NISSAN
GROUP OF NORTH AMERICA

December 13, 2022
Our Ref: W-2289-B

Mr. Maurice Hicks
Chief, Office of Crash Avoidance Standards Division
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Re: NHTSA NPRM on 49 CFR Part 563 Event Data Recorders
(Docket No. NHTSA-2022-0021)

Dear Mr. Hicks:

Nissan North America, Inc. on its behalf and on behalf of Nissan Motor Company, Ltd., of Yokohama, Japan, ("Nissan") hereby transmits the enclosed presentation material shared with NHTSA staff in a meeting on November 30, 2022. In the presentation, Nissan provided comments and supplemental information regarding the NHTSA NPRM amending the regulations of the Event Data Recorders (EDRs) to extend the EDR recording period.

Please note that we are submitting this information with a request for confidential treatment per 49 CFR Part 512. Should you or your staffs have any questions, please contact Wayne Wen at (571) 421-4861.

Sincerely,

Elsa Foley

Elsa Foley
Senior Manager, Innovation Policy & Safety
Government Affairs
Nissan North America, Inc.

NISSAN
MOTOR CORPORATION

NHTSA – Nissan Meeting for Part 563 Event Data Recorder

November 30, 2022

Agenda

1. NPRM adoption schedule alignment

2. Review of Nissan's submitted comments and supplemental information

3. Details of impact on development and scheduling

1. NPRM adoption schedule alignment

- **NPRM**
  - NHTSA issued the NPRM regarding Part 563 (EDR) on June 22nd
  - It proposed for existing 7 data elements:
    - Extending the recording duration (5s ➔ 20s)
    - Increasing the recording frequency (2Hz ➔ 10Hz)
  - Application date: 1 year after the first September 1st after the official regulation publication

- **Nissan schedule assumption:**

2. Nissan's submitted comment and supplemental information

2-1. Cost impact

In order to meet the newly proposed EDR requirements, **both software and hardware changes** will be required. For example, a larger capacity and more expensive backup capacitor will be needed.

Additionally, Nissan currently confirms the EDR functionality internally in coordination with other regulatory compliance crash tests which are conducted and completed in less than 20 seconds. **Additional or new crash test procedures** would be needed in order to retrieve data from the vehicle if recording period is extended beyond current crash test duration to 20 seconds.

2. Nissan's submitted comment and supplemental information

2-2. Lead Time

- Nissan produces a significant volume of models and vehicle types in the US. In order to ensure that each model is launched safely, it's not appropriate to develop all models at the same time.
- Nissan estimates that it will take **at least four years** to develop the proposed EDR for all of our models after NHTSA finalizes the regulation.
- This estimate is subject to potential extensions due to ongoing semiconductor supply shortages and/or significant business stagnation due to issues such as the COVID 19 crisis and geopolitical tensions.
- Nissan requests a minimum feasible lead time of at least four years from the publication of the Final Rule, or the possible phase-in schedule:
  - September 1st, three years after final rule: 50%
  - September 1st, four years after final rule: 100%

Basis for assumptions:

3. Not feasible to develop all models at the same time while ensuring safety/quality which requires additional half year

3. Details of impact on development and scheduling

Airbag system development process

For project launches with ensured quality:

- Various development activities are required on Component, System, and Vehicle level.
- Production preparation/trial/validation are also needed for both Component and Vehicle levels.

3. Details of impact on development and scheduling

ACU Performance by Generation

- Older generation has limited capability for data handling and storage.
- Hardware change(s) will be required.

3. Details of impact on development and scheduling

ACU Hardware Development

- Potential Hardware change(s) due to required data size increase.

- ACU recording capability is different generation by generation.
- If required capability exceeds ACU’s, hardware change(s) are required.

3. Details of impact on development and scheduling

ACU Software Development

- Primary function of ACU is Supplemental Restraint System (SRS) Airbag activation to mitigate injury in a vehicle crash.
- EDR is a secondary function that utilizes key common resources, but should not negatively impact the primary ACU function in any way.
- Sufficient validation period is required to ensure both primary ACU and secondary EDR function and performance.

3. Details of impact on development and scheduling

DRAFT Project Development Schedule*

*If development were to start immediately. Need to wait for Final Rule.

- Nissan produces a significant volume of models and vehicle types in the US.
- To ensure successful launch of each model, it’s not feasible to develop all models at the same time.
- A phase-in period to allow for a staggered adoption schedule should be considered.

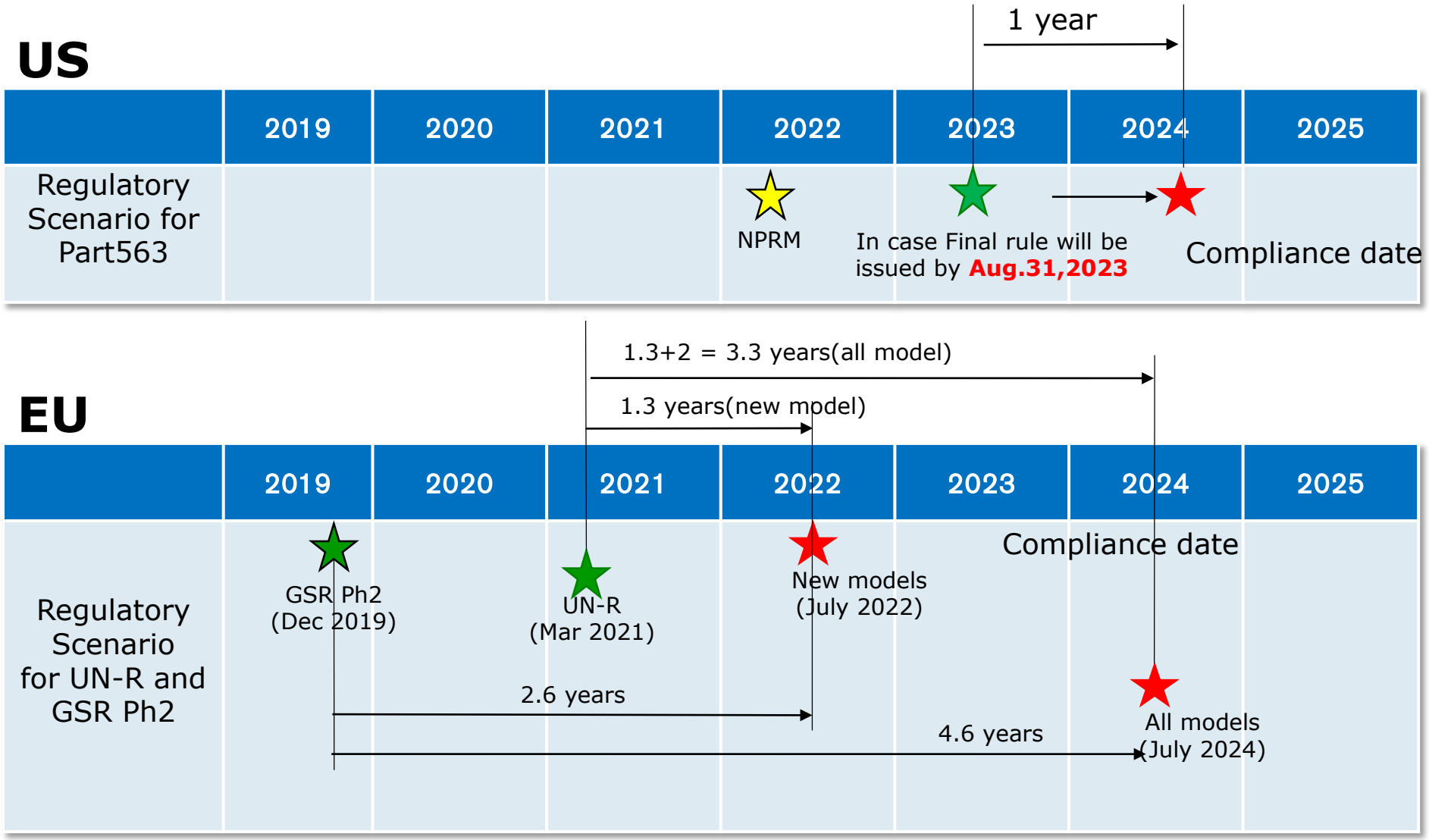
3. Details of impact on development and scheduling

Preparation status assuming no phase-in granted

- Until Final Rule issued, Nissan assumes earliest possible application date of Sep. 1, 2024

Additional Information

Regulation lead time comparison between Part563 & UN-R



NISSAN MOTOR CORPORATION

Why Nissan does not have serious lead time issue in EU market?

- For Existing model, the lead time of EU situation is over 2 years longer than US situation. (1 year vs 3.3 years.)
- Even though we could not start development until UN-R160 finalized in March 2021 because of lack of technical requirements, we could start to prepare for the development EDR after GSR Phase2 regulation which was finalized in December 2019 and includes the adoption timing.