

Summary of Revisions to Attachment A and the Electronic Templates for the OBD II ARB Mail-Out #MSC 06-23

ARB staff has made revisions to Attachment A and the electronic templates associated with ARB Mail-Out #MSC 06-23, "Guidelines for On-Board Diagnostic II (OBD II) Certification Data." These revisions, which are summarized below, have been made in order to expedite the certification review and approval process of OBD II systems. Manufacturers are required to use these updated forms within 60 days from the release date of the forms. After 60 days from the release date, all manufacturer data submissions provided to ARB that do not use the updated forms will be rejected. Manufacturers are encouraged to begin using these updated forms as soon as possible in order to help expedite their reviews.

- 1) All templates and monitor checklists have been updated with ARB form numbers located at the top left corners.
- 2) Attachment A: Misfire Disablement and Detection Chart: Two data fields have been added to the bottom of the attachment for manufacturers to provide the total number of 1000-rev blocks completed with misfire monitoring active during the test cycle (i.e., the first engine start/two bags/1372 seconds of the test) and the total number of 1000-rev blocks where the number of detected misfires has exceeded the threshold number of misfires. A comment was also added at the bottom of the misfire chart to indicate that the sample chart was an example for light-duty FTP chassis dynamometer testing.
- 3) OBD II Rate-Based Data Report Templates: These templates are for OBD II gasoline applications and OBD II diesel applications to use for entry and submission to ARB of in-use monitor performance data (e.g., rate-based data) for 2010 and newer model year vehicles as part of section 1968.2(j)(3) Production Vehicle Evaluation – Verification and Reporting of In-Use Monitoring Performance. While the new templates still primarily require manufacturers to enter the same data as before, the new templates differ from the old template in several ways:
 - a) Several column headings/labels have been renamed to be consistent with SAE J1979 labels especially on the diesel template.
 - b) The gasoline and diesel templates now include automated formulas that will populate after the manufacturer enters the data in the designated rows at the top of the sheet. These automated formulas will copy the entire data to an identical table below (to address any number format issues from how the manufacturer entered the data) and then apply various criteria to highlight individual data points that may warrant additional investigation or differ substantially from what would be expected. The automated formulas also calculate average ratios and compare them to the applicable enforcement criteria for informational purposes (even though a 15 vehicle sample is insufficient for an official enforcement result and individual vehicles may not meet the minimum denominator criteria to be valid samples for official enforcement testing). These automated formulas will

help staff and manufacturers more quickly analyze the data and highlight possible issues for further discussion.

- 4) OBD II Monitoring Requirements Checklists: These checklists have been revised with row and column descriptions consolidated in both gasoline and diesel sheets to harmonize the OBD II and HD OBD checklists as much as possible. Errors were also corrected where the previous version cited the wrong regulation section(s) in some of the rows.