# LEV III 15-Day Notice – Recommended Regulatory Changes[1]

## I. Harmonization

### A. Exclusion of Extra High Mileage Vehicle from IUCP Trigger Computation

In our previous comments on the proposed regulation, we requested that ARB adopt the provision that excludes the 105,000-mile extra high mileage vehicle, in addition to the 75% extra-high mileage vehicle, from the in-use compliance program (IUCP) computation. When EPA adopted Tier 3, they excluded the 75% (which is 112,500 miles for a vehicle certified to 150,000 mile durability); however, the extra-high mileage vehicle is actually defined as "75% of useful life or 105,000 miles, whichever is lower." Thus, EPA inadvertently left off the "105,000 miles" in the Tier 3 regulation. We understand that EPA intends to correct this in a soon-to-be-released Direct Final Rule. We recommended making the correction in this update to LEV III.

We provide the following information for background.

The combined in-use verification program (IUVP)/IUCP concept has not changed since its inception under the CAP2000 compliance program. This program requires manufacturers to test in-use vehicles in an "as received" condition for IUVP and then, if this test sample exceeds specified emission thresholds, a second sample is tested where vehicles are screened for proper maintenance before being tested for IUCP.

Under this approach, there has always been a risk that the IUVP test sample might appear to have a compliance problem, which would be found not to be the case after the properly maintained IUCP sample was tested. However, over the years of actual experience with the program, new vehicles have been shown to have very good compliance rates, and as received procurement conditions have not resulted in the need for many IUCP tests.

When the in-use test program was designed, EPA and ARB wanted to also see the emissions performance of vehicles at higher mileages than the minimum 50,000 mile level that would be more typical of in-use vehicles tested in the four to five year window after production that was set for the IUVP testing. Hence, a requirement was included in the "high" mileage IUVP design that required at least one vehicle to have accumulated a minimum mileage of at least 75% of its full useful-life (i.e., at least 90,000 miles for vehicles with a 120,000-mile durability). The agencies wanted this vehicle to be procured in an "as received" condition as this would make the collective IUVP data more useful for air quality modelling purposes, and such data could

[1] Page numbers refer to the California Air Resources Board's 15-Day Proposed regulatory changes in Enclosure A (December 23, 2014). http://www.arb.ca.gov/regact/2014/leviii2014/leviii2014.htm.

serve as "surveillance" data that would help the agencies target vehicles for testing under their own in-use vehicle test programs.

However, to address the following concerns, this one "extra high" mileage vehicle was excluded from the considerations used to determine if an IUCP test would be necessary:

- At this higher mileage (which was only 90,000 miles as the program was initially designed), the chances that the vehicle might have become high emitter due to improper maintenance or use would be substantially increased.

- The vehicle would be a statistical outlier as it would be the only vehicle tested at this mileage; hence, having no other comparison vehicle(s) to give some indication whether this vehicle was demonstrating a characteristic emission performance level or just an aberration.

- The vehicle could also be an outlier given it would have accumulated mileage at an abnormally high rate since few vehicles would normally accumulate such mileage during the four to five year post-production test window required under the IUVP design.

We would have preferred ARB to make the corrections in the current rulemaking to maintain alignment with EPA (once EPA's change is adopted in the upcoming Direct Final Rule) and consistency with the original intent of the IUVP/IUCP program, we understand that this is now beyond the scope of this rulemaking.

**B. PM Certification Testing Requirements**

Another topic that we believe should be aligned, but did not appear in the 15-Day Notice, is the terminology used to define the vehicle selection of PM test data vehicles. (See Alliance and Global Automakers Comments on LEV III submitted October 20, 2014 for additional details.) We understand that ARB believes that there will be very little impact on manufacturers by ARB using "test group" and EPA using "durability data group" for PM test vehicle selection. Small differences like this should be aligned exactly for that reason; if there is little or no expected impact, then there should not be an issue with aligning. It does not make sense to have this difference between the agencies, and it has the potential to cause unnecessary differences with implementation of the PM test requirements in the future. In addition, even after aligning the terms, ARB still uniquely maintains the right to select the vehicles for testing under the regulations, when EPA did not include this provision.

Even small differences in requirements can result in unnecessary burden and cost, and therefore we see no reason for ARB to differ from EPA in the use of "durability test group," and we strongly recommend that ARB change the terminology in order to more fully align with EPA's requirements.

## II. Additional Amendments Recommended for the Final Rule

### A. Regulatory Amendments

1. **(Page A-15) LEV III PM EDV Selection**: As part of the 15-Day Notice, ARB included the following language:

   > "Within each test group, the vehicle configuration shall be selected which is expected to be worst-case for FTP PM exhaust emission compliance on candidate in-use vehicles." (Page A-15 of Enclosure A)

   This language diverges from alignment with EPA's Tier 3 program and may inadvertently result in an unnecessary addition to test burden. Under the emission data vehicle (EDV) selection process for certification, manufacturers must select a worst-case test vehicle, which takes into consideration all criteria pollutants as part of the selection process. While we believe that under a typical selection process, the worst-case vehicle for NMOG+NOx will also be worst-case for PM, if for some reason this were not the case, then ARB's language would require additional testing of different configurations, one for PM and a separate EDV for the other criteria pollutants, increasing the cost of testing, placing additional strain on limited test facilities, and diverging from the current practice for selecting "worst-case."

   Manufacturers have every reason to select and test the worst-case vehicle since they are responsible for meeting the standards for all constituents. Although manufacturers test the worst-case vehicle for certification, manufacturers are still responsible for those other configurations in the field. In fact, there additional "checks" in place, for instance with IUVP testing, that ensure all vehicles are complying in the field as certified.

   ***This additional sentence is unnecessary, could add significant testing burden, and should be deleted.***

2. **(Page A-17) Certification of a Federal Vehicle in California**: Although we expect that Federal vehicles certifying to Bin 85/110 will only be Federal vehicles, ARB has added the following sentence in the 15-Day Notice:

   "A federal vehicle shall not qualify as an alternative to a LEV III vehicle."

   This additional sentence is confusing. We believe that this statement would only apply to the 3 mg/mile PM phase in (i.e., a Federal vehicle cannot be used to satisfy the PM phase-in requirements). If this is the case, we recommend ARB revise this sentence to read, "A federal vehicle cannot be used to satisfy the PM phase in requirements of Section E.1.1.2.1.1 (Particulate Standards for Passenger Cars, Light-Duty Trucks, and Medium-Duty Passenger Vehicles) of these test procedures."

**B. Items to Address in the Final Statement of Reasons (FSOR)**

We previously provided comments on several items that were not addressed in the 15-Day Notice. In part, these items may not have been appropriate for regulatory changes and may instead be better addressed in the FSOR. We are providing a brief summary of these items for ARB's reference while the FSOR is being developed.

1. **(Page A-17) Bin 85/110:** ARB did not address our request to include language that explicitly states that Bin 85/110 vehicles will be certified to 120k (FTP, SFTP, and highway NOx/NMOG+NOx). In discussions with ARB staff, staff stated their understanding that federal vehicles certified to Bins 85/110 will be 120,000 mile durability vehicles, and additional language clarifying this point is unnecessary.

   Furthermore, per our previous comments, we also request that ARB clarify in the FSOR that our understanding is correct that Bins 85/110 vehicles will be certified as "Federal Bin 85 (110, 3, 4, etc.)" and should be labeled as such on the emission certification label in the FSOR.

2. **Cold CO:** In our previous comments, we recommended that ARB harmonize with the Tier 3 requirements for Cold CO, including an explicit exemption for FFVs from the Cold CO testing on E85. We understand, and support, that ARB is simply referencing the EPA Cold CO requirements, and there is no intent or requirement to conduct Cold CO testing on FFVs using E85.

3. **SFTP Test Weight**: We previously recommended that ARB allow federal vehicles certifying in California to be tested (for the purposes of SFTP) at LVW rather than ALVW for 6,001-8,500 GVWR light-duty trucks. ARB agreed to accept certification

data using SFTP at LVW, with an attestation that the vehicle would meet the standards at ALVW, for federally certified vehicles (Bins 3, 4, 85, and 110). ARB would reserve the right to test vehicles at ALVW. We believe these allowances to accept LVW and reserve the right to test at ALVW should be included in the FSOR.