

NISSAN GROUP
OF NORTH AMERICA



Received Aug 1, 2017
AS for SY

NISSAN NORTH AMERICA, INC.

Corporate Headquarters
One Nissan Way
Franklin, TN 37068

Mailing Address: P.O. Box 685001
Franklin, TN 37068-5001

Telephone: 615.725.1000

July 28, 2017

Mr. Scott Yon
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

INFORMATION Redacted PURSUANT TO THE FREEDOM
OF INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)

Re: PE17-002; NEF-102as

Dear Mr. Yon:

Enclosed is Nissan's response to the referenced NHTSA Information Request of May 17, 2017 concerning the Agency's investigation of allegations concerning extended braking distances in certain model year 2009 Nissan Murano vehicles. The enclosed complete response replaces the partial response Nissan submitted on July 7, 2017.

In addition to the supplemental material, Nissan has updated the information provided in response to Question 1e to correct errors in the attached database .

The attached reply responds by first stating each question, then the response. Please contact us if you have any questions.

Sincerely,

Derek Latta
Manager
Technical Compliance

Enclosures

Response to

PE17-002

INTRODUCTION

In responding to this Information Request ("IR"), information has been obtained from those places within Nissan likely to contain such information in the regular and ordinary course of business. When a particular Request seeks "documents" as defined in the IR, reasonable, good faith searches have also been made of corporate records that are likely to contain responsive information in those places where such records are likely to be found. We have not checked such documents as "calendars", "appointment books", "financial statements" and "personnel records" even though they are included in the definition of "documents" because such documents would not contain owner complaints, field reports, technical analyses or other information sought by Request 2 pertaining to the alleged defect. We have also searched for responsive documents and information only with respect to vehicles manufactured for sale in the United States, which we understand to be the scope for which the IR seeks information. Nissan has searched for and produced records that were created through, June 8, 2017. Nissan appreciates the agency's consideration in granting a three week extension for the full response.

Responses are provided after each request, and Attachments are utilized as appropriate. The source of information used as a basis for the data in each Attachment, including the date the data were updated and retrieved, is identified at the beginning of each Attachment, as applicable. If a document itself is the source for the requested information and it is provided, we assume no further source identification is called for. If a document, drawing or component is requested, or if no responsive information is available, we assume no further source identification is called for.

With regard to claims of privilege, Nissan understands that it is acceptable to the Agency for Nissan to identify specific categories of privileged documents rather than any specific document. These specific categories are: 1) communications between outside counsel and Nissan Legal Department employees, other Nissan employees, or other Nissan-represented parties in litigation or claims; 2) communications between Nissan Legal Department employees and other Nissan employees or other Nissan-represented parties in litigation or claims; 3) notes and other work product of outside counsel or of Nissan Legal Department employees concerning communications with Nissan employees or consultants, and the work product of those employees or consultants done for or at the request of outside counsel or Legal Department employees; and 4) other categories to be identified later as necessary. For any privileged documents that are not included in these categories, such documents, if any, will be specifically identified on a separate privilege index at a later time. To the extent that a document is furnished, and unless the production of that document is inadvertent, Nissan is not asserting a privilege claim for that document, although the disclosure of such document does not waive the attorney-client privilege or work-product protection with respect to other documents prepared in connection with the specific litigation or claim or other litigation or claims. In addition, in submitting such documents, we reserve our right to claim the attorney-client privilege and/or work-product protection with respect to analyses that may be prepared subsequently in connection with these and other cases. Also, we understand documents specifically related to the preparation of the responses are not sought.

Nissan believes NHTSA's policy is to protect the privacy of individuals under exemption 6 of the Freedom of Information Act, 5 U.S.C. Section 552(b)(6). We understand that name, address, and other personal information of owners or other individuals, including Nissan personnel, contained in any of the attachments in this response will not be made available to the public. Therefore, Nissan is not requesting confidential treatment for this information pursuant to 49 CFR, Part 512, but we believe any private information concerning individuals should not be made public.

* * * * *

The National Highway Traffic Safety Administration (NHTSA) in its Preliminary Evaluation PE17-002 has requested materials from Nissan North America, Inc. ("NNA"). In regards to NHTSA's questions and requests in PE17-002, NHTSA sought information regarding the subject Model Year 2009 Nissan Murano regarding:

1. Allegations of low/soft/long brake pedal during or following an ABS activation event
2. Allegations of reduced braking performance during or following an ABS activation event
3. Allegations of subject component failure

In the course of responding to requests 2 through 5, reports were found which meet categories 1 or 2 above but do not describe an ABS activation event. These are not relevant to the response based on the PE opening paragraph. However, these reports are included in a separate file in Attachments A and C to give the agency an opportunity to review.

- 1) State, by model and model year, the number of subject vehicles with brake systems manufactured, in whole or in part, by Nissan. Separately, for each subject vehicle brake system manufactured to date by Nissan, state the following:
 - a) Vehicle identification number (VIN);
 - b) Make;
 - c) Model;
 - d) Model Year;
 - e) Continental/subject component model number (e.g., Mk25, Mk60, etc.);
 - f) Date of manufacture;
 - g) Date warranty coverage commenced; and
 - h) The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA."

Table 1. Production Data Summary

MAKE	MODEL	2007	2008	2009	2010	2011	2012	2013	2014
INFINITI	FX	13,971	15,656						
INFINITI	QX56	6,470	13,451	2,668	9,430				
NISSAN	ARMADA	21,671	27,712	6,965	20,772	22,466	19,535	13,140	12,134
NISSAN	FRONTIER	64,900	48,901	23,018	45,048	47,385	78,134	52,306	62,670
NISSAN	GT-R			2,518	1,427	333	1,249	1,443	1,607
NISSAN	MURANO	94,778		108,409	58,933	53,514	57,776	34,256	51,816
NISSAN	PATHFINDER	43,001	59,550	13,989	22,861	31,718	34,760		
NISSAN	QUEST					11,773	21,342	11,290	8,547
NISSAN	TITAN	43,867	59,618	18,122	24,506	23,399	26,971	11,712	14,635
NISSAN	VERSA NOTE								67,749
NISSAN	XTERRA	46,776	37,664	13,130	23,502	22,053	23,500	13,036	12,525

The information requested in 1.a through 1.h is provided, when known, in a Microsoft Access table titled " PE17_002 Questions 1_3_5_10 DATA" on a disc enclosed as Confidential Attachment A.

2) State the number of each of the following, received by Nissan, or of which Nissan is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:

a) Consumer complaints, including those from fleet operators;

Category	Total Incidents	Unique VINs
Alleged Defect 1	12	12
Alleged Defect 2	0	0
Alleged Defect 3	280	276

b) Field reports:

Category	Total Incidents	Unique VINs
Alleged Defect 1	1	1
Alleged Defect 2	3	3
Alleged Defect 3	7	7

Dealer Field Reports:

Category	Total Incidents	Unique VINs
Alleged Defect 1	21	21
Alleged Defect 2	82	82
Alleged Defect 3	477	476

c) Reports involving a crash, injury, or fatality:

Group	Crash	Injury	Fatality
Alleged Defect 1	0	0	0
Alleged Defect 2	3	0	0
Alleged Defect 3	8	2	0

d) Property damage claims:

NNA found eight reports of property damage claims, which relate to, or may relate to, the alleged defect in the subject vehicles.

e) Third-party arbitration proceedings where Nissan is or was a party to the arbitration; and

NNA found no third party arbitration proceedings where Nissan is or was a party to the arbitration, which relate to, or may relate to, the alleged defect in the subject vehicles.

- f) Lawsuits, both pending and closed, in which Nissan is or was a defendant or codefendant.

NNA found no lawsuits, pending or closed, in which Nissan is or was a defendant or co-defendant, which relate to, or may relate to, the alleged defect in the subject vehicles.

The answers given to Request No. 2 above were gathered from Nissan's data and are current as of June 8, 2017.

- 3) Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 3, state the following information:
- a) Nissan's file number or other identifier used;
 - b) The category of the item, as identified in Request No.3 (i.e., consumer complaint, field report, etc.);
 - c) Vehicle owner or fleet name (and fleet contact person), street address, email address, and telephone number;
 - d) Vehicle's VIN;
 - e) Vehicle's make, model and model year;
 - f) Vehicle's mileage at time of incident;
 - g) Incident date;
 - h) Report or claim date;
 - i) Whether a crash is alleged;
 - j) Whether property damage is alleged;
 - k) Number of alleged injuries, if any; and
 - l) Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER THREE DATA."

The information available to Nissan requested in 3(a) through 3(l) is provided in a Microsoft Access database titled "PE17_002_Questions 1_3_5_10 DATA" on a disc enclosed as Attachment A.

- 4) Produce copies of all documents related to each item within the scope of Request No. 3. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Nissan used for organizing the documents. Describe in detail the search methods and search criteria used by Nissan, to identify the items in response to Request No. 3.

Documents requested within the scope of "Request No. 3" are being produced on a disc, enclosed as Attachment B. The documents are organized by category.

The search criteria used by Nissan to identify the documents in response to "Request No. 3" are set forth in Attachment C.

- 5) State, by make, model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Nissan to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a) Nissan's file number or other identifier used;
- b) Nissan's claim number;
- c) Vehicle owner or fleet name (and fleet contact person), street address, email address telephone number;
- d) VIN;
- e) Repair date;
- f) Vehicle mileage at time of repair;
- g) Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- h) Labor operation number(s);
- i) Problem code(s);
- j) Diagnostic trouble code(s);
- k) Replacement part number(s) and description(s);
- l) Concern stated by customer;
- m) Cause as stated on the repair order;
- n) Correction as stated on the repair order; and
- o) Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA."

The summary warranty information requested is provided in a query titled "PE17-002 Question 5 – Warranty Summary" on a disc enclosed as Attachment A.

The information available to Nissan requested in 5(a) through 5(o) is provided in a Microsoft Access table titled "PE17-002 Questions 1_3_5_10 DATA" on a disc enclosed as Attachment A.

- 6) Describe in detail the search methods and search criteria used by Nissan to identify the claims in response to Request No.5, including the labor operations, problem codes, diagnostic trouble codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.

State, by make, model, and model year, the terms of the new vehicle warranty coverage offered by Nissan on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Nissan offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty. State which extended service plans would cover the subject components.

The search criteria used by NNA to identify the claims identified in response to Requests No. 2 and 5 are set forth in Attachment C. Descriptions of each labor operation code, problem code and part number are provided in the Warranty Data table included in Attachment A.

The requested new vehicle warranty coverage documents are on a disc enclosed as Attachment B.

Table 6. Extended Warranty Summary

Make	Model	Model Year	OPTION				
			Gold	Gold Preferred	Infiniti Elite	Silver	Silver Preferred
INFINITI	FX	2007			2,386		
INFINITI	FX	2008			3,022		
INFINITI	QX56	2007			1,205		
INFINITI	QX56	2008			3,103		
INFINITI	QX56	2009			544		
INFINITI	QX56	2010			1,906		
NISSAN	Armada	2007	1,592	5,575		161	215
NISSAN	Armada	2008	1,798	7,247		188	260
NISSAN	Armada	2009	382	1,812		22	68
NISSAN	Armada	2010	833	5,458		49	146
NISSAN	Armada	2011	689	5,438		24	106
NISSAN	Armada	2012	117	4,452		2	147
NISSAN	Armada	2013	1	2,889			95
NISSAN	Armada	2014	3	2,247			70
NISSAN	Frontier	2007	5,045	14,614		556	727
NISSAN	Frontier	2008	3,015	11,144		302	421
NISSAN	Frontier	2009	1,146	4,702		91	134
NISSAN	Frontier	2010	2,175	9,952		146	268
NISSAN	Frontier	2011	2,078	9,986		90	223
NISSAN	Frontier	2012	1,096	16,252		44	595
NISSAN	Frontier	2013	7	8,713			408
NISSAN	Frontier	2014	11	9,223			345
NISSAN	GT-R	2009		760			
NISSAN	GT-R	2010		385			
NISSAN	GT-R	2011		66			
NISSAN	GT-R	2012		236			
NISSAN	GT-R	2013		322			
NISSAN	GT-R	2014		337			
NISSAN	Murano	2007	3,584	21,195		246	468
NISSAN	Murano	2009	3,953	24,509		268	639
NISSAN	Murano	2010	1,898	14,963		91	372
NISSAN	Murano	2011	1,432	13,301		41	226
NISSAN	Murano	2012	392	13,860		12	319
NISSAN	Murano	2013	3	6,343			172
NISSAN	Murano	2014	2	8,743			244
NISSAN	Pathfinder	2007	2,105	9,276		190	307
NISSAN	Pathfinder	2008	2,714	13,133		273	485
NISSAN	Pathfinder	2009	520	2,525		39	109
NISSAN	Pathfinder	2010	1,012	5,482		50	144
NISSAN	Pathfinder	2011	1,135	7,350		43	168
NISSAN	Pathfinder	2012	284	8,031		2	310
NISSAN	Quest	2011	392	2,872		9	48
NISSAN	Quest	2012	168	4,222		13	177
NISSAN	Quest	2013	1	2,272			81
NISSAN	Quest	2014		1,625			65
NISSAN	Titan	2007	3,327	9,340		379	634

NISSAN	Titan	2008	2,406	7,790		290	397
NISSAN	Titan	2008.5	1,548	5,599		148	203
NISSAN	Titan	2009	940	4,180		67	170
NISSAN	Titan	2010	1,271	5,690		68	127
NISSAN	Titan	2011	920	5,457		39	125
NISSAN	Titan	2012	202	5,777		8	244
NISSAN	Titan	2013	1	2,119			105
NISSAN	Titan	2014	2	2,581			106
NISSAN	Versa Note	2014	5	11,957			503
NISSAN	Xterra	2007	2,943	10,523		318	367
NISSAN	Xterra	2008	2,186	8,533		190	260
NISSAN	Xterra	2009	667	2,365		42	53
NISSAN	Xterra	2010	1,295	5,360		54	132
NISSAN	Xterra	2011	943	4,840		39	99
NISSAN	Xterra	2012	187	5,140		7	203
NISSAN	Xterra	2013	2	1,923			84
NISSAN	Xterra	2014	4	1,329			45
COVERAGE			Up to 8 years and 120,000 miles				

- 7) Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Nissan has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Nissan is planning to issue within the next 120 days.

The requested dealer communications and service bulletin documents are on a disc enclosed as Attachment D.

- 8) Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Nissan. For each such action, provide the following information:

- a) Action title or identifier;
- b) The actual or planned start date;
- c) The actual or expected end date;
- d) Brief summary of the subject and objective of the action;
- e) Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
- f) A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

The information requested in 8.a through 8.f is provided, when known, in a file titled "PE17-002_Q8_LIST OF ACTIONS.pdf" and is enclosed in Confidential Attachment E. Copies of the documents related to the actions are also attached in Confidential Attachment E in a file titled "PE17_002_REQUEST 8 RESPONSE.pdf".

- 9) Describe all modifications or changes made by, or on behalf of, Nissan in the design, material composition, manufacture, quality control, supply, or installation of the subject component, by Continental/subject component model number (e.g., Mk25, Mk60, etc.), or in the brake fluid used in the subject vehicles, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:
- a) The date or approximate date on which the modification or change was incorporated into vehicle production;
 - b) A detailed description of the modification or change;
 - c) The reason(s) for the modification or change;
 - d) The part number(s) (service and engineering) of the original component;
 - e) The part number(s) (service and engineering) of the modified component;
 - f) Whether the original unmodified component was withdrawn from production and/ or sale, and if so, when;
 - g) When the modified component was made available as a service component; and
 - h) Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Nissan is aware of which may be incorporated into vehicle production within the next 120 days.

The information requested in 9.a through 9.h is provided, when known, in a file titled "REQUEST 9 RESPONSE.xls" and is enclosed in Confidential Attachment F. Nissan is not aware of any modifications or changes to be incorporated into vehicle production within the next 120 days.

- 10) State the number of each of the following that Nissan has sold that may be used in the subject vehicles by component name, Continental/subject component model number (e.g., Mk25, Mk60, etc.), part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cutoff date for sales, if applicable):
- a) Subject components; and
 - b) Any kits that have been released, or developed, for use in service repairs to the subject components/assembly.

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which Nissan is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

The information requested in question 10 is provided, when known, in a file titled "PE17-002 QUESTIONS 1_3_5_10 Data.pdf" and is enclosed in Confidential Attachment A.

- 11) Provide the following information regarding the MY 2009 Nissan Murano brake system and the alleged defect condition:
- a) A schematic of the brake hydraulic system and the description of system operation in each mode of brake control;

- b) Identification of all brake system control valves that may contribute to the alleged defect; and
- c) A detailed description of all brake system diagnostic trouble codes (DTC) related to the alleged defect condition.

The information requested in 11 is provided in a file titled "PE17-002_REQUEST 11 RESPONSE.pdf" and is enclosed in Confidential Attachment G.

12) Furnish Nissan's assessment of the alleged defect in the subject vehicle, including:

- a) The causal and contributory factor(s);
- b) The failure mechanism(s);
- c) The failure frequency compared to other subject vehicle models;
- d) The failure mode(s);
- e) Common difficulties that may be encountered by dealership technicians in diagnosing the alleged defect (e.g., DTC codes not set or remaining in the system);
- f) What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning;
- g) The risk to motor safety that is poses; and
- h) The reports included with this inquiry.

In the course of Nissan's investigation of MY2009 Murano incidents, analysis of returned parts reveal that the preventative zinc coating used on the normally closed valve armatures for the ABS Hydraulic Control Units (HCU) may react with brake fluids containing specific corrosion preventative additives. This reaction can cause the formation of a gelatinous material which may cause the NC valves to close slowly. Over time, the gel can harden at which point the spring used to return the valve to the closed position may not be able to overcome the buildup and the valve will remain in an open state. Normally open (NO) valve armatures are not affected by this issue.

If one of the four NC valves remains open, fluid is allowed to enter an accumulator. This additional fluid will have the net effect of causing pedal travel to increase by 36.5 mm. However, the hydraulic braking system remains intact and full braking force is maintained once the pedal travels the additional distance. Nissan has not determined that this condition represents an unreasonable risk to safety.

Additionally, Nissan believes the incident rate for the subject issue in MY 2009 Murano is 0.02% and that this rate does not constitute a defect trend in vehicles that are more than 8 years old.¹ Nissan notes that the rate is 0.2% when unrelated component failure is included in the data, but Nissan does not believe this is an accurate rate for the subject condition.²

However, Nissan is continuing to investigate this issue and to actively monitoring the field. Nissan is also studying potential customer satisfaction initiatives.

* * * * *

¹ Includes allegations #1 and 2 from IR.

² Includes allegation #1-3 from IR

ATTACHMENT CRequest 2 and Request 5 Search Criteria

Data submitted subject to Requests 2 and 5 data was gathered from relevant databases on June 8, 2017. The search criteria used by NNA to identify the claims identified in response to Request No. 5 is as follows:

Model years:**2007 to 2014****Models:**

Model
MURANO
MURANO
Quest
GT-R
Frontier
Xterra
Pathfinder
Titan
ARMADA
QX56
FX
Versa Note

Verbatim Keyword Search

Relevant verbatim (customer or technician) must contain at least one word from the following list:

Component

BRAKE
PEDAL
BRAKI

Symptom

FLOOR
PRESSURE
SOFT
SPONGY
ABS

Phrases that would apply to the above list but not be relevant were excluded:

Exclusions

GAS PEDAL
FLOORMAT
NOISE
TIRE PRESURE
BRAKE LIGHT

The resulting data was reviewed for relevancy to the request. Any non-relevant documents were removed. Any documents, where relevancy could not be determined because the verbatim was too vague, are included in the submission.

Descriptions of the parts, trouble codes, and labor operation codes are included in the data attached in Attachment A responsive to Request 5.