National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Andrew Palmer
Chief Executive Officer
Aston Martin Lagonda Ltd.
Banbury Road
Gaydon
Warwick
CV35 0DB
United Kingdom

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Aston Martin Lagonda Ltd. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Steve Wiles

Mr. Paul Franks

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Ludwig Willisch
President and Chief Executive Officer
BMW North America LLC
PO Box 1227
Westwood, NJ 07675

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge BMW North America LLC to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Bryan Jacobs

Mr. Derek Rinehardt

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Sergio Marchionne
Chief Executive Officer
FCA US LLC
800 Chrysler Dr.
Auburn Hills, MI 48326

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge FCA US LLC to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

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H-15-8

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H-15-9

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Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Ms. Kristina Pisanelli

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Martin Daum
President and Chief Executive Officer
Daimler Trucks North America LLC
4747 N. Channel Ave.
Portland, OR 97217

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Daimler Trucks North America LLC to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Sean T. Waters

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Edwin Fenech
Chief Executive Officer
Ferrari USA
250 Sylvan Ave.
Englewood Cliffs, NJ 07632

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Ferrari USA to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

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H-15-8

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H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. David Wertheim

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Ms. Kimberly Pittel
Vice President, Sustainability, Environment and
Safety Engineering
Ford Motor Company
World Headquarters Building
1 American Rd.
Dearborn, MI 48126-2701

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Ford Motor Company to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Ms. Michelle Chaka

Mr. Thomas J. Artushin

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Thomas J. Doll
President and Chief Executive Officer
Fuji Heavy Industries USA Inc.
c/o Subaru of America
Subaru Plaza
PO Box 6000
Cherry Hill, NJ 08034-6000

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Fuji Heavy Industries USA Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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H-15-8

> Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

> Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. John Frooshani

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Ms. Mary T. Barra
Chief Executive Officer
General Motors
300 Renaissance Ctr.
MC: 482-C39-B10
Detroit, MI 48265

Mr. Jeffrey M. Boyer
Vice President, Global Vehicle Safety
General Motors
30001 Van Dyke, Vehicle Engineering Center
MC: 480-210-2V
Warren, MI 48090

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge General Motors to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new

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H-15-8

> Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

> Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Stephen G. Gehring

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Yasuhiko Ichihashi
President and Member of the Board
Hino Motors Ltd.
3-1-1 Hinodai
Hino
Japan

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Hino Motors Ltd. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

> Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

> Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Kevin Kokrda

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Takuji Yamada
President
American Honda Motor Co. Inc.
1919 Torrance Blvd.
Torrance, CA 90501-2746

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge American Honda Motor Co. Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

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H-15-9

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Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Ed Cohen

Mr. Jay Joseph

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Dave Zuchowski
President and Chief Executive Officer
Hyundai Motor America
10550 Talbert Ave.
Fountain Valley, CA 92708

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Hyundai Motor America to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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H-15-8

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H-15-9

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Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Shaun C. Skinner
Executive Vice President and
General Manager
Isuzu Commercial Truck of America Inc.
1400 S. Douglass Rd., Ste. 100
Anaheim, CA 92806

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Isuzu Commercial Truck of America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

> Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

> Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Jeffery A. Marsee

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Joe Eberhardt
President and Chief Executive Officer
Jaguar Land Rover North America LLC
555 MacArthur Blvd.
Mahwah, NJ 07430

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Jaguar Land Rover North America LLC to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Clinton Blair

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Byung Mo Ahn
Group Vice Chairman
and Chief Executive Officer
Kia Motors America and Kia Motors
Manufacturing Georgia
111 Peters Canyon Road
Irvine, CA 92606

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Kia Motors America and Kia Motors Manufacturing Georgia to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. John Anderson

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Christian Gobber
President and Chief Executive Officer
Maserati North America Inc.
250 Sylvan Ave.
Englewood Cliffs, NJ 07632

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Maserati North America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

> Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

> Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. David Cordero

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. James O'Sullivan
President and Chief Executive Officer
Mazda North American Operations
7755 Irvine Center Dr.
Irvine, CA 92618

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Mazda North American Operations to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Daniel V. Ryan

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Stephen Cannon
President and Chief Executive Officer
Mercedes-Benz USA LLC
1 Mercedes Dr.
Montvale, NJ 07645

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Mercedes-Benz USA LLC to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Ms. Joanna Foust

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Ryujiro Kobashi
President
Mitsubishi Motors North America Inc.
6400 Katella Ave
Cypress, CA 90630

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Mitsubishi Motors North America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Stephane Thiriez

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Rick Heller
Chief Executive Officer
Motor Coach Industries Inc.
200 E. Oakton St.
Des Plaines, IL 60018

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Motor Coach Industries Inc.to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Timothy J. Nalepka

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Troy Clarke
President and Chief Executive Officer
Navistar Inc.
2701 Navistar Dr.
Lisle, IL 60532

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Navistar Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Rich Kempf

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Jose Muñoz
Executive Vice President
Nissan Group of North America Inc.
One Nissan Way
Franklin, TN 37067

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Nissan Group of North America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Ms. Tracy Woodard

Mr. Alex Cardinali

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Ron Armstrong
Chairman and Chief Executive Officer
PACCAR Inc.
777 106th Ave. NE
Bellevue, WA 98004

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge PACCAR Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Ms. Pamela Tonglao

Mr. Jason Potter

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Detlev Von Platen
President and Chief Executive Officer
Porsche Cars North America Inc.
One Porsche Dr.
Atlanta, GA 30354

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Porsche Cars North America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Walter Lewis

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Tomomi Nakamura
Chairman and Chief Executive Officer
Subaru of America Inc.
Subaru Plaza
PO Box 6000
Cherry Hill, NJ 08034-6000

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Subaru of America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

> Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

> Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Maurice Arcangeli

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Elon Musk
Chief Executive Officer
Tesla Motors
3500 Deer Creek Rd.
Palo Alto, CA 94304

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Tesla Motors to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Diarmuid O'Connell

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Takeshi Hayasaki
President
Suzuki Motor of America, Inc.
3251 E. Imperial Hwy.
Brea, CA 92821

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Suzuki Motor of America, Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Ken Bush

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. James E. Lentz
President and Chief Executive Officer
Toyota Motor North America Inc.
19001 S. Western Ave.
Torrance, CA 90501

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Toyota Motor North America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

This report issues six new recommendations and reiterates two recommendations. Four of the six new recommendations and both of the reiterated recommendations were sent to the National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Steve Ciccone

Mr. Tom Stricker

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Filip Van Hool
Chief Executive Officer
Van Hool NV
Bernard Van Hoolstraat 58
BE-2500 Lier Koningshooikt
Belgium

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Van Hool NV to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

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H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Mr. Hugo De Roo

Ms. Pascale Reyntjens

Mr. Louis Hotard

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Michael Horn
President and Chief Executive Officer
Volkswagen Group of America Inc.
2200 Ferdinand Porsche Dr.
Herndon, VA 20171

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Volkswagen Group of America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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National Highway Traffic Safety Administration. The following two recommendations are being sent to your company and 29 other vehicle manufacturers, both passenger and commercial:

H-15-8

> Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

> Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Ms. Anna Schneider

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Lex Kerssemakers
Senior Vice President Americas
Volvo Cars of North America Inc.
1 Volvo Dr.
Rockleigh, NJ 07647

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Volvo Cars of North America Inc. to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman

Cc: Ms. Katherine Yehl

National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: June 8, 2015

In reply refer to: H-15-8 and 9

Mr. Tim L. Lafon
Vice President, Regulatory Affairs
Volvo Group North America LLC
P.O. Box 26115
Greensboro, NC 27402-6115

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. We are providing the following information to urge Volvo Group North America LLC to take action on the safety recommendations being issued in this letter.

On May 19, 2015, the NTSB adopted its special investigation report, titled *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes.*[1] We examined the prevalence of rear-end crashes, their cost in lives lost, and the extent to which collision avoidance systems could have prevented or mitigated such crashes. The report summarizes the current research on the efficacy of these systems, their prevalence in passenger and commercial fleets, and the necessary factors needed to speed up the deployment of these systems in all new vehicles. In addition to this report, we issued a safety alert on the benefits of collision avoidance systems. The report and the resulting recommendations may be found at our website, www.ntsb.gov, under report number SIR-15-01.

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[1] See *The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes*, Special Investigation Report NTSB/SIR-15/01 (Washington, DC: National Transportation Safety Board, 2015).

H-15-8

Install forward collision avoidance systems that include, at a minimum, a forward collision warning component, as standard equipment on all new vehicles.

H-15-9

Once the National Highway Traffic Safety Administration publishes performance standards for autonomous emergency braking, install systems meeting those standards on all new vehicles.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred with these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendation(s) by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman