## 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 yehicle 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 damage 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

<sup>&</sup>lt;sup>1</sup> Repair damage for the petitioner's vehicle from this incident was estimated at \$3,000.

opening occurred. Additionally, the petitioner describes another incident<sup>2</sup> 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 file<sup>3</sup>.

The petitioner has submitted several letters to ODI<sup>3</sup> 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 agency<sup>4</sup>. The reports involve MY 2002 to 2005 Toyota products<sup>5</sup>, including 4 Lexus and 15 Toyota models, defining a vehicle population of some 7.1 million vehicles<sup>6</sup>.

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 products<sup>7</sup>, 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

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

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

<sup>&</sup>lt;sup>4</sup> This count does not include reports contained in correspondence received after November 30, 2005.

<sup>&</sup>lt;sup>5</sup> A "product" is defined as a distinct make, model and model year vehicle.

Vehicle production was estimated from Early Warning Reporting data submissions.

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 population<sup>6</sup>. 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 petition<sup>3</sup>.

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

<sup>&</sup>lt;sup>a</sup> 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 response. 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 occupants. 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 occurred. These incidents, sometimes referred to as "sudden or unintended acceleration" incidents<sup>12</sup>, occurred under various operating conditions and often resulted in a crash with

contained therein.

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.

<sup>&</sup>lt;sup>10</sup> This issue is the subject of a Toyota technical service bulletin intended to address the driveability condition.

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

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

alleged injuries and or fatalities. ODI has interviewed 24 of the complainants<sup>13</sup> 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 incident<sup>14</sup>. 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.<sup>15</sup> 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

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.

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

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.

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 interviewed 12 110 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 recurrence 17. For these 168 reports, the complaint rate of 8.8/100k vehicles is comparable to rates for similar vehicles and the complaint trend is declining 18. None of this evidence suggests that a vehicle-

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

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 initiated.19.

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.

Issued on: DEC 2.3 2006

Daniel C. Smith

Associate Administrator

for Enforcement

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