



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

MAR 12 2007

400 Seventh Street, S.W.
Washington, D.C. 20590

Mr. William B. Jeffers III
225 Abberly Crest Blvd.
Garner, NC 27529

NVS-213dsy
DP06-003

Dear Mr. Jeffers:

This letter is in response to your petition requesting that the National Highway Traffic Safety Administration (NHTSA) conduct a defect investigation into engine surging on model year 2002 – 2006 Toyota Camry and Camry Solara vehicles.

We have analyzed your petition DP06-003, and a summary of the analysis is presented in the enclosed notice, which was published in the Federal Register. For your information, we have also attached summary documents from a related investigation (PE04021) and petition (DP05002) NHTSA conducted previously; these actions are referenced in the DP06-003 notice.

Based on our analysis, it is unlikely that NHTSA would issue an order requiring the notification and remedy of a defect related to motor vehicle safety at the conclusion of the requested investigation. Therefore, in view of the need to allocate and prioritize NHTSA's limited resources to best accomplish the agency's safety mission, your petition is denied.

Thank you for your interest in automotive safety. Please be assured that we will continue to monitor this issue and take further action if warranted.

Sincerely,

Daniel C. Smith
Associate Administrator
for Enforcement

Enclosure:
Federal Register Notice, DP06-003
Closing Report for Preliminary Evaluation PE04-021
Federal Register Notice, DP05-002



DOT AUTO SAFETY HOTLINE
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888-327-4236

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

Denial of Motor Vehicle Defect Petition

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

ACTION: Denial of a petition for a defect investigation.

SUMMARY: This notice sets forth the reasons for the denial of a petition (Defect Petition DP06-003) submitted on August 24, 2006 by Mr. William B. Jeffers III of Garner, North Carolina to NHTSA's Office of Defects Investigation (ODI), requesting that the agency commence a proceeding to determine the existence of a defect related to motor vehicle safety in model year (MY) 2002 to 2006 Toyota Camry and Camry Solara vehicles (the "subject vehicles") for incidents relating to vehicle engine surging.

After reviewing the concerns raised by the Petitioner and other information, NHTSA has concluded that further expenditure of the agency's investigative resources on the issues raised by the petition is not warranted. The agency, accordingly, has denied the petition.

FOR FURTHER INFORMATION CONTACT:

Mr. Scott Yon, Vehicle Control Division, Office of Defects Investigation, NHTSA, 400 7th Street, SW, Washington, DC 20590. Telephone 202-366-0139.

SUPPLEMENTARY INFORMATION:

The Petitioner owns a MY 2006 Toyota Camry with a 4-cylinder engine that was purchased new in January 2006. The Petitioner also previously owned a MY 2005¹ Camry. He alleges that both vehicles exhibited vehicle engine surging, which he described as a short duration (1 to 2 second) increase in engine speed occurring while the accelerator pedal is not depressed. In an initial interview, the Petitioner estimated that 6 to 8 surge incidents, of varying severity, occurred in the MY 2006 vehicle over the course of 10,000 miles and 7 months of ownership. The Petitioner reports that the brake system is effective at overcoming the surge. However, he is concerned about reports filed with NHTSA alleging uncontrolled surging in MY 2002 to 2006 Camry vehicles bringing those vehicles to a high rate of speed (in some cases, purportedly, with the brakes applied).

In September 2006, the Petitioner's MY 2006 vehicle was serviced by a Toyota dealership. The dealership determined that two diagnostic trouble codes (P-codes) related to the operation of the throttle actuator,² P2103 and P2111, were stored in the engine control unit's memory.³ The dealership ordered a new replacement throttle actuator, which was installed on the vehicle in October 2006. Thereafter, in November 2006, the Petitioner reported that another surge event occurred, more severe than his prior occurrences. The Petitioner stated that after startup, the vehicle moved forward rapidly when the throttle pedal was touched lightly. The Petitioner reports that the tires screeched from over-acceleration and the vehicle moved 3 or 4 car lengths before he was able to stop the vehicle with the brake. The Petitioner noted that the

¹ The open resume for DP06-003 incorrectly identified the Petitioner's previous vehicle as a MY 2003.

² The throttle actuator is the device that controls air flow into the engine and hence power production. On the subject vehicles the actuator is controlled electronically, as opposed to mechanically (via a cable).

³ The Petitioner does not recall seeing any warning indications on the instrument panel nor does he report any operational malfunctions, either of which would be expected when the stored P-codes were detected.

malfunction indication lamp (MIL) was illuminated during and after this incident. The vehicle was returned to the Toyota dealership, which discovered that P-codes P2111, P2112, and P2119 were stored in memory.⁴ These diagnostic codes also relate to throttle actuator operation. The invoice for this service visit indicates that an electrical connector for the newly installed throttle actuator was "adjusted" and the ground circuits were checked. No crash, injury or property damage incidents are alleged to have occurred with regard to either of the Petitioner's vehicles.

On October 3, 2006 ODI personnel met with the Petitioner in Raleigh, NC to assess his current vehicle.⁵ The assessment involved a visual inspection, as well as photographing the exterior, interior, and under hood areas of the vehicle. ODI test drove the vehicle to make an operational assessment of the braking, throttle control, cruise control and shift interlock systems. A brake override test was performed⁶ confirming that the brake system would stop and restrain the vehicle under full engine power.⁷ No anomalies were noted with the vehicle or its operation during ODI's test drive. ODI confirmed its understanding of the Petitioner's concerns and, through discussion and demonstration, attempted to evaluate the magnitude and duration of the surge events he had experienced.

During the October 2006 meeting, ODI and the Petitioner discussed the Toyota dealership's determination that his throttle actuator should be replaced. An agreement was made to schedule the next service visit so that the removed (suspect) throttle actuator could be retained for further analysis. After the repair, ODI arranged with Toyota to have the suspect throttle

⁴ ODI notes that 'Freeze Frame' data, which is stored information recording vehicle parameters such as vehicle speed, gear status, air mass flow, and other conditions present when P-codes are detected, were also collected at this time.

⁵ This meeting took place before the original equipment throttle actuator had been replaced.

⁶ The vehicle could be maintained at rest during wide open throttle with 25 to 30 lbs. brake force. The maximum engine speed under these conditions was approximately 2,200 RPMs.

⁷ This situation was demonstrated to the Petitioner since he raised concerns regarding reports submitted to NHTSA alleging that vehicles accelerated to high speed even when the brakes were fully applied.

actuator sent to a facility owned by the component supplier, Aisan Industry Co., Ltd. An analysis was conducted which included a physical inspection (including X-ray), mechanical testing, electrical testing, environmental testing, and destructive tear down. Aisan's final investigation report,⁸ submitted to NHTSA under request for confidentiality by Toyota, concluded that there was no problem associated with the component.

In late October 2006, ODI issued an Information Request (IR) letter⁹ to Toyota requesting subject vehicle production data, and warranty claim/parts sales data for the throttle actuator. ODI's review found that the overall warranty claim rate for throttle actuators is unremarkable.¹⁰ The primary reasons for warranty replacement of this component were: (1) hesitation/poor acceleration; (2) MIL illumination; (3) stalling; and (4) poor/no starting. These reasons do not appear to be related to engine surging. No trends are observed when warranty claim rates are analyzed on production date, MY or time-in-service basis. Parts sales, a possible indication of the scope or a component problem, are also unremarkable.¹¹

Toyota's IR response¹² included technical information for the P-codes stored on the Petitioner's vehicle. The documents describe the condition(s) under which the stored P-codes would be set¹³ and the resultant effects on vehicle operation. For the codes stored, fault detection occurs when parameter thresholds are exceeded for a maximum of one second. Where an event lasts more than one second, the codes also result in a "fail safe" mode of operation during which the throttle actuator is de-powered and the throttle blade is mechanically fixed to a near-closed

⁸ The report was submitted in response to NHTSA's Information Request letter of October 30, 2006.

⁹ A copy of the letter is available at <http://www-odi.nhtsa.dot.gov> under Defect Investigation DP06-003.

¹⁰ The warranty claim rate for subject vehicle throttle actuator replacement was less than 0.18%.

¹¹ Parts sales were approximately 5,300 units on a population of some 1.9M vehicles, ~ 0.3%.

¹² Non-confidential portions of the response are available at <http://www-odi.nhtsa.dot.gov> under DP06-003

¹³ These documents describe the parameters that are monitored and the range and time thresholds that when exceeded result in the detection of a fault and the setting of a P-code.

position.¹⁴ With this functionality, any engine surge occurring due to a throttle actuator failure should not last longer than one second, after which the MIL would be illuminated and engine power would be significantly reduced.

ODI attempted but was unable to conduct an interview with the current owner of the Petitioner's MY 2005 Camry to determine if the surging happened again. However, that vehicle (which we know by its vehicle identification number) does not appear in Toyota's warranty claim data or in NHTSA's Vehicle Owner Questionnaire complaint database.

The electronic throttle control (ETC) system of Toyota vehicles in model years immediately prior to that of the Petitioner's current vehicle has been the subject of earlier agency investigations and petitions. Preliminary Evaluation PE04-021 (prompted by DP04-003), which ODI closed without identification of a defect trend, involved allegations that the ETC system failed to properly control engine speed resulting in vehicle surge.¹⁵ Unlike DP06-002, no allegations of MIL or component replacement in connection with a surge incident were received during PE04-021. Defect Petition DP05-003, which the agency denied, involved allegations of interrelated brake and acceleration problems that allegedly resulted in inappropriate and uncontrollable vehicle accelerations in ETC-equipped MY 2002 to 2005 Toyota and Lexus vehicles. During DP05-002, ODI reviewed a comprehensive listing of reports submitted to the agency by vehicle owners alleging uncontrollable engine surging. This review included examination of the types of reports about which the Petitioner has expressed concern. ODI's assessment of the reports, as well as a discussion of the report rates and their relative comparison

¹⁴ The vehicle is incapable of making significant power in this state since air flow to the engine is reduced; however, the vehicle can still be driven at low speed to a safe location for parking and occupant departure.

¹⁵ The closing report for PE04-021 discusses technical and operational aspects of ETC including the specific countermeasures the system can implement when a fault is detected. The report, and non-confidential portions of Toyota's response, are available at <http://www-odi.nhtsa.dot.gov> under PE04-021.

to other throttle investigations, can be found in NHTSA's petition denial notice published in the Federal Register on January 3, 2006. Therefore, in addition to its recent careful examination of Petitioner's allegations concerning his vehicle, ODI has also thoroughly studied all related reports that have been submitted to it alleging similar problems in the subject vehicles.

In summary, after review and analysis of the available information, ODI has not identified a vehicle-based defect that would have produced the alleged engine surge in the Petitioner's vehicle, nor was it able to witness such an event when road testing the Petitioner's vehicle.¹⁶ Evaluation of a suspect throttle actuator removed from the Petitioner's vehicle did not reveal a component problem. Warranty and parts sales of the actuator are unremarkable. These data do not support the existence of a wide-spread defect or ongoing concern. The fault detection and reaction strategy described in Toyota's technical documents indicates that a loss of throttle control due to a component or system failure would be detected within a one second period after which engine power would be limited. The Petitioner's MY 2006 vehicle brake system overcomes full engine power at easily achievable brake pedal forces. This in no way implies that we doubt the Petitioner's reported experiences with his vehicle. Rather, the agency simply lacks evidence of a safety related defect in his vehicle or a trend of such defects in the subject vehicles.

In view of the foregoing, it is unlikely that NHTSA would issue an order for the notification and remedy of a safety-related defect as alleged by the Petitioner in the subject vehicles at the conclusion of the requested investigation. Therefore, in view of the need to allocate and prioritize NHTSA's limited resources to best accomplish the agency's safety mission, the petition is denied. This action does not constitute a finding by NHTSA that a

¹⁶ ODI notes that a surge event may not represent a significant safety risk if it is of small magnitude and short duration.

safety-related defect does not exist. The agency will take further action if warranted by future circumstances.

Authority: 49 U.S.C. 30162(d); delegations of authority at CFR 1.50 and 501.8.

Issued on:

MAR 5 2007



Daniel C. Smith
Associate Administrator
for Enforcement

Billing Code 4910-59-P



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE04-021
 Prompted By: Consumer complaints, Defect Petition (DP04(003)) *dsy*
 Date Opened: 03/03/2004 Date Closed: 07/22/2004 *7/18/2005*
 Principal Investigator: Scott Yon
 Subject: Throttle Control System

Manufacturer: Toyota Motor North America, Inc.
 Products: MY 2002 - 2003 Toyota Camry, Solara (L4), and Lexus ES300
 Population: 982,108

Problem Description: Complainants allege that the throttle control system fails to properly control engine speed resulting in vehicle surge.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	14	18	20
Crashes/Fires:	2	2	2
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	43	43

*Description of Other: Warranty Claims

Action: A defect trend has not been identified; This Preliminary Evaluation has been closed.

Engineer: D. Scott Yon *DSY* - Amended 7/18/2005 Date: 07/22/2004
 Div. Chief: Jeffrey L. Quandt Date: 07/22/2004
 Office Dir.: Kathleen C. DeMeter Date: 07/22/2004

Summary: The Lexus models were the subjects of Defect Petition (DP) 04(003). Twelve ODI complaints are duplicative to Toyota reports, including the two minor crashes. The V6 equipped Solara models have been excluded because they do not contain the subject throttle control system.

Toyota introduced electronic throttle control (ETC) on the subject vehicles beginning in model year (MY) 2002. ODI opened the investigation to determine if the system could be the cause of complaints alleging the engine speed increased, or failed to decrease, (for a short duration) when the accelerator pedal was not depressed (the alleged defect). During the course of the investigation, ODI analyzed agency data and reviewed vehicle owner questionnaire (VOQ) reports, conducted interviews involving 113 VOQ and 36 Toyota reports, inspected two complainant vehicles, reviewed relevant Toyota service and new car feature documentation, reviewed and analyzed Toyota's responses to ODI's information request letter, conducted a limited control pedal assessment, and attended a Toyota technical presentation that included the assessment of two demonstration vehicles.

Through interviews, ODI identified 14 VOQ and 6 Toyota reports (20 unique vehicles) where complainants report multiple occurrences of the alleged defect. In some cases the condition was experienced by different vehicle operators or was witnessed by other occupants. ODI was unable to make a determination as to the cause of 9 Toyota and an additional 37 VOQ reports (which describe 28 unique incidents) due to insufficient information. The remaining complainants interviewed (62 VOQ, 21 Toyota) described conditions not caused by a failure of the throttle control system and were thus considered unrelated to the investigation. None of the complainants interviewed reported a component failure (or other indicator of a system failure) as the potential cause of incidents relevant to this investigation. In many cases, the complaint vehicles were subsequently inspected by dealership or manufacturer representatives who also failed to identify a fault within the vehicle. Toyota identified 43 related warranty claims, 24 of which were for diagnostic purposes only (no repairs performed). ODI found nothing abnormal in the control pedal configuration of the subject vehicles.

A defect trend has not been identified at this time and further use of agency resources does not appear to be warranted. Accordingly, this investigation is closed. The closing of this investigation does not constitute a finding by NHTSA that a safety-related defect does not exist. The Agency will take further action if warranted by the circumstances. See the attached summary for further detail.

ALLEGED DEFECT

Allegations of A) an engine speed increase without the driver pressing on the accelerator pedal or, B) the engine speed failing to decrease when the accelerator pedal was no longer being depressed – both circumstances requiring greater than expected brake pedal application force to control or stop the vehicle and where the brake system functioned normally.

DISCUSSION

The investigation focused on the electronic throttle control (ETC) system and whether it may have been the source of consumer complaints of the alleged defect. The ETC system was one of several new or revised vehicle systems (including transmission and braking system) introduced for the MY 2002 subject vehicles. It consists of an accelerator pedal sensor (APS), a throttle control motor, a throttle position sensor (TPS), and the engine control module (ECM).

To control throttle position and monitor system operation, the system uses redundant hardware at the APS and TPS (main and sub sensor) and the ECM (main and sub processor). Redundant software strategies are also utilized between the two ECM processors. In the event an ETC system fault is detected by the ECM, a warning lamp is illuminated on the instrument panel and a diagnostic trouble code (DTC) related to the specific fault is stored in the ECM, as was demonstrated by Toyota during a June technical meeting (see the July 7, 2004 memo to file for further detail). ETC system diagnostics are reported by 23 DTC's.

When a fault is detected and depending on its nature, the ECM takes specific countermeasures (such as closing the throttle, or de-powering the throttle control motor) and then employs one of four failsafe modes of operation. Each mode has a specific effect on vehicle operation including: 1) operation at a slightly elevated idle speed (fixed throttle position, limp-off-road mode), 2) operation at limited power and delayed throttle response, 3) operation at idle speed only, or 4) engine shut down. Once employed, the failsafe mode remains in effect until the ignition key is turned off. Each failsafe mode was demonstrated during the technical meeting, and ODI notes that it was readily apparent from dash indications and substantial reduction in available throttle opening that the vehicle was operating in a failsafe condition.

At the close of this investigation, approximately 260 VOQ reports had been identified in the ODI database involving the subject vehicles and containing certain key words (e.g., surge, accelerate, throttle, crash, etc.) in the complaint description. Based on ODI review, 84 were found not to be related to the throttle control system because they involved unrelated matters such as transmission, engine control, or brake system issues. ODI selectively interviewed complainants, or other persons knowledgeable of a reported incident, for 113 of the VOQ reports.

ODI identified 14 reports involving 14 vehicles (ODI numbers listed below) where complainants report that the alleged defect occurred on multiple occasions (3 or more incidents) that in some cases were experienced by more than one vehicle operator or were witnessed by other occupants. Two minor crashes without injuries were reported. Complainants state that the incidents were of short duration (~5 seconds), occurred while the vehicle was in gear, moving at slow speeds or fully stopped, and that the brake was

effective in overcoming the engine. In some cases, the operator would take action to stop the vehicle from surging (shift to neutral and/or turn off the engine) while in other cases the vehicle returned to a normal state without any operator action. The incidents occur randomly and occurrences are often separated by long periods of time or mileage accumulation. ODI also identified 6 additional reports (6 unique vehicles, for a total of 20 vehicles) with the same circumstances from Toyota complainant interviews.

Through the interviews conducted ODI also identified 28 incidents from 37 VOQ reports (some duplicative, ODI numbers listed below) where a determination as to the cause could not be made due to insufficient information. The reports claim 21 crashes and no injuries; one VOQ (ODI 10065859) involved a fatal crash when a subject vehicle drove off the fourth floor of a parking garage killing the operator and the single passenger. Complainants report the occurrence of a single incident that often occurs during close quarters vehicle maneuvering (e.g., parking or entering a garage) and thus often results in a crash. During interviews, many complainants are unsure of the details that led up to the incident, such as the position of their right foot and which pedal, if any, they may have actuated or attempted to actuate; a crash occurs and in the aftermath the operator believes it was caused by the vehicle. In some cases the complainant continues to own and operate the vehicle on a regular basis, often through long periods and distances, without further incident. ODI also identified 9 reports (involving 3 crashes and one injury) with the same circumstances from Toyota complainant interviews.

ODI eliminated 62 VOQ and 21 Toyota complaints through the interviews conducted because the circumstances described in the interview could not be explained, or solely explained, by a failure of the ETC system.

ODI failed to find any evidence in the interviews conducted (113 VOQ and 36 Toyota reports, 149 total), or in the information provided in Toyota's IR response, of instrument panel warning lamp illumination or ETC diagnostic codes detection. None of the complainants interviewed described conditions similar to failsafe mode operation. One report (10062931) was found where an ETC component replacement occurred in connection with a repair attempt related to the alleged defect, no others were found. Toyota's warranty claim rate is low with 24 of the 43 warranty claims submitted involving diagnostic repairs (that did not result in component replacement because no fault was detected). Many warranty claims were not related to the alleged defect. Toyota's ETC parts sales rate for the subject vehicles is low also. There are no service bulletins or campaigns that relate to the alleged defect.

VOQ numbers: 6900639, 10026512, 10055375, 10060785, 10060806, 10060886, 10062072, 10062212, 10062931, 10063035, 10063095, 10071432, 10073842, 10073900.
37 indeterminate: 8013543, 8015215, 10008367, 10026392, 10045644, 10045944, 10048030, 10053774, 10061716, 10061725, 10061737, 10061753, 10061791, 10062013, 10062702, 10062892, 10062956, 10062975, 10063340, 10065859, 10066756, 10067011, 10067142, 10067327, 10067780, 10068089, 10071703, 10072208, 10072248, 10072621, 10072722, 10073382, 10073396, 10073435, 10074340, 10080050, 10080160

DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Denial of Motor Vehicle Defect Petition

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

ACTION: Denial of a petition for a defect investigation.

SUMMARY: This notice sets forth the reasons for the denial of a petition (Defect Petition 05-002) submitted by Mr. Jordan Ziprin to NHTSA's Office of Defects Investigation (ODI), by letter dated July 8, 2005, under 49 U.S.C. § 30162, requesting that the agency commence a proceeding to determine the existence of a defect related to motor vehicle safety within the electronic throttle control (ETC) system in model year (MY) 2002 to 2005 Toyota and Lexus vehicles, or to reopen Preliminary Evaluation (PE) 04-021 whose subject was the ETC system on MY 2002 to 2003 Toyota Camry, Solara and Lexus ES models. In a letter dated August 18, 2005, Mr. Ziprin amended the petition to include additional allegations of interrelated brake and acceleration problems that allegedly result in inappropriate and uncontrollable vehicle accelerations in ETC equipped MY 2002 to 2005 Toyota and Lexus vehicles.

After reviewing the material cited by the petitioner and other information, NHTSA has concluded that further expenditure of the agency's investigative resources on the issues raised by the petition is not warranted. The agency accordingly has denied the petition.

FOR FURTHER INFORMATION CONTACT:

Mr. Scott Yon, Vehicle Control Division, Office of Defects Investigation, NHTSA, 400 7th Street, SW, Washington, DC 20590. Telephone 202-366-0139.

SUPPLEMENTARY INFORMATION:

The petitioner owns a 2002 Toyota Camry with V6 engine that he purchased new in March 2002. On July 5, 2005, at approximately 8:45PM, the petitioner parked his vehicle in the driveway of a home near his residence in Phoenix, Arizona and exited the vehicle. Upon determining that he was at the wrong address, he re-entered the vehicle, started the engine, placed his foot on the brake pedal and shifted the gear selector to reverse. The petitioner states that he was steering clockwise as the vehicle drifted backwards from the driveway under its own power. He alleges that without application of the throttle the vehicle suddenly accelerated backwards at a high rate causing a loss of vehicle control. The vehicle appears to have moved in a circular path and came to rest with the driver's door abutted to a utility box situated on a concrete pad in front of the home adjacent to where the vehicle had been parked. According to the petitioner, he does not recall if he applied, or attempted to apply, the brake pedal during this incident. He stated, however, that he is sure he would not have applied the throttle since no application was necessary for vehicle movement. Although the exact distance and path the vehicle traveled during the incident is unknown, the vehicle damage¹ and incident site evidence suggests the vehicle yawed (rotated about a vertical axis) through a significant angle to reach its final rest position; this is consistent with the petitioner's statement that the vehicle accelerated at a high rate and is an indication that a significant throttle

¹ Repair damage for the petitioner's vehicle from this incident was estimated at \$3,000.

opening occurred. Additionally, the petitioner describes another incident² that happened in April 2002, within the first few weeks of his ownership, stating that he did not report the incident at that time because he felt that his unfamiliarity with the vehicle may have caused an error that lead to the incident. ODI visited the location of both incidents and performed an inspection of the petitioner's vehicle on October 5, 2005, as described in the December 15, 2005 memo to file³.

The petitioner has submitted several letters to ODI³ that contain further descriptions of his two incidents, discussions of his review of related information including information from ODI's complaint and investigation databases, and lists of Vehicle Owner Questionnaire (VOQ) numbers (reports) with comments describing his analysis of each. In total, ODI recognizes 1,172 distinct VOQ reports that the petitioner has obtained from ODI's database, reviewed and submitted to the agency⁴. The reports involve MY 2002 to 2005 Toyota products⁵, including 4 Lexus and 15 Toyota models, defining a vehicle population of some 7.1 million vehicles⁶.

In its analysis of the petitioner's data, ODI noted that many of the cited reports involved complaints related solely to the brake system. Accordingly, ODI performed an analysis of the ODI complaint database for all MY 2002 to 2005 light vehicles for reports coded to the brake system component category. With the exception of two products⁷, the analysis showed that the vehicles identified by the petitioner were not over-represented in the complaint database. Accordingly, ODI determined that there was insufficient

² The incident occurred while the petitioner was reversing the vehicle at a gas station local to his residence.

³ The documents are available for public review at ODI's website: <http://www-odi.nhtsa.dot.gov>.

⁴ This count does not include reports contained in correspondence received after November 30, 2005.

⁵ A "product" is defined as a distinct make, model and model year vehicle.

⁶ Vehicle production was estimated from Early Warning Reporting data submissions.

⁷ The MY 2004 RX330 was the subject of PE05-009 and a service action Toyota subsequently conducted. The MY 2002 Toyota Tundra product prompted a number of brake disc-borne vibration complaints that ODI reviewed but did not find to be sufficient evidence to indicate the existence of a safety related defect.

evidence to support the existence of a brake system-related defect in these vehicles. Additionally, ODI determined that many of the products identified by the petitioner were not manufactured with ETC systems, but were instead built with mechanical throttle control systems (typically cable based). In fact, for the four MYs cited by the petitioner, only the Toyota Camry and Lexus ES models were all manufactured with ETC. For these reasons, ODI restricted its analysis to petitioner reports involving MY 2002 to 2005 Camry, Solara, and ES models (identified henceforth as the subject vehicles) that alleged an abnormal throttle control event. There are approximately 1.9 million subject vehicles in this population⁶. The design and operation of the subject vehicle's ETC system, including the diagnostic and safety control system, is discussed in the closing report for PE04-021 and in information Toyota provided during PE04-021 and this petition³.

For the total of 1,172 reports to which the petitioner has directed our attention, and after excluding the reports discussed above, ODI identified 432⁸ unique subject vehicle VOQ reports involving throttle control concerns originating from ETC equipped vehicles; this appears to be a relatively comprehensive representation of the ODI complaint database regarding this issue on the subject vehicles. Generally speaking, these reports fall into one of three categories; 1) those that involve engine management system (EMS) related driveability concerns, 2) those that involve throttle control related concerns where the brake system was reportedly ineffective, and 3) those that involve throttle control related concerns where the effectiveness of the brake system was unknown or ambiguous.

ODI found that 171 of the 432 reports (~40%) involved driveability concerns. These reports describe a condition where the operator intentionally applies the throttle

⁸ There were a total of 468 reports, but duplicates (from the same complainant) were eliminated.

pedal, in expectation that the vehicle will accelerate, and then experiences a delay or hesitation in vehicle response⁹. Complainants allege the delay lasts from 2 to 5 seconds and that during that period the operator further depresses the accelerator; this results in a greater than anticipated vehicle response which is disconcerting to vehicle occupants¹⁰. Many reports allege that this condition is a safety problem. ODI has interviewed several complainants and found that while they express concern and frustration over the issue they nevertheless continue to operate the vehicle on a daily basis. No crashes, injuries or fatalities have been alleged to result from this condition, despite the large subject vehicle population and years of exposure. These complaints, which relate to delayed throttle response, involve vehicle response to intentional driver commands. Therefore, ODI does not consider this concern to be related to the allegations raised by the petitioner and these reports do not provide support for the investigation requested by the petitioner.

Similarly, 93 of the reports (~20%) allege throttle control concerns where the brake was reported by the operator to be ineffective at controlling vehicle movement despite brake application, indicating that, if the reports are assumed to be correct, simultaneous failures of the throttle control and brake systems must have occurred¹¹. These incidents, sometimes referred to as “sudden or unintended acceleration” incidents¹², occurred under various operating conditions and often resulted in a crash with

⁹ This is contrary to the other throttle control categories ODI established and to what the petitioner alleges, i.e., that the accelerator opened by itself and the vehicle accelerated without driver input.

¹⁰ This issue is the subject of a Toyota technical service bulletin intended to address the driveability condition.

¹¹ ODI notes that reports of this nature are not unique to the subject vehicles or to Toyota products.

¹² Sudden or unintended acceleration events have been the subject of many public and private studies which generally conclude that, absent any evidence to support a vehicle-based failure, the unavoidable explanation is that driver error – the inadvertent application of the accelerator rather than the brake – is the cause of the incidents. For further information regarding sudden and unintended acceleration events, see DPs 99-004, 03-003 and 03-007 including the Federal Register notices and the notes and references contained therein.

alleged injuries and or fatalities. ODI has interviewed 24 of the complainants¹³ and learned that most vehicles were subsequently inspected by dealership, manufacturer and or independent technical personnel who were unable to discover any evidence of a failed or malfunctioning vehicle component or system or any other vehicle condition that could have contributed to the incident¹⁴. Additionally, for reports where an interview was not conducted, many state that no vehicle-based cause was ever found in post-incident vehicle inspections. For these 93 reports, the complaint rate of 4.9/100k vehicles is similar to that of the general vehicle population and is unremarkable.¹⁵ The complaint trend is also constant and neither increasing or decreasing. Accordingly, because these reports do not appear to indicate a distinct safety defect that would warrant investigation and are factually distinguishable from the specific facts of petitioner's case, the reports do not provide support for the investigation requested by the petitioner.

The remaining 168 reports (~40%) are similar to those investigated during PE04-021 and to the situation that petitioner experienced. These reports typically describe incidents where a vehicle equipped with ETC is being maneuvered at slow speed in a close quarter situation, such as pulling into or out of a parking space, at which point the operator alleges that the vehicle accelerates without driver input and crashes^{11,16}. The crashes are generally low speed crashes, with minor or no injuries. In the aftermath, operators are unsure of whether the brakes were applied or not, sometimes stating that there was insufficient time to use the brake pedal. The common thread in these reports is

¹³ A comprehensive driver interview was used to ascertain specific detail about each incident. Based on the results of these interviews, ODI would caution readers of these complaints regarding conclusions based solely on the content of the complaint description.

¹⁴ A brake system failure that results in brake loss is highly likely to be easily detectable after it occurs.

¹⁵ For example, two throttle control investigations are currently underway. For Engineering Analysis (EA) 05-014 the complaint rate is 230/100k, for EA05-021 the rate is 685/100k. One of the more notable sudden acceleration investigations involved MY 1978 – 1987 Audi products; the complaint rate in this investigation was ~600/100k. Also, see complaint rates discussed in the Federal Register notices associated with Defect Petitions (DP) 03-003 and 03-007.

¹⁶ ODI notes that driver error is one plausible explanation for many of these incidents.

that the vehicle accelerated, a crash occurred, and the operator believes an uncommanded acceleration caused it.

Prompted by consumer complaints and DP04-04, PE04-021 investigated the ETC system on MY 2002 and 2003 subject vehicles and involved many of the same VOQ reports identified by the petitioner. ODI opened the investigation to determine if the system could be the cause of complaints alleging the engine speed increased, or failed to decrease, when the accelerator pedal was not depressed. During the course of the investigation, ODI reviewed VOQ and manufacturer reports, inspected two complaint vehicles, reviewed relevant Toyota technical documentation, analyzed Toyota's responses to an information request letter, conducted a limited control pedal assessment and attended a Toyota technical presentation that included the assessment of two demonstration vehicles. The investigation closed in July, 2004 without the identification of a defect trend, and with the agency noting that it would take further action if warranted.

With regard to the 168 reports recently identified by the petitioner, ODI has now interviewed¹² 110 of these 168 complainants (65%) including 23 of the 29 (~80%) MY 2004 to 2005 complainants. Here again, these interviews revealed that most vehicles were subsequently inspected by dealership, manufacturer and/or independent technical personnel and no malfunction or failure explaining these incidents was identified. Many vehicles involved in these incidents have been placed back in service and have accumulated significant service experience without any recurrence¹⁷. For these 168 reports, the complaint rate of 8.8/100k vehicles is comparable to rates for similar vehicles and the complaint trend is declining¹⁸. None of this evidence suggests that a vehicle-

¹⁷ This observation does not support the existence of a vehicle-based causal explanation.

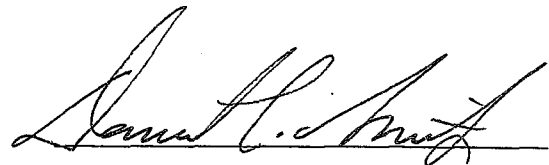
¹⁸ This is partially due to the effects of publicity surrounding PE04-021.

based cause may exist. Therefore, the reports have ambiguous significance and do not constitute a basis on which any further investigative action can be initiated¹⁹.

In view of the foregoing, it is unlikely that NHTSA would issue an order for the notification and remedy of a safety-related defect as alleged by the petitioner at the conclusion of the requested investigation. Therefore, in view of the need to allocate and prioritize NHTSA's limited resources to best accomplish the agency's safety mission, the petition is denied. This action does not constitute a finding by NHTSA that a safety-related defect does not exist. The agency will take further action if warranted by future circumstances.

Authority: 49 U.S.C. 30162(d); delegations of authority at CFR 1.50 and 501.8.

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¹⁹ For this reason, these reports will not be reflected in the close resume.