

## ENCLOSURE G

### Summary of 15-Day Changes to Proposed Regulation Order and Incorporated Test Procedures

#### Modifications to the Proposed Regulation Order.

##### Modifications to § 1900. Definitions.

Subsection (b)(22) Qualifying language has been added to the definition of a small volume manufacturer. The new text allows manufacturers that meet the 4,500 vehicle sales threshold for a small volume manufacturer, but are partially or fully owned by another manufacturer, to still qualify as “small volume manufacturers,” if they remain operationally independent from the company that owns them.

##### Modifications to §1961. Exhaust Emission Standards and Test Procedures - 2004 through 2019 and ~~Subsequent~~ Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.

Subsection (a)(1) This subsection has been revised to allow 2015-2019 MY LEV II vehicles to certify to combined NMOG+NOx standards instead of separate NMOG and NOx standards.

Subsection (b)(1)(A) This subsection has been revised to allow manufacturers to meet an NMOG+NOx fleet average standard rather than an NMOG fleet average standard for the 2014 model year.

##### Modifications to §1961.2. Exhaust Emission Standards and Test Procedures - 2015 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.

The introduction to this section was modified to allow the Pooling Provision to apply to this entire section, rather than to just the fleet average.

Subsection (a)(1) This subsection has been revised to allow 2015-2019 MY LEV II vehicles to certify to combined NMOG+NOx standards instead of separate NMOG and NOx standards.

Subsection (a)(2) The title of this subsection has been modified.

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Subsection (a)(2)(B) This subsection has been modified to allow manufacturers to meet the phase-in requirements for the LEV III medium-duty vehicle particulate standards based on a percentage of the combined sales of medium-duty vehicles weighing 8,501 to 10,000 pounds GVWR and medium-duty vehicles weighing 10,001 to 14,000 pounds GVWR, rather than separate percentages for the two weight classes.

Subsection (a)(2)(D) This subsection has been modified to provide manufacturers with an alternative compliance option for meeting the proposed particulate matter standards.

Subsection (a)(6) The NMOG+NO<sub>x</sub> standards that are applicable to this subsection are given in terms of three decimal places. It is, therefore, appropriate to round off the measured emission values to three decimal places. However, the current proposed text specifies that the emissions values be rounded to two decimal places. This error has been corrected.

Subsection (a)(7)(A) This subsection has been modified to allow early compliance with 150,000-mile SFTP standards for model year 2014 vehicles. It has also been modified to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline. The purpose of this change is to align with the LEV III FTP allowance for early compliance for model year 2014 vehicles.

Subsection (a)(7)(A)2 This subsection has been modified to clarify how to project full useful life emission values for vehicles continuing to certify to LEV II SFTP emission standards during the LEV III SFTP phase-in period ("carry-over" test groups). It has also been modified to allow the use of full useful life SFTP values in lieu of projections if such values are used to certify to the 4,000-mile emission standards. This has been modified in order to ensure clarity for manufacturers and avoid confusion during the certification process.

Subsection (a)(7)(B) This subsection has been modified to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles. It has also been modified to reduce the significant figures of the SFTP PM emission standards. This change is being proposed to align the PM standards measurement resolution with the current resolution of PM measurement equipment

Subsection (a)(7)(C) This subsection has been modified to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles. Also, the naming convention for the UC cycle has been changed to

“Hot 1435 UC,” to clarify that the required test cycle is a modified UC cycle. In addition, the subsection was modified to clarify how to determine horsepower for the purposes of the MDV standards and to allow manufacturers to use FTP emissions values in place of SC03 emissions values in the composite emission equation. The purpose of this change is to avoid excessive SFTP testing burden for MDVs. Air conditioning provides a relatively small load for an MDV engine and FTP emissions results would be similar to SC03 emissions results.

Subsection (a)(7)(D) This subsection has been modified to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles. It has also been modified to reduce the significant figures of the SFTP PM emission standards. This change is being proposed to align the PM standards measurement resolution with the current resolution of PM measurement equipment. Also, the naming convention for the UC cycle has been changed to “Hot 1435 UC,” to clarify that the required test cycle is a modified UC cycle.

Subsection (a)(8)(A)1 Three of the values in the table have been corrected to align them with the proposed values set forth in the “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.”

Subsection (a)(8)(C)(2) This subsection has been modified to allow interim in-use SFTP emission standards for new certifications through the 2020 model year. The purpose of this change is to align with the interim in-use standards for LEV III FTP.

Subsection (a)(10) The word “shall” has been changed to “may” to make it clear that vehicles that certify to the LEV III SULEV30 or the LEV III SULEV20 standard are not required to generate partial ZEV credits.

Subsection (b)(1)(A) NMOG+NO<sub>x</sub> fleet average standards have been added to the table for the 2014 model year, to provide an alternative to the NMOG fleet average standards in section 1961.

Subsection (b)(1)(A)1 Text from this subsection has been moved to the Introduction to this section to show that it applies to the entire section. Clarifying language has also been added.

Subsection (b)(1)(A)2 This subsection has been modified to allow manufacturers to use projected sales data rather than actual sales data to determine the minimum number of SULEV30 and SULEV20 vehicles they must produce in the 2018 and subsequent model years.

Subsection (b)(1)(B)1.a An error in the formula has been corrected.

Subsection (b)(1)(B)1.b Errors in the formula have been corrected.

Subsection (b)(1)(B)1.c The table has been modified to allow vehicles certified to federal standards to be included in the fleet average NMOG+NOx calculation based on the actual standards to which they certify. Also, values have been added to the table for LEV II LEV ULEV medium-duty vehicles.

Subsection (b)(1)(B)2 This subsection has been amended to correct an error in the Zero-emission VMT Allowance values that may be used in the calculations.

Subsection (b)(1)(B)3 This subsection has been deleted, because it is no longer needed, due to the modifications to subsection (b)(1)(B)1.c.

Subsection (b)(1)(C)1 This subsection has been modified to provide an additional two year lead time before small volume manufacturers are required to certify to ULEV125 standards. This change aligns the compliance dates for certifying to these new standards with the compliance dates by which these manufacturers must certify to the 3 mg/mi particulate standards and by which they must certify 100 percent of their fleet to LEV III standards.

Subsection (b)(2) This subsection has been modified to allow manufacturers to carryover the certification of vehicles that were certified as LEV II SULEVs prior to the 2015 model year for the 2015 and 2016 model years. This change was needed to accommodate manufacturers' production plans that are already in place. This subsection has also been modified to provide small volume manufacturers with an additional two years of lead time before they must certify all their vehicles to LEV III standards. This change was needed to align their requirement for 100% certification of LEV III vehicles with the year that they must meet a more stringent fleet average and more stringent particulate matter standards.

Subsection (b)(3)(A) Unnecessary text has been removed.

Subsection (b)(3)(C) It was necessary to add this subsection to the regulations to provide an alternate phase-in schedule of LEV III vehicles for

those manufacturers that produce too few medium-duty vehicle test groups to be able to meet the percent requirements for the phase-in of LEV III vehicles.

Subsection (c)(2)(A) The year of applicability for this section has been corrected to align it with the year that the LEV III regulations will apply to medium-duty vehicles. The first term, which applies to vehicles certified to LEV standards, was inadvertently omitted. It has been added back in to the formula. The multiplying factors have been corrected to two decimal places to make the formulas more accurate. Also, other errors in the formulas have been corrected.

Subsection (c)(2)(B) This subsection has been amended to correct an error in the Zero-emission VMT Allowance values that may be used in the calculations. Also, the formulas that apply to vehicles certified to LEV standards were inadvertently omitted. These have been added back in.

Subsection (f) This new subsection adds a severability provision to section 1961.2.

### **Modifications to §1961.3. Greenhouse Gas Exhaust Emission Standards and Test Procedures - 2017 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.**

Subsection (a)(5)(D)1 This subsection has been modified to eliminate the requirement that a manufacturer that elects to pool its emissions report that selection to ARB prior to the start of each model year to which that selection applies.

Subsection (a)(5)(D)3 This subsection has been modified to add clarifying language.

Subsection (a)(6)(B) The last bullet in this subsection is meant to be a reporting requirement that an A/C Direct Emissions Credit application must meet, instead of one of the criteria that an A/C system must meet in order to qualify for A/C Direct Emissions Credit. However, this was unclear to manufacturers based on 45-day comments received by ARB. Consequently, this subsection has been revised to clarify the intent of the language.

Subsection (a)(10) The in-use compliance standards for vehicles certifying to the greenhouse gas standards in this section were inadvertently omitted from the regulations. They have been added to the regulations.

## **Modifications to §1976. Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions.**

Subsection (b)(1)(G)1.b This subsection has been modified to revise the provisions for trading evaporative emission fleet-average credits among certain vehicle categories. This change would provide additional flexibility for trading evaporative emission credits among the heavier vehicle categories. Staff believes that this change will not compromise manufacturers' requirement to implement effective evaporative control across the entire fleet.

Subsection (b)(1)(G)2 This subsection has been modified to allow manufacturers to use projected sales data rather than actual sales data to determine the minimum number of vehicles they must produce in the 2015-2017 model years that meet the proposed evaporative emission standards. This subsection has also been modified to base compliance for this requirement upon the average number of vehicles produced over the 2015-2017 time period in lieu of a year-by-year requirement. These modifications would provide flexibility in response to industry requests without compromising the requirement for manufacturers to maintain the percentage of zero-evaporative vehicles in their fleet during the early years of the phase-in to the proposed standards.

Subsection (b)(1)(G)4 This subsection has been revised to modify the pooling compliance option concerning states that adopt California's evaporative emission standards pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507) to specifically set forth required submittal information and to reduce the Executive Officer notification requirement. These changes are being proposed to clarify the information required and reduce the compliance burden for manufacturers who choose the pooling option.

Subsection (b)(1)(G)5 This subsection has been revised to allow optional early compliance in the 2014 model year with the proposed evaporative emission standards. This change is being proposed to provide additional flexibility to vehicle manufacturers.

## **Modifications to §1978. Standards and Test Procedures for Vehicle Refueling Emissions.**

Revise exemption for incomplete medium-duty vehicles.

It has been suggested that all incomplete vehicles, rather than just a subset of incomplete vehicles, be exempted from the refueling requirements given the

added complexity that testing refueling on incomplete vehicles entails. Staff agrees and proposes a modification to reflect this.

**Modifications to §2112. Definitions.**

A reference to new section §1961.3 was inadvertently omitted from this section. It was necessary to add it in, so this section applies to §1961.3.

**Modifications to §2139. Testing.**

A reference to new section §1961.3 was inadvertently omitted from this section. It was necessary to add it in, so this section applies to §1961.3.

**Modifications to §2140. Notification and Use of Test Results.**

A reference to new section §1961.3 was inadvertently omitted from this section. It was necessary to add it in, so this section applies to §1961.3.

**Modifications to §2147. Demonstration of Compliance with Emission Standards.**

A reference to new section §1961.3 was inadvertently omitted from this section. It was necessary to add it in, so this section applies to §1961.3.

**Summary of 15-Day Changes to “California 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light Duty Trucks and Medium Duty Vehicles”**

**Part I. Subpart D**

Subsection 2.1.4 This subsection has been revised to require the air to fuel ratio to not be richer than the leanest air to fuel mixture required to obtain maximum torque (lean best torque), with a tolerance of six percent of the fuel consumption and remove a provision describing the operating mode of the emission control system. This change is being proposed because there was insufficient time to conduct the necessary testing to ensure that the three percent tolerance in air-to-fuel ratio measurement is feasible.

**Part I. Subpart E**

Subsection 2.1.1 This subsection has been revised to allow manufacturers to meet an NMOG+NO<sub>x</sub> fleet average standard rather than an NMOG fleet average standard for the 2014 model year.

**Part I. Subpart H**

Subsection H.3.2 It is necessary to ask automakers who will be making hydrogen fuel cell vehicles to notify ARB of their intent 33 month prior to the applicable model year, because this lead time is needed to build a hydrogen fueling stations. Although this requirement was included in the proposed “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles,” it was inadvertently omitted from these test procedures. This subsection has been revised to incorporate these requirements into these test procedures. Also, a sentence was added to ensure that we are able to collect hydrogen vehicle data three years out starting in 2012, since automakers are planning their commercial launch of fuel cell vehicles in 2015. The current proposed regulation requires hydrogen vehicle reporting by April 1, so the regulation, as currently proposed, will not be chaptered in time to get data that could indicate that we trigger the regulation for stations in 2015.

# **Summary of 15-Day Changes to “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles”**

## **Part I. Subpart B**

Subsection B.2. Qualifying language has been added to the definition of a small volume manufacturer. The new text allows manufacturers that meet the 4,500 vehicle sales threshold for a small volume manufacturer, but are partially or fully owned by another manufacturer, to still qualify as “small volume manufacturers,” if they remain operationally independent from the company that owns them.

## **Part I. Subpart D**

Subsection 2.1.4 This subsection has been revised to require the air to fuel ratio to not be richer than the leanest air to fuel mixture required to obtain maximum torque (lean best torque), with a tolerance of six percent of the fuel consumption and remove a provision describing the operating mode of the emission control system. This change is being proposed because there was insufficient time to conduct the necessary testing to ensure that the three percent tolerance in air-to-fuel ratio measurement is feasible.

Subsection D.2.1.6 This subsection has been revised to remove Small Volume Provisions specific to SFTP because the provisions for Small Volume Manufacturers already in the LEV III FTP program are linked to the SFTP program.

Subsection D.2.2 This subsection has been revised to specify a conversion factor of 1.03 to convert NMHC emission values to NMOG emission values for the purpose of determining SFTP compliance. The purpose of this change is to provide an accurate conversion factor for the US06 cycle because LEV II SFTP testing only required measurement of NMHC emission values.

## **Part I. Subpart E**

Subsection E.1.1.1 This subsection has been revised to allow 2015-2019 MY LEV II vehicles to certify to combined NMOG+NO<sub>x</sub> standards instead of separate NMOG and NO<sub>x</sub> standards.

Subsection E.1.1.2.1 The title of this subsection has been modified.

Subsection E.1.1.2.1.2 This subsection has been modified to allow manufacturers to meet the phase-in requirements for the LEV III medium-duty vehicle particulate standards based on a percentage of the combined sales of medium-duty vehicles weighing 8,501 to 10,000 pounds GVWR and medium-duty vehicles weighing 10,001 to 14,000 pounds GVWR, rather than separate percentages for the two weight classes.

Subsection E.1.1.2.1.4 This subsection has been modified to provide manufacturers with an alternative compliance option for meeting the proposed particulate matter standards.

Subsection E.1.2.2.1 This subsection has been revised to allow early compliance with 150,000-mile SFTP standards for model year 2014 vehicles. The purpose of this change is to align with the LEV III FTP allowance for early compliance for model year 2014 vehicles.

Subsection E.1.2.2.1.1 This subsection has been revised to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline for SFTP certification. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles. The table has been corrected to specify that the standards are NMOG-based standards and not NMHC-based standards. This has been changed to correct a clerical error.

Subsection E.1.2.2.1.2 This subsection has been revised to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline for SFTP certification. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles.

Subsection E.1.2.2.1.2 Footnote 2 of the table has been revised to clarify how to project full useful life emission values for vehicles continuing to certify to LEV II during the LEV III phase-in period ("carry-over" test groups). It has also been modified to allow the use of full useful life SFTP values in lieu of projections if such values are used to certify to the 4,000-mile emission standards. This has been modified in order to ensure clarity for manufacturers and avoid confusion during the certification process.

Subsection E.1.2.2.2 This subsection has been revised to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline for SFTP certification. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles. It has also been modified to reduce the significant figures of the SFTP PM emission standards. This change is being proposed to align the PM standards resolution with the current resolution of PM measurement equipment.

Subsection E.1.2.2.3 This subsection has been revised to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline for SFTP certification. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles. Also, the naming convention for the UC cycle has been changed to “Hot 1435 UC,” to clarify that the required test cycle is a modified UC cycle. In addition, the subsection was modified to clarify how to determine horsepower for the purposes of the MDV standards and to allow manufacturers to use FTP emissions values in place of SC03 emissions values in the composite emission equation. The purpose of this change is to avoid excessive SFTP testing burden for MDVs. Air conditioning provides a relatively small load for an MDV engine and FTP emissions results would be similar to SC03 emissions results.

Subsection E.1.2.2.4 This subsection has been revised to require LEV III flex-fueled vehicles to test only on LEV III certification gasoline for SFTP certification. The purpose of this change is to avoid excessive SFTP testing burden for flex-fueled vehicles. Also, the naming convention for the UC cycle has been changed to “Hot 1435 UC,” to clarify that the required test cycle is a modified UC cycle. It has also been modified to reduce the significant figures of the SFTP PM emission standards. This change is being proposed to align the PM standards resolution with the current resolution of PM measurement equipment.

Subsection E.1.6 The NMOG+NO<sub>x</sub> standards that are applicable to this subsection are given in terms of three decimal places. It is, therefore, appropriate to round off the measured emission values to three decimal places. However, the current proposed text specifies that the emissions values be rounded to two decimal places. This error has been corrected.

Subsection E.1.8 The word “shall” has been changed to “may” to make it clear that vehicles that certify to the LEV III SULEV30 or the LEV III SULEV20 standard are not required to generate partial ZEV credits.

Subsection E.2.1.1 NMOG+NO<sub>x</sub> fleet average standards have been added to the table for the 2014 model year, to provide an alternative to the NMOG fleet average standards in the “California 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light Duty Trucks and Medium Duty Vehicles.”

Subsection E.2.1.1.1 Text has been added to this subsection to extend the pooling provision to other sections of these test procedures that address the phase-in of LEV III standards.

Subsection E.2.1.1.2 This subsection has been modified to allow manufacturers to use projected sales data rather than actual sales data to determine the minimum number of SULEV30 and SULEV20 vehicles they must produce in the 2018 and subsequent model years.

Subsection E.2.1.2.1(a) and (b) Errors in the formulas have been corrected.

Subsection E.2.1.2.1(c) The table has been modified to allow vehicles certified to federal standards to be included in the fleet average NMOG+NOx calculation based on the actual standards to which they certify. Also, values have been added to the table for LEV II LEV ULEV medium-duty vehicles.

Subsection E.2.1.2.2 This subsection has been amended to correct an error in the Zero-emission VMT Allowance values that may be used in the calculations.

Subsection E.2.1.2.3 This subsection has been deleted, because it is no longer needed, due to the modifications to subsection E.2.1.2.2.

Subsection E.2.1.3 This subsection has been modified to provide an additional two year lead time before small volume manufacturers are required to certify to ULEV125 standards. This change aligns the compliance dates for certifying to these new standards with the compliance dates by which these manufacturers must certify to the 3 mg/mi particulate standards and by which they must certify 100 percent of their fleet to LEV III standards.

Subsection E.2.2 This subsection has been modified to allow manufacturers to carryover the certification of vehicles that were certified as LEV II SULEVs prior to the 2015 model year for the 2015 and 2016 model years. This change was needed to accommodate manufacturers' production plans that are already in place. This subsection has also been modified to provide small volume manufacturers with an additional two years of lead time before they must certify all their vehicles to LEV III standards. This change was needed to align their requirement for 100% certification of LEV III vehicles with the year that they must meet a more stringent fleet average and more stringent particulate matter standards.

Subsection E.2.3.1(a) Unnecessary text has been removed.

Subsection E.2.3.1(c) It was necessary to add this subsection to the regulations to provide an alternate phase-in schedule of LEV III vehicles for those manufacturers that produce too few medium-duty vehicle test groups to be able to meet the percent requirements for the phase-in of LEV III vehicles.

Subsection E.2.5.5.4.1 This subsection has been modified to eliminate the requirement that a manufacturer that elects to pool its emissions report that selection to ARB prior to the start of each model year to which that selection applies.

Subsection E.2.5.5.4.3 This subsection has been modified to add clarifying language.

Subsection E.2.5.6.2 The last bullet in this subsection is meant to be a reporting requirement that an A/C Direct Emissions Credit application must meet, instead of one of the criteria that an A/C system must meet in order to qualify for A/C Direct Emissions Credit. However, this was unclear to manufacturers based on 45-day comments received by ARB. Consequently, this subsection has been revised to clarify the intent of the language.

Subsection E.3.1.2.1 The year of applicability for this section has been corrected to align it with the year that the LEV III regulations will apply to medium-duty vehicles. The first term, which applies to vehicles certified to LEV standards, was inadvertently omitted. The multiplying factors have been corrected to two decimal places to make the formulas more accurate. These have been added back in. Also, other errors in the formulas have been corrected.

Subsection E.3.1.2.2 This subsection has been amended to correct an error in the Zero-emission VMT Allowance values that may be used in the calculations. Also, the formulas that apply to vehicles certified to LEV standards were inadvertently omitted. These have been added back in.

Subsection E.4.3.2 This subsection has been revised to allow interim in-use SFTP emission standards for new certifications through the 2020 model year. The purpose of this change is to align with the interim in-use standards year for LEV III FTP.

Subsection E.5 The in-use compliance standards for vehicles certifying to the greenhouse gas standards in this section were inadvertently omitted from these test procedures. They have been added in.

## **Part I. Subpart G**

Subsection G.3.5 Testing requirements for demonstration of compliance with the LEV III PM standards have been added.

## **Part I. Subpart H**

Subsection H.1.4(g) Text was inadvertently omitted from this subsection that sets forth criteria for comparing the stringency of LEV II standards and federal Tier 2 standards. The modifications to this subsection are needed to correct that omission.

Subsection H.1.4.4 Subsection E.2.1.2.1(c) has been revised to require that federally-certified vehicles be included in a manufacturer's fleet average NMOG+NOx emission calculation based on the sum of the federal full useful life NMOG and NOx standards to which the vehicles certify. This change makes the text in H.1.4.4(a) and H.1.4.4(b) unnecessary. Therefore, this subsection was revised to remove text that is no longer needed. It was also necessary to add text to this subsection to accurately reflect that some vehicles certified under these test procedures must meet 120,000 mile full useful life standards. The originally proposed language erroneously implies that all vehicles subject to this subsection are certified to 150,000 mile full useful life standards.

Subsection H.1.4.6 This subsection was revised to reference the correct title of the applicable document.

Subsection H.3.2 "Vehicle fuel pressure rating" was added to the reporting requirement for hydrogen vehicles to inform us about the fueling requirements of the cars so that we can best inform the regulated party about fuel dispenser specs.

Subsection H.4.1.3(b) A typo has been corrected.

## **Part II. Subpart A**

Subsection 100.3.1.2 Errors in the footnotes in the table have been corrected.

Subsection 100.3.4 This subsection has been revised to require the use of the proposed test fuel containing ten percent ethanol for evaporative emission testing of flex fuel vehicles. Automobile manufacturers requested this change to reduce the number of different test fuels that would need to be maintained in order to complete certification testing. Staff agrees that this

change is needed and staff does not believe it would reduce the benefit of the proposed evaporative emission program.

Subsection 100.5.5.1 This subsection has been modified to clarify how to measure PM exhaust emissions on SFTP cycles.

Subsection 100.5.5.2 This subsection has been revised to allow use of a road-speed modulated fan in place of a fixed speed fan on the US06 cycle. The purpose of this change is to provide a more accurate simulation of real driving conditions.

Subsection 100.5.5.2.2.2 has been revised to specify that the engine compartment shall remain closed if a road-speed modulated fan is used. The purpose of this change is to require proper lab usage of road-speed modulated fans.

Subsection 100.5.5.3 This subsection has been modified to clarify how to measure PM exhaust emissions on SFTP cycles. It has also been revised to define the "Hot 1435 Unified Cycle" test for clarity.

Subsection 100.5.5.4.2.2.2 This subsection has been modified to clarify how to measure PM exhaust emissions on SFTP cycles. It has also been revised to specify that the engine compartment shall remain closed if a road-speed modulated fan is used. The purpose of this change is to require proper lab usage of road-speed modulated fans.

## **Part II. Subpart G**

This section has been added to specify the speed vs. time sequence for the Hot 1435 Unified Cycle Driving Schedule.

### **Summary of 15-Day Changes to "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles"**

## **Part I. Subpart E**

Subsection 1.(e)(i)(B) This subsection has been modified to revise the provisions for trading evaporative emission fleet-average credits among certain vehicle categories. This change would provide additional flexibility for trading evaporative emission credits among the heavier vehicle categories.

Staff believes that this change will not compromise manufacturers' requirement to implement effective evaporative control across the entire fleet.

Subsection 1.(e)(ii) This subsection has been modified to allow manufacturers to use projected sales data rather than actual sales data to determine the minimum number of vehicles they must produce in the 2015-2017 model years that meet the proposed evaporative emission standards. This subsection has also been modified to base compliance for this requirement upon the average number of vehicles produced over the 2015-2017 time period in lieu of a year-by-year requirement. These modifications would provide flexibility in response to industry requests without compromising the requirement for manufacturers to maintain the percentage of zero-evaporative vehicles in their fleet during the early years of the phase-in to the proposed standards.

Subsection 1.(e)(iv) This subsection has been modified to add a provision for the pooling compliance option concerning states that adopt California's evaporative emission standards pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507). This change is being added since staff inadvertently omitted the pooling provision from the 45-day document. This provision matches the 15-day amended language in §1976. Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions, Subsection (b)(1)(G)4.

Subsections 1.(e)(v) This subsection has been revised to allow optional early compliance in the 2014 model year with the proposed evaporative emission standards. This change is being proposed to provide additional flexibility to vehicle manufacturers.

### **Part III. Subpart D**

Subsections 1.1, 10.1, 10.15, and 11 These subsections have been revised to provide equations and instructions for evaporative testing with the proposed certification test fuel containing ten percent ethanol.

Subsection 11.3.1 This subsection has been revised to add an optional hydrocarbon mass adjustment factor for ethanol in lieu of directly measuring ethanol emissions. The purpose of this change is to reduce equipment requirements and test burden when testing with the proposed E10 fuel.

Subsection 12 This subsection has been modified to allow air to be mixed with fuel vapor for canister stabilization in the bleed emission test procedure and to specifically set forth a requirement to use the proposed ethanol-

containing certification fuel for this test. The purpose of this proposed change is to reduce test burden and to clarify the fuel requirement for this test.

### **Part III. Subpart F**

Subsection 2 This subsection has been revised to require the use of the new certification fuel containing ten percent ethanol for vehicles that comply with the proposed evaporative emission standards in the 2014 model year and to clarify the proposed evaporative emission test fuel requirement and implementation date for gasoline-fueled vehicles.

Subsection 3 This subsection has been revised to clarify the evaporative emission test fuel requirement for alternative-fueled (including flex fuel) vehicles.

### **Summary of 15-Day Changes to “California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles”**

Subpart S, Subsections I.A.1, I.F.2, and I.F.2.3 It has been suggested that all incomplete vehicles, rather than just a subset of incomplete vehicles, be exempted from the refueling requirements given the added complexity that testing refueling on incomplete vehicles entails. Staff agrees and proposes these modifications to reflect this change.

### **Summary of 15-Day Changes to “California Test Procedures for Evaluating Substitute Fuels and New Clean Fuels in 2015 and Subsequent Years”**

Subsection XI.E This subsection has been revised to align the durability demonstration requirements with those required under the LEV III regulations.

### **Summary of 15-Day Changes to Technical Support Document – Development of Supplemental Federal Test Procedures Standards**

Section VIII. This section has been revised to clarify that the cited “E85 Demonstration Program Final Report” is a draft version and is still being reviewed.