ADVICS North America, Inc.

1650 Kingsview Drive
Lebanon, Ohio 45036

Phone: (513) 696 5450
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June 2nd, 2015

Dr. Mark R. Rosekind
Associate Administrator of Enforcement
National Highway Traffic Safety Administration
Attn: Recall Management Division (NVS-215)
Room W48-302
1200 New Jersey Ave. S. E.
Washington, DC 20590

Re: Defect Information Report pursuit to 49 CRF 573.3(f)

Dear Ms. Lewis
This letter constitutes a defect information report filed on the behalf of ADVICS Co., Ltd. and ADVICS North America, Inc. collectively and hereafter referred as ADVICS. It is in pursuit of 49 CRF 573.3(f) that this report is being filed, specifically because certain vehicle manufactures received items of motor vehicle equipment from "ADVICS" both domestically and abroad that may not perform properly. The affected products are limited to only certain VSC (Vehicle Stability Control) units sold by ADVICS.

If you have any question please contact the undersigned as shown below.

Sincerely,

Jeremy L. Cox
SR Manager Quality Assurance
ADVICS North America, Inc.
(jeremy.cox@advics-na.com)
(513)-696-5465

573.6 (c) (1)

Manufactures Name and Address

DENSO Co. LTD. (Manufacture)
1-1 Showa-cho
Kariya, Aichi 448-8861 Japan
TEL 81-566-25-5511

ADVICS Co. LTD (Design and Japan Sales)
2-1 Showa-cho
Kariya, Aichi 448-8861 Japan
TEL 81-566-63-8000

ADVICS North America, Inc. (Agent and USA Sales)
1650 Kingsview Drive
Lebanon, Ohio 45036
(513)-696-5450

573.6 (c) (2)

Vehicles and/or equipment involved in this defect notification:

Certain **ABS Actuators** sold by ADVICS Co. Ltd. and ADVICS North America, Inc., manufactured by DENSO Co. Ltd. from December 4th 2014 to December 23rd 2014. These units were supplied to ADVICS for sale to multiple vehicle manufactures. Specifically, it was a defective seat valve subcomponent that was assembled into solenoid valves (aka oil pressure control valves) that are installed into **ABS Actuators** units. The seat valves in question were produced from August 22nd 2014 to September 4th 2014.

These **ABS Actuators** units are designed and sold by ADVICS collectively under the part numbers:

TOYOTA: ABS Actuator
Part Numbers: 44540-78020, 44540-78010, 44050-78010, 44050-78030, 44050-78050, 44050-78070

NISSAN: Actuator & Electronic Control Assembly (aka ABS Actuator)
Part Numbers: 47660 5AA0B, 47660 5AE0B, 47660 5AA1B, 47660 5AE1B

The **ABS Actuators** units containing the suspect solenoids were installed in vehicles sold in the United States by the following entities:

TOYOTA MOTOR CORPORATION

Matthew D. Collins
Manager- Vehicle Safety & Compliance Liaison Office (VSCLO) Toyota Motor Engineering & Manufacturing, North America (TEMA)
2015 W. 190th Street
Torrance, CA 90501
Phone: (310)-468-1946

NISSAN NORTH AMERICA, INC.

Donald Neff
Manager, Technical Compliance
Nissan North America
One Nissan Way
Franklin, TN 37067
Phone: (615) 725-5463

573.6 (c) (3)

Total number of vehicles or items of equipment

We reported to each of the customer respectfully as follows:

ADVICS Customer	QTY of Units
TOYOTA MOTOR CORPORATION (All vehicle MFG. markets)	4817
NISSAN NORTH AMERICA、 INC. (North America vehicle MFG. market)	4057

573.6 (c) (4)

Approximate percentage of vehicle or units to actually contain the defect

Unknown

573.6 (c) (5)

Description of anomaly

During a specific production period, various levels of contamination were found to be present within some solenoid valves *(aka "oil pressure control valves")* that are installed into **ABS Actuator** units sold by **ADVICS**. Based on studies conducted, it was found that some levels of contamination could affect the ability to:

- Completely close valve, hence limiting the ability to build up hydraulic pressure for the circuit it is controlling
- Fully open to the maximum amount, hence not allowing the hydraulic pressure to completely reduce in the circuit it is controlling

573.6 (c) (6)

Chronological summary of events leading to this determination

Early March 2015

Toyota, an ADVICS customer, reported an abnormal brake pedal feel in a prototype vehicle with an **ABS Actuator** installed. The unit was retrieved & analyzed, finding a resin contamination within a solenoid valve of the **ABS Actuator**. Investigation of the MFG. source, (Denso Co. Ltd.) for the **ABS Actuator** including solenoid valve, showed records of resin contamination found previously. The date of those records and the suspect **ABS Actuator** date corresponded, indicating a potential cause.

A preliminary theory was that the resin contamination came from the DENSO sub-assembly of a seal body (resin) to a seat valve (metal). Specifically an irregular shape of the seat valve could shave resin from the seal body when assembled together.

Mid-March 2015 to May End 2015

ADVICS reported the preliminary finding stated above & our plans to continue the investigation to our customers.

The MFG. (DENSO) had actual sample parts from each production run for seat valves, aka "library samples". Duplication trials confirmed the theory & library samples gave clear start & stop point for the resin contamination suspect range.

ADVICS conducted both static & dynamic evaluations, finding that only in some cases the contamination affected the performance of the **ABS Actuator** unit. Specifically there were various levels of contamination, most not resulting in an abnormal performance characteristic. However all levels of contamination are included in the suspect range given to all customers.

May 27th, 2015

ADVICS was advised by Toyota that it had determined that contamination of the solenoid could, under certain driving conditions, cause a loss of vehicle stability in certain Lexus NX 200t vehicles and that it would notify NHTSA that it was conducting a safety recall of approximately 3000 of those vehicles.

573.6 (c) (8) (i)

Description of the proposed remedy (including the schedule for dealer and customer notification):

ADVICS will cooperate with and support each vehicle manufacturer's plan(s) for a proposed remedy.

573.6 (c) (8) (ii)

Program for remedy campaign:

ADVICS will cooperate with and support the vehicle manufacturers in any necessary service actions.