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VIA ELECTRONIC MAIL

December 18, 2023

Eileen Sullivan
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: **Initial Decision re ARC Inflators** ([Docket NHTSA-2023-0038](#))

Dear Ms. Sullivan:

This responds to your September 5, 2023 letter concerning NHTSA Initial Decision That Certain Frontal Driver and Passenger Air Bag Inflators Manufactured by ARC Automotive Inc. and Delphi Automotive Systems LLC (“ARC Inflators”) Contain a Safety Defect (the “Initial Decision”).

Certain 2015-2018 Porsche Macan and 2017-2018 Porsche Panamera vehicles are equipped with passenger air bag modules that include inflators that were manufactured by ARC Automotive, Inc. prior to implementation of ARC's borescope procedure and subject to your Initial Decision.

First, there is no evidence that any ARC inflator has ever ruptured in any Porsche vehicle. On January 11, 2023, Porsche responded to EA16-003 Information Request indicating that it was not aware of any non-successful test deployments of ARC Inflators in Porsche vehicles. Porsche was also not aware of any non-successful field deployments of ARC Inflators in Porsche vehicles. Both remain true today, Porsche continues to be unaware of any non-successful deployments of ARC Inflators in Porsche vehicles.¹

Porsche offers two additional observations that it believes are pertinent to NHTSA's continued work.

¹ There is also no reason to believe any ARC inflator installed in a Porsche vehicle will rupture in the future. A calculation of risk of future rupture would need to account for factors such as: (1) number of past ruptures, (2) number of vehicles, (3) vehicle miles travelled through anticipated vehicle life, (4) number of above-threshold frontal crashes, and (5) passenger seat occupancy rate.

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1. Porsche believes the appropriate calculation of risk of ARC Inflator rupture in the U.S. should take into account the entire population of ARC Inflators installed in vehicles sold in U.S. Using this methodology, which Porsche believes is consistent with customary NHTSA methodology,² the Rupture Incident Rate per Vehicles Sold in the U.S. should be calculated as follows:

$$\text{Rupture Incident Rate} \\ (7 \text{ rupture incidents in U.S.} \div 52,000,000 \text{ ARC Inflators}) \times 100 = \mathbf{0.00001\%}.$$

The Fatal Rupture incident Rate should be calculated as follows:

$$\text{Fatal Rupture Incident Rate} \\ (1 \text{ fatal rupture incident in U.S.} \div 52,000,000 \text{ ARC Inflators}) \times 100 = \mathbf{0.000002\%}.$$

2. There are no Porsche vehicles in the U.S. equipped with ARC inflators in driver air bag modules. On Porsche vehicles in the U.S., ARC inflators subject to Initial Decision are installed only in passenger air bag modules in 2015-2018 Porsche Macan and 2017-2018 Porsche Panamera vehicles. Both vehicles are equipped with occupant classification systems such that the front passenger air bags are not designed to deploy unless the front seat is occupied by a person of a large enough stature to benefit from front passenger air bag deployment. Porsche also notes that passengers are not positioned as close to inflators as drivers are, and passenger inflators are positioned behind some layers of material.

In conclusion, Porsche is committed to customer safety and is carefully monitoring NHTSA's continued examination of this important matter.

² Porsche notes that its methodology for calculating the incident rate diverges from the methodology adopted by NHTSA in this instance, not because Porsche intends to minimize the risk, but because Porsche believes that each of the 52 million inflators on the road has the same potential to be involved in a crash that could result in a deployment and rupture. See, e.g., (<https://web.archive.org/web/20150820041754/http://www.weibull.com:80/hotwire/issue70/re basics70.htm>, defining "failure rate" as "the total number of failures within an item's populations, divided by the total time expended by that population").