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Ford Motor Company Comments on

Notice of Public Hearing to Consider Amendments to California's Emission Warranty Information Reporting and Recall Regulations and Emission Test Procedures October 10, 2006

Ford Motor Company (Ford) welcomes the opportunity to comment on California's Emission Warranty Information Reporting and Recall Regulations and Emission Test Procedures. Ford supports the comments of the Alliance of Automobile Manufacturers (Alliance). There are a number of technical and legal issues raised by the Air Resources Board's (ARB) proposal. These comments concentrate on technical issues as they affect Ford. Please refer to the Alliance's comments regarding the more general policy and legal issues.

Ford's primary concerns with the ARB's proposal include (1) the lack of consideration of whether a vehicle meets emissions standards with a failed component, (2) extending the warranty beyond useful life, and (3) changes to the certification test procedures. Other issues are also included in the comments below.

Emissions Standard Compliance

The Air Resources Board (ARB) establishes the emissions standards to which new motor vehicle manufacturers certify that their products will meet. The ARB's proposal totally ignores the emissions impact of a failed component. A failed component may have minimal, or even no, emissions impact. To require costly, and potentially reputation damaging, remedial action, whether recall or extended warranty, is not justified, if there is minimal, or no, impact on air

quality. If a vehicle with a failed component continues to meet the emissions standard, remedial action should not be required. For example, a transmission solenoid, which is monitored and lights the malfunction indicator lamp when it fails, so that the operator will seek a repair, has no impact on emissions. In this example, ARB's proposal would require costly remedial action with no emissions benefit.

Furthermore, manufacturers design vehicle emissions control systems to ensure that the motor vehicle will meet emissions standards for the full useful life of the vehicle, recognizing that motor vehicles are subjected to harsh physical (e.g., temperature, road conditions) and chemical (e.g. poor fuel quality, salt) environments in the real world. Manufacturers design "safeguards" into the vehicle emissions control system to protect for manufacturing, assembly, component, and system variability. These safeguards include designing emission components and systems to be redundant, to be self-adaptive and learning, and to contain safety margins, commonly known as "headroom".

First, manufacturers design many vehicle emissions control systems such that emissions components will be redundant and/or will adapt to changes in the performance of components. Certain components will sense that another component is drifting and will automatically adjust for that drift, ensuring that the emissions standards continue to be met.

Moreover, manufacturers often design their vehicles to achieve an emissions level significantly below the emission standard, providing "headroom," to ensure that the vehicle will safely meet emissions standards in-use. Manufacturers have developed design, verification, and certification procedures that, to the best of their ability, represent real world, in-use driving conditions. However, at the time of certification, manufacturers cannot possibly account for every circumstance that a vehicle may be exposed to in real world driving. Therefore, manufacturers include a safety margin in their vehicle designs.

ARB's proposal essentially sets a unique emissions standard for each and every vehicle at the certification level of that vehicle. This is because the proposal does not allow for ANY increase in emissions. For example, if a vehicle is certified at a tenth of the emission standard and emissions with a failed component are increased by one percent, costly remedial action would be required, even though the vehicle's emissions are just a small fraction of the standard to which it is certified.

ARB's proposal may discourage manufacturers from designing safeguards into the system because the manufacturer would be subject to costly remedial action regardless of whether emissions are affected. To the contrary, although such safeguards improve emissions, ARB's proposal would make remedial action more likely in cases where manufacturers design safeguards into the emissions control systems relative to manufacturers that take the minimal efforts required, with no safeguards. Thus, ARB's proposal discourages manufacturers from including safeguards or "headroom" in their vehicle design, which would have the affect of adversely impacting air quality.

For these reasons, Ford strongly believes that ARB should revise the proposed regulations to include a consideration of whether the vehicle exceeds the emissions standards before requiring remedial action.

Extended Warranty Beyond Useful Life

Extended warranty is a remedial action that makes sense in some situations in lieu of recall. As ARB points out in the Initial Statement of Reasons (ISOR), many manufacturers have negotiated voluntary warranty extension in lieu of recall, under the existing regulations. However, the warranty should not be extended beyond the useful life to which the manufacturer has certified their product. This has the affect of setting a new emissions standard with a new useful life. Although, many components certainly last well beyond the regulatory useful life, manufacturers and suppliers do not necessarily design, test, and verify components for this increased longevity.

Also, as ARB recognized during the 2003 ZEV rulemaking, zero emission energy storage devices used for traction power (such as a battery, ultracapacitor, or other electric storage device) have not been demonstrated to 15 year / 150,000 mile life. If warranty is extended to 15 years / 150,000 miles for these energy storage devices, it will further increase the cost of hybrid electric vehicles, which could decrease the market for these advanced technology vehicles.

Ford supports voluntary extension of warranty, in lieu of recall; however, this should be limited to the regulatory useful life of the vehicle.

Certification Test Procedures

In an effort to avoid considering the emissions impact of a defect, ARB's proposal has put a requirement in the Certification Test Procedures that "at the time of certification manufacturers shall demonstrate that the emission control devices on their vehicles or engines will not exceed a valid failure rate of 4% or 50 vehicles, whichever is greater, in an engine family, test group or subgroup over the useful life of the vehicles or engines they are installed in."

Manufacturers do not know how to prove an uncertain future. Such a speculative demonstration would be very burdensome, if not impossible to accomplish, especially considering the severe operating conditions that vehicles face in-use (e.g. road conditions, weather conditions, driving patterns, fuel quality). A test program to demonstrate 96% reliability (4% failure) would require extensive resources, including workload, cost, and time. For example, in order to demonstrate ARB's proposed 96% reliability (4% failure) at 95% confidence level, Ford would need to successfully run at least 73 vehicles to full useful life and show no failures, at the time of certification. Manufacturers utilize a combination of prototype vehicles and component testing for verification of designs, those prototypes can cost up to $150,000 each. In addition to the vehicle expense, there would be track accumulation, dynamometer time, test cell time, technician labor, and engineering labor to run this program. To conduct a full program, it would cost $20 million and substantially increase the development time and time to introduction for new vehicle and emissions control systems. Clearly, there are more cost effective ways to achieve ARB's objectives. Even if such a burdensome program were run at the time of certification, failures are still likely to occur, which is why ARB has in place warranty reporting and defect regulations.

Moreover, manufacturers rely on suppliers to develop and conduct robust design and production prove-out testing, making the collection and submission of these data on a component level extraordinarily difficult. These component suppliers will need to develop and conduct their own comprehensive test program in an effort to demonstrate and ensure 96% reliability. There is no simple way to assure that every part/system will behave as predicted before production begins without a substantial increase in testing to be sure the behavior of all components in combination with each other are represented.

Furthermore, the proposed regulations could delay and/or discourage the introduction of new technology. To introduce new technology with confidence that failures will not exceed a 4% threshold will require extraordinary durability and key life testing, because such technologies are by nature unproven. This could delay the introduction of new technology, or cause manufacturers to reconsider whether to introduce the new technology at all.

In discussions with industry, ARB staff stated that the intention was not for manufacturers to conduct testing or validation beyond that presently used; however, a compliance statement would have to be signed. When Ford signs a compliance statement as part of the Application for Certification, it is based on engineering tests and good engineering judgment. ARB is suggesting that manufacturers sign a statement in the Application for Certification without the necessary engineering tests, in recognition that a demonstration would be far too burdensome to conduct, at the time of certification.

Moreover, under the ARB proposal, there is a civil penalty liability for violating test procedures every time a component exceeds a 4% failure rate. Not only will the proposed regulation subject the manufacturer to automatic remedial action, it could also subject the manufacturers to civil penalties.

Ford recommends that ARB revise the proposed regulations to evaluate a vehicle with a defect against the emissions standards. If such an evaluation is conducted, ARB would not need to incorporate the problematic certification test procedure revisions.

Leadtime

The ISOR states that ARB's proposed regulation result in no additional costs for the manufacturer. This is not accurate. As demonstrated in the ISOR, there are numerous examples of failures that exceed the 4% threshold and substantial costs to take remedial action to correct these failures. ARB argues that there is no cost because manufacturers will improve their design, verification, and production systems to avoid all defects. If this is the intent, additional leadtime is required for manufacturers and their suppliers to develop and implement appropriate process improvements. Moreover, there will be additional costs to put these improved designs and processes in place.

Ford disagrees with ARB's proposal, but if ARB proceeds with this proposal, additional leadtime should be provided, beyond 2010MY.

Infant Mortality

There are cases when a defect will occur early in the life of the vehicle and be fully covered by the emissions warranty. Mail-Out #91-13 states that, "When a recall is based on known defective components, the mandated requirement is to bring 60% (influenced recall) or 80% (ordered recall) of these vehicles into compliance through recalls."

Ford recommends that if a manufacturer can demonstrate, to the satisfaction of the Executive Officer, that 80% (consistent with Mail-Out #91-13) of the affected vehicles are expected to be repaired during the warranty period, then no further remedial action should be required.

Voluntary Corrective Actions

If a manufacturer chooses to initiate voluntary corrective action (e.g. before 4% failure rate is reached), to correct a customer satisfaction issue, the warranty claims will quickly reach ten percent (10%). Under Section 2168, the manufacturer must submit Supplemental Emissions Warranty Information Reports (SEWIRs) every quarter, "…until the warranty reporting requirements for the given warranty item ends or corrective action is launched for the reported emission component". With approval of the Executive Officer, Section 2168(d) allows this requirement to be waived if the component was replaced "...as part of a corrective action…". In conversation, ARB staff has indicated that the only acceptable corrective action is an emissions recall. However, a recall is unnecessary and excessively burdensome for problems corrected early and for customer satisfaction concerns. This penalizes manufacturers that choose to act before the 4% failure level is reached. It is in the best interest of everyone to facilitate correcting problems as quickly as possible. Therefore, Section 2168 should be modified to allow manufacturers to correct problems early, and without penalty.

Ford recommends that Section 2168(d) be modified to include other solutions within the scope of "corrective action", including but not limited to technical service bulletins, service campaigns, extended warranties, and recalls.

Leverage OBD Systems

The current regulation, Section 2148(b), states that no recall is to be required if the problem "is likely to be corrected under the warranty program or other in-use maintenance procedure shortly after the inception of the problem." Manufacturers have expended substantial resources to develop On-Board Diagnostics (OBD) systems that detect a failure and notify the vehicle operator of an emissions related problem. These systems have been very effective in resolving emissions problems soon after a failure occurs. Additional remedial action is not needed or cost-effective, because the problems are being resolved, as they occur, in a timely manner.

Ford recommends that ARB's proposal include the existing provision that considers whether a vehicle is likely to be repaired in a timely manner, before requiring remedial action.

Evaluation of Need for Remedial Action

The current regulation, Section 2148, set forth various factors that the Executive Officer evaluates in determining the need for a recall. These include the emissions impact of the failure, the failure rates and the timing and extent of a remedy if no recall is required, and other factors that may be relevant. The proposed regulations appear to eliminate most of ARB's ability to determine what makes sense in a given situation, and instead would require manufacturers to take "automatic" actions regardless of circumstances. The proposed regulation takes away the flexibility that the ARB now enjoys and binds the hands of staff.

Ford recommends that the proposed regulations continue to allow an opportunity for ARB and the manufacturers to discuss what makes sense before a remedy is imposed.

If the Executive Officer determines that requirements constitute "an unwarranted burden on the manufacturer…", Section 2166(d) of the proposed regulation allows ARB to waive the requirements. However, it is unclear what would constitute an "unwarranted burden". Section 2166(d) of the proposed regulations provides no guidance on how this determination will be made.

Ford recommends that Section 2166(d) be amended to clarify what constitutes an "unwarranted burden"

Availability of Public Hearing

The proposed regulation, Section 2174, allows the manufacturer to request a public hearing "to contest the finding of nonconformity and the necessity for or the scope of any ordered recall, but not to contest the finding of nonconformity or the necessity of any other type of corrective action provided for in this article." Manufacturers should have the ability to contest any finding of nonconformity and the necessity for or the scope of any ordered action, whether the remedial action is recall, extended warranty, or other corrective action. For example, a manufacturer may have an isolated build problem that was discovered and fixed at the plant. If ARB mandates extended warranty on the entire test group, rather than the affected sub-group, the manufacturer has no ability to contest this finding, whether before staff or in an administrative hearing. This limits the manufacturer's due process right to request a public hearing according to Title 17, California Code of Regulations.

Furthermore, proposed Section 2174 limits the information that can be provided in a public hearing. This prevents the manufacturer from presenting information that could be very relevant to the issues at hand. This violates the spirit, if not the letter, of the legislated and regulated Public Hearing provisions of the Health & Safety Code and Government Code. Furthermore, it creates incomplete justice where nothing short of a lawsuit with a poor or absent administrative record is possible. This results in unrestrained administrative action, which leads to the tyranny that the Due Process Clauses of the United States and California Constitution were intended to prevent.

Ford recommends that Section 2174 of the proposed regulation be revised to expand the scope of the Public Hearing to include any ordered remedial action, without limiting the information that may be presented.

Alternative Procedures

The current regulation, Section 2142, allows a manufacturer to use alternative procedures to track and report emissions warranty data. Such alternative procedures may include a system based upon a sampling of representative California dealerships. These alternative procedures are only allowed if the Executive Office determines that the alternative procedures will produce substantially equivalent results. Some manufacturers have approved alternative procedures that should be retained with the proposed regulatory changes. Otherwise, manufacturers will have to

totally revamp their warranty reporting systems. This is not the intent of the proposed regulatory changes.

The proposed regulation, Section 2141, states that the provisions of this Article do not apply to vehicles and engines manufactured for the 2010 model year and thereafter. The referenced Article, 2.4, includes Section 2142 Alternative Procedures.

Ford recommends that the proposed regulation retain Section 2142 Alternative Procedures, regardless of model year.

Emission Warranty Claim

The proposed regulation, Section 2166.1(f), defines "Emission Warranty Claim" as any claim for an emission-related component that is covered by "warranty provisions". This definition should be modified to clarify that coverage should be limited to "emission control system warranty as required by Section 2035, Title 13, California Code of Regulations". Otherwise, manufacturers would be discouraged from voluntarily extending warranty. For example, if a customer purchases an extended service plan or a manufacturer voluntarily provides an extended bumper-to-bumper warranty, not all of these claims should be counted for the purpose of this regulation.

Ford recommends that the proposed regulation revise the definition of "Emission Warranty Claim" to reference the regulated emission warranty requirements.

Supplemental Emissions Warranty Information Report

The proposed regulation, Section 2168, require a Supplemental Emission Warranty Information Report (SEWIR) each calendar quarter after the unscreened threshold is exceeded. In order to validate the emissions warranty data, manufacturers have implemented resource consuming processes. We believe that the validation analysis conducted for the initial SEWIR remains applicable and that the screening / analysis process is not required for every quarterly update of the SEWIR. However, manufacturers will apply the results of the initial analysis to the number of unscreened claims as reported per quarter. For example, if the unscreened warranty claim rate for a component is 4%, and the manufacturer's screening process determines that only half of these components have failed, then the manufacturer will continue to monitor the claim rates. In the next quarter, the manufacturer reports that the unscreened warranty claim rate is 6%

and applying the original screening analysis of half of these claims, results in 3% valid claims. The next quarter, the manufacturer reports that the unscreened warranty claim rate is 8%; applying the original screening analysis of half of these claims, results in 4% valid claims, which would require remedial action. In this example, the manufacturer would not have to conduct a new screening analysis each quarter to determine the ratio of valid failed component claims to total claims.

Ford recommends further guidance to allow the manufacturer to apply the validation analysis for the initial SEWIR to the subsequent quarterly SEWIRs.

Conclusion

There are substantial technical and legal issues with ARB's proposed regulation. However, we believe that there are revisions that can be made to the regulation that will address both ARB's and Industry's concerns. We respectfully request that the Board not approve Staff's proposal. Ford commits to working cooperatively and constructively with staff to develop a new proposal that is fair and achieves staff's goals, while recognizing the emissions impact, preserving flexibility, and addressing technical issues.