

**BEFORE THE
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

Docket No. _____

**First Amendment to
Petition of Polaris Industries Inc. and Goupil Industrie SA
for a Temporary Exemption under 49 U.S.C. § 30113 and 49 C.F.R. Part 555**

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Dated: December 2, 2020

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Polaris Industries Inc., for itself and on behalf of its subsidiary Goupil Industrie SA, (hereinafter “Polaris/Goupil”) hereby submits this First Amendment to Polaris/Goupil’s petition under 49 U.S.C. § 30113 and 49 C.F.R. part 555 for temporary exemption from certain Federal Motor Vehicle Safety Standards (“FMVSSs”) dated September 16, 2020 (the “Petition”).

This amendment:

- withdraws Polaris/Goupil’s request for exemption from FMVSS 203 (Impact Protection for the Driver from the Steering Control System); and
- revises Polaris/Goupil’s request for exemption from FMVSS 226 (Ejection Mitigation), in its entirety, based on crash-simulation results recently ascertained by Polaris/Goupil.

For the reasons set forth in the original Petition, granting the Petition, as amended, will facilitate the development and field evaluation of the G6 and be consistent with the public interest and the Vehicle Safety Act (49 U.S.C. ch. 301).

I. Withdrawal of Exemption Request Concerning FMVSS 203.

Polaris/Goupil withdraws its request for temporary exemption from FMVSS 203 (Impact Protection for the Driver from the Steering Control System) in its entirety.

II. Amendment of Exemption Request Concerning FMVSS 226.

Polaris/Goupil amends its request for temporary exemption from FMVSS 226 (Ejection Mitigation), in its entirety, as follows.

Polaris/Goupil seeks an exemption from Standard No. 226 in its entirety. This standard specifies requirements for ejection mitigation systems to reduce ejections of vehicle occupants through side windows during rollovers or side-impact events.¹ Paragraph S4.2.1.1 of the standard prohibits using movable glazing as the sole means of meeting the displacement performance limits under the standard. On a temporary basis on vehicles permitted as a result of the granting of this petition, however, Polaris/Goupil seeks to use laminated-glazing side windows as the sole means for achieving the required displacement performance.

An exemption from this standard would not unreasonably lower the Picnic-G6’s safety level. First, the Picnic-G6 will not exceed the displacement limits under paragraph S4.2.1 because it uses laminated-glazing side windows. Although Standard No. 226 does not allow these types of windows to be used as the sole means of meeting the displacement limits,² the windows will achieve the displacement performance required by S4.2.1 and, thus, will mitigate

¹ 49 C.F.R. § 571.219(S1), (S4.2).

² See 49 C.F.R. § 571.226(S4.2.1.1).

the risk of ejection from the vehicle, especially when in the fully closed position.³ Results of computer-simulated testing showing the displacement performance of the G6's windows are attached as *Exhibit 14*.⁴

Second, the Picnic-G6's expected use profile reduces the risk of ejections from side windows during crashes. Due to the Picnic-G6's maximum speed of 50 km/h (31 mph) and range of approximately 90 miles, Picnic-G6 operations will likely occur only on urban and dense-suburban local roads, where traffic moves at low speeds. [REDACTED]

[REDACTED]] Thus, when compared to most light trucks and delivery vehicles, which can and do operate off local roads, at high speeds, and at moderate and long distance, the Picnic-G6 has a low probability of being involved in a crash.⁵ Also, should any Picnic-G6 crash occur, it will be at low speed, which involves a lower risk of injury.⁶

Third, the Picnic-G6 is similar to a walk-in van, which is excepted from the standard.⁷ A walk-in van under Standard No. 226 is “a special cargo/mail delivery vehicle that only has a driver designated seating position”⁸ and that “has a sliding (or folding) side door and a roof clearance that enables a person of medium stature to enter the passenger compartment area in an

³ See Federal Motor Vehicle Safety Standards, Ejection Mitigation, 76 Fed. Reg. 3211, 3278 (Jan. 19, 2011) (indicating that glazed windows may be less reliable when partially or fully rolled down).

⁴ To enable playback of the embedded video in *Exhibit 14*, Polaris/Goupil will provide a native version of the exhibit electronically.

⁵ See Int'l Traffic Safety Data & Analysis Group, Int'l Transport Forum, *Speed and Crash Risk* 7, 14-15 (2018), <https://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf>; NHTSA, Federal Motor Carrier Safety Administration & Federal Highway Administration, *Speed Management Program Plan* 10 (2014).

⁶ See Int'l Traffic Safety Data & Analysis Group, Int'l Transport Forum, *Speed and Crash Risk* 7, 13 (2018), <https://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf>; NHTSA, Federal Motor Carrier Safety Administration & Federal Highway Administration, *Speed Management Program Plan* 10 (2014).

⁷ 49 C.F.R. § 571.214(S2).

⁸ 49 C.F.R. § 571.226(S3).

up-right position.”⁹ Except for the 10 Picnic-G6s that will have a passenger seat for training purposes, the Picnic-G6 will only have a seating position for the driver. Also, although the Picnic-G6 is not designed for a driver to enter its passenger compartment in an upright position, it has the same low-risk use profile of a walk-in van since both the Picnic-G6 and walk-in vans are designed primarily to make deliveries in urban and suburban areas where the driver makes frequent stops.¹⁰

III. Revised Exhibit List

This Amendment revises the exhibit list in the Petition by adding *Exhibit 14*, as follows:

- Exhibit 1: EU Type Certificate
- Exhibit 2: Rolling Base Technical Characteristics
- Exhibit 3: Picnic-G6 Use Profile Information
- Exhibit 4: N1 Homologation Standards
- Exhibit 5: Vehicle Manual Excerpts Identifying Indicator Symbols
- Exhibit 6: G6 Dynamic Testing Test Report
- Exhibit 7: G6 Static Stability Factor Test Report
- Exhibit 8: FMVSS 208 – Results of Computer-Simulated Testing
- Exhibit 9: FMVSS 214 – Results of Computer-Simulated Testing
- Exhibit 10: R100 Test Results (Battery Safety)
- Exhibit 11: R100 Test Results (Vehicle Safety)
- Exhibit 12: Homologation Approval for G6 Battery
- Exhibit 13: Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding
- Exhibit 14: FMVSS 226 – Results of Computer-Simulated Testing

IV. Confidential Treatment.

Polaris/Goupil requests that text in this Amendment marked with brackets “[” “]” and Exhibit 14 in its entirety be withheld from public disclosure and is submitting a request for such withholding pursuant to 49 C.F.R. part 512 simultaneously with this Amendment.

⁹ *Id.*

¹⁰ *See* Federal Motor Vehicle Safety Standards, Occupant Crash Protection, 56 Fed. Reg. 12,472,12,474 (Mar. 26, 1991) (declining to require automatic crash protection in walk-in vans).

V. Conclusion.

Polaris/Goupil respectfully requests that NHTSA grant the Petition, as amended, and such other and further relief as NHTSA deems appropriate.

Respectfully submitted,



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Exhibit 14 (Redacted)