



OUTDOOR POWER EQUIPMENT  
INSTITUTE

June 7, 2017

California EPA, Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

RE: California Environmental Protection Agency Air Resources Board's "Amendments to the Evaporative Emission Requirements for Small Off-Road Engines", 15-Day Changes

The Outdoor Power Equipment Institute ("OPEI") respectfully submits these comments to the California Environmental Protection Agency Air Resources Board's ("CARB") May 23, 2017 "Amendments to the Evaporative Emission Requirements for Small Off-Road Engines" 15-day changes.

OPEI is an international trade association representing more than 100 manufacturers and their suppliers of small spark-ignited engines and outdoor power equipment. OPEI members products are ubiquitous in California households, including products such as lawnmowers, garden tractors, utility vehicles, grass trimmers, brush cutters, lawn edgers, chain saws, snow throwers, tillers, leaf blowers and other lawn and garden implements. As manufacturers of small off-road engines ("SORE") and SORE powered equipment, OPEI members will be directly affected by these amendments. In addition, to the extent that concerns are not included here-in, OPEI strongly supports the comments provided by the Truck and Engine Manufacturers Association ("EMA").

OPEI appreciates CARB staff's engagement with industry throughout the rulemaking process. As a result industry and CARB have found common ground on most issues. However a few major, and a handful of minor concerns remain. The two major concerns – the cost associated with the diurnal performance limits for >80cc applications and the elimination of key flexibility for the <80cc applications – are discussed in greater detail in the following comments. Annex A includes the complete list of OPEI open issues, many of which address the need for harmonization with EPA requirements or additional clarification. OPEI asks CARB to consider our concerns and these remaining issues before finalizing these amendments.

**Requirement that >80cc Applications Certify to Diurnal Performance Limits**

As outlined in OPEI's November 17, 2016 ARB Board hearing written and oral comments, OPEI is concerned that the >80cc application certification amendments in sections 2753 and 2754, and the compliance amendments in section 2765 significantly change the heavily relied upon "design-based" strategy. Specifically, for responsible

manufacturers that choose to continue business in California, the amendments will require that SHED testing is conducted on a variety of applications and configurations to assure compliance with the requirements of section 2753(b); that all >80cc applications be certified to the diurnal emissions standards. However, the cost of SHED testing for the large number of manufacturers and applications that rely on the current “design-based” strategy was unaccounted for in these amendments.

The 15-day Changes address neither OPEI’s concerns that manufacturers will need to conduct a significant amount of new testing, or the related testing cost. Instead CARB staff’s summary of the 15-day Changes includes a brief statement noting a revised, estimated economic impact that fails to account for the considerable costs associated with the compliance testing that OPEI has estimated and provided in the record. Specifically, CARB staff revises downward the preliminary cost estimate of \$32.7 million (2016 dollars) over a 5 year period to \$21.7 million (2016 dollars), which would amount to a price increase of \$2.30 per unit for SORE sold in California. In contrast, OPEI’s November 17, 2016 comments explain in detail that the costs associated with 64 manufacturers to install, maintain and operate SHEDs would be up to \$224 million dollars. Furthermore, CARB has not considered the additional cost that would be born by manufacturers for third party compliance follow-up testing in the event CARB testing finds a unit exceeds the diurnal standard. These considerable costs are troubling especially in light of the fact that they apply to just 19 percent of the entire SORE population, and that “there are no direct quantifiable emissions reductions” associated with these proposed amendments. Initial Statement of Reasons at 101.

CARB staff’s failure to address the true costs associated with these proposed regulatory changes for the evaporative requirements for the SORE category is a fundamental flaw and a violation of the California Administrative Procedures Act (APA). OPEI’s November 17, 2016 comments articulated this concern and provided several California Court of Appeals cases lending support to OPEI’s position that a failure of CARB staff to follow the APA will result in the rule being invalidated by the Office of Administrative Law (OAL) or possibly by a court.

In addition to the legal arguments provided in our November 17, 2016 comments, CARB staff must consider a 2013 ruling from the Supreme Court of California in *Western States Petroleum Ass’n v. Board of Equalization*, 304 P.3d 188 (Cal. 2013), as staff works through the rulemaking process to finalize these amendments. Specifically, in the *WSPA* case, the California Supreme Court upheld the lower courts’ rulings invalidating a tax valuation rule for petroleum refineries on the basis that the regulation was not supported by an adequate economic impact assessment. Importantly, while the California Supreme Court determined that the tax valuation regulation was substantively valid, the lack of an adequate economic impact assessment was a fatal flaw and grounds for overturning the rule because it did not comply with the requirements of California’s APA. *WSPA* at 207. The Court’s analysis in the *WSPA* case is instructive given the parallels between the deficiencies in the economic assessment at issue in the *WSPA* case and the economic assessment for the SORE evaporative amendments.

Based on the discussion and holding in the *WSPA* case, OPEI is very concerned that the amendments to the evaporative regulations for the SORE category do not conform to the APA requirements articulated in the California Government Code because the economic impact assessment provided is deficient and fails to address contrary information in the record. As pointed out, the cost analysis in the Initial Statement of Reasons fails to consider the number of companies that will be required to invest millions of dollars in implementing the SHED testing compliance requirements in these recent amendments.

Additionally, OPEI remains concerned that underlying rulemaking data does not support the need for such stringent and costly amendments. As noted in our November 17, 2016 comments, the Validation Study data cannot be relied on as evidence of systemic issues with SORE compliance. Nor does it support CARB staff's conclusions that: (1) "more often than not, design-certified evaporative families do not comply with the diurnal emission standards"; (2) "the compliance rate of SORE with diurnal emission standards has been low since 2008 and has not improved significantly"; (3) "changes to the certification and compliance testing procedures need to be made to ensure all engines with displacement greater than 80 cc comply with the diurnal emission standards and allow CARB to take enforcement action when necessary"; or (4) "disparity between applicant-submitted certification data and CARB's data" is an indication that SORE sold to consumers do not consistently have the same diurnal emission as units tested for certification.<sup>1</sup> For these reasons, the Executive Officer cannot reasonably rely on results of the Validation Study to conclude the design-based certification is not working to meet California's overall air quality goals.

Continuing to ignore the cost information included in the record and relying on highly disputed test results will jeopardize the validity of this rule as CARB moves forward to finalize these amendments. To resolve these concerns, OPEI recommends ARB reinstate today's stand-alone, design-based certification and compliance strategy.

### **Compliance Testing - Elimination of 95% Confidence "U-Factor" for Component Testing**

The amendments eliminated the 95% confidence "U-Factor", under which components or engines would be deemed in compliance if the "U-Factor" was below 1.1 times the applicable standard. The 15-day Changes modified the language such that an evaporative family will be deemed to have overcome the failure of compliance testing under section 2765(a) if *the average* of the diurnal emissions from the five engines or equipment units selected for testing does not exceed the applicable standards in sections 2754 and 2757. Unfortunately, the provision applies only to equipment with engines having a displacement greater than 80cc. OPEI remains concerned that no

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<sup>1</sup> California Air Resources Board, PUBLIC HEARING TO CONSIDER THE ADOPTION OF EXHAUST AND EVAPORATIVE EMISSION CONTROL REQUIREMENTS FOR SMALL OFF -ROAD EQUIPMENT AND ENGINES LESS THAN OR EQUAL TO 19 KILOWATTS, "Revised" Final Statement of Reasons, August 2004, at 38.

statistical tolerance or variation is permitted for component testing, including <80cc fuel tanks and fuel lines.

The modified language creates two very different schemes for equipment with engines having a displacement greater than 80cc and those with displacements less than 80cc. However, in contravention of the requirements in the California APA, CARB has not articulated a reasonable rationale for differentiating between >80cc and <80cc engines for compliance testing purposes.<sup>2</sup> Further, this approach is inconsistent with other CARB regulatory schemes using averaging or a certain threshold percentage of overall compliant engines or vehicles as sufficient for purposes of demonstrating compliance with applicable emission standards.

The elimination of the “U” factor further removes flexibility for the equipment containing engines below 80cc displacement. In the 2003 Final Statement of Reasons, CARB explained that the “U” factor was established because CARB had not conducted testing to determine the feasibility of the proposed emission limits.<sup>3</sup> Thus, CARB offered manufacturers compliance flexibility, and allowed for test-by-test and product-by-product variability, through the compliance testing scheme. By eliminating the “U” factor and not allowing averaging, CARB has not accounted for testing or product variability by requiring all five tested components to meet applicable standards. Furthermore, CARB has not tested any individual components to justify a change to the current certification compliance scheme.

In the absence of new and additional component test data, OPEI recommends that CARB reinstate the 1.1 “U-Factor” for both CARB compliance determination and manufacturer follow-up testing for components, including fuel tanks and fuel lines for <80cc applications. Doing so would account for normal variability and provide manufacturers with necessary compliance flexibility. Such an approach also would be consistent with other CARB regulatory programs where confidence factors or averaging is permitted to demonstrate compliance. For example, section 2864(a), Compliance Test Procedure for the 2016 evaporative emission controls of Spark-Ignition Marine Watercraft includes the identical 1.1 times applicable standard “U-Factor” for component compliance determination. For Spark-Ignition Marine Engines, CARB has implemented a similar mechanism in 13 CCR section 2446 where compliance is based on averaging. This type of compliance demonstration also is used for light-duty vehicles under 13

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<sup>2</sup> Government Code § 11346.2(b)(1) requires that the initial statement of reasons must include “[a] statement of the specific purpose of each adoption, amendment, or repeal, the problem the agency intends to address, and the rationale for the determination by the agency that each adoption, amendment, or repeal is reasonably necessary to carry out the purpose and address the problem for which it is proposed.”

<sup>3</sup>California Air Resources Board, PUBLIC HEARING TO CONSIDER THE ADOPTION OF EXHAUST AND EVAPORATIVE EMISSION CONTROL REQUIREMENTS FOR SMALL OFF -ROAD EQUIPMENT AND ENGINES LESS THAN OR EQUAL TO 19 KILOWATTS, “Revised” Final Statement of Reasons, August 2004, at 38.

CCR section 1976(c) and the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles,” incorporated therein.

### **Conclusion**

Industry has been committed to working with CARB throughout this process, meeting with staff on more than a dozen occasions since September 2015 to address SORE compliance concerns. OPEI appreciates staff’s efforts and key updates outlined in these recent 15-day Changes. That said, given the continued absence of a complete cost analysis and of the lingering flaws in the Validation Study, there are several key challenges that remain with the amendments and more time is needed for CARB/Industry collaboration to resolve these outstanding issues.

OPEI continues to recommend that CARB consider: (1) completing an updated Economic Impact Analysis/Assessment; (2) commissioning a new validation study; and (3) reanalyzing the Validation Study and E10 test results versus the SORE evaporative emissions model to properly determine if SORE equipment is meeting California’s air quality goals.

In addition to the concerns detailed above, OPEI has provided a short list of comments and concerns with the Regulation Order, Test Procedures and Certification procedures. Many of these items are mainly concerned with the need for harmonization with EPA requirements or necessary clarifications. The list of unresolved issues is included as Annex A.

Please feel free to contact me directly if you have any questions regarding these comments.

Kind regards,



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**ANNEX A**  
**UNRESOLVED ISSUES WITH THE REGULATORY ORDER, TEST AND**  
**CERTIFICATION PROCEDURES**

**OPEI Requested Changes to CARB's 2016 Evaporative Regulatory Order, TP-901/2 and CP-901/2 Language – 15-Day Changes**

June 7, 2017

CARB Document	CARB Language	OPEI Proposed Language Changes	Comment / Reason
<p align="center"><b>§2753(b) Certification Requirements &amp; Procedures</b></p>	<p>“...to the diurnal emission standards in section 2754 or 2757 of this Article must include a determination of the engine or equipment model in the evaporative family that is expected to exhibit the highest diurnal emission rate relative to the applicable diurnal emission standard and detail the criteria used to make that determination.”</p>	<p>DELETE. Reinstate 2753(b) and 2754(a)-(c) as written in current Regulation Order, with separate “diurnal” and “design based” certification strategies.</p>	<p>See OPEI’s November 17, 2016 comments “California Environmental Production Agency Air Resources Board’s ‘Proposed Amendments to the Evaporative Emission Requirements for Small Off-Road Engines” and concerns outlined within these June 7, 2017 comments.</p>
<p align="center"><b>§2753(b)(1) Certification Requirements &amp; Procedures</b></p>	<p>Diurnal emission test results, determined using TP-902;</p>	<p>Diurnal emission test results, determined using TP-902. <b>At the discretion of the certificate holder, the holder may choose to test up to 5 units for demonstration of compliance. The highest, not an average, of the provided results must be below the applicable standard (Table 1) or will determine the EMEL for the family if applicable.</b></p>	<p>To align with the proposed 2765 compliance test averaging (below), allow manufacturers to submit certification data for up to 5 units when certifying in accordance with TP-902 (diurnal).</p>
<p align="center"><b>§2753(f) Certification Requirements &amp; Procedures</b></p>	<p>A Holder whose Executive Order has been suspended or revoked must submit diurnal emission test results, determined using TP-902, for all evaporative families using engines with displacement greater than 80 cc, as described in (b) of this section, according to the following schedule:,,,</p>	<p>A Holder whose Executive Order has been <b>suspended or</b> revoked must submit diurnal emission test results, determined using TP-902, for <b>all</b> evaporative families using engines with displacement greater than 80 cc, as described in (b) of this section, according to the following schedule:</p>	<p>See OPEI’s November 17, 2016 comments “California Environmental Production Agency Air Resources Board’s “Proposed Amendments to the Evaporative Emission Requirements for Small Off-Road Engines”</p>
<p align="center"><b>§2754(a) Diurnal Emissions &amp; Design Standards Table 1</b></p>	<p>..on and after the model years indicated.</p>	<p>Add 2020 model year implementation dates for all Table 1 categories</p>	<p>Given that all model years are included in the table the proposed changes are being imposed without lead-time required to implement any changes required including revised requirements specified in sections (b), (c), (d), and (e).</p>
<p align="center"><b>§2754(b)(2) Diurnal Emissions &amp; Design Standards</b></p>	<p>(b) An applicant certifying engines or equipment to comply with the diurnal emission standards under this section shall do the following: (1) *** (2) Provide test data in the certification applications...</p>		<p>It is unclear why subsection (2), fuel line test data, is (both currently and in the future) required for equipment for which TP-902 SHED test data has been provided as means</p>

			<p>to demonstrate compliance with diurnal limits as fuel line permeation is part of the total evap emissions captured in TP-902.</p> <p>This section should be reworded to note that subsection (1) is required for all, and subsection (2) is required for those relying on component EO's to demonstrate compliance with diurnal limits ("design-based").</p> <p>Additionally, both sections (b) and (c) share the same introductory sentence, which is confusing. Can these sections be combined in some way?</p>
<p><b>§2754(b)(2) Diurnal Emissions &amp; Design Standards</b></p>	<p>(b)(2) "Provide test data in the certification application showing that all fuel lines meet the permeation requirement of 15 grams of TOG per square meter of surface area of the surface in contact with fuel per day when tested with LEV III Certification Gasoline using test procedure SAE J1737 (Stabilized May 2013), SAE J30, SAE J1527, or, only for fuel lines with inner diameter 4.65mm or less, SAE J2996... The permeation testing must be conducted at 40C or higher..."</p>	<p>"...The permeation testing must be conducted at <b>40C 23C</b> or higher..."</p>	<p>Harmonization. The test temperature does not align with the current EPA requirements.</p> <p>Note: This comment was previously provided as footnote (c) of table 2755 in OPEI's November 17, 2016 comments "California Environmental Protection Agency Air Resources Board's "Proposed Amendments to the Evaporative Emission Requirements for Small Off-Road Engines"</p>
<p><b>§2756(c) Fuel Cap Performance Standard</b></p>	<p>Fuel cap must meet the durability requirements in TP-902.</p>	<p>Fuel cap must meet the durability requirements in TP-902 <b>for equipment relying on the diurnal-based certification strategy in Section 2754. The fuel cap durability requirement is optional for equipment relying on the design-based certification strategy in Section 2754.</b></p> <p>OR CHANGE TP-901 Section 8.4 The following test is <b>required for &gt;80cc equipment and optional for &lt;80cc equipment:</b></p>	<p>For equipment certified under the design-based certification option, the requirement conflicts with the language in TP-901 8.4, which indicates the fuel cap installation cycles test is optional.</p>



<p><b>§2759(c) Equipment and Component Labeling</b></p>	<p>(c) Complete Evaporative Emission Control System Certification Label Content and Location....</p>	<p>Add a new paragraph "2759 (c)(5)" using modified language from EPA 1060.137(b)(5)ii</p> <p><b>(c)(5) Equipment manufacturers that also certify their engines with respect to exhaust emissions may use the same emission family name for both exhaust and evaporative emissions. If you use the provisions of this paragraph (c)(5) you must identify all the certified fuel-system components and the associated component codes in your engine's application for certification. In this case the label specified in this paragraph (5) may omit the information related to specific fuel-system components.</b></p>	<p>Need provision that states integrated engine/equipment need not include both exhaust and evap families due to size constraints.</p> <p>Considering the provision that the engine/equipment family name may be the same, ARB staff advised that the label could identify "EXH/EVAP". Unfortunately this is not harmonized with EPA. For some &lt;80cc applications, the EPA exhaust and evap family names are not the same. However due to the integrated nature of the product, EPA does not require the evaporative family name on the label. Therefore using "EXH/EVAP" on an EPA + ARB label would be misleading as to the EPA EVAP family name.</p>
<p><b>§2759 Equipment and Component Labeling (continued)</b></p>	<p>d) Evaporative Emission Control Component Certification Label Content and Location.</p> <p>(1) Fuel lines, fuel tanks &amp; carbon canisters certified to the evaporative emission standards in this Article shall be clearly labeled or marked by a permanent identification showing the Holder's name, the EO number, and model or part number.</p> <p>(2) ***</p> <p>(3) The Holder's three-character manufacturer code assigned by U.S. EPA may be used in place of the Holder's name if the manufacturer code is declared in the certification application. If only one model or part number is certified under the applicable EO, the model or part number may be omitted from the label information.</p>	<p>Use 1060.137 (slightly modified) as an alternate in a new paragraph (d)(4)</p> <p><b>(4) Except as specified in paragraph (d) of this section, you may create the label specified in paragraph with the EO approval (b) of this section as follows:</b></p> <p><b>(1) Include your corporate name.</b></p> <p><b>(2) Include EPA's standardized designation for the family.</b></p> <p><b>(3) State: "EPA COMPLIANT".</b></p> <p><b>(4) Fuel tank labels must identify the FEL, if applicable.</b></p> <p><b>(5) Fuel line labels must identify the applicable perm level. This may involve any of the following:</b></p> <p><b>(i) Identify the applicable numerical emission standard (such as 15 g/m<sup>2</sup>/day).</b></p> <p><b>(ii) Identify the applicable emission standards using EPA classifications (such as EPA NRFL).</b></p> <p><b>(iii) Identify the applicable industry standard specification (such as SAE J30 R12).</b></p> <p><b>(6) Fuel line labels must be continuous, with no more than 12 inches before repeating. Labels will be continuous if the space between repeating segments is no longer than that of the repeated information.</b></p>	<p><b>(4) Optionally, you may meet the requirements of 1060.137, including deviations such as abbreviations.</b></p> <p>EPA does not require EO number. This creates non-harmonization issues w/ EPA. Need option / alternatively to use EPA 1060.137? Include "these requirements also do not apply for... in 1060.135"?</p> <p>Additionally provision (i) in which the Exec Officer may waive content requirements if information is provided in owners manual is not a practical solution for most manufacturers due to the</p>

		<p>(e) You may create an abbreviated label for your components. Such a label may rely on codes to identify the component. The code must at a minimum identify the cert status, your corporate name, and the emission family. For example, XYZ Manufacturing may label its fuel lines as "EPA-XYZ-A15" to designate that their "A15" family was certified to meet EPA's 15 g/m<sup>2</sup>/day standard. If you do this, you must describe the abbreviated label in your application for certification and identify all the associated information specified in paragraph (c) of this section</p>	<p>difficulties of keeping owners manuals updated as suppliers change and EO numbers changes every four years.</p> <p>Finally, the requirement itself creates unnecessary burdens for tracking production and service parts based on EO numbers that will change every four years.</p> <p>For these reasons OPEI requests component labelling requirements be harmonized with EPA's.</p>
<p><b>§2761 Emission-Related Defect and Sales Reporting Requirements</b></p>	<p>(f) End-of-Year and Final Production Volume Reports.  (1) A Holder shall submit end-of-year and final production volume reports for all of the Holder's evaporative families. End-of-year and final production volume reports must indicate the production volume for each evaporative family. Production volume must be provided for each equipment type by engine family and fuel tank volume with each evaporative family.</p>	<p>(1) A Holder shall submit end-of-year and final production volume reports for all of the Holder's evaporative families. End-of-year and final production volume reports must indicate the production volume for each evaporative family. Production volume must be provided for each equipment type by engine family and fuel tank volume with each evaporative family. If the above data is not reasonably ascertainable, you may provide production volume by fuel tank volume and a list of commonly used equipment expected for the family.</p>	<p>For engine manufacturers that provide complete fuel systems installed to general purpose engines, it may not be possible to track what engines are installed to what applications and by what equipment manufacturers due to the common SORE distribution model.</p>
<p><b>§2765(a)(1) New Equipment Compliance Testing</b></p>	<p>The Executive Officer may order Holder to make available for compliance testing and/or inspection five or more fuel lines, carbon canisters, or fuel tanks, or one or more engines or equipment units with complete evaporative emission control systems...</p>	<p>The Executive Officer may order Holder to make available for compliance testing and/or inspection five or more fuel lines, carbon canisters, or fuel tanks, or one or more engines or equipment units with complete evaporative emission control systems. The number of engines or equipment units to be tested shall be based upon the number of test results provided by the Holder in their application for certification. In the event a holder relies on the design-based certification option, and ARB chooses to determine compliance through diurnal SHED testing, the minimum number of engines or equipment units to be tested shall be based on the minimum number of components (five) required to be tested as part of the design based strategy.</p>	<p>Align the number of compliance tests with the number of tests required for certification. The proposal is intended to be in conjunction with 2753(b)(1) above, permitting additional certification units for the diurnal certification procedure, and the averaging proposal included in 2765(a)(8). This proposal is not intended to stand alone.</p>
<p><b>§2765(a)(8) New Equipment Compliance Testing</b></p>	<p>(8) An evaporative family will be deemed to have passed the compliance testing if the diurnal emissions from all tested engines or equipment units are below the applicable diurnal emission standard in section 2754 or 2757, or the EMEL, if applicable. If any engine or equipment unit has diurnal emissions above the applicable diurnal emission standard in section 2754 or 2757, or the EMEL, if applicable, the</p>	<p>An evaporative family will be deemed to have passed the compliance testing if the average diurnal emissions from all tested engines or equipment units are below do not exceed the applicable diurnal emission standard in section 2754 or 2757, or the EMEL, if applicable, by more than ten percent. Engines or equipment units certified to the design-based option will have the minimum sample size of five and engine</p>	

	<p>evaporative family will be deemed to have failed compliance testing.</p> <p>The fuel lines, carbon canisters, or fuel tanks certified under an Executive Order will be deemed to have passed the compliance testing if all tested samples meet the applicable design standard in section 2754, 2755, or 2757. The fuel lines, carbon canister, or fuel tanks certified under an Executive Order will be deemed to have failed compliance testing if any fuel line, carbon canister, or fuel tank does not meet the applicable design standards in section 2754, 2755, or 2757.</p>	<p>or equipment units certified by the diurnal-based option will have an equal number of units tested as the number of test results provided for certification. If the average of any engine or equipment unit has diurnal emissions more than ten percent above the applicable diurnal emission standard in section 2754 or 2757, or the EMEL, if applicable, the evaporative family will be deemed to have failed compliance testing.</p> <p>The fuel lines, carbon canisters, or fuel tanks certified under an Executive Order will be deemed to have passed the compliance testing if the average all tested samples meet-do not exceed the applicable design standard in section 2754, 2755, or 2757 by more than ten percent. The fuel lines, carbon canister, or fuel tanks certified under an Executive Order will be deemed to have failed compliance testing if the average all tested any fuel line, carbon canister, or fuel tank does not meet exceed the applicable design standards in section 2754, 2755, or 2757 by more than ten percent.</p>	
<p><b>§2765(b) New Equipment Compliance Testing</b></p>	<p>“...An evaporative family will be deemed to have overcome the failure of compliance testing under subsection (a)(8) or (a)(9) of this section 2765 and to have passed compliance testing if the average of the diurnal emissions from the five engines or equipment units selected by the Executive Officer for independent testing under this subsection (b) does not exceed the applicable diurnal emission standard in section 2754 or 2757, or the EMEL, if applicable. The fuel lines, carbon canisters, or fuel tanks certified under an Executive Order will be deemed to have overcome the failure of compliance testing under subsection (a)(8) or (a)(9) of this section 2765 and to have passed compliance testing if the five fuel lines, carbon canisters, or fuel tanks selected by the Executive Officer for independent testing under this subsection (b) meet the applicable design standard in section 2754, 2755, or 2757. The Executive Officer may request the engines, equipment units, fuel lines, carbon canisters, or fuel tanks selected by the Executive Officer for independent testing under this subsection (b) be delivered to an ARB facility for additional inspection or testing.”</p>	<p>“...An evaporative family will be deemed to have overcome the failure of compliance testing under subsection (a)(8) or (a)(9) of this section 2765 and to have passed compliance testing if the average of the diurnal emissions from the five engines or equipment units selected by the Executive Officer for independent testing under this subsection (b) does not exceed the applicable diurnal emission standard in section 2754 or 2757, or the EMEL, if applicable. The fuel lines, carbon canisters, or fuel tanks certified under an Executive Order will be deemed to have overcome the failure of compliance testing under subsection (a)(8) or (a)(9) of this section 2765 and to have passed compliance testing if the average of five fuel lines, carbon canisters, or fuel tanks selected by the Executive Officer for independent testing under this subsection (b) meet the applicable design standard in section 2754, 2755, or 2757. The Executive Officer may request the engines, equipment units, fuel lines, carbon canisters, or fuel tanks selected by the Executive Officer for independent testing under this subsection (b) be delivered to an ARB facility for additional inspection or testing.”</p>	<p>There are currently an insufficient number of labs to conduct follow-up compliance testing. ARB has not quantified cost of additional independent SHEDs that would be required to support compliance testing or testing costs if ARB is not conducting the testing or willing to accept manufacturer SHED test data. Therefore, ARB should conduct additional testing, or test results should be accepted from manufacturer-owned labs as long as compliance with the SHED specifications and calibration requirements in Section 4 of the amended TP-902, or weight calibration requirements in Section 7 of the amended TP-901 can be demonstrated.</p> <p>Furthermore, components should be allocated the same averaging flexibility when</p>

			conducting follow-up testing as complete units. As recognized in ARB's 2004 FSOR (Comment 49), resource constraints limited the amount of (component) testing to demonstrate feasibility of the standards, therefore ARB established "U-factors". In the absence of additional component data, OPEI requests the 1.1 times U-factor is reinstated for components, or averaging of the test results to demonstrate compliance is permitted (same as diurnal tested equipment).
<b>TP-901 §7 Calibration Procedure</b>	The balance listed in section 5(b) shall be calibrated annually using National Institute of Standards and Technology (NIST)-traceable mass standards. The NIST-traceable mass standards shall be calibrated annually by an independent organization.	The balance listed in section 5(b) shall be calibrated <b>annually within 370 days of a measurement</b> using National Institute of Standards and Technology (NIST)-traceable mass standards. The NIST-traceable mass standards shall be calibrated <b>annually within 370 days of usage</b> by an independent organization.	Harmonize calibration requirements with EPA.
<b>TP-901 §8 Durability Demonstratn</b>	A durability demonstration is required prior to permeation testing. These durability tests are designed to ensure the fuel tank assembly meets the permeation emission standard throughout the useful life of the equipment. A durability demonstration consists of the following tests:	A durability demonstration is required prior to permeation testing, <b>if your emission control technology involves surface treatment or other post processing treatments such as epoxy coating. Metal tanks that are not either fully welded or brazed together also require durability testing.</b> These durability tests are designed to ensure the fuel tank assembly meets the permeation emission standard throughout the useful life of the equipment. A durability demonstration consists of the following tests:	Harmonize with EPA and provisions of today's fuel tank ATP's with similar provisions.
<b>TP-902 §3 General Summary of Test Procedures</b>	<del>"Purge carbon canister (if so equipped) with 400 bed volumes of nitrogen or dry air at the canister manufacturer's recommended rate"</del>	<b>"Purge carbon canister (if so equipped) with 400 bed volumes of nitrogen or dry air at the canister manufacturer's recommended rate"</b>	Reinstate 400 bed volume canister purge consistent w/ Figure 1 and §5.2
<b>CP-901 §7 CP-902 §6 Application Format Instruction</b>			OPEI requests applications templates with examples as part of a separate guidance document to clarify requirements and to ensure consistency across ARB Certification staff.