
Office of Inspector General

Audit Report

ADDITIONAL EFFORTS ARE NEEDED TO ENSURE NHTSA'S FULL IMPLEMENTATION OF OIG'S 2011 RECOMMENDATIONS

National Highway Traffic Safety Administration

Report Number: ST-2016-021

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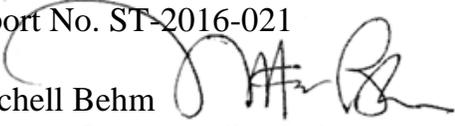
Memorandum

U.S. Department of
Transportation

Office of the Secretary
of Transportation
Office of Inspector General

Subject: **ACTION:** Additional Efforts Are Needed To
Ensure NHTSA's Full Implementation of OIG's
2011 Recommendations
National Highway Traffic Safety Administration
Report No. ST-2016-021

Date: February 24, 2016

From: Mitchell Behm 
Assistant Inspector General for
Surface Transportation Audits

Reply to
Attn. of: JA-30

To: National Highway Traffic Safety Administrator

In February 2010, we initiated an audit of the National Highway Traffic Safety Administration's (NHTSA) oversight of vehicle safety. This audit was prompted in part by congressional concerns about NHTSA's handling of the Toyota Motor Corporation's unintended acceleration recalls.¹ In October 2011, we issued our report,² which made 10 recommendations to enhance the ability of NHTSA's Office of Defects Investigation (ODI)³ to identify and address potential vehicle safety defects and ensure it has the workforce and expertise needed to operate effectively.

In February 2014, the General Motors Corporation (GM) began recalling vehicles for a defective ignition switch that unexpectedly moved from the "run" or "on" position to the "accessory" or "off" position, shutting down the engine and disabling power steering, power brakes, and air bags. Citing congressional concerns over NHTSA's handling of the GM recall, the Secretary of Transportation requested in March 2014 that we assess NHTSA's vehicle safety procedures related to the recall. Our subsequent review of ODI's pre-investigative procedures determined that ODI's inadequate processes for collecting and

¹ In 2009 and 2010, Toyota recalled nearly 8 million vehicles in the United States for two mechanical safety defects that could cause unintended acceleration issues: sticking accelerator pedals and a design flaw that could cause the accelerator pedal to become trapped by floor mats.

² *Process Improvements Are Needed for Identifying and Addressing Vehicle Safety Defects*, (OIG Report Number MH-2012-001), Oct. 6, 2011. OIG reports are available on our Web site at: www.oig.dot.gov.

³ ODI is the agency within NHTSA that is responsible for identifying and investigating potential vehicle safety issues and requiring recalls when warranted.

analyzing vehicle safety data resulted in significant safety concerns being overlooked.⁴

Because of the importance of highway safety, we took this opportunity to assess NHTSA's efforts to implement the recommendations from our 2011 report. This report presents the results of our assessment of NHTSA's efforts to implement its proposed actions to consistently address our 2011 recommendations.

We conducted our work in accordance with generally accepted Government auditing standards. Exhibit A further details our scope and methodology, and exhibit B presents a summary of prior OIG audits of NHTSA's ODI.

RESULTS IN BRIEF

While NHTSA completed all agreed to actions from our 2011 review, we have concerns with the implementation of some actions—especially NHTSA's lack of mechanisms to ensure that staff consistently apply the actions. Specifically, ODI adequately implemented the actions it proposed for three recommendations, but did not consistently apply⁵ the actions for six recommendations or fully implement actions for one recommendation. For example, in response to recommendation 5, ODI agreed to document justifications for exceeding investigation timeliness goals; however, over 70 percent of delayed investigations we reviewed did not include justifications for why ODI's goals for timely completion of investigations were not met. In response to recommendation 2, ODI agreed to establish a procedure to store and retain pre-investigation records to better address potential safety concerns. However, ODI has not enforced compliance with the new procedure, as 42 percent of the pre-investigation documents we reviewed were not included in ODI's case management system. In addition, ODI developed a training plan in response to recommendation 9, but it has not executed the program to ensure its investigators have the needed skills and expertise to carry out ODI's mission. As a result, ODI's staff may not be sufficiently trained to identify and investigate potential vehicle defects, or ensure that vehicle manufacturers take prompt and effective action to remediate issues. Table 1 summarizes our assessment of ODI's implementation of our 2011 recommendations.

⁴ *Inadequate Data and Analysis Undermine NHTSA's Efforts to Identify and Investigate Vehicle Safety Concerns*, (OIG Report Number ST-2015-063), June 18, 2015.

⁵ We considered an action to be consistently applied if NHTSA applied the action in 90 percent of the cases we reviewed.

Table 1. Assessment of ODI's Implementation of OIG's 2011 Recommendations

Recommendation	Actions Taken	Consistently Applied	Application & Implementation Concerns
1. Ensure review of each consumer complaint is recorded and tracked to associated investigations.	☑	☑	
2. Retain and store pre-investigative documentation.	☑		☑
3. Document actions taken at Defects Assessment Panel meetings and the justifications for not proceeding to investigations.	☑		☑
4. Determine the need for Vehicle Research Test Center or third-party assistance.	☑		☑
5. Document justifications for exceeding investigation timeliness goals.	☑		☑
6. Establish procedures for documenting investigative evidence.	☑		☑
7. Strengthen redaction policy to better protect consumers' personal identifiable information.	☑		☑
8. Conduct a workforce assessment.	☑	☑	
9. Develop a formal training program for ODI staff.	☑		☑
10. Coordinate with foreign countries.	☑	☑	

Source: OIG analysis

We are making recommendations to enhance ODI's quality control mechanisms for complying with the policies and plans established to address our 2011 recommendations.

BACKGROUND

NHTSA, established by the Highway Safety Act of 1970,⁶ administers highway safety and consumer programs intended to reduce deaths, injuries, and economic losses resulting from motor vehicle crashes. NHTSA's ODI is responsible for reviewing vehicle safety data, identifying and investigating potential vehicle safety issues, and requiring and overseeing manufacturers' vehicle and equipment recalls. Table 2 provides an overview of ODI's investigation process.

⁶ Pub. L. 91-605.

Table 2. ODI's Investigation Process

Phase	Description
Pre-Investigation	ODI collects and analyzes vehicle safety data and opens an issue evaluation when it identifies a potential safety issue for further analysis. ODI's Defects Assessment Panel reviews issue evaluations and decides whether to open investigations.
Investigation	ODI investigates potential safety issues to determine whether a recall is warranted. Investigations typically involve a two-step process—a preliminary evaluation followed by an engineering analysis, if necessary.

Source: OIG analysis

Our 2011 report noted that NHTSA followed its established procedures when investigating unintended acceleration issues for Toyota and other manufacturers; however, process improvements were needed for identifying and addressing vehicle safety defects. We also reported that ODI's limited information sharing and coordination with foreign countries reduced opportunities to identify safety defects or recalls. NHTSA fully or partially concurred with all 10 of our recommendations. As of May 29, 2013, ODI had taken action to address 9 of our 10 recommendations but had not yet completed a recommended workforce assessment. At the end of April 2015, we received NHTSA's workforce assessment and closed the remaining recommendation.

ODI ADDRESSED ALL OF OIG'S 2011 RECOMMENDATIONS BUT LACKS SUFFICIENT CONTROLS FOR FULL COMPLIANCE AND HAS YET TO EXECUTE ITS TRAINING PROGRAM

While NHTSA completed actions to close all 10 recommendations from our 2011 review, we identified concerns with how ODI is implementing some of its corrective actions—especially NHTSA's lack of quality control mechanisms to ensure that its staff consistently applies the new policies and procedures. Specifically, ODI adequately implemented the actions it proposed for three recommendations. However, ODI is not fully complying with its new processes for six recommendations due to insufficient quality control mechanisms. In addition, while ODI developed a training program in response to our recommendation, it has not executed the program to ensure its investigators have the needed skills and expertise to carry out ODI's mission.

Recommendation 1: ODI Adequately Implemented a Process To Track and Record Reviews of Consumer Complaints

In 2011, we reported that ODI did not track its initial reviews of incoming consumer complaints—its primary source for identifying potential vehicle safety concerns. Since 2010, ODI has received at least 40,000 complaints a year, the

majority of which are submitted through NHTSA's safecar.gov Web site. Because ODI did not track its initial complaint reviews, ODI could not ensure it reviewed every complaint for potential safety concerns. We also reported that ODI lacked a process for identifying the specific complaints used to support the need to further analyze potential safety issues, which could result in repetitive analysis.

In response to recommendation 1, ODI agreed to track the dates and times of initial complaint reviews in ARTEMIS⁷ and document associated complaint numbers in all issue evaluations, preliminary evaluations, and engineering analyses.⁸ Accordingly, in 2012, ODI revised its pre-investigative operating procedures, enhanced ARTEMIS to enable tracking of initial complaint reviews, and began tracking specific complaints to their associated investigative reports. Based on our assessment of 99 total investigative reports (69 issue evaluations,⁹ 26 preliminary evaluations, and 4 engineering analyses), we found that 90 (about 91 percent) identified and documented the specific complaints associated with potential safety concerns. Therefore, NHTSA consistently applied its proposed actions for recommendation 1.

Recommendation 2: ODI Has Not Enforced New Procedures Intended To Ensure Retention and Storage of Pre-Investigative Documentation

In 2011, we reported that ODI's failure to properly document pre-investigative documents increased the likelihood of losing important data on potential safety concerns. Specifically, when ODI identified a potential safety concern, it did not formally document supporting information until it opened an issue evaluation to propose further analysis of the concern. We also reported that ODI did not store potentially important pre-investigation data received from outside sources such as auto insurance companies¹⁰ in ARTEMIS.

In response to recommendation 2, ODI agreed to establish a procedure to store and retain pre-investigation records and information received from outside sources. Accordingly, in 2012, ODI established a case management system to collect these data and implemented a procedure to migrate the data into ARTEMIS if an issue evaluation is opened.

⁷ The Advanced Retrieval of Tire, Equipment, and Motor Vehicle Information System (ARTEMIS) is ODI's primary database for storing safety data, including consumer complaints, used to identify and address potential safety defects.

⁸ ODI collects and analyzes vehicle safety data in its pre-investigation phase and opens an issue evaluation when it identifies a potential safety issue for further analysis. When warranted, ODI investigates potential safety issues to determine the need for a safety recall. A preliminary evaluation is the first step in ODI's investigation process followed by an engineering analysis, if further analysis is deemed necessary.

⁹ These issue evaluations were prompted by consumer complaints in 2013.

¹⁰ Insurance companies such as State Farm Insurance and USAA maintain claim databases. These databases often catalogue the make, model, model year, and vehicle identification numbers of vehicles involved in accidents. They also document whether a loss was caused by a fire, rollover, or collision, as well as the type of collision and impact point. Such information could assist ODI in identifying potential vehicle safety defects.

Although ODI implemented the new procedure, it has not enforced the procedure or established mechanisms to promote compliance. For example, ODI has not required supervisors to review the case management system to verify that pre-investigative work is documented as required. As a result, inadequate retention and storage of pre-investigative documentation continues to be a concern. We reviewed a sample of 43 out of a total 112 issue evaluations opened in 2013 and identified 18 issue evaluations (roughly 42 percent) with no documentation of pre-investigative work in the case management system. ODI's inconsistent application of this new procedure could result in relevant data being omitted from NHTSA's preliminary evaluations of potential vehicle safety issues.

Recommendation 3: ODI Does Not Consistently Document the Defects Assessment Panel's Decisions Whether To Open Investigations

If a potential vehicle safety issue is identified, ODI's screeners prepare an investigation proposal for ODI's investigative division chiefs¹¹ to review, and to decide whether to open a defect investigation or send the proposal to ODI's Defects Assessment Panel for further review. The Defects Assessment Panel, a body chaired by the Director of ODI, is intended to meet monthly to review these investigation proposals and decide whether to open investigations. In 2011, we reported that the panel did not document the information discussed at the meetings, outcomes of investigation proposals, or justifications for its decisions. Because ODI largely relies on precedent to determine which issues merit investigation, the lack of documentation prevents ODI screeners from learning what issues management deems worthy of further analysis. Transparency on this information is also important because ODI generally does not revisit investigation proposals once they are declined for investigation.

In response to recommendation 3, ODI agreed to document the outcome and justification for each investigation proposal by taking meeting minutes at each panel meeting and uploading them into ARTEMIS. ODI also agreed to update its pre-investigation operating procedures to include this requirement. Accordingly, ODI updated its pre-investigative operating procedures in 2014 and began taking meeting minutes at all Defects Assessment Panel meetings.

Although ODI implemented these new procedures, it has not enforced them or established mechanisms to promote consistent documentation of Defects Assessment Panel meetings in ARTEMIS. Based on our review of meeting minutes for 21 panel meetings held in 2013 and 2014, 11 of the 66 issue evaluations discussed at these meetings (roughly 17 percent) were not

¹¹ ODI has three investigative divisions: the Vehicle Control Division, Vehicle Integrity Division, and the Medium and Heavy Duty Vehicle Division.

appropriately documented per ODI's new procedure. Specifically, seven of the investigation proposal files did not include any relevant meeting minutes in ARTEMIS, and four proposals—which were discussed at multiple panel meetings—included some but not all relevant meeting minutes. ODI's inconsistent documentation of panel meeting minutes increases the risk that it will not capture historical data that may be relevant to future investigations of potential vehicle safety issues.

Recommendation 4: ODI Did Not Establish Sufficient Procedures to Document the Need for Third-Party Assistance

ODI investigators have access to NHTSA's Vehicle Research and Test Center (VRTC) and other third parties to assist them in verifying manufacturer information or performing testing to identify vehicle safety defects. In 2011, we reported that ODI had not developed a systematic process or criteria for identifying the need for third-party assistance. Instead, ODI made decisions about the need for third-party assistance based on individual investigators' requests.

In response to recommendation 4, ODI agreed to revise its investigative procedures to include a fundamental framework for assessing the need for third-party resources. In 2012, ODI developed a framework and updated its investigative operating procedures to require documentation of the need for third-party assistance.

However, ODI did not implement sufficient controls, such as supervisory review, to enforce consistent documentation of the need for third-party assistance. We reviewed documentation for 16 instances of third-party assistance between April 2012 and December 2014 and found that 4 (25 percent) did not include required documentation per ODI's framework. ODI's inconsistent documentation of the need for third-party assistance could prevent NHTSA from identifying the resources that should be devoted to such assistance.

Recommendation 5: ODI's New Procedures Do Not Ensure That Justifications for Exceeding Investigation Timeliness Goals Are Consistently Documented

In 2011, we reported that the majority of the defect investigations we reviewed did not meet ODI's goals for timely completion (120 days for preliminary evaluations and 360 days for engineering analyses). We also reported that ODI did not document the reasons for the delays.

In response to recommendation 5, ODI proposed that it would (1) revise its investigation operating procedures to require investigators to document justifications for exceeding timeliness goals, (2) require these justifications to be documented no later than 30 days prior to the timeliness goal for a preliminary

evaluation and no later than 120 prior to the goal for an engineering analysis, and (3) establish a process to ensure that ODI's management reviews assess investigation timeliness and approve the rationale for extending investigations beyond those goals. In 2012, ODI revised its investigation policy accordingly. ODI also required that the investigative division chief approve justifications for investigations exceeding timeliness goals and that the Director of ODI concur with the division chief's approval.

Although ODI established extensive new procedures and lines of accountability to enforce the new justification requirements, the majority of the delayed investigations we reviewed did not meet these new requirements (see table 3). For example, in our sample of 24 preliminary evaluations opened between April 2012 and December 2013 that exceeded ODI's timeliness goals, we identified 16 preliminary evaluations (67 percent) and 7 engineering analyses (78 percent) that lacked required justifications for why they did not meet ODI's timeliness goals.

Table 3. Investigations in OIG Sample That Did Not Comply With ODI Justification Requirements for Exceeding Timeliness Goals

	Total in OIG Sample	Lacking documented justifications	Justifications documented untimely	Justifications lacking division chief approval	Justifications lacking director concurrence
Preliminary evaluations	24	16 (67%)	8 (33%)	23 (96%)	24 (100%)
Engineering analyses	9	7 (78%)	2 (22%)	9 (100%)	9 (100%)

Source: OIG analysis of a sample of 24 out of 32 preliminary evaluations and all 9 engineering analyses opened between April 2012 and December 2013 that exceeded ODI's timeliness goals

According to ODI officials, complexity is the primary factor for determining the amount of time needed to complete an investigation. However, ODI's lack of documented justifications for investigation delays hindered its ability to understand and address other underlying factors, such as manufacturer delays in providing information or the need for additional testing.

Recommendation 6: ODI Has Insufficient Quality Control Mechanisms To Ensure It Documents Investigative Evidence

In 2011, we reported that ODI's investigation files did not always include documentation of meetings with manufacturers and other third parties. ODI also did not document the decisions it made based on the information received from these third parties.

In response to recommendation 6, ODI agreed to revise its investigation operating procedures to include a standard document list identifying situations in which documentation should be created and what information should be included.

Accordingly, in 2013, ODI developed an investigation documentation checklist and established standard operating procedures for documenting investigative evidence, such as consumer complaints and information exchanged with manufacturers. ODI's new procedures also require investigative division chiefs to review this checklist as part of the process for closing an investigation.

Although ODI established these new policies for documenting investigative evidence, it lacks sufficient internal controls to enforce them. We reviewed documentation for 36 preliminary evaluations and 6 engineering analyses opened between March 2013 and December 2013 and found that ODI used the checklist for only 4 preliminary evaluations (11 percent) and none of the engineering analyses (0 percent). As a result, ODI may not be capturing all evidence associated with an investigation, potentially hampering its ability to assess or support the adequacy of its investigations.

Recommendation 7: ODI's Revised Redaction Procedures Do Not Fully Protect Consumers' Personally Identifiable Information

ODI uploads information from sources such as manufacturers and consumer complaints onto NHTSA's safercar.gov Web site, which can be viewed by the public. In 2011, we reported that ODI's process for manually reviewing and redacting personally identifiable information (PII) on its Web site did not properly protect consumers' privacy.

In response to recommendation 7, ODI agreed to revise its redaction policy to establish a second-level review of investigative documentation before the data are uploaded to the Web site. In August 2011, ODI implemented the new redaction process. ODI's current redaction process involves a contractor who is responsible for performing an initial review of investigative documentation and another contractor who is responsible for performing the second-level review. The new procedure also calls for investigative documents to be reviewed and redacted before being uploaded onto the Web site.

However, ODI's new redaction procedures have not been fully effective at preventing PII from appearing on the public Web site because ODI does not review the contractor's redaction efforts. Specifically, we reviewed 62 investigative documents uploaded to safercar.gov and found that 9 of these documents contained PII that had not been redacted, such as dates of birth, driver's license numbers, and e-mail addresses. As a result, ODI's new redaction procedures continue to leave consumers' PII at risk.

Recommendation 8: ODI Has Conducted a Workforce Assessment

In 2011, we reported that ODI had not conducted a workforce assessment to determine the number of staff needed or the specialized skill sets required to ensure that manufacturers recall vehicles and equipment with safety-related defects in a timely manner. In particular, we noted that ODI had not evaluated the level of staffing and skill sets needed for the timely detection of electronic system problems—such as brake override systems, keyless ignition systems, event data recorders, electronic throttle control systems, and similar electrical systems prevalent in today’s environment. As a result, ODI had no assurance that it had the right number of people with the right skills to accomplish its mission.

In response to recommendation 8, ODI agreed to conduct a comprehensive review that would, in part, assess the ODI’s workforce with respect to quantity, skill sets, and organization. In April 2015, NHTSA completed a workforce assessment of ODI. The workforce assessment addresses our recommendation to determine the number of staff required for ODI to meet its objectives and determine the most effective mix of staff. In its fiscal year 2016 proposed budget, NHTSA requested additional funding to support the need for additional staffing. However, the effectiveness of these workforce assessment efforts will depend on NHTSA’s implementation of the action items it identified to improve ODI’s workforce.

Recommendation 9: ODI Developed a Training Plan but Has Not Executed Its Plan To Ensure Staff Have Needed Skills and Expertise

In 2011, we reported that ODI did not have a formal training program to assist in developing the current and future workforce, ensure continuity of institutional knowledge, or maintain proficiency in new technologies. Since ODI relies on the expertise of its staff to identify potential safety defects, adequate training is essential for ODI to meet its primary mission of protecting the public from vehicle safety risks.

ODI only partially concurred with recommendation 9, which called for the development of a formal training program. Although ODI did not agree to develop a formal training program, it did agree to establish a basic training framework for investigative staff. This framework would include training for new staff on fundamentals—such as automotive technology, ODI policies and processes, computer skills for data analysis, and ARTEMIS. Accordingly, ODI established a training plan that includes new employee orientation, skill enhancement, investigative tasks, and skills and technical proficiency.

However, this training framework has not adequately addressed the intent of our recommendation, which was to assist ODI staff in acquiring knowledge and staying current on ODI processes and automobile technologies. Specifically, ODI does not identify specific training requirements or assess individual staff training

needs, so it cannot accurately estimate the funding it will need to support a robust training program. ODI has a relatively small training budget in comparison with the National Transportation Safety Board (NTSB),¹² an agency that also has a safety mandate. While ODI allocated roughly \$170 per staff member for training and related travel in its fiscal year 2015 budget, NTSB allocated roughly \$4,500 per staff member.

ODI managers also have not conducted any post-training audits, despite committing to these audits in response to recommendation 9, including evaluations of employee knowledge of course objectives, evaluations of training materials, and annual reviews of ODI's training. Additionally, although ODI updated its training plan in 2014, it does not meet annually to review the plan. Moreover, ODI has not implemented a method to consistently track training completion.

Our June 2015 audit of NHTSA's vehicle safety procedures underscores the importance of adequate training to ODI's mission. During our audit, ODI's pre-investigative staff told us that they received little or no training in their areas of concentration, some of which can be quite complex. For example, ODI staff charged with interpreting statistical test results for early warning reporting data told us they have no training or background in statistics. Accordingly, we recommended in our 2015 report that ODI evaluate the training needs of its pre-investigative staff and implement a plan for meeting identified needs.

A key factor contributing to these training issues is that ODI has not designated a responsible party to ensure implementation of the initiatives and actions outlined in its training plan. Without the accountability needed to execute a fully developed training program, ODI lacks assurance that its employees have the appropriate skill sets and expertise needed to effectively provide timely and effective investigations of potential vehicle defects.

Recommendation 10: ODI Coordinates With Foreign Countries

In 2011, we reported that ODI's limited information sharing and coordination with foreign countries reduced its opportunities to identify vehicle safety defects or recalls in an increasingly global automobile industry.

In response to recommendation 10, NHTSA requested in July 2011 that an informal working group be established under the United Nations World Forum for Harmonization of Vehicle Regulations. NHTSA intended that the group would meet at least once a year to exchange information on the vehicle safety enforcement programs of member countries and potentially discuss individual safety concerns.

¹² NTSB is an independent Federal agency charged with determining the probable cause of transportation accidents and promoting transportation safety. NTSB currently has approximately 430 full time staff.

Our review determined that the working group has met at least once a year since its inception in 2011. Based on a review of meeting minutes and other documentation, we verified that the working group discussed the vehicle safety programs of member countries and in some cases individual safety concerns. Therefore, NHTSA has consistently implemented its planned action for recommendation 10.

CONCLUSION

NHTSA's ODI is responsible for identifying and investigating potential vehicle safety issues and requiring vehicle manufacturers to conduct recalls when warranted. Although NHTSA took actions to address all 10 of our 2011 recommendations, our review determined that ODI lacks sufficient quality control mechanisms to ensure compliance with the new policies and procedures, and lacks an adequate training program to ensure that its staff have the skills and expertise to investigate vehicle safety defects. Earlier this year, NHTSA stated that it will "aggressively implement" the 17 recommendations from our June 2015 report. The results of this review of NHTSA's implementation of OIG's 2011 recommendations can provide lessons learned as NHTSA makes important decisions regarding future process improvements. Stronger internal controls and a robust training program will better position ODI to fulfill its mission to identify and investigate vehicle safety issues and ensure that manufacturers take needed corrective actions in the interest of public safety.

RECOMMENDATIONS

We recommend that the National Highway Traffic Safety Administrator:

1. Develop and implement internal control mechanisms and periodically assess compliance with established policies. At a minimum, these mechanisms should address:
 - a. retaining and storing pre-investigation documentation,
 - b. linking each issue evaluation discussed at a Defects Assessment Panel meeting with the corresponding minutes for that meeting,
 - c. assessing the need for third-party assistance prior to obtaining that assistance,
 - d. assessing and adjusting timeliness goals,
 - e. using the investigation documentation checklist, and
 - f. protecting consumers' personally identifiable information.
2. Designate responsibility for executing ODI's training plan.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We provided NHTSA with our draft report on January 7, 2016, and received its response on February 3, 2016, which is included as an appendix to this report. NHTSA concurred with our two recommendations and agreed to implement all recommendations as written by June 30, 2016. Accordingly, we consider all recommendations resolved but open pending final implementation of planned actions.

We appreciate the courtesies and cooperation of National Highway Traffic Safety Administration representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-5630 or Wendy Harris, Program Director, at (202) 366-2794.

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cc: DOT Audit Liaison, M-1
NHTSA Audit Liaison, NPO-330

EXHIBIT A. SCOPE AND METHODOLOGY

We conducted our work from May 2015 through January 2016 in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform an audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence we obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The Secretary of Transportation requested that we assess NHTSA ODI's vehicle safety procedures related to the GM recall. Consequently, we launched two separate audits in response to the Secretary request. We issued our first report in June 2015, which assessed ODI's pre-investigation procedures and how those procedures affected ODI's handling of concerns related to the GM ignition switch defect. The objective of this review was to assess ODI's actions to implement OIG's 2011 recommendations aimed at strengthening ODI's process for identifying and addressing safety defects.

We assessed NHTSA's implementation of its proposed actions to close our 10 recommendations by interviewing ODI staff; reviewing relevant process documents; and reviewing investigation related documentation maintained in ARTEMIS and available on the Agency's Web site.

Specifically, for **recommendation 1**, we reviewed all 69 issue evaluations opened in 2013 that were prompted by consumer complaints, as well as the 26 preliminary evaluations and 4 engineering analyses stemming from these issue evaluations. We also reviewed documentation maintained in ARTEMIS to assess whether these investigative segments included documentation of specific complaints associated with the underlying safety concerns.

For **recommendation 2**, we reviewed a random sample of 43 out of 112 issue evaluations opened in 2013 to assess whether they were supported by pre-investigative documentation in ODI's case management system.

For **recommendation 3**, with ODI's assistance, we identified 21 Defects Assessment Panel meetings that were held in 2013 and 2014 and 66 issue evaluations that were discussed in those meetings. We reviewed documentation available in ARTEMIS to assess whether each of these issue evaluations contained links to the panel meeting minutes at which they were discussed. We also determined whether the minutes documented the outcomes of these issue evaluations and the justifications for not proceeding to investigations, if necessary.

For **recommendation 4**, with ODI's assistance, we identified a total of 16 investigations that requested third-party assistance between April 2012 and December 2014, and reviewed those investigations to assess whether ODI maintained supporting documentation of its decisions to engage third-parties for assistance.

For **recommendation 5**, we reviewed all 24 out of 32 randomly selected preliminary evaluations¹³ and all 9 engineering analyses opened between April 2012 and December 2013 that exceeded ODI's timeliness goals to assess whether these investigative segments documented justifications for exceeding ODI's timeliness goals, were reviewed by an investigative division chief, and obtained concurrence by the Director of ODI. We also obtained and reviewed ODI's investigation policy to ensure that it had been appropriately updated.

For **recommendation 6**, we reviewed documentation for all 36 preliminary evaluations and all 6 engineering analyses opened between March 2013 and December 2013 to assess whether the investigative segments in questions made use and documented the investigative documentation checklist.

For **recommendation 7**, we met with ODI contractors responsible for redaction of PII from NHTSA's safecar.gov. We also reviewed a random sample of 68 out of 50,537 consumer complaints received during 2013 and all 62 investigative documents pertaining to 14 unique investigations that were uploaded to safecar.gov within a 30 day period in May 2015 to assess the sufficiency of ODI's processes to identify and redact PII from the public Web site.

For **recommendation 8**, we reviewed ODI's workforce assessment to ensure that it covered of its stated objectives and determined the most effective mix of staff. However, since ODI only recently began implementing its workforce assessment, we considered it premature to assess the effectiveness of ODI's assessment as a part of this audit.

For **recommendation 9**, we reviewed the training plan that ODI established in response to our recommendations and met with pertinent ODI staff, including the Director of ODI, to assess the steps taken to implement the plan, assess the training needs of staff, and track whether staff receive adequate training.

For **recommendation 10**, we reviewed documentation such as meeting minutes pertaining to the World Forum for Harmonization of Vehicle Regulations, an informal United Nations working group, to assess the frequency of the working group's meetings and the nature of their discussions. We also reviewed informal

¹³ We eliminated 8 preliminary evaluations from our sample because these preliminary evaluations had not exceeded their timeliness goals. Our sample of 32 preliminary evaluations was randomly selected from a population of 66 preliminary evaluations opened between April 2012 and December 2013.

email exchanges between ODI and foreign authorities to assess the nature of those communications.

Finally, we met with the Director of ODI and ODI staff on September 17, 2015, to discuss our preliminary findings and recommendations. Representatives from the Office of the Secretary of Transportation and NHTSA also attended.

EXHIBIT B. SUMMARY OF PRIOR OIG AUDITS OF NHTSA'S ODI

Inadequate Data and Analysis Undermine NHTSA's Efforts To Identify and Investigate Vehicle Safety Concerns (ST-2015-063), June 18, 2015

We reported that ODI's processes for collecting vehicle safety data are insufficient to ensure complete and accurate data. Deficiencies in ODI's vehicle safety data are due in part to the Agency's lack of detailed guidance on what information manufacturers and consumers should report—resulting in inconsistent data that ODI investigative chiefs consider to be of little use. Weaknesses in ODI's processes for analyzing vehicle safety data further undermine ODI's efforts to identify safety defects. Specifically, ODI does not follow standard statistical practices when analyzing early warning reporting data, and ODI does not thoroughly screen consumer complaints or adequately train or supervise its staff. Collectively, these weaknesses have resulted in significant safety concerns being overlooked. Finally, ODI's process for determining when to investigate potential safety defects is insufficient to prompt needed recalls and other corrective actions. While ODI has identified factors for deciding whether an investigation is warranted, it has not developed sufficient guidance or reached consensus on how these factors should be applied. ODI's investigation decisions also lack transparency and accountability. NHTSA concurred with all 17 of our recommendations to improve ODI's processes for collecting and analyzing vehicle safety data and for determining which potential safety issues warrant investigation.

Process Improvements Are Needed for Identifying and Addressing Vehicle Safety Defects (MH-2012-001), October 6, 2011

We reported that NHTSA followed its established procedures in investigating unintended acceleration (UA) issues for Toyota and other manufacturers, and that UA-issues affected multiple vehicles manufacturers. In addition, despite the National Aeronautics and Space Administration's validation of ODI's investigative results for Toyota UA-related cases, we found that process improvements were needed for identifying and addressing vehicle safety defects. Finally, ODI's processes are well respected internationally, but its limited information sharing and coordination with foreign countries reduced opportunities to identify safety defects or recalls in an increasingly global automobile industry. NHTSA fully or partially concurred with all 10 of our recommendations to enhance ODI's processes and increase coordination with foreign countries.

Follow-Up Audit on NHTSA's Office of Defects Investigation (MH-2004-088), September 23, 2004

We reported that NHTSA successfully implemented 20 of the 22 requirements in the Transportation Recall Enhancement, Accountability and Documentation (TREAD) Act, and completed development of a new safety defects information system, called ARTEMIS, in July 2004. However, the ARTEMIS development effort experienced significant cost increases and schedule delays. For example, development cost estimates increased 76 percent from \$5.35 million in June 2001 to \$9.4 million in March 2004, and schedule estimates increased from 21 to 42 months during the same time period. NHTSA also identified but could not verify \$17.12 million in future operations and maintenance costs for ARTEMIS. After we questioned how these costs were derived, NHTSA reduced the amount to \$11.46 million, thus creating an opportunity to put \$5.66 million to better use. In addition, we found that ARTEMIS does not have the analytical capabilities originally envisioned to help point analysts toward potential safety defects warranting further investigation. Ensuring thorough and consistent analysis of the early warning reporting information is especially critical because NHTSA announced in July 2003 it would publicly release only a portion of the early warning reporting information reported by manufacturers unless a defects investigation is opened. NHTSA concurred with our three recommendations.

NHTSA Office of Defects Investigation (MH-2002-071), January 3, 2002

We reported that NHTSA made progress in meeting TREAD Act requirements, but faced challenges in fully implementing the act and improving its ability to identify potential safety defects. NHTSA concurred with our three recommendations to:

1. Issue regulations required under the TREAD Act in a timely manner;
2. Establish a peer review panel to ensure that data used to identify potential defects are thoroughly analyzed and investigations are opened and prioritized in a consistent manner, and identify techniques for collecting and analyzing defect information from a wider range of sources;
3. Obtain the services of an independent entity to validate and verify the progress of Volpe National Transportation Systems Center to develop a new defect database and reduce development risks, and ensure that the data being transferred to the new system is accurate and complete.

EXHIBIT C. MAJOR CONTRIBUTORS TO THIS REPORT

Name	Title
Wendy Harris	Program Director
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APPENDIX. AGENCY COMMENTS**Memorandum**

U.S. Department of
Transportation

National Highway
Traffic Safety
Administration

Subject: INFORMATION: Management Comments –
Office of Inspector General (OIG) Draft Report on Additional
Efforts are Needed to Ensure NHTSA’s Full Implementation of
OIG’s 2011 Recommendations

Date: February 2, 2016

From: Mark R. Rosekind, Ph.D. 
Administrator, National Highway Traffic Safety
Administration

To: Mitchell Behm
Assistant Inspector General for Surface Transportation Audits

The National Highway Traffic Safety Administration (NHTSA) Office of Defects Investigation (ODI) leads the world in protecting the driving public from vehicle safety defects. We will pursue any efforts that can enhance the agency’s effectiveness in achieving its safety mission. These efforts include developing and implementing stronger internal controls, assessing compliance with our internal policies and procedures, and developing and executing a robust training program. For example, we recently established a dedicated resource to focus on ODI’s records management and data integrity needs and requirements. This includes developing and implementing internal controls for the storage and retention of pre-investigation documentation and other processes and activities.

We also plan to initiate additional actions in response to the findings and recommendations in the OIG draft report, such as:

- Updating performance evaluation plans for ODI investigative division chiefs;
- Coordinating with NHTSA’s Office of the Chief Information Officer to research and procure a software solution to protect personally identifiable information and integrate that solution into ODI’s quality control processes; and
- Hiring a person with appropriate skills and aptitude for assessing training needs, establishing a dedicated training budget, and developing and executing a formal training plan for ODI staff.

Based on the review of the draft report we concur with the two recommendations as written and plan to complete all actions for these recommendations by June 30, 2016. We appreciate this opportunity to comment on the OIG draft report. Please contact Frank S. Borris, Director of Defects Investigations, at (202) 366-8089 with any questions or additional details about these comments.