



FY26 CPSC AI Use Cases¹

The U.S. Consumer Product Safety Commission (CPSC) is committed to responsibly advancing artificial intelligence (AI) in support of its mission to protect the public from unreasonable risks of injury and death associated with consumer products. In alignment with OMB M-25-21, the following list highlights key AI use cases that CPSC is pursuing to enhance software development, automate data integration, improve knowledge management, accelerate injury data analysis, strengthen risk-based import screening, and support compliance operations. These initiatives are designed to increase efficiency, improve regulatory decision-making, and uphold data privacy and security standards.

1. Software Development Assistance

These use cases involve AI-assisted and agentic software development approaches, including coding assistants and agentic software factories, to support developers with code generation, refactoring, testing, debugging, documentation, and modernization of legacy applications.

Legacy Analytics Modernization

Use AI-assisted development to accelerate the modernization of legacy Statistical Analysis System (SAS) applications by refactoring code around re-engineered business processes, replacing lift-and-shift translation with a maintainable, scalable, future-ready Python architecture.

AI-Enhanced Software Development

Integrate AI coding assistants throughout the software development lifecycle to generate code, develop unit tests, improve documentation, and identify defects before deployment.

2. Intelligent Data Ingestion and Integration

These use cases automate information classification tasks, including extracting, summarizing, and routing information from a variety of structured and unstructured data sources while maintaining current quality assurance and quality control checks. This will reduce manual processing efforts and enable faster identification and analysis of potential product safety hazards.

¹ This document was prepared by the CPSC staff. It has not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.



Automated Data Ingestion

Apply AI techniques such as Optical Character Recognition (OCR), Natural Language Processing, and automated extraction to ingest and standardize information from multiple internal and external data sources into the enterprise Data Lake.

Automated Data Classification

Automatically classify external datasets using Natural Language Processing (NLP) to improve consistency, reduce manual coding, and accelerate downstream analysis.

Online Marketplace Monitoring

Use AI to identify recalled and banned products across online marketplaces, automate product identification, and support enforcement workflows.

3. AI-Powered Knowledge Assistants

Provide an AI-enabled query assistant that enables employees to search, analyze, and synthesize information from enterprise systems subject to established security and access controls. Query assistants will enhance workforce productivity and support timely, informed regulatory decision-making for compliance, enforcement, and risk reduction.

Automated Recall Reviews

Review product recall progress reports to identify missing submissions, flag reports of new incidents, and notify staff when additional review may be warranted.

Public Inquiry Response Automation

Use agentic AI and Retrieval Augmented Generation to analyze public inquiries, identify common questions, retrieve authoritative agency guidance, and generate draft responses for staff review. The solution improves response consistency, reduces response times, and allows staff to focus on more complex or mission-critical inquiries.

4. Injury Data Analysis

Streamline analysis and summarization of injury data to improve the speed, consistency, and scalability of injury surveillance in accordance with applicable data privacy and usage agreements and laws. AI-assisted analysis and summarization will enable earlier detection of emerging hazards and strengthen the scientific basis for product safety decisions.

Automated Injury Data Insights

Develop innovative methodologies to gain insight into available injury information, consistent with privacy regulation and policy.



National Product Safety Intelligence System

Integrate multiple heterogeneous product safety datasets using Artificial Intelligence and Machine Learning to identify emerging hazards and support earlier detection of product risks.

5. Risk-Based Import Screening

Improve the identification of high-risk imported consumer products and enhance inspector decision-making to prevent hazardous imported products from reaching consumers.

Automated Import Targeting

Apply predictive analytics to customs, import, and historical compliance data to improve identification of shipments with elevated product safety risks.

6. Sample Evaluation Assistant

Streamline the preparation, summarization, and evaluation of evidence collected by Compliance Officers to determine if a sample product is violative or presents a substantial product hazard.

Compliance Knowledge Assistant

Enable Compliance Officers to query case files, evidence, and historical actions using natural language to rapidly locate relevant information and generate summaries.

Sample Evaluation and Processing

Analyze inspection findings, laboratory reports, and supporting documentation to summarize evidence, identify potential regulatory concerns, and assist Compliance Officers in preparing case recommendations.