which has not been a focus of FMCSA.
			3. Some members suggested that if a carrier can demonstrate that it invests in a maintenance practice that makes a vehicle safer, they should get credit for that as part of a Beyond Compliance Program.
				1. Manufacturer-recommended maintenance could be viewed as the minimum maintenance standard.
				2. FMCSA vehicle compliance regulations could also be viewed as minimums.
			4. There is also an interaction between vehicle maintenance and a driver’s understanding of a vehicle’s capabilities and passengers’ understanding of exits, etc.
				1. For example, carriers could empower drivers to take a vehicle out of service for maintenance-related reasons that involves documentation.
		21. Carrier safety management systems.
			1. Gather industry associations and collect best practices for safety management systems.
	3. Other
		1. Rating shippers based on retention time (e.g., five-star system).
			1. This could be based on truck drivers reporting how long they were waiting at a loading dock.
			2. The idea would be to somehow provide incentives for changing shipper behavior.
		2. Removing Federal excise tax on technologies, which currently creates a disincentive for carriers to adopt such technologies.
		3. FMCSA could consider providing credit for carriers that have safety or compliance outcomes that are above average in the industry.
			1. For example, if a carrier’s crash rate is lower than the national average perhaps they could get credit for that.
			2. However, some carriers may just be lucky – crash rate does not necessarily correlate to crash risk. Some carriers that drive very few miles would have less exposure (i.e., less vehicle miles traveled [VMT]) and thus a likely lower crash rate.
3. **Incentives That Would Encourage Carriers to Invest in Beyond Compliance Program Technologies and Safety Programs**
	1. Tax incentives for safety equipment or advances.
		1. FMCSA should consider encouraging a Federal excise tax exemption for safety technology or program adoption.
	2. Ability to codify return on investment/benefits in programmatic investment in safety programs or technologies.
		1. For example, documentation to carriers of how driver retention might save them money.
	3. Public visibility/recognition of safety program or technology adoption (e.g., incentive level rating or SmartWay-type/Energy Star-type stamp of quality).
		1. Would provide visibility for customers/shippers.
		2. Would provide visibility for the general public.
		3. Some members expressed concern that a rating system would have difficult gaining traction in the low-bid environment for non-public purchasers of services.
		4. However, carriers value the ability to differentiate their transportation product.
	4. Providing a participating motor carrier with a privilege they would not otherwise have.
		1. For example, automated roadside inspections, which would result in productivity gains for carriers.
		2. For motorcoach operators, such a privilege could involve avoiding an inspection that delays passengers.
	5. Carriers would be motivated if insurance costs should be affected by carrier adoption of safety technologies or safety management programs.
		1. Whether or not insurers would offer a premium discount for advanced safety programs depends on the consistent use and successful implementation of safety technologies or safety management programs. This can be observed over time (generally could be observable over 12 months post-adoption).
		2. Effectiveness of technologies and programs is dependent on the particular circumstances of a carrier (e.g., culture), location of operations of carrier, and—most importantly—how the specific technology is used/safety program is implemented.
	6. Credits on CSA or Inspection Selection System (ISS)
		1. For example, adding something to the denominator in the CSA score, a point discount, or credit. For the ISS an incentive could involve something that allows bypass in certain instances.
		2. Some members (safety and law enforcement) have concerns with changing CSA Safety Measurement System (SMS) methodology that did not relate to safety or compliance data.
		3. FMCSA would need to carefully consider the interaction of this type of incentive with the Safety Fitness Determination process.
	7. Increase priority of carrier requests to re-examine safety rating; normally this process can take a very long time.
	8. Other comments on incentives:
		1. FMCSA should consider whether there should be categories or levels of incentives associated with different levels of adoption of safety programs because some technologies and management practices cost more than others.
		2. A Beyond Compliance Program should consider the types of incentives offered to carriers or drivers in other successful programs, e.g., Canada, Australia.
		3. Safety ratings for new equipment (e.g., crashworthiness) could motivate truck original equipment manufacturers (OEMs) to compete the build the safest truck.
		4. FMCSA should consider how to incentivize brokers and shippers to encourage carrier safety practices:
			1. A small carrier with five trucks would be incentivized in a different way than larger carriers. Small carriers generally use a broker or other third-party logistics intermediary.
			2. Shippers also need to be brought in because sometimes they cause problems and sometimes they could assist in motivating carriers.
			3. Brokers may hesitate to get involved because of the slippery slope to being accused of having control of a carrier in post-crash litigation.
		5. FMCSA should consider requiring that all carriers inform insurers regarding recent years’ claim experience.
			1. Such a requirement would have to factor in States that have joint and severable liability.
4. **How is the Beyond Compliance Program managed?**
5. MCSAC Recommendation: The Committee does not recommend that FMCSA act as the entity to administer a Beyond Compliance Program.
	1. A third party that would administer a Beyond Compliance Program could be industry-led or a non-industry third party.
	2. FMCSA should have some sort of advisory capacity role to provide input into the thresholds for the program and representation of safety data.
	3. FMCSA could be involved in recognition activities.
6. Beyond Compliance Program Administration/Management
	1. Several members encouraged an industry-led accreditation-type system.
		1. This could function somewhat like a peer review – carriers would have to present information to other carriers that shows successful implementation of a safety technology or safety program.
		2. This approach would take FMCSA and States out of having to manage the review of a Beyond Compliance Program.
		3. This approach would eliminate the concerns of carrier self-reporting to the Agency.
		4. Carriers could submit data on best practices that could be compiled by the third party.
		5. Many industries have a similar system.
	2. Some members suggested that there should be a check on a third-party administered program and any incentives/ratings provided to carriers.
		1. Such a check could be performed by examining the ultimate safety outcomes and results, i.e., crash rates or Safety Fitness Determinations.
		2. A Beyond Compliance Program should have credibility so that carriers would be interested in using it to differentiate themselves and so that the program encourages actual improvements in safety outcomes.
		3. However, a small carrier (i.e., one with relatively low VMT) should not necessarily be punished if they have a robust safety program, but experienced one crash where the law of small numbers resulted in their crash rate rising above the industry average.
	3. National Safety Council is an option of an entity FMCSA could consider as a third-party administrator for a Beyond Compliance Program.
	4. FMCSA should examine how other programs have administered, enforced, and verified similar Beyond Compliance Program frameworks (e.g., SmartWay, Commission on Accreditation for Law Enforcement Agencies [CALEA]).
7. How would a Beyond Compliance Program verify the voluntary technologies or safety programs were being implemented?
	1. Credit for Actions versus Results
		1. Some members suggested that verification cannot focus just on whether or not a carrier has installed the technology or adopted the safety program; rather, the ability to obtain the incentive should relate to actual results.
		2. However, other members said that a Beyond Compliance Program should be more broadly inclusive because the idea is to encourage the adoption of improved management practices and vehicle technologies in a responsible and thorough way.
			1. Moreover, other incentives will exist for a carrier to improve, e.g., insurance rates, increased inspection.
		3. Good carriers are involved in crashes sometimes.
		4. A carrier’s crash risk is also dependent on location of operations.
	2. Some technologies (e.g., DriveCam) can produce a scorecard that indicates how well a carrier is implementing and managing a technology (i.e., from the vendor). A Beyond Compliance Program could potentially require carriers to make this information available in order to receive the incentive.
	3. Create meaningful context for the carrier – if FMCSA can assign crash accountability, they can compare it against similar carriers who have not adopted the technology or safety program, which would show whether the implementation was successful.
		1. But how would FMCSA determine what are “similar” carriers for comparison? FMCSA does not have information relating to cargo, geographic locations of operations. Perhaps require carriers to self-report for purposes of such comparisons.
		2. Some members feel strongly to look only at at-fault crashes.
	4. In the event that a Beyond Compliance Program functioned on carrier self-certification, verification of the self-certification could be some type of audit process.
8. When does a technology or safety program go on the list (qualification requirements)?
	1. There could be a third-party board that verifies the safety technology or program.
	2. FMCSA should consider a low bar to get a technology or safety program on the list, but a higher bar for proof of successful implementation/results in order for a carrier to get the associated incentive.
	3. Members expressed concern for the speed at which technologies evolve and at which technologies or programs could get approved for the list.
		1. If the process for approval is lengthy, technologies may be irrelevant or outdated by the time they get approved for being associated with an incentive.
	4. Some members suggested that there should be performance requirements for any technology allowed.
9. Other comments on Beyond Compliance Program Verification and Management:
	1. State trucking associations could provide fleet safety improvement awards.
		1. However, note that some carriers hesitate to join State trucking associations because of the associations’ legislative efforts and concerns about inclusiveness.
	2. If only one group of carriers is recognized in terms of their willingness and capability to adopt and follow through with verification processes in order to get the incentive, Beyond Compliance Program participation would not be maximized.
1. <http://www.is.wayne.edu/mbelzer/pubs/ILRR%20Rodriguez-Targa-Belzer-2006.pdf> (last accessed Apr. 8, 2015). [↑](#footnote-ref-1)
2. <http://www.fmcsa.dot.gov/research-and-analysis/research/impact-driver-compensation-commercial-motor-vehicle-safety> (last accessed Apr. 8, 2015). [↑](#footnote-ref-2)
3. <http://www.nafmp.com/en/> (last accessed Apr. 8, 2015). [↑](#footnote-ref-3)