



U.S. Department of Transportation

Privacy Impact Assessment

Federal Motor Carrier Safety Administration (FMCSA) SafeSpect

Responsible Official

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Executive Summary

The Federal Motor Carrier Safety Administration (FMCSA) is an Operating Administration (OA) within the U.S. Department of Transportation (DOT) with a core mission to reduce commercial motor vehicle-related crashes and fatalities. To further this mission, FMCSA developed the SafeSpect system to ensure compliance with the Federal Motor Carrier Safety Regulations (FMCSRs) and Hazardous Materials Regulations (HMRs). SafeSpect is FMCSA's system for collecting data related to inspections, investigations, and crashes involving commercial motor vehicles (CMVs), motor carriers, and CMV drivers. SafeSpect collects this information to:

- Ensure compliance with the FMCSRs HMRs
- Monitor and measure motor carrier safety performance
- Prioritize enforcement activities
- Inform trend analysis and crash causal factors analysis

These activities follow a set of standards set by an alliance of Federal and State enforcement personnel and the motor carrier industry.

This Privacy Impact Assessment updates and supersedes the initial proof-of-concept PIA published on March 18, 2022. The SafeSpect system has undergone major operational updates, including the integration of the Investigation Module, the Crash Module, and an AI-driven chatbot. The purpose of this PIA is to account for these system enhancements, re-evaluate privacy impacts, and provide an accurate overview of current system capabilities and data handling practices.

What is a Privacy Impact Assessment?

The Privacy Act of 1974 articulates concepts for how the federal government should treat individuals and their information and imposes duties upon federal agencies regarding the collection, use, dissemination, and maintenance of personally identifiable information (PII). The E-Government Act of 2002, Section 208, establishes the requirement for agencies to conduct privacy impact assessments (PIAs) for electronic information systems and collections. The assessment is a practical method for evaluating privacy in information systems and collections, and documented assurance that privacy issues have been identified and adequately addressed. The PIA is an analysis of how information is handled to ensure handling conforms to applicable legal, regulatory, and policy requirements regarding privacy; ii) determine the risks and effects of collecting, maintaining and disseminating information in identifiable form in an electronic information system; and iii) examine and evaluate protections and alternative processes



for handling information to mitigate potential privacy risks.¹

Conducting a PIA ensures compliance with laws and regulations governing privacy and demonstrates the DOT's commitment to protect the privacy of any personal information we collect, store, retrieve, use and share. It is a comprehensive analysis of how the DOT's electronic information systems and collections handle personally identifiable information (PII). The goals accomplished in completing a PIA include:

- *Making informed policy and system design or procurement decisions. These decisions must be based on an understanding of privacy risk, and of options available for mitigating that risk;*
- *Accountability for privacy issues;*
- *Analyzing both technical and legal compliance with applicable privacy law and regulations, as well as accepted privacy policy; and*
- *Providing documentation on the flow of personal information and information requirements within DOT systems.*

Upon reviewing the PIA, you should have a broad understanding of the risks and potential effects associated with the Department activities, processes, and systems described and approaches taken to mitigate any potential privacy risks.

Introduction & System Overview

SafeSpect is FMCSA's system for collecting data related to the inspection of a CMV, the motor carrier, and its driver to ensure compliance with the FMCSRs and HMRs. These inspections follow a set of standards set by an alliance of Federal and State enforcement personnel, and the motor carrier industry. The inspections determine the roadworthiness of the vehicle in operation and the driver's eligibility and fitness to drive. The system collects the name and address of the motor carrier, the manufacturer, model year, Vehicle Identification Number (VIN), and state registration of the vehicles inspected, the location, date and time of the inspection, driver information, and citations of violations noted at the scene. The collection of this information is necessary to validate the status of the driver's license and compliance with the Drug and Alcohol Clearinghouse.

SafeSpect replaces FMCSA's Aspen and SAFETYNET systems, and parts of the Safety and Fitness Electronic Records (SAFER) system and the Motor Carrier Management Information System (MCMIS). SafeSpect allows certified State and Federal inspectors to begin an inspection with any current web browser, and the date and time are automatically entered. The system presents the inspector's current location on a map for the inspector to validate. The location is then matched to a known fixed location or a roadway route and mile

¹ Office of Management and Budget's (OMB) definition of the PIA taken from guidance on implementing the privacy provisions of the E-Government Act of 2002 (see OMB memo of M-03-22 dated September 26, 2003).



point. The inspector searches for the motor carrier's information by a lookup against FMCSA's authoritative motor carrier census, and the system returns the motor carrier's status and safety performance information. The inspector enters the vehicle's VIN, and the system performs a search and returns the vehicle manufacturer, model year, and validates the VIN for accuracy.

Upon input of the driver's license number and State, the system queries FMCSA's Commercial Driver's License Information System (CDLIS) for the status of the commercial driver's license (CDL), the record of the driver's medical card, and the status of the driver in the Drug and Alcohol Clearinghouse. The inspector then does a physical inspection of the vehicle noting any violations found. Once completed, the inspector can then add any specific notes to the record and submit it to the database. At that point, a user designated as a "reviewer" reviews the data submitted and accept or reject the inspection. When accepted, the inspection is then available in FMCSA's existing database (MCMIS) for use in compliance algorithms and safety ratings.

SafeSpec's Investigation Module is a modernized platform which not only reduces the time and effort required for investigators to spend on onsite and off-site investigations but also enhances investigations in a timely manner. It entails building a versatile and adaptive platform to seamlessly integrate safety protocols while ensuring uniformity and consistency. This platform is engineered to streamline workflows efficiently, encompassing tasks from assignment to enforcement across all types of investigations. The platform facilitates role-based data sharing among both internal and external stakeholders to prevent motor carriers from engaging in unsafe operational practices.

The new Crash Module component of SafeSpec transitions crash reporting off SafetyNet to a modernized system, with easy-to-use data entry as well as offline and online modes. The Crash Module component of SafeSpec eliminates legacy and unsupported technologies. It allows for the entry of standard crashes as well as the Model Minimum Uniform Crash Criteria (MMUCC) 5th Edition elements. The new Crash Causation Factors Program (CCFP) Module component of SafeSpec will be developed in concert with the Crash Module. This module is an essential element in the CCFP's effort to conduct "a comprehensive study to determine the causes of, and contributing factors to, crashes that involve commercial motor vehicles" as required by Section 23006 of the Infrastructure Investment and Jobs Act (IIJA). The CCFP Module serves as the central repository for the program's qualifying crash data imported from SafeSpec, as well as CMV and non-CMV data obtained through initial incident forms, police crash reports, post-crash investigations, crash reconstruction reports and other forms of data supplied by the States.



SafeSpect's AI-enabled Chatbot acts as automated search and retrieval assistant. It operates entirely within a closed Retrieval-Augmented Generation (RAG) framework, querying pre-approved, non-sensitive operational manuals to answer natural-language user prompts. The underlying knowledge base consists entirely of public or internal policy and training manuals. It does not contain Personally Identifiable Information (PII). The system does not require, prompt for, or solicit personal identity attributes to formulate answers. The underlying Large Language Model (LLM) runs in a stateless environment. User prompts and Electronic Field Operations Training Manual (eFOTM) content are processed in-memory during inference and are never used to retrain the foundational model. To ensure continuous model accuracy, response quality, and coverage gap identification, the system captures user prompts, chatbot outputs, and optional user feedback (ratings and comments) for downstream product improvement.

Personally Identifiable Information (PII) and SafeSpect

The system collects and processes driver information that could include the following PII:

- Driver Name (First, Middle Initial, Last Name)
- Date of Birth
- Driver's license State of issue
- Driver's license number
- VIN
- Driver's Medical Card

Fair Information Practice Principles (FIPPs) Analysis

The DOT PIA template is based on the fair information practice principles (FIPPs). The FIPPs, rooted in the tenets of the Privacy Act, are mirrored in the laws of many U.S. states, as well as many foreign nations and international organizations. The FIPPs provide a framework that will support DOT efforts to appropriately identify and mitigate privacy risk. The FIPPs-based analysis conducted by DOT is predicated on the privacy control families articulated in the Federal Enterprise Architecture Security and Privacy Profile (FEA-SPP) v3,² sponsored by the National Institute of Standards and Technology (NIST), the Office of Management and Budget (OMB), and the Federal Chief Information Officers Council and the Privacy Controls articulated in Appendix J of the NIST Special Publication 800-53 Security and Privacy Controls for Federal Information Systems and Organizations.³

Transparency

Sections 522a(e)(3) and (e)(4) of the Privacy Act and Section 208 of the E-Government Act require public notice of an organization's information practices and the privacy impact of government programs and activities. Accordingly, DOT is open and transparent about

² <http://www.cio.gov/documents/FEA-Security-Privacy-Profile-v3-09-30-2010.pdf>

³ http://csrc.nist.gov/publications/drafts/800-53-Appendix-J/IPDraft_800-53-privacy-appendix-J.pdf



policies, procedures, and technologies that directly affect individuals and/or their personally identifiable information (PII). Additionally, the Department should not maintain any system of records, the existence of which is not known to the public.

FMCSA does not secretly collect or store PII. The FMCSA clearly discloses its policies and practices concerning the PII collected and held. The FMCSA provides notice to individuals through this PIA published on the DOT privacy program's website at www.transportation.gov/privacy.

This document identifies the information collection's purpose, FMCSA's authority to store and use the PII, and all uses of the PII stored and transmitted through SafeSpect.

Records in SafeSpect are retrieved by the individual's name and other personal identifiers and are subject to the provisions of the Privacy Act. FMCSA maintains these records in accordance with the Department's published System of Records Notice (SORN).

SafeSpect records are currently covered under [DOT/FMCSA 001, Motor Carrier Management Information System \(MCMIS\)](#) System of Records - Federal Register, Vol. 78, No. 186, September 25, 2013. The SORN provides notice as to the conditions of disclosure and FMCSA's routine uses for the information collected in the system. The SORN also requires that any dissemination of information maintained within the system be compatible with the purpose for which the information was originally collected. In addition, FMCSA provided periodic updates at industry outreach events related to the SafeSpect.

The publication of this PIA further demonstrates FMCSA's commitment to providing appropriate transparency into the SafeSpect. This PIA is available to the public on the DOT website at <http://www.dot.gov/privacy>.

Individual Participation and Redress

DOT provides a reasonable opportunity and capability for individuals to make informed decisions about the collection, use, and disclosure of their PII. As required by the Privacy Act, individuals should be active participants in the decision-making process regarding the collection and use of their PII and they are provided reasonable access to their PII and the opportunity to have their PII corrected, amended, or deleted, as appropriate.

FMCSA ensures that individuals have the right to (a) obtain confirmation of whether or not FMCSA has PII relating to him or her; (b) access the PII related to him or her within a reasonable time, cost, and manner and in a form that is readily intelligible to the individual; (c) obtain an explanation if a request made under (a) and (b) is denied and challenge such denial; and (d) challenge PII relating to him or her and, if the challenge is successful, have the data erased, rectified, completed, or amended. FMCSA clearly discloses its policies and practices concerning the PII collected and held associated with the implementation of the changes.



With SafeSpect, individuals may request access to their own records that are maintained in a system of records in the possession or under the control of DOT by complying with DOT Privacy Act regulations found in 49 CFR Part 10. Privacy Act requests for access to an individual's record must be in writing (either handwritten or typed), and may be mailed, faxed, or emailed. DOT regulations require that the request includes a description of the records sought, the requester's full name, current address, and date and place of birth. The request must be signed and either notarized or submitted under penalty of perjury. Additional information and guidance regarding DOT's Freedom of Information Act (FOIA)/Privacy Act program may be found on the DOT website (<https://www.transportation.gov/privacy>).

MCMIS is the authoritative source of information in SafeSpect. Under the provisions of the Privacy Act and FOIA, individuals may request searches of SafeSpect to determine if any records have been added that may pertain to them. This is accomplished by sending a written request directly to:

Federal Motor Carrier Safety Administration
U.S. Department of Transportation
Attn: FOIA Team MC-MMI
1200 New Jersey Avenue SE
Washington, DC 20590

Purpose Specification

DOT should (i) identify the legal bases that authorize a particular PII collection, activity, or technology that impacts privacy; and (ii) specify the purpose(s) for which it collects, uses, maintains, or disseminates PII.

SafeSpect collects CMV driver, carrier, and shipper representative PII along with inspection, investigation, and crash information. This information is uploaded to MCMIS and used to track CMV safety-related data. Once the information has been uploaded to MCMIS, companies, agencies, individuals, and other authorized organizations with access to MCMIS are able to view the information to help enhance motor carrier and truck/bus driver safety. FMCSA maintains SafeSpect in accordance with 49 U.S.C. 31136(e), Motor Carrier Safety Act of 1984 and 49 U.S.C. 31315, Transportation Efficiency Act for the 21st Century, TEA-21.

State and local enforcement officials use SafeSpect to search for truck driver history, review inspection and investigation results and crash records, record and track inspection data, research compliance issues, and contact appropriate individuals or companies/organizations to request additional information regarding the records or take compliance action.

SafeSpect is used to collect records of the safety performance of interstate carriers and



hazardous materials shippers that are subject to the FMCSRs or HMRs. The inspection, investigation, and/or crash information containing the CMV driver and carrier/shipper representative PII is instrumental in determining the safety performance of the interstate carriers and hazardous materials shippers that are subject to the FMCSRs and HMRs.

Data Minimization & Retention

DOT should collect, use, and retain only PII that is relevant and necessary for the specified purpose for which it was originally collected.

SafeSpect records are managed in accordance with the MCMIS retention schedule. MCMIS records are retained and destroyed in accordance with applicable NARA retention schedule N1-557-05-07 Item #5. The master backup tape is designated for deletion under this retention schedule when 5 years old, when no longer needed, or when information is superseded or becomes obsolete, whichever is sooner.

Records in this system are safeguarded in accordance with applicable rules and policies, including all applicable DOT automated systems security and access policies. Strict controls have been imposed to minimize the risk of compromising the information that is being stored. Access to records in this system is limited to those individuals who have a need to know the information for the performance of their official duties and who have appropriate clearances or permissions.

Use Limitation

DOT shall limit the scope of its PII use to ensure that the Department does not use PII in any manner that is not specified in notices, incompatible with the specified purposes for which the information was collected, or for any purpose not otherwise permitted by law.

FMCSA minimizes its data collection to that necessary to meet the authorized business purpose and mission of the Agency. The system collects the name and address of the motor carrier, the manufacturer, model year, VIN, and State registration of the vehicles inspected, the location and date and time of the inspection, driver information, and citations of violations noted at the scene. The collection of this information is necessary to validate the status of the driver's license, and compliance with the Drug and Alcohol Clearinghouse.

SafeSpect is not the authoritative source for PII data; PII data is collected from other FMCSA systems for statistical analysis of historical data. The data is used by Federal and State enforcement personnel, as well as the motor carrier industry, insurance companies, and the public.

SafeSpect receives information from the following systems:

- Motor Carrier registration information and status from MCMIS;
- Motor Carrier insurance and operating authority status from Licensing and Insurance



- (L&I);
- Records of previous inspections of the Motor Carrier, the Vehicle, or the Driver from SAFER;
- Vehicle configuration information from [NHTSA's VPIC](#);
- Commercial Driver License status from CDLIS;
- Driver eligibility status from the Drug and Alcohol Clearinghouse;
- Intermodal Equipment Provider registration status from the Global Intermodal Equipment Registry (GIER).

SafeSpect sends completed inspection data to the SAFER and MCMIS environments. The Analysis and Insurance system reads inspection data elements for analysis.

Data Quality and Integrity

In accordance with Section 552a(e)(2) of the Privacy Act of 1974, DOT should ensure that any PII collected and maintained by the organization is accurate, relevant, timely, and complete for the purpose for which it is to be used, as specified in the Department's public notice(s).

FMCSA ensures that the collection, use, and maintenance of PII for implementing the SafeSpect is relevant to the purposes for which the data is to be used and, to the extent necessary for those purposes, it is accurate, complete, and up to date. The Agency has a variety of protocols in place to validate and verify that the information collected in the SafeSpect is associated with the correct person to ensure the accuracy and reliability of the data collected.

SafeSpect provides internal data quality and completeness checks. In addition, the inspection data is received from other MCMIS and SAFETYNET. Therefore, it is the responsibility of the drivers and State officials to ensure accuracy.

Security

DOT shall implement administrative, technical, and physical measures to protect PII collected or maintained by the Department against loss, unauthorized access, or disclosure, as required by the Privacy Act, and to ensure that organizational planning and responses to privacy incidents comply with OMB policies and guidance.

PII is protected by reasonable security safeguards against loss or unauthorized access, destruction, usage, modification, or disclosure. These safeguards incorporate standards and practices required for Federal information systems under the Federal Information System Management Act (FISMA) and are detailed in Federal Information Processing Standards (FIPS) Publication 200, Minimum Security Requirements for Federal Information and Information Systems, dated March 2006, and NIST Special Publication (SP) 800-53 Rev. 4, and Recommended Security Controls for Federal Information Systems and Organizations, dated April 2013. FMCSA has a comprehensive information security



program that contains management, operational, and technical safeguards that are appropriate for the protection of PII. All required authorizations (e.g., to operate, analysis) were established before the SafeSpec was deployed. These safeguards are designed to achieve the following objectives:

- Ensure the security, integrity, and confidentiality of PII.
- Protect against any reasonably anticipated threats or hazards to the security or integrity of PII.
- Protect against unauthorized access to or use of PII.

Records in SafeSpec are safeguarded in accordance with applicable rules and policies, including all applicable DOT and FMCSA automated systems security and access policies. Strict controls are imposed on all DOT/FMCSA systems to minimize the risk of compromising the information that is being stored. Access to the computer system containing the records in SafeSpec is limited to those individuals who have a need to know the information for the performance of their official duties and who have appropriate clearances and permissions. All records that are stored in SafeSpec will be protected from unauthorized access through appropriate administrative, physical, and technical safeguards. All access to the SafeSpec is logged and monitored.

SafeSpec maintains an auditing function that tracks all user activities in relation to data, including access and modification. Through technical controls including firewalls, intrusion detection, encryption, access control lists, and other security methods, FMCSA prevents unauthorized access to data stored in the SafeSpec. These controls meet federally mandated information assurance and privacy requirements.

All FMCSA personnel and FMCSA contractors' complete security and privacy awareness training and role-based training offered by DOT/FMCSA. This allows individuals with varying roles to understand and retain knowledge of how to properly and securely act in situations where they may use PII while performing their duties. No user is allowed access to SafeSpec prior to receiving the necessary clearances and security and privacy training as required by DOT/FMCSA.

Accountability and Auditing

DOT shall implement effective governance controls, monitoring controls, risk management, and assessment controls to demonstrate that the Department is complying with all applicable privacy protection requirements and minimizing the privacy risk to individuals.

FMCSA is responsible for identifying, training, and holding FMCSA employees and contractors accountable for adhering to FMCSA privacy and security policies and regulations. FMCSA follows the Fair Information Practice Principles as best practices for



the protection of PII associated with the implementation of the SafeSpect. In addition to these practices, additional policies and procedures will be consistently applied, especially as they relate to protection, retention, and destruction of records. Federal and contract employees are given clear guidance in their duties as they relate to collecting, using, processing, and securing privacy data. Guidance is provided in the form of mandatory annual security and privacy awareness training as well as the DOT/FMCSA Rules of Behavior. The FMCSA Information System Security Officer and FMCSA Privacy Officer conduct periodic security and privacy compliance reviews of the SafeSpect consistent with the requirements of the Office of Management and Budget (OMB) Circular A-130, Section 8b (3), Securing Agency Information Systems.

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