E 4910-59-P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Parts 563 and 585

[Docket No. NHTSA-2025-0050]

RIN: 2127-AM78

Event Data Recorders

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: This final rule amends NHTSA's regulation governing Event Data Recorders (EDR or EDRs) to delay the implementation schedule for expanded pre-crash data capture requirements. In response to petitions for reconsideration of a final rule published on December 18, 2024, the agency is adopting a four-year phase-in compliance schedule that begins September 1, 2028. This action ensures the increased pre-crash data capture requirements are integrated into the vehicle fleet in a manner that aligns with manufacturer production cycles and technical feasibility.

DATES: *Effective Date:* This rule is effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].**

Compliance Dates: This final rule adopts a four-year phase-in period that begins September 1, 2028 to comply with part 563, as amended by the December 18, 2024 final rule. Under the four-year phase-in, 25 percent of a manufacturer's applicable vehicles produced from September 1, 2028 to August 31, 2029 must comply with part 563 as amended by the final rule published on December 18, 2024, "Event Data Recorders," followed by 50 percent from September 1, 2029 to August 31, 2030, 75 percent from September 1, 2030 to August 31, 2031, and 100 percent on and after September 1, 2031.

Applicable vehicles produced by small-volume and limited-line manufacturers are required to comply beginning September 1, 2032. Applicable vehicles manufactured in two or more stages or that are altered are not required to comply with the rule until on or after September 1, 2033. Voluntary early compliance is permitted.

Petitions for Reconsideration: If you wish to petition for reconsideration of this rule, your petition must be received by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Petitions for reconsideration of this final rule must refer to the docket number set forth above (NHTSA-2025-0050) and be submitted to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue S.E., Washington, D.C. 20590. Note that all petitions received will be posted without change to the docket for this rulemaking at *www.regulations.gov*, including any personal information provided.

Confidential Business Information: If you wish to submit any information under a claim of confidentiality, you should submit your complete submission, including the information you claim to be confidential business information, to the Chief Counsel, NHTSA, at the address given under **FOR FURTHER INFORMATION CONTACT**. In addition, you should submit a copy, from which you have deleted the claimed confidential business information, to Docket Management at the address given above. When you send a submission containing information claimed to be confidential business information, you should include a cover letter setting forth the information specified in our confidential business information regulation (49 CFR part 512). NHTSA is currently treating electronic submission as an acceptable method for submitting confidential business information to the Agency under part 512. Please do not send a hard copy of a request for confidential treatment to NHTSA's headquarters. The request should be sent to Dan Rabinovitz in the Office of the Chief Counsel at Daniel.Rabinovitz@dot.gov or

you may contact him for a secure file transfer link. Manufacturers or any companies that already have a Confidential Business Information (CBI) Portal account or an Enterprise Account with NHTSA should use the CBI Portal for their submission. If you submit a CBI request, please also email a courtesy copy of the request to Eli Wachtel at eli.wachtel@dot.gov.

Privacy Act: The petition will be placed in the docket. Anyone is able to search the electronic form of all documents received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the *Federal Register* published on April 11, 2000 (65 FR 19477–78) or you may visit https://www.transportation.gov/individuals/privacy.

Docket: For access to the docket to read background documents or comments received, go to http://www.regulations.gov or the street address listed above. Follow the online instructions for accessing the dockets via internet.

FOR FURTHER INFORMATION CONTACT: For technical issues, you may contact Joshua McNeil, Office of Crashworthiness Standards (joshua.mcneil@dot.gov). For legal issues, you may contact Eli Wachtel, NHTSA Office of Chief Counsel (eli.wachtel@dot.gov). You can reach these officials by phone at 202-366-1810. Address: National Highway Traffic Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue S.E., Washington, D.C. 20590.

SUPPLEMENTARY INFORMATION:

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I. Executive Summary

This final rule amends NHTSA's regulation governing EDRs[1] to delay the compliance timeline by one year and to establish a four-year phase-in schedule for compliance with expanded pre-crash data capture requirements. These requirements were established by a December 18, 2024 final rule[2] (2024 final rule) issued pursuant to a mandate under the Fixing America's Surface Transportation (FAST) Act.[3] The 2024 final rule required that all vehicles equipped with EDRs and manufactured on or after September 1, 2027, comply with the updated pre-crash data capture requirements. With this action, NHTSA adopts the amendments proposed in the November 28, 2025 notice of proposed rulemaking (NPRM),[4] which was issued in response to petitions for reconsideration of the 2024 final rule submitted by the Alliance for Automotive Innovation (Auto Innovators), SAE International (SAE), and Fiat Chrysler Automobiles U.S. LLC (FCA).[5]

The phase-in schedule, excluding small-volume and multi-stage manufacturers, is as follows:

- 25 percent of the vehicles equipped with EDRs manufactured on or after September 1, 2028 and before September 1, 2029.
- 50 percent of the vehicles equipped with EDRs manufactured on or after September 1, 2029 and before September 1, 2030.
- 75 percent of the vehicles equipped with EDRs manufactured on or after September 1, 2030 and before September 1, 2031.
- 100 percent of the vehicles equipped with EDRs manufactured on or after September 1, 2031.

Small-volume and limited-line manufacturers must comply beginning September 1, 2032. Vehicles manufactured in two or more stages and altered vehicles are not

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[1] 49 CFR part 563.

[2] 89 FR 102810 (Dec. 18, 2024).

[3] Pub. L. No. 114-94, 129 Stat. 1312, December 4, 2015.

[4] 90 FR 54619 (Nov. 28, 2025).

[5] The petitions for reconsideration may be reviewed on regulations.gov at Docket No. NHTSA-2024-0084.

required to comply with the rule until on or after September 1, 2033. This rule also permits voluntary early compliance.

This action ensures that the technical specifications mandated in the 2024 final rule, specifically the capture of pre-crash data elements for 20 seconds at 10 Hz, are integrated into the vehicle fleet in a manner that aligns with manufacturer production cycles. NHTSA estimates that this approach provides the industry with total undiscounted cost savings between $35.54 million and $89.82 million (in 2024 dollars) from 2027 to 2030[6] while ensuring the objectives of the FAST Act are achieved. To ensure accountability, this final rule establishes new reporting requirements under 49 CFR part 585 as proposed in the NPRM to track the annual percentage of a manufacturer's vehicles equipped with EDRs that meet the data capture requirements.

II. Background

NHTSA established 49 CFR part 563 in August 2006[7] to standardize the data elements, format, and survivability of EDRs voluntarily installed in light vehicles. Initially, the regulation applied to EDR-equipped light vehicles manufactured on or after September 1, 2012. The primary objective of an EDR is to assist crash investigators in understanding vehicle kinematics (*e.g.*, speed, braking, and throttle position) in the moments immediately preceding a deployment-level event.[8] The 2006 final rule established requirements to capture pre-crash data elements for 5 seconds at a sampling rate of 2 Hz.

The FAST Act included a mandate for the Administrator to conduct a study to determine the amount of time EDRs installed in passenger motor vehicles should capture

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[6] When discounting at three percent, the cost savings is approximately $30.67 million to $77.52 million. When discounting at seven percent, the cost savings is approximately $25.40 million to $64.19 million. For the purpose of regulatory budgeting in accordance with Executive Order 14192, discounted cost savings are estimated relative to a base year of 2024.

[7] 71 FR 50998 (Aug. 28, 2006).

[8] Part 563 defines "event" to mean a crash or other physical occurrence that causes the trigger threshold to be met or exceeded, or any non-reversible deployable restraint to be deployed, whichever occurs first.

and record for retrieval vehicle-related data in conjunction with an event in order to provide sufficient information to investigate the cause of motor vehicle crashes. Pub. L. No. 114-94, § 24303. The FAST Act also required the Administrator to promulgate regulations to establish the appropriate period during which EDRs installed in passenger motor vehicles may capture and record for retrieval vehicle-related data to the time necessary to provide accident investigators with vehicle-related information pertinent to crashes involving such motor vehicles. Subsequent agency research and the 2022 EDR Duration Study[9] determined that the five-second recording duration was often insufficient to capture critical maneuvers in intersection or road-departure crashes.

On December 18, 2024, NHTSA published a final rule increasing the pre-crash recording duration from 5 seconds to 20 seconds and the sampling frequency from 2 Hz to 10 Hz.[10] The final rule required that vehicles equipped with EDRs and manufactured on or after September 1, 2027, comply with the updated pre-crash data capture requirements. This change was intended to provide higher-resolution data for the 20 seconds leading to a crash event. Following the publication of the 2024 final rule, NHTSA received petitions for reconsideration from Auto Innovators,[11] SAE,[12] and FCA.[13] Petitioners cited significant engineering hurdles, including the need for increased non-volatile memory capacity and larger backup power reserves (capacitors) to ensure that 20 seconds of pre-crash data that is held in volatile temporary buffers can be written to non-volatile storage if the vehicle's electrical system fails.

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[9] Event Data Recorder Duration Study [Appendix to a Report to Congress. Report No. DOT HS 813 082B], 2022, https://doi.org/10.21949/1530244.

[10] 89 FR 102810 (Dec. 18, 2024).

[11] NHTSA-2024-0084-0005.

[12] NHTSA-2024-0084-0004.

[13] NHTSA-2024-0084-0003.

In response to these petitions, NHTSA issued an NPRM on November 28, 2025,[14] proposing to adopt the phased-in compliance timeline requested by SAE and Auto Innovators. The modified timeline provides manufacturers with an additional year of lead time and a four-year phase-in to allow them to integrate the necessary EDR and Airbag Control Module (ACM) architecture changes within their current model development cycles without disrupting existing product plans. NHTSA estimates that this approach will result in industry cost savings primarily by avoiding "mid-cycle" hardware redesigns, which may have forced manufacturers to re-engineer existing vehicle platforms prematurely to accommodate larger memory chips and expanded power reserves, while still achieving the objectives of the FAST Act.[15] NHTSA estimates that by implementing the four-year phase-in compliance schedule starting on September 1, 2028, the industry will realize total cost savings between $30.67 million and $77.52 million at a three percent discount rate. These savings represent the difference between an immediate, fleet-wide mandate and a graduated rollout that aligns with natural vehicle product cycles. Allowing manufacturers to integrate the 20-second, 10 Hz recording capability during scheduled model refreshes avoids expenditures associated with mid-cycle hardware redesigns and reduces the strain on engineering resources. Consequently, the phase-in allows the agency to achieve its long-term objective of high-resolution crash data capture while significantly lowering the near-term economic burden on both manufacturers and consumers.

III. Summary of Comments on 2025 NPRM

In response to the proposed rule, NHTSA received seven comments.[16] The commenters included FCA; Auto Innovators; Motor & Equipment Manufacturers

[14] 90 FR 54619 (Nov. 28, 2025).

[15] See the section titled, "Cost Savings Associated With This Proposed Rule," in the 2025 NPRM. 90 FR 54619 (Nov. 28, 2025).

[16] These comments can be found in Docket No. NHTSA-2025-0050.

Association, The Vehicle Suppliers Association (MEMA); the Advocates for Highway & Auto Safety (Advocates); the Institute of Electrical and Electronics Engineers (IEEE) Vehicular Technology Study (IEEE-VTS); one individual; and one anonymous commenter.

FCA supported the proposed revised timeline. FCA emphasized that the new requirements involve extensive hardware and software updates across their entire EDR fleet, presenting significant technical feasibility and cost challenges. FCA noted that the proposed timeline is essential to allow manufacturers to implement these changes responsibly while preserving product integrity without compromising ongoing product plans. Furthermore, FCA urged the agency to finalize the regulation promptly. FCA explained that until the proposed change is finalized, manufacturers must treat the September 1, 2027 compliance date from the 2024 final rule as binding, which leads to the inefficient allocation of resources toward requirements that may change. FCA commented that it remains committed to full compliance and working with NHTSA to advance vehicle safety research.

Auto Innovators supported the proposal to extend the initial compliance date to September 1, 2028, and adopt a four-year phase-in schedule. They emphasized that EDRs are highly integrated with other complex vehicle systems, so the original September 1, 2027 compliance date may have forced manufacturers to incur extensive redesign costs or even disable EDR functionality. Auto Innovators also specifically advocated for extending the compliance date for small-volume manufacturers to September 1, 2032, noting that these entities operate on much longer planning cycles for models that stay on the market for extended periods without architectural changes. Though Auto Innovators is supportive of the additional time to manage redesign and production costs, they maintain that NHTSA has likely overestimated the expected safety benefits of the 20-second recording duration and 10 Hz sampling rate and suggest that similar outcomes

could be achieved through less burdensome requirements. However, Auto Innovators did not expect extending the lead time to have a significant impact on the overall safety benefits of the rule. Furthermore, they urged prompt finalization of the rule to provide regulatory certainty and noted that manufacturers will continue to incur costs until a new rule is finalized. Finally, Auto Innovators recommended adjusting the proposed amendments to footnote 4 to Table I and footnote 5 to Table II of part 563 to clarify that, because part 563 is an "if equipped" standard, the phase-in percentages apply only to vehicles that are actually "equipped with an EDR."

MEMA expressed support for the proposed delay of the initial compliance date and the adoption of a four-year phase-in period, noting that the timeline for implementation first proposed in 2022 was a key point of concern for suppliers. The association argued that the additional time is critical for suppliers to integrate complex changes without disrupting existing product plans, noting that increasing pre-crash recording to 20 seconds more than doubles the data volume and requires longer write times to non-volatile memory. MEMA commented that this increase may necessitate larger or multiple capacitors to provide reserve power during a crash, which in turn impacts electronic board layouts, housing, and vehicle mounting spaces. MEMA further commented that following such hardware changes, manufacturers might even require new crash testing to verify that mechanical integrity is preserved. They detailed a development cycle in which software is finished 18 months before production, followed by additional 18-month windows for supplier delivery and system testing and certification. Though welcoming the revised timeline, MEMA emphasized that the costs associated with the changes to part 563 remain significant for the supplier sector.

Advocates opposed the extended lead time and phase-in, asserting that a delay is unnecessary and needlessly postpones a standard and safety benefits during a period of

historically high roadway fatalities,[17] and that EDR data is essential for understanding these crashes. Advocates emphasized that over 99 percent of vehicles are estimated to be already equipped with EDRs and that the required updates involve minimal software changes and a small amount of additional memory rather than a substantial hardware redesign. Furthermore, Advocates highlighted that, by pushing full compliance to 2031, this proposal would extend the full compliance date to more than a decade past the original rulemaking deadline established by Congress in the FAST Act.

IEEE-VTS filed what it referred to as a "petition for reconsideration" strongly opposing the proposed delay to 2031, characterizing it as a "failure of regulatory duty" that ignores globally vetted technical solutions already implemented by 60 other nations.[18] IEEE-VTS asserts that the "heavy lifting" for these standards has already been completed through the development of Std-IEEE-1616.1: Data Storage System for Automated and Autonomous Driving (DSSAD). IEEE-VTS commented that the DSSAD provides a "Scientific Witness" that distinguishes between human and machine operation, a critical necessity given the 112 daily road fatalities in the U.S. IEEE-VTS disputes the industry's claims of technical burden, noting that the memory requirements for these updates are "relatively small" and do not require a substantial hardware redesign. Furthermore, IEEE-VTS states that delaying these requirements leaves vehicle owners vulnerable to "secondary predators" (*i.e.*, unauthorized third parties who could access the vehicle's diagnostic port to delete or obtain sensitive data following an event that triggers the EDR to record data). To address this vulnerability, IEEE-VTS advocated for the "People's Protocol" (IEEE-1616.1), a standardized security framework that establishes a

[17] Advocates noted that nearly 41,000 people were killed on U.S. roads in 2023, a 24 percent increase over the last decade, citing National Center for Statistics and Analysis, Summary of motor vehicle traffic crashes: 2023 data, Traffic Safety Facts, Report No. DOT HS 813 762, National Highway Traffic Safety Administration, doi: 10.21949/rdm5-2086 (October 2025).

[18] Under 49 CFR 553.35, any interested person may petition the Administrator for reconsideration of a *rule* issued under that part. Given that IEEE filed this document in response to an NPRM, not a rule, NHTSA is treating IEEE's submission as a comment on the NPRM.

"forensic gate." This system uses encrypted digital keys to lock EDR data from outside tampering while ensuring it remains accessible to the vehicle owner and those granted a legal exception to access the data according to the Driver Privacy Act of 2015. IEEE-VTS requested NHTSA to rescind the delay (maintain the original September 1, 2027 compliance date), and incorporate by reference IEEE-1616.1 to provide a standardized and secure forensic gate for EDR and DSSAD data.

Michael Ravnitzky commented that the proposed delay is a reasonable way to reduce disruption to vehicle development and to avoid manufacturers removing EDRs from vehicles. The commenter also expressed support for retaining the 20-second, 10 Hz data capture requirements, noting their value for crash investigations and safety research. The individual requested that NHTSA mandate annual progress reports including production volumes, the number of vehicles meeting the new requirements, and any risks to full compliance. The individual also suggested that NHTSA publish aggregate, anonymized summaries of these reports to assist researchers and first responders in understanding the progress without revealing proprietary information.

An anonymous comment stated that expanded recording requirements must be matched with clear and robust privacy protections. They noted that EDRs collect sensitive data regarding driver behavior (*e.g.*, speed, braking, and restraint use) which could have significant implications for vehicle owners if used improperly. They also urged the agency to emphasize safeguards such as clear limits on third-party access, strong data security standards, and accessible disclosures to help owners understand their rights. They emphasized that maintaining public confidence in Federal safety regulations and vehicle technology requires a careful balance between safety innovation and consumer trust.

IV. Final Rule and Response to Comments

In this final rule, NHTSA amends part 563 and part 585 by implementing the phase-in schedule and reporting requirements as proposed in the NPRM. The phase-in schedule, excluding small-volume and multi-stage manufacturers, is as follows for vehicles equipped with EDRs:

- 25 percent of the vehicles manufactured equipped with EDRs on or after September 1, 2028 and before September 1, 2029.
- 50 percent of the vehicles manufactured equipped with EDRs on or after September 1, 2029 and before September 1, 2030.
- 75 percent of the vehicles manufactured equipped with EDRs on or after September 1, 2030 and before September 1, 2031.
- 100 percent of the vehicles manufactured equipped with EDRs on or after September 1, 2031.

Small-volume manufacturers and multi-stage manufacturers are not subject to the phase-in. Small-volume manufacturers have an additional year to comply, and multi-stage manufacturers and alterers have two additional years. The requirements apply beginning September 1, 2032 to small-volume manufacturers or limited-line manufacturers and September 1, 2033 for vehicles manufactured by manufacturers producing altered vehicles or vehicles in two or more stages.

NHTSA notes that this timeline is the one requested in FCA's petition for reconsideration of the 2024 final rule, except that while FCA suggested starting the phase-in beginning in 2027, the agency has determined that a September 1, 2028 initial compliance date better aligns with wider industry constraints.

NHTSA acknowledges comments from FCA, MEMA, and Auto Innovators that the revised duration requires extensive hardware and software updates, and the agency agrees that a more gradual timeline allows these changes to occur within standard product development cycles without disrupting existing plans. NHTSA acknowledges the technical considerations presented by MEMA regarding the transition to a 20-second recording duration. The agency recognizes that more than doubling the data volume

necessitates longer write times to non-volatile memory and may require hardware modifications, such as larger or multiple capacitors, which can impact electronic board layouts and housings. NHTSA is providing lead time that aligns with the development and certification cycles detailed by suppliers, during which software and hardware must often be finalized years before production. This ensures changes are integrated into the vehicle fleet in a manner that matches standard product planning and avoids the technical and cost hurdles associated with mid-cycle re-engineering. NHTSA is also allowing an additional year for small-volume manufacturers (to September 1, 2032) as requested by Auto Innovators. By finalizing this phased approach, NHTSA also provides regulatory certainty and avoids resources being inefficiently allocated to meet the prior timeline.

Regarding NHTSA's estimation of the benefits of the changes finalized in the 2024 final rule, NHTSA acknowledged the uncertainty in its benefit-cost estimates because it was unable to quantify the exact safety benefits, in particular what proportion of future safety benefits from safety standards could be attributed to the improved data.[19] Nonetheless, in the 2024 final rule the agency concluded that foundational upgrades to EDR hardware and software will facilitate more sophisticated crash reconstructions and inform future defects investigations and safety standards better and may provide manufacturers with information it can use to develop improvements for vehicle systems. The findings of the EDR Duration Study demonstrate that the previous five-second recording window was insufficient for certain purposes because it captured less than one percent of total intersection event time. By extending the recording duration to 20 seconds, the agency ensures that up to 95 percent of intersection traversal stages, including critical pre-impact maneuvers like rolling stops or running traffic signals, are captured. Furthermore, increasing the sampling frequency to 10 Hz addresses critical data

[19] See the 2024 final rule's Final Regulatory Evaluation, NHTSA-2024-0084-0002.

gaps and reduces timing uncertainty. The increased sample rate is necessary to resolve rapid vehicle control inputs, such as anti-lock braking (ABS) activations or pedal misapplications, which may occur in intervals shorter than the previous 2-Hz sampling frequency. This refined resolution allows investigators to correlate driver commands with vehicle dynamics more precisely, providing the clarity needed to analyze multi-impact events and the real-world performance of crash avoidance technologies.

NHTSA shares the concerns of Advocates regarding the increase in roadway fatalities and reaffirms that enhanced EDR data is a vital tool for understanding crash dynamics and assessing safety equipment performance. In addition, the agency reaffirms that, while EDRs are primarily tools for post-crash analysis and reconstruction, the enhanced data they collect is vital for identifying safety design improvements and developing more effective Federal safety regulations. However, there are significant difficulties inherent in quantifying the exact safety benefits of this regulation. NHTSA was unable to estimate the specific portion of safety improvements (such as improved countermeasures) in the form of lives saved or injuries prevented can be directly attributed to an increased volume of EDR data.

The FAST Act did not require a specific compliance timeline for the mandated rule. NHTSA has determined that a rigid and accelerated compliance timeline would likely create a "regulatory failure" by imposing a disproportionate economic and technical burden relative to the benefits. Furthermore, the requirements of part 563 only apply if a vehicle is equipped with an EDR. Forcing immediate compliance carries the risk that some manufacturers might choose to disable EDR functionality entirely to avoid non-compliance, which would deny researchers of any crash data for such vehicles throughout their life in the market. Auto Innovators stated in its petition that the September 1, 2027 compliance date from the December 2024 final rule was not achievable without extensive redesign costs and that in cases where EDR redesign was

not feasible, that EDR functionality could be disabled until the required design changes were implemented. By adopting a phased implementation, NHTSA ensures a more orderly transition that preserves the long-term objectives of the FAST Act while preventing a loss of critical data during the transition period.

NHTSA is adopting Auto Innovators' recommendation to revise the proposed table footnotes in part 563. This change does not adjust the requirements proposed in the NPRM substantively. However, it provides clarity to manufacturers regarding the application of the requirements. Because part 563 is an "if-equipped" standard, the phase-in compliance percentages apply specifically to vehicles equipped with an EDR. The NPRM proposed exactly that structure. Under 49 CFR § 563.3, the requirements of part 563 apply only to certain vehicles (and the manufacturers of those vehicles) "if [the vehicles] are equipped with an event data recorder,"[20] and the language proposed for the table footnotes would not have adjusted the scope of application. Therefore, the proposed footnote 4 of Table I and footnote 5 of Table II describe percentages of vehicles equipped with an EDR, not percentages of a manufacturer's entire fleet. The language suggested by Auto Innovators makes this clear. Therefore, NHTSA is adopting the footnote language requested by the Auto Innovators.

Regarding progress reports as requested by Michael Ravnitzky, this final rule directly addresses these concerns by establishing a new subpart P under 49 CFR part 585, which creates formal EDR Phase-In Reporting Requirements. Under subpart P, manufacturers must submit annual reports to NHTSA within 60 days after the end of each production year ending August 31 from 2029 through 2032. These reports must state the number of vehicles produced that are equipped with an EDR, identifying how many of those vehicles do and do not meet the revised requirements of § 563.7. Furthermore, the

[20] 49 CFR 563.3.

reporting requirements align with the commenter's request for compliance status by requiring manufacturers to provide a formal statement regarding their compliance and the specific basis for that statement. To facilitate agency oversight, manufacturers must also maintain records of the Vehicle Identification Number (VIN) for all reported vehicles until December 31, 2033 and provide detailed identification (including make and model) upon request from NHTSA's Office of Vehicle Safety Compliance.

The regulatory text as finalized in this final rule incorporates an edit to the version proposed in the NPRM to make clearer what information must be reported. It removes redundant language that was proposed to be included in §585.147(b)(1) regarding reporting vehicles equipped with EDRs that comply with part 563, and now specifies in §585.147(b)(2) that the report must include information regarding which vehicles equipped with an EDR do or do not meet the updated recording interval and data sample rate requirements. This change is for clarity and is not intended to require different reporting than what was proposed.

Regarding the suggestion to publish aggregate summaries of the phase-in progress reports, the agency is taking this suggestion into consideration but is not acting on it as part of this final rule. The primary purpose of this reporting framework is to assist NHTSA in determining whether manufacturers are complying with the amended recording requirements. Though there may be value for safety research or public awareness in publishing anonymized and aggregated reports, the agency is not certain if these benefits would be commensurate with the additional resources required to compile, to anonymize, and to publish aggregate reports. In addition, this is not necessarily a matter to address in the course of rulemaking nor would taking this action necessarily involve amendments to part 585 or part 563.

On the issue of privacy, NHTSA emphasizes that part 563 does not require EDRs to record personally identifiable data, and captured data in EDRs are continuously

overwritten in a temporary buffer, except for specified crash events meeting the trigger threshold to retain data. The Driver Privacy Act of 2015,[21] enacted as part of the FAST Act, states that data retained by an EDR are the "property of the owner, or, in the case of a leased vehicle, the lessee of the motor vehicle in which the event data recorder is installed."[22] Recorded EDR data may not be accessed by any person other than the vehicle owner or lessee except in the case of one of several enumerated exceptions.[23] One exception is if the data is retrieved for traffic safety research, and the personally identifiable information of an owner or a lessee of the vehicle and the vehicle identification number are not disclosed in connection with the retrieved data. These protections address the privacy concerns raised by the commenter.

NHTSA declines the request from IEEE-VTS to incorporate IEEE 1616.1-2023 by reference at this time. Doing so is outside the scope of the proposal, and any efforts to incorporate these standards would require a new notice and comment rulemaking pursuant to the Administrative Procedure Act, 5 U.S.C. § 553. IEEE 1616.1-2023 defines specific metrics for DSSADs for Level 3, 4, and 5[24] driving automation systems. Though EDRs focus on time-series data for post-crash reconstruction, DSSADs provide timestamped "flags" to distinguish between human and machine operation in vehicles equipped with Automated Driving Systems (ADS). However, the FAST Act mandate specifically focused on the pre-crash recording duration necessary to investigate crash causation and did not address ADS-specific data elements. NHTSA is an active participant in the UNECE WP.29 efforts to develop a Global Technical Regulation (GTR) for ADS, which may include DSSAD requirements. As a signatory to the 1998

[21] Pub. L. No. 114-94, §§ 24301-24302, 129 Stat. 1312, 1713-14 (2015).

[22] *Id.*

[23] *Id.*

[24] SAE International J3016_201806 Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles.

Agreement, if the U.S. votes in the affirmative to establish a GTR for DSSADs, NHTSA is obligated to initiate a separate rulemaking process to consider those safety requirements for domestic adoption. Until such a GTR is finalized and evaluated under the National Traffic and Motor Vehicle Safety Act, the agency will continue to consider EDR and DSSAD as distinct systems with separate regulatory trajectories.

V. Summary of Costs and Benefits

In this Final Rule, NHTSA maintains the cost estimates presented in the December 2024 Final Regulatory Evaluation,[25] which projected a total annual industry impact between $13.26 million and $33.52 million (in 2022 dollars). To alleviate the associated financial and technical burdens, NHTSA is providing an extended lead time and phase-in period to allow manufacturers to design, test, and validate EDR architectures, ensuring sufficient processing capability and non-volatile memory are available to capture 20 seconds of pre-crash data at 10 Hz. NHTSA analyzed potential cost savings from different lead time extensions and phase-in schedules in the 2025 NPRM. The lead time and phase-in (one-year extension followed by 25/50/75/100 percent phase-in) means the first model year (MY) impacted by the final rule will apply to consumers purchasing new MY2029 vehicles. The phase-in is projected to save $10.67 to $25.95 million in 2028, $7.11 to $17.96 million in 2029, and $3.56 to $8.98 million in 2030 in 2024 dollars. The lead time extension is projected to save an additional $14.21 to $35.93 million in 2027, resulting in total quantified savings of $35.54 to $89.82 million from 2027 to 2030 in 2024 dollars. When discounting at three percent, the cost savings is approximately $30.67 million to $77.52 million, and when discounting at seven percent, the cost savings is approximately $25.40 million to $64.19 million.[26]

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[25] NHTSA-2024-0084-0002.

[26] For the purpose of regulatory budgeting in accordance with E.O. 14192, discounted cost savings are estimated relative to a base year of 2024.

VI. Rulemaking Analyses and Notices

Executive Order 12866, Executive Order 14192, and DOT Regulatory Policies and Procedures

This final rule does not meet the criteria of a "significant regulatory action" under Executive Order (E.O.) 12866 (58 FR 51735, Oct. 4, 1993). Therefore, the Office of Management and Budget (OMB) has not reviewed this proposed rule under that Executive Order. NHTSA has considered the impact of this rule under E.O. 12866 and E.O. 14192 (90 FR 9065, Feb. 6, 2025). Please refer to the December 2024 final rule for discussion of the costs and benefits of that rule. The FRE for the December 2024 final rule estimated that the incremental cost associated with the final rule ranged from approximately $13.26 million to $33.52 million in 2022 dollars.

This rulemaking is a deregulatory action under E.O. 14192 because it would reduce the implementation burden associated with the December 2024 final rule, which increased the pre-crash data recording duration and sample rate required under 49 CFR part 563. Though the substantive requirements adopted in the December 2024 final rule remain unchanged, the agency is modifying the compliance schedule in response to petitions for reconsideration that identified implementation challenges and risk of unintended consequences. Based on NHTSA's analysis, the lead time extension and phase-in may result in total quantified savings of $35.54 to $89.82 million from 2027 to 2030 in 2024 dollars. When discounting at three percent, the cost savings is approximately $30.67 million to $77.52 million, and when discounting at seven percent, the cost savings is approximately $25.40 million to $64.19 million. The range in cost savings corresponds directly with the range in incremental costs presented in the Final Regulatory Evaluation (FRE) developed in support of the December 2024 final rule. In that FRE, NHTSA estimated that the unit cost to upgrade EDRs would range from $0.87 (lower bound) for software-only updates to $2.20 (upper bound) for full hardware

modernizations. The higher end of the savings range assumes that a greater percentage of the fleet would have required more hardware changes, such as increased non-volatile memory, upgraded microprocessors, and increased energy reserves.

Petitioners explained that the original compliance date imposed a rigid and accelerated timeline that did not align with typical vehicle development cycles. These conditions would have imposed high compliance costs, disrupted product planning, and could have resulted in the removal or disabling of EDR functionality in some vehicle models—undermining the objectives the rule was designed to advance. Quantified cost savings are discussed in more detail above, in Section V. Also, as noted, the safety benefits of the December 2024 final rule were unquantified. This was similar when NHTSA established part 563. This was due to the difficulties in estimating both the exact portion of benefits creditable to an increased amount of EDR data after a standard is implemented or a safety countermeasure is developed and of quantifying how the benefits to safety research and emergency response translate to improved vehicle safety. Nonetheless, the agency acknowledges that it is likely the implementation timeline created a regulatory failure by imposing a disproportionate burden relative to those benefits, particularly for vehicle platforms in late-stage design or production. This final rule corrects that failure.

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (RFA) (5 U.S.C. 601–612) (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996; 5 U.S.C. 601 *et seq.*), agencies must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.,* small businesses, small organizations, and small government jurisdictions). No regulatory flexibility analysis is required, however, if the head of an agency or an appropriate designee certifies that the rule does not have a significant economic impact on a

substantial number of small entities. I certify that this rulemaking action would not have a significant economic impact on a substantial number of small entities. The factual basis for this certification is provided below.

The delay in the compliance date and creation of a phase-in period reduces the burden on small entities by providing more time to comply with the new requirements. In addition, limited line[27] and small-volume manufacturers[28] would only need to produce vehicles with EDRs that meet the requirements, if the vehicle is equipped with an EDR, on or after September 1, 2032. Manufacturers producing altered vehicles or vehicles in two or more stages would have one additional year, until September 1, 2033, for compliance. In addition, NHTSA determined that the December 2024 final rule would not have a significant economic impact on a substantial number of small entities. The amendments in this rule do not change that finding.

Executive Order 13132 (Federalism)

NHTSA has examined this rule pursuant to E.O. 13132 (64 FR 43255, Aug. 10, 1999) and concluded that no additional consultation with States, local governments, or their representatives is mandated beyond the rulemaking process. The agency has concluded that this rule does not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. The rule does not have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

This rule would amend an existing regulation. When 49 CFR part 563 was promulgated in 2006, NHTSA explained its view that any State laws or regulations that

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[27] Limited line manufacturer means a manufacturer that sells three or fewer carlines, as that term is defined in 49 CFR 583.4, in the United States during a production year.

[28] Small-volume manufacturer as defined in § 571.127, "Automatic emergency braking systems for light vehicles," is an original vehicle manufacturer that produces or assembles fewer than 5,000 vehicles annually for sale in the United States.

would not allow manufacturers to use the types of EDRs addressed by part 563 would create a conflict and therefore be preempted.[29] As a result, regarding this rule, NHTSA does not believe there are current State laws or regulations for EDRs that conflict with part 563. In addition, this rule extends the compliance timeline but does not amend the underlying requirements that will be applicable to EDRs.

Executive Order 12988 (Civil Justice Reform)

With respect to the review of the promulgation of a new regulation, section 3(b) of E.O. 12988, "Civil Justice Reform" (61 FR 4729, Feb. 7, 1996), requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect; (2) clearly specifies the effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct, while promoting simplification and burden reduction; (4) clearly specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. This document is consistent with that requirement.

NHTSA has reviewed this rulemaking and determined that this rulemaking action conforms to the applicable standards in sections 3(a) and 3(b)(2) of E.O. 12988, Civil Justice Reform. The issue of preemption is discussed above, in the section discussing E.O. 13132 (Federalism). There is no requirement that individuals submit a petition for reconsideration or pursue other administrative proceedings before they may file suit in court.

Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a

[29] The 2006 final rule promulgating 49 CFR part 563 discussed preemption at length. See 71 FR 50907, 51029 (August 28, 2006).

rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. NHTSA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the *Federal Register*. This rule does not meet the criteria in 5 U.S.C. 804(2) to be considered a major rule. The rule will be effective thirty days after the date of publication in the *Federal Register*.

Executive Order 13609 (Promoting International Regulatory Cooperation)

E.O. 13609, "Promoting International Regulatory Cooperation" (77 FR 26413, May 1, 2012), promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

The agency is currently participating in the negotiation and development of technical standards for EDRs in the United Nations Economic Commission for Europe (UNECE) World Forum for Harmonization of Vehicle Regulations (WP.29). As a signatory member, NHTSA is obligated to initiate rulemaking to incorporate safety requirements and options specified in Global Technical Regulations (GTRs) if the U.S. votes in the affirmative to establish the GTR. No GTR for EDRs has been developed at this time. NHTSA has analyzed this rule under the policies and agency responsibilities of E.O. 13609 and has determined this rulemaking would have no effect on international regulatory cooperation.

National Environmental Policy Act

The Department has analyzed the environmental impacts of this final rule pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*). NHTSA has determined that this rule is categorically excluded pursuant to 23 CFR

771.118(c)(4). Categorical exclusions are categories of actions that the agency has determined normally do not significantly affect the quality of the human environment and therefore do not require either an environmental assessment (EA) or environmental impact statement (EIS).[30] In analyzing the applicability of a categorical exclusion (CE), the agency must also consider whether extraordinary circumstances are present that would warrant the preparation of an EA or EIS.[31] The Department's Operating Administrations (OAs) may apply CEs established in another OA's procedures.[32] To do so, the Operating Administration "must evaluate the action for extraordinary circumstances identified in the OA procedures in which the CE is established to determine if a normally excluded action may have a significant impact and coordinate with the originating OA to ensure that the CE is being applied correctly."[33] This rulemaking, which delays the compliance date, from September 1, 2027 until September 1, 2028, of the December 2024 final rule for compliance with amended pre-crash recording requirements for EDRs and implements a four-year phase-in period for EDRs to meet the updated data capture requirements, is categorically excluded pursuant to 23 CFR 771.118(c)(4): "Planning and administrative activities not involving or leading directly to construction, such as: Training, technical assistance and research; promulgation of rules, regulations, directives, or program guidance; approval of project concepts; engineering; and operating assistance to transit authorities to continue existing service or increase service to meet routine demand." NHTSA has coordinated with FTA to ensure that this CE is being applied correctly. NHTSA does not anticipate any environmental impacts, and there are no extraordinary circumstances present in connection with this rulemaking.

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[30] See DOT Order 5610.1D § 9.

[31] *Id*. § 9(b).

[32] *Id.* § 9(f).

[33] *Id.*

Paperwork Reduction Act

Under the procedures established by the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), a Federal agency must request and receive approval from the Office of Management and Budget (OMB) before it collects certain information from the public, and a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number.

NHTSA sought public comment on the reinstatement with modification of the previously approved information collection (OMB Control No. 2127-0535) in the NPRM that was published on November 28, 2025 and submitted an information collection request (ICR) to OMB for approval. As OMB deferred review while NHTSA reviewed the comments to the NPRM, NHTSA will be submitting the ICR for this final rule.

NHTSA's ICR describes the nature of the information collections and their expected burden. This rule establishes new information collection requirements for phase-in reporting and record retention requirements related to EDRs. This collection requires manufacturers of passenger cars, multipurpose passenger vehicles, trucks, and buses with a gross vehicle weight rating of 3,855 kg (8,500 pounds) or less that are equipped with EDRs to provide motor vehicle production data for the following four years: September 1, 2028, to August 31, 2029; September 1, 2029, to August 31, 2030; September 1, 2030, to August 31, 2031; and September 1, 2031, to August 31, 2032. Manufacturers annually submit a report, and maintain records related to the report, concerning the number of such vehicles that meet the EDR requirements of part 563 during the phase-in of those requirements. The purpose of the reporting requirements are to aid the agency in determining whether a manufacturer of vehicles equipped with EDRs has complied with the EDR requirements during the phase-in of those requirements.

NHTSA did not receive any comments in response to the ICR but received one comment to the rulemaking docket that pertains to the information collection. This

comment is discussed in full in the preamble to this final rule, above. As described in the NPRM, NHTSA estimates that the total annual hour burden is 22 hours. There has been no change in the estimates for this final rule. The annual burden involves the tasks of collection of the information required by the annual report as well as placing the information in a form suitable for record keeping and data retrieval. Because almost all the information required is already recorded by the manufacturers as part of their production control and tracking systems, a nominal assessment of half a burden hour per respondent is estimated for data retrieval and report preparation and half a burden hour per respondent for the record keeping of the data. Therefore, NHTSA estimates that the average total burden for submitting data will be 11 hours per year (22 manufacturers × .5 hours = 11 hours) and estimates that the average total burden for record retention will be 11 hours per year (22 manufacturers × .5 hours = 11 hours). NHTSA estimates the labor costs associated with these labor hours using hourly labor rates published by the Bureau of Labor Statistics (BLS). BLS estimates that hourly wages represent approximately 70.2 percent of total compensation for private industry workers. For the labor costs associated with this ICR, NHTSA uses the mean hourly wage of $40.64 per hour for "Technical Writers" (occupational code 27-3042) for the Motor Vehicle Manufacturing Industry (Sectors 31, 32, and 33) and applies the 70.2 percent factor to find the total compensation rate of $57.89 per hour ($40.64 per hour divided by 0.705). The total annual labor cost associated with the burden hours is estimated to be $1,273.58 (time burden of 22 hours × $57.89 cost per hour). NHTSA estimates that there are no costs associated with the information collection other than labor costs associated with the burden hours. NHTSA will submit supporting statements to OMB explaining this final rule's collection of information.

National Technology Transfer and Advancement Act

Under the National Technology Transfer and Advancement Act of 1995 (NTTAA) (Pub. L. No. 104-113), "all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments." Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies, such as SAE. The NTTAA directs agencies to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards. The NTTAA requires agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical. Though there are voluntary consensus standards pertaining to EDRs, this rule does not change aspects of part 563 for which there are voluntary consensus standards.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) (UMRA) requires Federal agencies to assess the effects of regulatory actions that may result in the expenditure by a State, local, or Tribal government, in the aggregate, or by the private sector of $206 million (the value equivalent of $100 million in 1995, adjusted for inflation to 2025) or more in any one year. This final rule does not contain Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local and Tribal governments, or the private sector of $206 million or more in any one year. Thus, the analytical requirements of the UMRA do not apply to this action.

Executive Order 13175

E.O. 13175, "Consultation and Coordination With Indian Tribal Governments" (65 FR 67249, Nov. 6, 2000) requires Federal agencies to consult and coordinate with Tribes on a government-to-government basis on policies that have Tribal implications,

including regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes. NHTSA has assessed the impact of this rule on Indian Tribes and determined that this rule would not have tribal implications that require consultation under E.O. 13175.

Privacy Act

Petitions for review of the final rule will be placed in the docket. Anyone is able to search the electronic form of all documents received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). For information on DOT's compliance with the Privacy Act, see DOT's Privacy Program website.[34] To see the list of DOT's systems of records notices, please visit *https://www.transportation.gov/individuals/privacy/privacy-act-system-records-notices*.

Plain Language Requirement

E.O. 12866 and E.O. 13563 require each agency to write all rules in plain language. Application of the principles of plain language includes consideration of the following questions:

- Have we organized the material to suit the public's needs?
- Are the requirements in the rule clearly stated?
- Does the rule contain technical language or jargon that is not clear?
- Would a different format (grouping and order of sections, use of headings, paragraphing) make the rule easier to understand?
- Would more (but shorter) sections be better?
- Could we improve clarity by adding tables, lists, or diagrams?
- What else could we do to make the rule easier to understand?

[34] U.S. Department of Transp. Privacy Policy, https://www.transportation.gov/privacy (last updated Oct. 10, 2025).

NHTSA has considered these questions and attempted to use plain language in promulgating this final rule. If readers have suggestions on how we can improve our use of plain language, please write us.

Regulation Identifier Number (RIN)

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda twice a year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

List of Subjects

49 CFR Part 563

Motor vehicle safety, Motor vehicles, Reporting and recordkeeping requirements.

49 CFR Part 585

Reporting and recordkeeping requirements.

In consideration of the foregoing, NHTSA amends 49 CFR Chapter V as follows:

PART 563 – EVENT DATA RECORDERS

1. The authority citation for part 563 continues to read as follows:

Authority: 49 U.S.C. 322, 30101, 30111, 30115, 30117, 30166, 30168; delegation of authority at 49 CFR 1.95.

2. Add § 563.4 to read as follows:

§ 563.4 Certification for Phase-in.

(a) *Vehicle certification information*. At any time during the production years ending August 31, 2029, August 31, 2030, August 31, 2031, and August 31, 2032, each manufacturer shall, upon request from the Office of Vehicle Safety Compliance, provide

information identifying the vehicles (by make, model and vehicle identification number) that have been equipped with EDRs meeting the requirements of § 563.7(a) and (b). The manufacturer's designation of a vehicle as equipped with an EDR meeting these requirements is irrevocable.

(b) *Vehicles produced by more than one manufacturer*. For the purpose of calculating average annual production of vehicles for each manufacturer and the number of vehicles manufactured by each manufacturer under § 563.4(a), a vehicle produced by more than one manufacturer shall be attributed to a single manufacturer as follows:

(1) A vehicle which is imported shall be attributed to the importer.

(2) A vehicle manufactured in the United States by more than one manufacturer, one of which also markets the vehicle, shall be attributed to the manufacturer which markets the vehicle.

(c) *Attributability by express written contract of vehicles produced by more than one manufacturer.* A vehicle produced by more than one manufacturer shall be attributed to any one of the vehicle's manufacturers specified by an express written contract, reported to the National Highway Traffic Safety Administration under 49 CFR part 585, between the manufacturer so specified and the manufacturer to which the vehicle would otherwise be attributed under § 563.4(b).

(d) *Average annual production*. For the purposes of calculating average annual production of vehicles for each manufacturer and the number of vehicles manufactured by each manufacturer under § 563.4(a), only count vehicles to which this regulation is applicable as specified §563.3 and are equipped with an EDR.

2. Amend § 563.7 by revising Table I in paragraph (a) and Table II in paragraph (b) to read as follows:

§ 563.7 Data elements.

(a) * * *

Table I to § 563.7(a) – Data Elements Required for All Vehicles Equipped With an EDR

Data element	**Recording interval/time[1] (relative to time zero)**	**Data sample rate (samples per second)**
Delta-V, longitudinal	0 to 250 ms or 0 to End of Event Time plus 30 ms, whichever is shorter	100
Maximum delta-V, longitudinal	0-300 ms or 0 to End of Event Time plus 30 ms, whichever is shorter	N/A
Time, maximum delta-V	0-300 ms or 0 to End of Event Time plus 30 ms, whichever is shorter	N/A
Speed, vehicle indicated	-20 to 0 sec[4]	[4]10
Engine throttle, % full (or accelerator pedal, % full)	-20 to 0 sec[4]	[4]10
Service brake, on/off	-20 to 0 sec[4]	[4]10
Ignition cycle, crash	-1.0 sec	N/A
Ignition cycle, download	At time of download[3]	N/A
Safety belt status, driver	-1.0 sec	N/A
Frontal air bag warning lamp, on/off[2]	-1.0 sec	N/A
Frontal air bag deployment, time to deploy, in the case of a single stage air bag, or time to first stage deployment, in the case of a multi-stage air bag, driver	Event	N/A
Frontal air bag deployment, time to deploy, in the case of a single stage air bag, or time to first stage deployment, in the case of a multi-stage air bag, right front passenger	Event	N/A
Multi-event, number of event	Event	N/A
Time from event 1 to 2	As needed	N/A
Complete file recorded (yes, no)	Following other data	N/A

[1] Pre-crash data and crash data are asynchronous. The sample time accuracy requirement for pre-crash time is −0.1 to 1.0 sec (e.g., T = −1 would need to occur between −1.1 and 0 seconds.)

[2] The frontal air bag warning lamp is the readiness indicator specified in S4.5.2 of FMVSS No. 208 and may also illuminate to indicate a malfunction in another part of the deployable restraint system.

[3] The ignition cycle at the time of download is not required to be recorded at the time of the crash, but shall be reported during the download process.

[4] Except as provided in the following phase-in, for vehicles equipped with an EDR manufactured before September 1, 2031, the required recording interval is −5.0 to 0 sec relative to time zero and the required data sample rate is 2 samples per second. For vehicles manufactured on or after September 1, 2028 but before August 31, 2029, 25 percent of each manufacturer's vehicle production equipped with an EDR must have the recording interval and data sample rate displayed in this table. For vehicles manufactured

on or after September 1, 2029 but before August 31, 2030, 50 percent of each manufacturer's vehicle production equipped with an EDR must have the recording interval and data sample rate displayed in this table. For vehicles manufactured on or after September 1, 2030 but before August 31, 2031, 75 percent of each manufacturer's vehicle production equipped with an EDR must have the recording interval and data sample rate displayed in this table. For vehicles equipped with an EDR manufactured before September 1, 2032 by a small-volume manufacturer or limited-line manufacturer, the required recording interval is −5.0 to 0 sec relative to time zero and the required data sample rate is 2 samples per second. For vehicles equipped with an EDR manufactured before September 1, 2033 by manufacturers producing altered vehicles or vehicles in two or more stages, the required recording interval is −5.0 to 0 sec relative to time zero and the required data sample rate is 2 samples per second.

(b) * * *

Table II to § 563.7(b) - Data Elements Required for Vehicles Under Specified Minimum

Conditions

Data element name	**Condition for requirement**	**Recording interval/time[1] (relative to time zero)**	**Data sample rate (per second)**
Lateral acceleration	If recorded[2]	N/A	N/A
Longitudinal acceleration	If recorded	N/A	N/A
Normal acceleration	If recorded	N/A	N/A
Delta-V, lateral	If recorded	0-250 ms or 0 to End of Event Time plus 30 ms, whichever is shorter	100
Maximum delta-V, lateral	If recorded	0-300 ms or 0 to End of Event Time plus 30 ms, whichever is shorter	N/A
Time maximum delta-V, lateral	If recorded	0-300 ms or 0 to End of Event Time plus 30 ms, whichever is shorter	N/A
Time for maximum delta-V, resultant	If recorded	0-300 ms or 0 to End of Event Time plus 30 ms, whichever is shorter	N/A
Engine rpm	If recorded	-20 to 0 sec[5]	[5]10
Vehicle roll angle	If recorded	-1.0 up to 5.0 sec[3]	10
ABS activity (engaged, non-engaged)	If recorded	-20 to 0 sec[5]	[5]10

Stability control (on, off, or engaged)	If recorded	-20 to 0 sec[5]	[5]10
Steering input	If recorded	-20 to 0 sec[5]	[5]10
Safety belt status, right front passenger (buckled, not buckled)	If recorded	-1.0 sec	N/A
Frontal air bag suppression switch status, right front passenger (on, off, or auto)	If recorded	-1.0 sec	N/A
Frontal air bag deployment, time to nth stage, driver[4]	If equipped with a driver's frontal air bag with a multi-stage inflator	Event	N/A
Frontal air bag deployment, time to nth stage, right front passenger[4]	If equipped with a right front passenger's frontal air bag with a multi-stage inflator	Event	N/A
Frontal air bag deployment, nth stage disposal, driver, Y/N (whether the nth stage deployment was for occupant restraint or propellant disposal purposes)	If recorded	Event	N/A
Frontal air bag deployment, nth stage disposal, right front passenger, Y/N (whether the nth stage deployment was for occupant restraint or propellant disposal purposes)	If recorded	Event	N/A
Side air bag deployment, time to deploy, driver	If recorded	Event	N/A
Side air bag deployment, time to deploy, right front passenger	If recorded	Event	N/A
Side curtain/tube air bag deployment, time to deploy, driver side	If recorded	Event	N/A
Side curtain/tube air bag deployment, time to deploy, right side	If recorded	Event	N/A
Pretensioner deployment, time to fire, driver	If recorded	Event	N/A
Pretensioner deployment, time to fire, right front passenger	If recorded	Event	N/A
Seat track position switch, foremost, status, driver	If recorded	-1.0 sec	N/A

Seat track position switch, foremost, status, right front passenger	If recorded	-1.0 sec	N/A
Occupant size classification, driver	If recorded	-1.0 sec	N/A
Occupant size classification, right front passenger	If recorded	-1.0 sec	N/A
Occupant position classification, driver	If recorded	-1.0 sec	N/A
Occupant position classification, right front passenger	If recorded	-1.0 sec	N/A

[1] Pre-crash data and crash data are asynchronous. The sample time accuracy requirement for pre-crash time is −0.1 to 1.0 sec (e.g., T = −1 would need to occur between −1.1 and 0 seconds.)

[2] "If recorded" means if the data is recorded in non-volatile memory for the purpose of subsequent downloading.

[3] "vehicle roll angle" may be recorded in any time duration; −1.0 sec to 5.0 sec is suggested.

[4] List this element n − 1 times, once for each stage of a multi-stage air bag system.

[5] Except as provided in the following phase-in, for vehicles equipped with an EDR manufactured before September 1, 2031, the required recording interval is −5.0 to 0 sec relative to time zero and the required data sample rate is 2 samples per second. For vehicles manufactured on or after September 1, 2028 but before August 31, 2029, 25 percent of each manufacturer's vehicle production equipped with an EDR must have the recording interval and data sample rate displayed in this table. For vehicles manufactured on or after September 1, 2029 but before August 31, 2030, 50 percent of each manufacturer's vehicle production equipped with an EDR must have the recording interval and data sample rate displayed in this table. For vehicles manufactured on or after September 1, 2030 but before August 31, 2031, 75 percent of each manufacturer's vehicle production equipped with an EDR must have the recording interval and data sample rate displayed in this table. For vehicles equipped with an EDR manufactured before September 1, 2032 by a small-volume manufacturer or limited-line manufacturer, the required recording interval is −5.0 to 0 sec relative to time zero and the required data sample rate is 2 samples per second. For vehicles equipped with an EDR manufactured before September 1, 2033 by manufacturers producing altered vehicles or vehicles in two or more stages, the required recording interval is −5.0 to 0 sec relative to time zero and the required data sample rate is 2 samples per second.

PART 585 – PHASE-IN REPORTING REQUIREMENTS

3. The authority citation for part 585 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49

CFR 1.95.

4. Add subpart P, consisting of § § 585.142 through 585.148*,* to read as follows:

Subpart P – Event Data Recorders Phase-In Reporting Requirements

Sec.

Subpart P – Event Data Recorders Phase-In Reporting Requirements

§ 585.142 Scope.

This subpart establishes requirements for manufacturers of passenger cars, multipurpose passenger vehicles, trucks, and buses with a GVWR of 3,855 kg (8,500 pounds) or less and an unloaded vehicle weight of 2,495 kg (5,500 pounds) or less, except for walk-in van-type trucks or vehicles designed to be sold exclusively to the U.S. Postal Service, to submit a report per § 585.147, and maintain records related to the report according to § 585.148, concerning the number of such vehicles that meet the requirements of part 563, Event data recorders (49 CFR 563).

§ 585.143 Purpose.

The purpose of these reporting requirements is to assist the National Highway Traffic Safety Administration in determining whether a manufacturer has complied with part 563 (49 CFR 563).

§ 585.144 Applicability.

This subpart applies to manufacturers of passenger cars, multipurpose passenger vehicles, trucks, and buses with a GVWR of 3,855 kg (8,500 pounds) or less and an unloaded vehicle weight of 2,495 kg (5,500 pounds) or less, except for walk-in van-type trucks or

vehicles designed to be sold exclusively to the U.S. Postal Service, for which part 563 applies. However, this subpart does not apply to vehicles excluded by §563.3 from the requirements of that standard.

§ 585.145 Definitions.

Event data recorder (EDR) is used as defined in 49 CFR 563.5.

§ 585.146 Response to inquiries.

At any time during the production years ending August 31, 2029, August 31, 2030, August 31, 2031, and August 31, 2032, each manufacturer shall, upon request from the Office of Vehicle Safety Compliance, provide information identifying the vehicles (by make, model and vehicle identification number) that have been certified as complying with part 563 (49 CFR 563). The manufacturer's designation of a vehicle as a certified vehicle is irrevocable.

§ 585.147 Reporting requirements.

(a) *General reporting requirements.* Within 60 days after the end of the production years ending August 31, 2029, August 31, 2030, August 31, 2031, and August 31, 2032, each manufacturer shall submit a report to the National Highway Traffic Safety Administration concerning its compliance with the event data recorder requirements of part 563 (49 CFR 563) for applicable vehicles produced in that year. Each report shall:

(1) Identify the manufacturer;

(2) State the full name, title, and address of the official responsible for preparing the report;

(3) Identify the production year being reported on;

(4) Contain a statement regarding whether or not the manufacturer complied with the event data recorder data element capture requirements of part 563 (49 CFR 563) for the period covered by the report and the basis for that statement;

(5) Provide the information specified in paragraph (b) of this section;

(6) Be written in the English language; and

(7) Be submitted to: Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue S.E., West Building, Washington, D.C. 20590.

(b) *Report content* —(1) *Basis for phase-in production goals.* Each manufacturer must provide the number of passenger cars, multipurpose passenger vehicles, trucks, and buses with a GVWR of 3,855 kg (8,500 pounds) or less and an unloaded vehicle weight of 2,495 kg (5,500 pounds) or less, except for walk-in van-type trucks or vehicles designed to be sold exclusively to the U.S. Postal Service, manufactured for sale in the United States for each of the most recent three previous production years, or, at the manufacturer's option, for the most recently ended production year that are equipped with an EDR. A new manufacturer that has not previously manufactured these vehicles for sale in the United States must submit a report at the end of the initial production year for the number of such vehicles manufactured during the initial production year.

(2) *Production.* Each manufacturer must report for the production year for which the report is filed: the number of passenger cars, multipurpose passenger vehicles, trucks, and buses with a GVWR of 3,855 kg (8,500 pounds) or less and an unloaded vehicle weight of 2,495 kg (5,500 pounds) or less, except for walk-in van-type trucks or vehicles designed to be sold exclusively to the U.S. Postal Service, that are equipped with an EDR and that do and do not have the recording interval and data sample rate displayed in Table I to §563.7(a) or Table II to §563.7(b) (49 CFR 563.7).

(3) *Vehicles produced by more than one manufacturer.* Each manufacturer whose reporting of information is affected by one or more of the express written contracts permitted by § 563.4(c) must:

(i) Report the existence of each contract, including the names of all parties to the contract, and explain how the contract affects the report being submitted.

(ii) Report the actual number of vehicles covered by each contract.

§ 585.148 Records.

Each manufacturer must maintain records of the Vehicle Identification Number for each vehicle for which information is reported under § 585.147 until December 31, 2033.

Issued under authority delegated in 49 CFR 1.95.

Jonathan Morrison,

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Administrator

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