



FIAT CHRYSLER AUTOMOBILES

Industry “Best Practices” for the Management of Vehicle Safety

May 26, 2016

FCA US LLC



Table of Contents

Background, Scope, & Approach	3 – 6
Background & Scope	
Key Inputs Informing “Best Practices”	
“Best Practices” Criteria	
“Best Practices”	7 – 19
Summary of “Best Practices”	
Improving Compliance Through “Best Practices”	
“Best Practice” Details	
“Best Practices” Implementation	20 - 21

Background, Scope, & Approach

Background & Scope

FCA US (FCA) engaged an Independent Third-Party Consultant to assess FCA's TREAD reporting procedures and defect determination and recall campaign processes, which included extensive external benchmarking, in order to effectively advise and assist FCA during the creation of the "Best Practices" deliverable outlined in Attachment A, Section B, Paragraph 1 of the NHTSA Consent Order dated July 24, 2015. The "Best Practices" are complementary to the performance obligations of the Consent Order and are not intended to address specific actions FCA is taking with respect to the performance obligations.

Consent Order Language

*(Attachment A, Section B, Paragraph 1) Develop the Final Best Practices for: (a) comprehensive reporting in **compliance with 49 C.F.R. § 579**; (b) making safety-related defect determinations and notifying NHTSA of such safety-related defects in **compliance with 49 C.F.R. § 573**; (c) responding to **NHTSA's requests for information** sent during the course of defect and noncompliance investigations; and (d) notifying dealers, owners, and purchasers of defects or noncompliances under **49 C.F.R. § 577**...*

Assessments



"Best Practices" Recommendations



Key Inputs Informing “Best Practices”

External research was conducted through numerous channels in order to understand and document leading practices for defect determination decision making and recall campaign process execution



Supply Chain

Subject matter specialists & research conducted by Deloitte



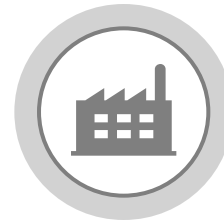
Public Recall Information

from NHTSA and other third-party research firms



Automotive Industry

Subject matter specialists & research conducted by Deloitte



Automotive OEM

representatives covering multiple organizations



Non-Automotive Industry

Subject matter specialists & research conducted by Deloitte



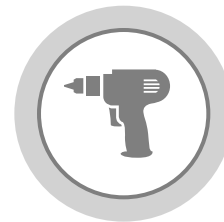
Automotive Supplier

representatives covering multiple organizations



Recall Management

Subject matter specialists & research conducted by Deloitte



Automotive Dealer

representatives covering multiple automotive OEMs

“Best Practices” Criteria

To draw out industry-leading practices the recommendations and key inputs were weighed against the following criteria

Safety	Effectiveness	Velocity	Compliance
<ul style="list-style-type: none">• Enhance the safety of the traveling public and improve recall completion rates• Improve overall customer satisfaction with the recall process	<ul style="list-style-type: none">• Improve sustainability and consistency of recall process• Incorporate continuous process improvements and lessons learned	<ul style="list-style-type: none">• Improve speed and efficiency of investigations and recall execution• Optimize resources and efforts required throughout the recall process	<ul style="list-style-type: none">• Comply with various NHTSA reporting regulations• Promote sustainable Safety Act compliance

“Best Practices” can be applied across the automotive industry

“Best Practices”

Summary of “Best Practices”



Cultivate **shared stewardship** of enhanced safety values **with NHTSA** and promote collaboration **across the industry**



Pursue a robust **multi-channel customer outreach program** for recall related communications



Establish an **independent and empowered safety regulatory organization**



Create **risk-based supplier and commodity segmentation** to enhance the procurement of replacement parts



Embed a **safety-focused culture** throughout the company



Use **advanced analytics for demand forecasting, inventory optimization, and parts allocation & distribution**



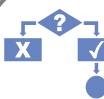
Leverage **advanced analytics to accelerate the identification of product safety concerns**



Establish a **workflow-enabled integrated recall management process** with user-based reporting capabilities



Collaborate internally across functions and externally with extended value chain partners to **accelerate root cause analysis and remedy development**



Develop **dynamic and sustainable recall capabilities** through continuous improvement efforts

Improving Compliance Through “Best Practices”

“Best Practice”	49 C.F.R. § 579 Comprehensive Reporting	49 C.F.R. § 573 Defect Determination & NHTSA Notification	Responding to NHTSA RFI	49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances
Shared Stewardship with NHTSA	✓	✓	✓	
Independent Safety Organization	✓	✓	✓	✓
Safety Focused Culture	✓	✓	✓	✓
Advanced Analytics to Accelerate Potential Safety Concerns	✓	✓	✓	
Accelerate Root Cause Analysis & Remedy Development	✓	✓		
Robust Customer Outreach				✓
Risk Based Supplier & Commodity Segmentation				✓
Advanced Analytics for Inventory, Allocation, and Distribution				✓
Workflow Enabled Integrated Recall Management Process	✓	✓	✓	✓
Dynamic & Sustainable Recall Capabilities	✓	✓	✓	✓

“Best Practice” Details (1 of 10)



“Cultivate shared stewardship of enhanced safety values with NHTSA and promote collaboration across the industry.”

Description

- Establish regular meetings with NHTSA to proactively share information on emerging defects, safety-related process improvements, new technologies, and other relevant developments
- Collaborate with other OEMs and partners to advocate for regulatory enhancements that would increase overall recall completion rates and improve customer satisfaction
- Clarify regulatory questions with NHTSA (i.e., actions permissible prior to a recall determination) and communicate the agency’s stance to the broader industry
- Leverage existing and emerging automotive industry forums to share “best practices” and emerging technologies related to improving vehicle safety

Compliance Benefits

- Regular communication with the agency and industry will align expectations, provide clarity, facilitate timely decision making, notification, and reporting, and promote ownership of safety within the industry.

Compliance Improved

- ☒ 49 C.F.R. § 579 Comprehensive Reporting
- ☒ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☒ Responding to NHTSA RFI
- ☐ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (2 of 10)



“Establish an independent and empowered safety regulatory organization.”

Description

- Create an independent safety regulatory organization that has clear accountability and responsibility for safety-related concerns
- Ensure the independent safety regulatory organization has autonomy to make recall determination decisions and direct access to the CEO of the company
- Ensure the safety organization has influence within Engineering, Purchasing, Supply Chain, and other functions involved in the recall process

Compliance Benefits

- An independent and empowered safety organization will streamline objective decision making and prioritization of critical tasks, providing benefit to all aspects of compliance.

Compliance Improved

- ☒ 49 C.F.R. § 579 Comprehensive Reporting
- ☒ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☒ Responding to NHTSA RFI
- ☒ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (3 of 10)



“Embed a safety-focused culture throughout the company.”

Description

- Leverage all available mediums, including company values, mission statements, internal communications, and external statements, to portray a top-down commitment to vehicle safety
- Develop a safety-specific training curriculum to ensure all employees are aware of their safety-related obligations
- Implement specific safety-focused initiatives, such as a dedicated safety hotline, that encourage all employees to be active stewards of vehicle safety
- Recognize and reward employees who demonstrate the stated safety values of the organization

Compliance Benefits

- An open safety focused culture will improve issue detection, and prioritize remedy development/execution, providing benefit to all aspects of compliance.

Compliance Improved

- ☑ 49 C.F.R. § 579 Comprehensive Reporting
- ☑ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☑ Responding to NHTSA RFI
- ☑ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (4 of 10)



“Leverage advanced analytics to accelerate the identification of product safety concerns.”

Description

- Develop advanced analytical models to proactively identify and prioritize potential defects in existing and emerging data sets
- Leverage multiple data sources and types to identify trends in customer complaints, field action reports, dealer repair comments, NHTSA VOQs, and other available text data sources
- Correlate defect indicators across siloed data sources in order to develop a holistic view of all potential defects earlier in the vehicle lifecycle
- Develop a prioritized list of alerts and reporting that inform key business stakeholders of potential defects as they emerge in the data

Compliance Benefits

- Advanced analytics will accelerate the identification of potential concerns and focus investigation efforts, leading to earlier defect determination, reporting, and response to information requests..

Compliance Improved

- ☒ 49 C.F.R. § 579 Comprehensive Reporting
- ☒ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☒ Responding to NHTSA RFI
- ☐ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (5 of 10)



“Collaborate internally across functions and externally with extended value chain partners to accelerate root cause analysis and remedy development.”

Description

- Utilize advanced analytics and external data sources (i.e., duty cycles, climates, altitudes, geographies, etc.) to support expedited root-cause analyses
- Extend analytics from issue identification to engineering root cause analysis and remediation
- Work with suppliers to define a process and forum for regularly sharing quality and safety defect information
- Engage suppliers as soon as a potential defect is identified and establish processes for implementing collaborative root-cause investigations and remediation

Compliance Benefits

- Early engagement with internal and external stakeholders will facilitate timely defect determination, notification, reporting, and prompt remedy development.

Compliance Improved

- ☒ 49 C.F.R. § 579 Comprehensive Reporting
- ☒ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☐ Responding to NHTSA RFI
- ☐ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (6 of 10)



“Pursue a robust multi-channel customer outreach program for recall related communications.”

Description

- Conduct on-going analysis around optimal timing and methods for customer outreach in order to better understand customer behavior and identify effective engagement strategies
- Use insights from analysis to create communication and outreach strategies customized to each recall and focused on maximizing customer response
- Explore opportunities to notify customers of open recalls electronically via text messages, emails, push notifications to mobile apps, in-vehicle alerts, social media, etc.

Compliance Benefits

- Optimized customer outreach will facilitate timely and effective dealer / owner / purchaser notifications, providing accurate information to owners through multi-channel communication.

Compliance Improved

- ☐ 49 C.F.R. § 579 Comprehensive Reporting
- ☐ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☐ Responding to NHTSA RFI
- ☒ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (7 of 10)



“Create risk-based supplier and commodity segmentation to enhance the procurement of replacement parts.”

Description

- Identify the indicators of elevated safety risk, including: critical/safety related parts, proprietary parts, capacity, quality, financial viability, geography, design ownership, etc.
- Utilize advanced analytics to identify high risk suppliers and commodities related to safety recalls
- Use segmentation to drive process improvements such as contingency and scenario planning (e.g., increase buffer capacity, identify alternate suppliers/production locations, implement more stringent supplier quality testing, increase part testing, etc.)

Compliance Benefits

- Optimized procurement of replacement parts will facilitate timely and effective dealer / owner / purchaser notifications, and reduce the need to issue interim letters.

Compliance Improved

- ☐ 49 C.F.R. § 579 Comprehensive Reporting
- ☐ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☐ Responding to NHTSA RFI
- ☒ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (8 of 10)



“Use advanced analytics for demand forecasting, inventory optimization, and parts allocation & distribution.”

Description

- Forecast customer demand using advanced analytics that includes customer, vehicle, and environmental characteristics (e.g., location, car type, age, season, etc.)
- Develop parts allocation and distribution analysis that takes into account indicators such as: vehicle age/type, supply schedules, sold/unsold/fleet, historical dealer behavior metrics, geography, customer complaints, historical completion rates, etc.
- Conduct distribution network simulations to determine optimal distribution center stocking levels for recall parts
- Develop a tool that optimizes part deployment and reduces dealer stock-outs by dynamically forecasting and rebalancing distribution center and dealer inventory

Compliance Benefits

- Optimized forecasting, inventory, and distribution of replacement parts will facilitate timely and effective dealer / owner / purchaser notifications, and reduce the need to issue interim letters.

Compliance Improved

- ☐ 49 C.F.R. § 579 Comprehensive Reporting
- ☐ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☐ Responding to NHTSA RFI
- ☒ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (9 of 10)



“Establish a workflow-enabled integrated recall management process with user-based-reporting capabilities.”

Description

- Implement rigorous investigation and recall process standards, with integration and workflow-enablement, that has the functionality to move potential safety-related issues from initial investigation to recall execution in a controlled, automated environment (e.g., escalate issues in real-time, automatically alert and notify users, generate required user-defined and compliance-related reports with auto-populated fields, and search safety-related systems and complete ad-hoc queries)
- Implement persona-based views, dashboards, and reports by level and function for key metrics and KPIs
- Ensure cross-functional prioritization and coordination of domestic and international safety-related process

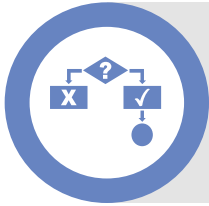
Compliance Benefits

- Robust end-to-end processes will benefit all aspects of compliance by providing standardized tools and metrics allowing manufacturers to more precisely identify when key trigger points are reached; accelerating the process of defect determination and other obligations keyed off defect determination.

Compliance Improved

- ☑ 49 C.F.R. § 579 Comprehensive Reporting
- ☑ 49 C.F.R. § 573 Defect Determination & NHTSA Notification
- ☑ Responding to NHTSA RFI
- ☑ 49 C.F.R. § 577 Notifying Dealers / Owners / Purchasers of Defects & Non-Compliances

“Best Practice” Details (10 of 10)



“Develop dynamic and sustainable recall capabilities through continuous improvement efforts.”

Description

- Implement simulation programs to pressure test the recall process
- Conduct periodic audits of recall policies, procedures, and controls
- Develop on-going cadence for external benchmarking to identify process enhancement opportunities
- Ensure outcomes and lessons learned from past recalls, recall simulations and audits, and external benchmarking are documented and leveraged for contingency planning and continuous improvement efforts

Compliance Benefits

- Continuous improvement of processes and procedures will benefit all aspects of compliance. Constant vigilance of each compliance requirement, and changes to those requirements, will best position companies to meet current and future requirements.

Compliance Improved

- ✓ 49 C.F.R. § 579
Comprehensive Reporting
- ✓ 49 C.F.R. § 573
Defect Determination & NHTSA Notification
- ✓ Responding to
NHTSA RFI
- ✓ 49 C.F.R. § 577
Notifying Dealers /
Owners / Purchasers
of Defects & Non-
Compliances

“Best Practices” Implementation

Best Practices Implementation

FCA US is working to develop and implement specific, objective, and measureable steps to carry out the “Best Practices”. Per the Consent Order, The Independent Third-Party Consultant shall, under the terms and conditions set forth in the Consent Order, conduct a comprehensive review and evaluation of FCA US's existing processes and procedures for complying with its reporting obligations under 49 C.F.R. § 579, its processes and procedures for defect decision-making under 49 C.F.R. § 573, and its process and procedures for notifying dealers, owners and purchasers of defects or noncompliances under 49 C.F.R. § 577. FCA US will also develop a work plan and schedule for the development of new written procedures that take into account the results of the review and the recommendations of the Independent Third-Party Consultant.

Proposed recommendations across the 5 Safety Related Assessments: Replacement Parts, Defect Determination & Campaign Process, TREAD, and VS&RC Systems...



Those recommendations were grouped into “initiatives” for implementation based on Consent Order requirements, logical ownership, impact, level of effort, resource requirements, momentum, and other factors...



Across those initiatives, recommendations or groups of similar recommendations make up distinct “projects” that FCA will implement in the next 2 – 3 years...

