November 29, 2021

Dr. Steven Cliff,
Acting Administrator
Ms. Ann Carlson,
Chief Counsel
National Highway Traffic Safety Administration
1200 New Jersey Ave SE,
Washington DC, 20590

RE: Agency Information Collection Activities; Notice and Request for Comment; Incident Reporting for Automated Driving Systems (ADS) and Level 2 Advanced Driver Assistance Systems (ADAS); September 30, 2021; Docket No. NHTSA–2021–0070

Dear Dr. Cliff and Ms. Carlson,

The Alliance for Automotive Innovation ("Auto Innovators"), whose members manufacture approximately 99 percent of all cars and light trucks sold in the United States, are committed to a cleaner, safer, and smarter future. In pursuit of this mission, Auto Innovators is responding to the notice and request for comment on the information collection activities associated with the Standing General Order ("SGO") to report incidents involving Level 2 Advanced Driver Assistance Systems ("Level 2 ADAS") and Automated Driving Systems ("ADS"). In addition, we have included recommendations to the agency regarding unresolved points of clarification that will assist reporting entities in complying with the SGO.

On July 6, 2021, shortly following the issuance of the SGO, Auto Innovators sent the agency a letter seeking clarifications that could assist reporting entities in understanding their SGO compliance obligations. The August amendment to the SGO alleviated some of the concerns raised in our letter; however, a significant number of issues remain outstanding. Because no further guidance was received, as will be explained below, it is difficult to understand the agency's burden estimates and the assumptions upon which they are based. To assist the agency in addressing these concerns, Auto Innovators has proposed recommendations for how the agency should address each question. These proposed responses remain true to the agency's stated needs while also easing the burden to reporting entities. The full list of questions and Auto Innovators recommendations to the agency are presented in Appendix A.

Summary of this Submission

Auto Innovators maintains that the scope of the SGO is overly broad. As a result, an undue burden is placed on suppliers, which often have their components and subsystems in a broad spectrum of vehicles, across numerous manufacturers. What's more, the OEM-supplier and OEM-ADS developer relationship will likely result in substantial duplication of reporting, offering no added benefit to the agency.

Equally important to the scope, NHTSA's burden estimates provided in the PRA notice are significantly underestimated: Auto Innovators members estimating, on average, a four-fold increase in the one-day reporting burden, a twenty-fold increase in the ten-day reporting burden, and a ten-fold increase in the monthly reporting burden. Similarly, NHTSA's estimated hourly rate is too low, with a more realistic rate being $120 per hour. Lastly, regarding reporting burden, the one-day reporting requirement is overly stringent without any articulated rationale. The association suggests that a 5-day reporting requirement would ease this burden while still providing timely

information to the agency. A single, 5-day report would also obviate the need for a 10-day report, further reducing burden.

Below, we have prepared responses to the various sources of burden estimated by NHTSA in the Paperwork Reduction Act ("PRA") notice, as well as highlighted sources of burden not considered by the agency, but that are particularly relevant and should be considered by the agency.

Scope of the Standing General Order

NHTSA issued the SGO in June 2021 to vehicle and equipment manufacturers and operators of ADS and Level 2 ADAS vehicles, specifically to those companies named in the SGO as reporting entities. However, Auto Innovators notes that there is a discrepancy between the burden placed on vehicle manufacturers and fleet operators and the burden placed on suppliers and equipment manufacturers, including ADS developers. For example, Level 2 ADAS is comprised of a number of discrete components and subsystems that are combined to create the functionality that is commonly recognized as Level 2 ADAS. It is important to note that standalone, commercially available Level 2 systems are rare. Rather, most Level 2 systems found in today's vehicles are built from an assortment of components and subsystems manufactured by suppliers. What's more, many vehicle manufacturers source different suppliers for the various subsystems and components that provide Level 2 system functionality. Practically speaking, this means that any given vehicle manufacturer's Level 2 ADAS is likely comprised of a handful of distinct suppliers' parts. Concordantly, each individual supplier of a Level 2 ADAS component or subsystem is likely to have its product in a number of different vehicles, and across multiple manufacturers. The SGO appears to require suppliers to monitor and report incidents for an exponentially greater volume and variety of vehicles than what was envisioned by NHTSA for vehicle manufacturers alone.

The issue of scope is also relevant for manufacturers and operators of ADS components and subsystems, who are the only entities required to provide information under Request Number 2. This reporting category seeks information on all "crashes" involving an ADS-equipped vehicle where the ADS was engaged at any time during the period of 30 seconds immediately prior to the crash. The definition of "crash" provided in the SGO is vague and has a significantly lower threshold for reporting than incidents for both ADS and ADAS-equipped vehicles under Request Number 1. Since NHTSA's stated goal of ensuring that ADS manufacturers meet their statutory obligations to provide vehicles free of defects is satisfied by the reporting under Request Number 1, the practical utility of Request Number 2 is unclear.

Potential for Duplicate Reporting

Auto Innovators also highlights the apparent expectation for each reporting entity to report incidents, regardless of the potential for duplication. Due to the use of varied supplier componentry as discussed above, as well as ADS developers/testers with OEM partners, when a relevant crash occurs, NHTSA has indicated that a report should be submitted by each reporting entity whose hardware or software is present in the subject vehicle. Take the example of an OEM's vehicle that has a camera supplied by Supplier A, a radar supplied by Supplier B, and processors supplied by Supplier C. If that vehicle is involved in a crash with Level 2 ADAS engaged, then by the requirements set forth in the SGO, NHTSA may receive *four* separate incident reports for the same vehicle in the same crash (reports are required from [1] the OEM, [2] Supplier A, [3] Supplier B, and [4] Supplier C). We question the utility of this information being submitted multiple times for the same incident and what benefit duplicative reports have in assisting the agency with its stated mission.

Auto Innovators conservatively estimates that most crashes will be reported by at least two entities – the OEM and at least one supplier, resulting in a doubling of the burden estimated by NHTSA. For instance, if NHTSA is correct that 3,400 Level 2 ADAS crashes will be reported under the SGO each year, then at least 6,800 reports will likely be filed.

While some duplicative reporting is expected in the supplier/ vehicle manufacturer relationship, a similar concern exists for fleet operators of vehicles manufactured by another entity that potentially uses proprietary combinations of hardware and software not originally equipped by the OEM on the base vehicle sold to the fleet. Vehicle manufacturers, according to the language of the SGO, would be required to submit reports for their vehicles that have been modified by a third party and that may not utilize any of the original equipment supplied with the vehicle

at the point of original sale. This is also true for "plug-and-play" systems that are intended to be retrofitted into vehicles not originally equipped with a Level 2 ADAS or ADS. Thus, the information supplied by OEMs in an incident report involving such a vehicle will not only be duplicative of the information reported by the aftermarket modifier of the vehicle or ADS partner, but will also fail to provide any useful information pertaining to the design, construction, or performance of a system not developed by the OEM. Indeed, it could be confusing or even misleading as to the performance of the OEM's Level 2 ADAS, which was no longer present on the vehicle at the time of the crash, or was modified by the third party to perform differently than intended by the OEM. Auto Innovators fails to see the practical utility of such information in achieving NHTSA's stated goal of identifying potential defects.

Burden Estimates That Were Understated

Auto Innovators submits that four of the key components of NHTSA's PRA Burden estimates were understated. The first is the number of hours it takes to prepare a one-day report to NHTSA. NHTSA's estimate of two hours appears to assume that only one person is involved at each reporting entity. Based on its members' experience under the SGO to date, it is the case that the average submission requires around ***eight person-hours*** to prepare, including review by personnel other than the one actually writing the report (and of course, these reviews have to occur essentially simultaneously in order to meet the one-day deadline).

Second, NHTSA underestimated the time needed to prepare the ten-day update to each one-day report. NHTSA's estimate of 1 hour of time again appears to assume that only one person is involved at each reporting entity when, in fact, numerous personnel are involved and, given the additional time to review the crash information, Auto Innovators believes that the average ten-day update will actually take more time to prepare than the initial report. Although the members have had different experiences with the ten-day update process to date, a reasonable mid-point in the burden estimates from members would be ***twenty person-hours*** to prepare the ten-day update.

Third, as noted above, NHTSA underestimated the time needed to prepare the monthly reports under Requests 3 and 4 of the SGO. NHTSA estimated 2 hours per month to verify whether the reporting entity has received any new or different information about each previously reported crash. This significantly underestimates the time required to review each previously reported crash each month to determine whether an update under Request 3 or a "no update" report under Request 4 report is required. If NHTSA is correct that the average reporting entity will report 170 crash reports per year, it will require far more than 2 hours for the reporting entity to review 170 crash files in July 2022 (the twelfth month after reporting began under the SGO) – 2 hours is less than one minute per file, which is not reasonable. By the time the SGO is up for PRA renewal in December 2024, [1] the average reporting entity would have to review 595 crash files (assuming NHTSA's baseline estimate of 170 crash files per year.) While some of the review process can potentially be streamlined, an average estimate of ***twenty person-hours*** to review these previous reports each month is more reasonable than 2 hours.

Finally, NHTSA's labor cost estimate understates the actual labor costs because it does not take into account the other personnel involved in preparing and reviewing the reports, including legal staff, information technology staff and senior management. While each reporting entity will have a different personnel structure involved in reviewing and filing these reports, all of them will have more personnel involved than the "architectural and engineering manager" whose wages as reported by the Bureau of Labor Statistics were used by NHTSA as the baseline. A more realistic estimate would be ***at least $120/hour***.

Areas of Burden Not Included in NHTSA's Estimates

While NHTSA has estimated the burden incurred by the preparation and submission of incident, update, and monthly reports, there are significant burdens associated with complying with the SGO that are not accounted for in NHTSA's estimates. Auto Innovators notes that NHTSA has provided estimates which are assumed to be averages over the course of the three-year period for which the SGO is seeking approval. It is noteworthy that the

[1] Auto Innovators noted that NHTSA requested a three-year extension of the prior PRA approval for the SGO measured from the date of OMB approval of the extension. Assuming approval sometime in December 2021, it would be up for renewal in December 2024, so the duration of the SGO is actually 3.5 years.

burden for each type of report is likely going to increase year-over-year as these systems continue to proliferate through the market. At a minimum and as noted above, each initial report of a crash will require a review by the reporting entity each month thereafter to determine whether any material new information, or materially different information, has been received about that crash to determine reportability under Request 3 of the SGO. Every time a new initial report is filed, the monthly review burden going forward is increased. As the agency is likely aware, there are no commercially available ADS-equipped vehicles in the U.S. today; however, these systems are expected to reach the market in the coming years. Therefore, the burden of reporting in the first year is likely to be drastically different than the burden in the third year. This increase in burden should be accounted for in NHTSA's estimates.

NHTSA has also estimated the burden associated with monthly reports. But, in so doing, the agency fails to distinguish between the different types of monthly reporting, each with potentially vast differences in their associated burden. More precisely, there are separate monthly reports for each of Request Numbers 2, 3, and 4 of the SGO. Under Request No. 2, which is specific to ADS crashes not reported under Request No. 1, there will likely be a similarly ramping up of reports year-over-year. Under Request No. 3, which is an update to crashes reported under Request Nos. 1 and 2, each incident for which material new or different information is available must be included going back to the start of the SGO, as noted above. Therefore, year 3 monthly reports under Request No. 3 have the potential to contain a significantly higher number of reports than in year 1, resulting in a significantly higher burden in year 3 than in earlier years. And under Request No. 4, which is a report of no new information, if applicable, would similarly require a monthly review of an ever-increasing list of cases previously reported and would only be triggered if there were no relevant updates to report under Request 3.

Similar to the burden associated with monitoring previously reported crashes for updated information, there is also burden incurred in monitoring for new crashes that NHTSA has failed to account for. While the SGO remains silent on what specifically constitutes a reporting entity receiving notice of a crash, Auto Innovators has recommended to the agency (in Appendix A) that NHTSA consider only those people within the reporting organizations who are normally responsible for receiving such type of information as having received notice of a crash. For example, customer relations departments, legal staff, and executives could reasonably be considered as being normally responsible for receiving notices of crashes, whereas employees in departments such as finance, sales, administration, or even production line workers would not reasonably be expected to receive notice of a crash. Not only does this definition of receipt of notice narrow the scope of a reporting entity's staff that need to be trained on the handling of such information without unduly affecting the quality of reporting, but it also aligns with the processes established under the Early Warning Reporting (EWR) requirements. By limiting the number of employees that are responsible for the handling of crash information, the burden associated with both training and monitoring can be significantly reduced without compromising safety. Based on its burden estimates in the PRA notice, NHTSA seemingly assumed "receipt" was limited in the way Auto Innovators is recommending, but that remains unclear. If the agency's expectation is more expansive (e.g., notice to a company is deemed received when a production line worker reads a media report on-line while on lunch break), then the burden estimates are grossly understated, as entirely new systems would have to be established to even attempt to capture such information from potentially thousands of company employees.

In addition to the cost of labor associated with the handling of crash information, there are also fiscal burdens associated with the hardware and software infrastructure to monitor and manage crash reporting. Reporting entities have already invested significant resources into setting up internal processes for the handling of crash information, which often include IT systems that come at a financial cost. By aligning the SGO requirements with the previously established EWR requirements, NHTSA can keep the new burden associated with these IT systems to a minimum.

For cases in which information has been sent to the reporting entity by a third party, the reporting entity must review the information for completeness before making its submission to NHTSA. If, for example, the information received by the reporting entity does not contain all the relevant information to trigger an incident report, then no report is submitted; however, there is still burden associated with the review of said information for which NHTSA has not accounted in its burden estimates. Similarly, for those matters initially not required to be submitted, new information might be received weeks or months later that would trigger a submission; such continued monitoring is also not accounted for in the burden estimates. Auto Innovators has attempted to estimate the burden of undertaking this follow-up effort in its revised estimates of person-hours provided above.

When an incident report is submitted to the agency, reporting entities have the option to submit with it a request for confidential treatment. Due to the sensitive nature of crash information, it is likely that a majority of reports will be submitted confidentially. The confidentiality request process is highly involved and represents a significant burden to the reporting entity and has not been accounted for in NHTSA's burden estimates. Exacerbating the issue is the fact that a request for confidential treatment under Part 512 must be prepared for each individual report submitted, including monthly reports depending on the information provided therein. Thus, the burden associated with preparing Part 512 submissions will likely be substantial and is wholly unaccounted for in NHTSA's estimates. NHTSA's PRA estimate for preparing a Part 512 submission is eight person-hours;[2] however, given the likely redundancy in preparing Part 512 justifications under the SGO, it is more reasonable to assume that SGO Part 512 justifications can be completed in approximately two person-hours, for a total of 6800 hours per year (using NHTSA's baseline estimate of 3400 reportable crashes per year). But none of this burden is necessary because NHTSA could create a class determination under Appendix B of Part 512 for the recurring information items that NHTSA has already agreed can be claimed to be confidential. In fact, the electronic submission form NHTSA requires for reports recognizes three elements that it presumes are potentially confidential: (1) "ADAS/ADS VERSION"; (2) "WAS VEHICLE WITHIN ITS ODD AT THE TIME OF THE INCIDENT?"; and (3) "NARRATIVE." The form includes a box labeled "CBI" next to each of these three fields. However, NHTSA has not established a class determination for these fields in Part 512 and has said that the standard regulatory request process must be followed. Instructions for updated reports indicate that the information in all previous versions be resubmitted, thus requiring a new Part 512 request for each update. Requiring Part 512 justifications for each report has no practical utility for the agency.

Timeliness of Reports

Under Request No. 1 of the SGO, reporting entities are required to submit incident reports within one day of receiving notice, followed by an updated report within 10 days of receipt. Auto Innovators questions the utility of this reporting structure given the fact that a one-day reporting requirement does not sufficiently allow a reporting entity to verify or otherwise confirm crash information received. It is the understanding of Auto Innovators that this one-day reporting requirement is intended for the purpose of receiving crash information in a timely manner; however, we note that similar reporting requirements, specifically those of the Takata Standing General Order on inflator ruptures, utilize a 5-day reporting requirement. Since this has not been changed in several years, Auto Innovators assumes that the 5-day reporting timeline still meets the needs of the agency with regard to timely information gathering while still providing the reporting entities the opportunity to perform some minimal verification of the information received by their organizations. Therefore, we recommend to the agency that a 5-day reporting requirement replace the current one-day requirement, which not only provides sufficiently timely reporting, but also reduces the burden to the reporting entity and will eliminate some crashes from having to be reported by giving the reporting entity enough time to determine whether a crash meets the reporting criteria in the first place. The one-day reporting requirement is made even more difficult by the fact that the SGO requires reporting within one calendar day, with no relief provided for weekends and holidays, when the staff expected to be monitoring in-bound information and notices would not ordinarily be working.

Should NHTSA adopt the recommendation for a five-day reporting requirement, this should obviate the need for the 10-day reporting requirement. By replacing the one- and 10-day reports with a single 5-day report, the associated burden can also be reduced by more than half without diminishing the reasonable timeliness of the notice to the agency or the quality of the reported information. Should additional information be made available to the reporting entity after the 5-day period of initial notice, the monthly report under Request No. 3 would still provide NHTSA the same level of information it would have otherwise received. This holds true for both crashes involving Level 2 ADAS as well as those involving ADS-equipped vehicles.

* * * *

[2] See Information Collection Supporting Information for OMB Control Number 2127-0025 at Page 7. The most recent abstract available on the OMB website is from 2017.

Auto Innovators appreciates the opportunity to provide this response to the notice and request for comment on the information collection activities around the SGO burdens. Should the agency have any questions, please do not hesitate to contact Mike Hernandez of my staff at (202) 326-5561.

Sincerely,

Scott Schmidt
Vice President, Safety Policy
Alliance for Automotive Innovation

Appendix A

On July 6, 2021, Auto Innovators sent a letter addressed to Dr. Steven Cliff containing a list of 37 questions that sought clarification on how reporting entities should comply with the NHTSA Standing General Order (SGO) 2021-01. On August 12, 2021, NHTSA issued an amended SGO, which provided some clarity to the questions sent in the Auto Innovators' letter. NHTSA provided some additional clarity to reporting entities in a series of phone conversations and meetings. Auto Innovators has provided in this Appendix the original 37 questions sent to the agency along with responses to each question in the form of a recommendation to the agency. These recommendations not only seek clarity on NHTSA's Order, but also seek to minimize the burden to the industry in compliance with the SGO.

1. *When does NHTSA deem service of the SGO to have occurred?*

a. *Does NHTSA consider email to be "personal service" under Section 510.3?*

b. *If NHTSA intends to serve Reporting Entities by registered or certified mail, does that add three days to the effective date of the SGO, per Section 510.3(d)?*

We understand that service to affected companies has already occurred and therefore the response this question is considered moot. Auto Innovators member companies have been appropriately notified and understand their own individual service dates.

2. *What specifically does NHTSA consider to be L2 ADAS for purposes of this SGO? Is NHTSA able to provide a list of common systems/features that it deems to be (or not be) L2 ADAS systems/ features.*

a. *As L2 ADAS can be comprised of a number of subcomponents/subsystems, does NHTSA intend to capture each of these components/systems in the reports?*

We note that NHTSA has defined "Level 2" as being "the same as and is coterminous with the definition" provided for in SAE J3016 (April 2021). NHTSA has also defined "Advanced Driver Assistance System" as "a Level 1 or Level 2 system." Within J3016, SAE makes the following note:

"The term "Advanced Driver Assistance Systems" (ADAS) is commonly used to describe a broad range of *features*, including those that provide warnings and/or momentary intervention, such as forward collision warning (FCW) systems, lane keeping assistance (LKA) systems, and automatic emergency braking (AEB) systems, as well as some convenience *features* that involve Level 1 *driver support features*, such as ACC and certain parking assistance *features*. As such, the term ADAS is too broad and imprecise for use in a technical definitions document." (J3016_042021, Section 5.2 Note 3).

For OEMs, who create and implement the ADAS system for their specific vehicles, this definition may be clear; however, for suppliers (who might supply only one component or subcomponent of the overall ADAS system), fleet operators and owners, this definition is unclear.

For example, a Level 1 or Level 2 system is made up of sub-systems from varying suppliers including both hardware and software components. It is not the case that suppliers, fleet operators, or owners necessarily have the information or knowledge of specific vehicles or models to fully understand whether an ADAS system might be implemented or engaged in a vehicle at the time of a crash. Therefore, these entities should not be treated the same as original vehicle manufacturers for reporting requirements under the SGO.

In addition, the definitions provided by SAE describe general systems and functionality, but they do not provide a list of the specific components included in such systems or components which may interact with those systems. The lack of clarity in the SGO brings into question the applicability of the requirements to all components on a vehicle which may have some relevance to a Level 2 system. Some examples include the underlying braking system of the vehicle, the power steering system, the powertrain, or even the individual wheel speed sensors and steering angle sensors. This approach does not properly take into account the complexity of these systems. As a result, it dramatically increases the burden for suppliers. In order to ensure compliance with the SGO, NHTSA

should provide a consistent definition that makes clear which components within an ADAS systems the supplier must monitor, assess, and report, if necessary.

3. *When NHTSA issued Standing General Order 2015-01 on July 27, 2015 (subsequently revised on August 17, 2015 as 2015-01A) on inflator ruptures, it initially required a 1 day notice. In response to industry input on feasibility of such a turnaround, the agency changed to a 5 day notice. Here again, in this SGO, which involves far more information that might not be readily available or known, Auto Innovators members are extremely concerned with their ability to make the required reporting in 1 day. Will the agency consider making a similar change here based on practical considerations of this vast reporting?*

As noted in the question above, Auto Innovators member companies had difficulty in meeting the original one-day notice period under the Standing General Order in response to airbag inflator ruptures. In this new Standing General Order, the amount of information to be reported is even greater and the one-day notice is considerably more difficult to meet. We recommend that NHTSA amend this Order to align with the previous Order (2015-01A) for airbag inflator ruptures and adopt a 5-day notice period. A 5-day notice period will offer manufacturers needed flexibility to receive, process, and report all relevant information to NHTSA and will not unduly diminish NHTSA's access to information about ADAS and ADS crashes. More specifically, a 5-day notice period sufficiently balances the need for expedient notification to the agency with providing sufficient time to the manufacturer to confirm the accuracy of the information being submitted. Conversely, a one-day notice period significantly increases the burden to the manufacturer and the likelihood of crash information being reported prematurely, which will both increase the likelihood of inaccurate information being passed on to the agency and increase the burden associated with retracting reports that were later determined not to meet the reporting criteria. We ask that NHTSA reconsider the stringent time limits and justify them, especially when compared to other safety reporting to the agency.

4. *When is a notice deemed to have been "received" by a Reporting Entity?*

It is important that NHTSA establish an appropriate scope and definition for "notice" as well as clarifying what "receipt" of said notice entails. We recommend that the term "notice" be defined in a similar manner as to how a "consumer complaint" is defined in Early Warning Reporting (EWR)(§579.4). We believe the definition of "notice" needs to include (1) who submits it; (2) what it is; and (3) to whom in the company it is addressed. The current SGO's definition lacks (1) and (3). Further, NHTSA's SGO should be guided by the purposes of its activities in promoting public safety and the gathering of information from the manufacturers should be in furtherance of that goal. NHTSA should not require manufacturers to submit information that is based on information that is already publicly available (for example, a news article). NHTSA should also articulate its rationale for using such a broad definition of "notice." We ask that NHTSA explain the utility of collecting information from manufacturers that would otherwise be available to the public.

In responding to actual notices (other than media reports) received by manufacturers, sufficient time is required to appropriately assess crashes for relevancy under the Standing General Order. As such, there is a need for balancing the scope of information to be processed and reported versus the speed with which an entity can conduct those processes. EWR processes are likely already well-established within our member companies and Auto Innovators recommends that NHTSA align with the EWR requirements in terms of receiving notice. Specifically, we recommend that NHTSA consider a notice to have been received when a person or department within a Reporting Entity's organization *who is usually responsible* for receiving such type of information (for example, customer relations, executives, legal, etc.) is made aware of a potential incident.

5. *Does NHTSA expect a Reporting Entity to report information about a crash that is discussed on a third-party website, such as social media, when such a crash is not affirmatively sent to or shared with the company directly?*

The burden to a manufacturer to monitor all forms of media (print, video, radio, social) and report relevant crashes within one day is untenable. Distinct from the recommendation above to adopt a 5-day notice period, Auto Innovators also recommend that NHTSA only consider notice to have been received by a Reporting Entity when information has been affirmatively sent to the manufacturer. Here again we recommend that NHTSA align the requirements of the present SGO to those previously established under EWR and that information that is already

publicly available need not be reported to the agency. Should NHTSA continue to require such a broad scope of what constitutes "notice," we ask that the agency justify the safety benefit of manufacturers gathering, analyzing, and reporting information that is already publicly available.

6. *What if a media report is publicized or a social media report is posted on a weekend or federal holiday or during a natural disaster or national security incident when the company is closed? In this case, is notice received over the weekend, on the federal holiday, or during the disaster? Or is notice considered received when normal business operations have resumed?*

Auto Innovators recommends that NHTSA does not count weekends, federal holidays, or days with an extenuating circumstance such as a natural disaster or national security incident as contributing towards a manufacturer's notice period. In addition, by providing for the previous recommendations that "notice" includes a 5-day turnaround period and only includes information affirmatively sent to the manufacturer, the effect of these extenuating circumstances can be mitigated. Should the agency retain its one-day notice period, we ask that the need for such a short period be justified. This includes explanation on the safety benefit of one- vs. 5-day notice periods, particularly with regard to NHTSA's processing of such information. Does the agency intend to process received notices on federal holidays, for example? If not, what is the justification for requiring reporting entities to assign staff to work on those days to monitor possible notices?

7. *Who within a Reporting Entity falls under the definition of "you," especially with respect to the definition of "Notice?" Does this include any employee at the manufacturer, including those that may not have involvement in vehicle development, compliance, or reporting?*

As provided in the response to Question 4, Auto Innovators recommends that NHTSA align its reporting requirements with those of the EWR. Specifically, that only those employees within a Reporting Entity who are *usually responsible* for receiving information potentially relating to a crash should qualify as being capable of receiving notice. We also recommend that the agency appropriately define the term "notice" as suggested above.

8. *What is NHTSA's expectation regarding notice on VOQs that have not yet been subject to additional investigation and where no additional details beyond what is already stated in the VOQ text is available?*

With specific regard to VOQs, because they are reported directly to NHTSA by the consumer, NHTSA is presumably already aware of all of the information that a manufacturer might report under the Standing General Order. As discussed previously regarding publicly available information, we question the need for this additional burden on manufacturers in providing information that NHTSA already possesses. In short, the reporting of information from NHTSA's own databases back to the agency is unwarranted and we therefore recommend that VOQs should not be considered as a relevant data source for crash reporting by the manufacturer.

9. *Is there a difference between a "public road" and a "publicly accessible" road for purposes of triggering the reporting requirement?*

No additional clarification is needed.

10. *Does the SGO require a Reporting Entity that does not yet equip any of its vehicles with a Level 2 ADAS or an ADS to make monthly "lack of reportable information" reports under Request 4 of the SGO?*

No additional clarification is needed.

11. *Does the SGO require a Reporting Entity that does not yet operate any of its vehicles with a Level 2 ADAS or an ADS on publicly accessible roads to make monthly "lack of reportable information" reports under Request 4 of the SGO?*

For manufacturers that operate their Level 2 ADAS/ ADS vehicles exclusively on non-publicly accessible roads, we recommend that NHTSA consider lifting the "lack of reportable information" reports for those manufacturers until such time as the manufacturer expands the use of their vehicles to publicly accessible roads.

12. *Does NHTSA expect reports of crashes of vehicles that are equipped with L2 ADAS before the company learns if the L2 ADAS was engaged at the time of the crash?*
    a. *Relatedly, what is the method to withdraw/correct a report in cases where the initial allegation is not substantiated with facts, for example the initial report?*

Auto Innovators has sufficient clarity on the mechanisms that trigger an incident report; however, we still seek clarity on how to correct and/or withdraw a report if a manufacturer discovers that a report is unsubstantiated or incorrect. We recommend that NHTSA incorporate a means to easily correct or withdraw previously submitted reports. For reports that have been corrected or withdrawn, we further recommend that NHTSA take specific action to ensure that such reports are accurately reflected in any associated aggregate report. For example, if NHTSA makes statements regarding aggregate numbers of crashes, these numbers should reflect the most up-to-date figures reported by the manufacturer, respective of any corrections or withdrawals that the manufacturer may have made, and should be de-duplicated to avoid double-counting crashes reported by both the OEM and the supplier, for example. There should be no time limit for any report to be corrected or withdrawn and any aggregate report referencing these modified reports should similarly be modified at that time to reflect the changes.

13. *How is the 10-day supplemental report indicated on the Incident Report Form, so that the Agency can pair it with the initial 1-day report where applicable?*

We understand that the incident report form generates a unique Report ID when the report is submitted to the portal. Auto Innovators recommends that the 10-day supplemental report allow reference to the previously submitted one-day reports by using the unique Report ID.

14. *Is the intent that Reporting Entities are to report incidents when all criteria in A, B, and C are met? In other words, Reporting Entities have 1 day to report an incident once it has received notice that an equipped vehicle with L2 ADAS was engaged was involved in a crash where someone was transported to a hospital for medical treatment, a fatality, a vehicle tow-away, or an air bag deployment or involves a vulnerable road user. What if a Reporting Entity receives a customer call that their L2 ADAS-equipped vehicle was involved in a minor crash while the technology was in use, but not no one was transported to a hospital for medical treatment and there was no fatality, vehicle tow-away, or airbag deployment and the incident did not involve a vulnerable road user? What if a Reporting Entity receives a customer call that their L2 ADAS-equipped vehicle was involved in a crash with airbag deployment but the customer does not know or remember if they were using their L2 ADAS at the time of the crash?*

We understand that NHTSA has defined the term “crash” in the definitions section to include impacts “that results or allegedly results in any property damage, injury, or fatality.” For crashes involving Level 2 ADAS, Request No. 1 (C) specifies that the crash is relevant if it results in serious damage or injury; however, for ADS, Request No. 2 stipulates no such requirement. Because the term “crash” is already predefined to include such requirements, we recommend incorporating the same subsection (C) of Request No. 1 into Request No. 2 for clarity. In other words, crashes involving ADS should also meet the requirement for serious damage or injury in order to trigger a report to NHTSA.

15. *The definition of “Notice” uses “hospital-treated injury” in the description of the reporting criteria, but Request No. 1 criteria C uses “individual being transported to a hospital for medical treatment.” Which are the intended reporting criteria? What if a Reporting Entity receives a customer call that their L2 ADAS-equipped vehicle was involved in a crash while he or she was using the technology, but no one was transported to the hospital? However, sometime later, an occupant of one of the involved vehicles goes to the hospital on their own for treatment. Is this reportable?*

Hospital-treated injuries are difficult to ascertain, particularly for crashes in which the manufacturer is notified through sources that may not capture all relevant information (for example, TV news reports). The relevant criteria for triggering a report seems to be whether an individual is transported to the hospital for medical treatment. Therefore, Auto Innovators recommends that only crashes in which a person is transported from the scene of the crash to the hospital be considered relevant.

16. *Can NHTSA provide clarity on what specifically is meant by the sentence "[o]ther potential safety issues with vehicles operating using Level 2 ADAS include…the evolution of the system over time through software updates"?*

No additional clarity is needed from the agency at this time.

17. *If a vehicle manufacturer has reported an incident, do the Tier 1 and Tier 2 motor vehicle equipment suppliers also need to submit a report on the same incident? Similarly, if the incident involves an automated vehicle service operated by someone other than a vehicle manufacturer, do reports need to be submitted by both the manufacturer and the operator?*
    a. *If yes, how will NHTSA handle duplicative reports concerning the same vehicle?*
    b. *For the purposes of reporting, does NHTSA consider Tier 1 & 2 manufacturers to have received notice of an accident if they learn about it through telematics or other data owned by the vehicle manufacturer?*

The stated purpose of the Standing General Order is for NHTSA to be able to identify potential safety defects in vehicles operating a Level 2 ADAS or ADS. As such, it should be the case that only one initial incident report is sufficient to notify NHTSA of a crash. NHTSA should articulate why reports from the supplier, manufacturer, operator, etc. regarding the *same* crash are necessary. We question the practical utility of the information provided by one entity's incident report versus many reports, particularly when NHTSA has the authority to ask other involved entities for their assessment as needed using the agency's expansive investigative powers. NHTSA should articulate what the safety benefit is for having multiple reports for the same crash and why it justifies the additional burden. Further, NHTSA should explain how it intends to use the information submitted in any public sharing of the data. If the agency receives multiple reports of the same crash, how will it ensure that the information later provided to the public gives an accurate representation of the number of reported incidents? If single crashes are reported multiple times in the publicly available aggregate reports, the number of crashes will be skewed higher and will likely have negative effects on consumer trust in automated driving systems and/or trust in the accuracy of agency-reported data.

18. *Are Tier 1 & 2 suppliers of ADAS and ADS systems obligated to report incidents involving vehicles for which their automotive manufacturer partners have requested or contracted that the ADAS/ADS system should be white-labeled? If so, are there potential ways to keep the Tier 1 & 2 suppliers anonymous?*

Supplier systems are often provided to multiple OEMs under agreement that includes confidentiality about the supplier-OEM arrangement. Such agreements would conceivably be violated if a supplier were required to submit incident reports that identify the manufacturer of the subject vehicle. As stated in the recommendation to Question 17 above, we believe that only one incident report per crash be required, regardless of the number of Reporting Entities whose systems may have been involved. The responsibility for reporting to NHTSA should be agreed upon by the OEM and their suppliers when such arrangements are put in place. In such cases, a confidential note may be sent to NHTSA to indicate such relationships/ agreements. Alternatively, NHTSA could add a field to the online form to allow the primary reporting entity to "tag" or list strategic partners from a drop-down list. That way, the partners are not required to submit a duplicative report but are looped into the process with visibility to NHTSA.

19. *Is NHTSA's expectation that companies will proactively seek all of the information sought by Appendix C, or report only what is provided to the company in the notice that triggers the report? For example, crash scene latitude and longitude expressed in decimals will rarely be included in a crash notice.*

No additional clarification is needed.

20. *Will NHTSA redact the VIN from the reports before making them public?*

Auto Innovators recommends that at least the last six digits of the VIN be redacted before being published.

21. *What context will NHTSA provide when releasing data on ADAS and ADS reporting in terms of general crash/accident data for traditional vehicles with no ADAS/ADS?*

Auto Innovators asserts that the definition and scope of "notice" must be addressed before NHTSA can make any public comparisons of data collected under the SGO. Because the term "notice" is so broad, it is impossible to have a consistent interpretation between the different reporting entities. As a result, NHTSA should carefully consider the context when reporting out the aggregate numbers of reported crashes. Not only is the burden to the reporting entities significantly increased as previously discussed, but failure to establish clear guidelines around what constitutes "notice" will erode the practical utility of this information. Therefore, the Auto Innovators recommend that the agency refrain from publishing any aggregate reports or otherwise release any entity-reported information until the agency has addressed this glaring issue.

22. *When and how will NHTSA release report information? Will individual reports be released or will aggregated report information be released?*
    a. *If the reports will be aggregated, will NHTSA be aggregating the reports on incidents involving L2 ADAS with those involving ADS?*
    b. *Will there be aggregated information for commercially available L2 ADAS systems that is distinct from L2 ADAS systems that are being developed but not commercially available?*
    c. *Will NHTSA separate ADS reports due to the significant differences between ADAS and ADS technologies (including their availability commercially).*

Auto Innovators recommends that NHTSA present its aggregated public reports broken down by manufacturer and that the data be presented in such a way that appropriately accounts for crash exposure. In addition, we recommend that aggregated crash data be further broken down to clearly delineate between Level 2 ADAS and ADS. The crash modes for a Level 2 ADAS are likely to be drastically different than those of an ADS considering their ODDs and divisions of control between the vehicle and the human driver. Further, Level 2 ADAS have already proliferated the market whereas ADS is still in development and testing (no ADS vehicle is currently available for purchase by the general public in the U.S.). Therefore, we recommend that Level 2 ADAS and ADS be presented in separate reports. Similarly, reports should separate crashes involving systems under development/test by the manufacturer from those involving production systems.

23. *Does the SGO monthly reporting requirement negative report apply to a manufacturer that does not have ADS vehicles? The SGO states that a manufacturer must submit the monthly report to report incidents of ADS incidents not covered in the 1-day report. If the company doesn't produce ADS equipped vehicles, the company will never meet the criteria to submit a report.*

We believe that the response to this question has been addressed previously in the responses to Questions 10 and 11.

24. *For how many months after an incident does each Reporting Entity have to continue to submit an Incident Report confirming the lack of any reportable information?*

Auto Innovators recommends that NHTSA allow reporting entities to submit "final reports" as it does in the airbag inflator SGO (2015-02A). The need to continuously confirm on a monthly basis that there is no new information for all cumulative incidents that have been reported to date does not provide any further practical utility, but it does create paperwork burdens if the investigation into the incident has already concluded. This is exactly the type of requirement that the Paperwork Reduction Act was designed to limit. We recommend that the agency look to the airbag inflator SGO as to how "final reports" may be issued to enable reporting entities to close incidents for which the investigation has concluded.

25. *Is NHTSA likely to make any modifications to the order based on reasonable feedback from reporting entities or industry stakeholders, such as Auto Innovators? If so, how can companies best provide reasonable feedback on potential modifications to NHTSA?*

No additional clarification is needed.

26. *Some of the entries on the Incident Report form allow the Reporting Entity to mark "unknown" and others do not. Does this mean that the portal will reject Incident Reports that do not include content for unknown information if "unknown" is not an option on the form?*

We believe that the amended Standing General Order has addressed the concern raised by this question.

27. *Why are entries for "model" and "model year" allowed to be unknown? A manufacturer cannot know if a given vehicle was equipped with L2 ADAS if it does not know the model and model year, and this information should be required to be available before a reporting obligation is triggered under the SGO.*

As stated in response to the previous questions, Auto Innovators recommends that a manufacturer must be affirmatively supplied with all relevant information before an incident report is triggered. We understand that some situations, for example, prototype vehicles still in development, may not have a VIN, model, or model year associated with them, therefore no additional clarification is needed.

28. *If an owner or operator equips a vehicle with an aftermarket L2 ADAS or ADS, and the OEM of the underlying vehicle receives notice of an Incident involving that vehicle, is the OEM required to report that Incident under the SGO even if its records for the subject vehicle indicate that is not equipped with L2 ADAS or ADS (OEM fitted)?*
a. *If yes, how will the public record reflect that the L2 ADAS or ADS was not installed as original equipment on the vehicle?*

While we can envision scenarios wherein a vehicle involved in a crash is equipped with an aftermarket Level 2 ADAS or ADS, it is difficult for the vehicle manufacturer to know that such a system may have been equipped and whether that system may have influenced the crash. Such aftermarket systems would not likely be connected to the vehicle's EDR or other data capture tool and therefore would be difficult to assess. As a result, we recommend that NHTSA not require vehicle manufacturers to report crashes involving aftermarket Level 2 ADAS or ADS. For scenarios in which an aftermarket system is fitted to a vehicle through an agreement with a manufacturer, the agreement itself should dictate the reporting responsibilities (as noted in response to Question 18). For aftermarket suppliers that modify a vehicle without prior agreement with the vehicle manufacturer, those entities should be responsible for their own reporting obligations.

29. *Given the Incident Report form, there appears to be only one drop down for the entry captioned "Crash With." How is an Incident involving multiple impacts (e.g., a crash that involves three vehicles, a pedestrian, and a tree) to be reported here?*

Auto Innovators recommends that discretion on reporting be left to the Reporting Entity. We welcome any additional guidance that NHTSA deems appropriate.

30. *What is NHTSA's expectation for the information captioned "Highest Injury Level." Is NHTSA seeking AIS levels here?*

This question is no longer relevant given the updated incident report form of the amended Standing General Order.

31. *What is being requested in the description of "pre-crash movement" on the Incident report?*

This question is no longer relevant given the updated incident report form of the amended Standing General Order.

32. *Many vehicle EDRs do not capture up to 30 seconds from prior to the crash through the conclusion of the crash event. Is NHTSA's intent that manufacturers will have to extend the length of their data capture to at least 30 seconds for vehicles equipped with ADS or level 2 ADAS?*

No additional clarification is needed.

33. *What is NHTSA's expectation for the Narrative? Can additional documents be uploaded if necessary to explain certain information, including potential confidential business information?*

Auto Innovators recommends that NHTSA amend the system to facilitate Reporting Entities submitting supplemental information to any incident report in a narrative form, with or without a request for confidential treatment, if so desired. Such information may be submitted, at the Reporting Entity's discretion, as part of its monthly report and may identify previously submitted reports by their unique report number. As noted above, the agency has requested that subsequent reports contain the information from prior reports. In situations where multiple subsequent reports are necessary, it is likely that the character limit for the current narrative section will be reached.

34. *How is a Reporting Entity to state the reason why it cannot respond to a specific item requested on the Incident Report? Does that apply when the Incident Report form permits responding with "Unknown"?*

Auto Innovators recommends that if an item is marked "unknown" on the incident report form, no explanation is needed by the Reporting Entity. If any explanation *does* exist, it may be listed in the narrative portion of the form.

35. *How will NHTSA notify companies who may not otherwise be listed under the Service List for SGO 2021-01?*

Auto Innovators recommends that companies not listed on the Service List are not required to submit Incident Reports and therefore not required to be notified unless and until NHTSA serves them with the SGO.

36. *If NHTSA plans to make these reports public, does it also intend to include a disclaimer that the content of the report has not necessarily been verified and in many cases are allegations only?*

Auto Innovators recommends that NHTSA provide a clear and prominent disclaimer that any information published in its aggregate reports or otherwise made available to the general public will not have been verified by NHTSA and only represents unconfirmed reporting by the Reporting Entities. Any report that has not been explicitly confirmed by the manufacturer will be prominently marked "alleged." This is consistent with how reporting under the Takata inflator rupture General Order identified "confirmed" fatalities and injuries and we recommend the agency adopt a similar methodology under the present Order.

37. *Does NHTSA intend to consider a process on CBI similar to the EWR class determinations in the future?*

We understand the incident report form to include a number of check boxes to indicate the presence of CBI. Auto Innovators recommends that any portion of the incident report form whose box indicates CBI should be removed from the report before being made public outside of the agency. Auto Innovators also recommends that NHTSA establish a class determination under Appendix B of Part 512 for the categories of SGO reports that NHTSA has already determined to be entitled to confidential business information protection, to mitigate the burden of preparing Part 512 justifications for such information.