

## Stage II Vapor Recovery Program Workshop, November 30, 2012 Summary of Comments

2/19/2013

On November 30, 2012, the Arizona Department of Weights and Measures (ADWM), in coordination with the Arizona Department of Environmental Quality (ADEQ), Maricopa County Air Quality Division (MCAQD), and the Maricopa Association of Governments (MAG), held a stakeholder meeting to discuss the May 16, 2012 EPA Widespread Use for Onboard Refueling Vapor Recovery (ORVR) Final Rule ([77 FR 28772](#)) and related implications for the Stage II Vapor Recovery Program in the Maricopa Ozone Nonattainment Area. A copy of the presentation can be found at the following website address: [http://www.azdwm.gov/BUSINESS/VaporRecovery/tabid/142/Default.aspx#STAGE\\_II\\_VR\\_STAKEHOLDER](http://www.azdwm.gov/BUSINESS/VaporRecovery/tabid/142/Default.aspx#STAGE_II_VR_STAKEHOLDER).

The presentation outlined the emission reductions calculated for the use of Stage II vapor recovery equipment, which show an increase of Volatile Organic Compounds (VOCs) in 2018 due to the continued use of Stage II vapor recovery. Two potential options were outlined: Option 1) removal of Stage II equipment, or Option 2) upgrade equipment to be compatible with ORVR vehicles. The agencies requested feedback regarding the future of the Stage II vapor recovery program, including Options 1 and 2, new stations, and costs/impacts to businesses.

The agencies appreciate the feedback provided verbally during the workshop, as well as submitted in writing following the workshop. Attached is a summary of the verbal comments received during the November 30 workshop and the written comments received following the workshop, along with the agencies' response. Similar comments have been grouped together.

Based on the feedback received at the meeting, as well as written comments received following the meeting, Arizona will pursue a SIP revision to allow decommissioning of Stage II Vapor Recovery equipment at gasoline dispensing facilities located in Area A no later than December 31, 2017 (Option 1).

As discussed during the meeting on November 30, 2012, there are several steps that need to occur in order to decommission the Stage II equipment. Listed below is an outline of the steps and anticipated timeframes for each. These dates are tentative based upon the ability to demonstrate to EPA that removal of Stage II equipment in the years 2016 and 2017 will not interfere with attainment of the National Ambient Air Quality Standards. The agencies will continue communications regarding the progress toward Stage II decommissioning through email, the website, and stakeholder meetings as appropriate. To be included on the stakeholder list for future notifications, email Michelle Wilson at [mwilson@azdwm.gov](mailto:mwilson@azdwm.gov) or call 602-771-4933.

Action	Anticipated Date
Prepare and submit the SIP revision removing the Stage II program from the SIP	January to December 2013
Modify the applicable statute(s) requiring the use of Stage II vapor recovery equipment	January to September 2014
EPA Review/Approval of SIP	January 2014 to July 2015
Modify rules to reflect decommissioning of Stage II and requirements for remaining Stage I systems	January 2014 to July 2015
Decommission Stage II equipment	January 1, 2016 to December 31, 2017

**Summary of Verbal and Written Comments  
November 30, 2012 Stage II Vapor Recovery Program Workshop**

1. **Comment:** We support Option 1 (decommissioning and removal of Stage II equipment). (written comment, APMA, Western States Petroleum Association (WSPA))

**Response:** The agencies have considered the comments received at the workshop and in writing. We believe with the increasing use of ORVR-compatible vehicles and the diminishing emissions benefit realized from the use of Stage II that the costs of upgrading such equipment would not be warranted. Therefore we agree to move forward with Option 1, decommissioning and removal of Stage II vapor recovery equipment. As discussed in the workshop, all Stage II vapor recovery requirements will remain effective until the date approved by EPA in a SIP revision.

2. **Comment:** Balance systems are compatible with ORVR vehicles. If we go forward with Option 1, do these need removed? (verbal comment)

**Response:** We agree that balance systems are compatible with ORVR vehicles. However, as stated by EPA, Stage II and ORVR are redundant technologies. Due to maintenance, testing, and other compliance costs we believe it is more cost effective for stations to decommission equipment than it is to retain duplicative emission control equipment (see comment 11).

3. **Comment:** Can we remove vacuum-assist systems earlier since they are not ORVR-compatible? (verbal comment)

**Response:** The calculations contained in the EPA Guidance Document<sup>1</sup> include a Compatibility Factor that accounts for the incompatibility of Stage II with ORVR vehicle fueling; and therefore is already accounted for in the calculations that determine when the benefits of the Stage II vapor recovery program cease. Until such time, these Stage II facilities continue to have an emissions benefit that is included in the SIP. For that reason, vacuum-assist systems cannot be removed until such time as approved by EPA in the SIP revision.

4. **Comment:** Does the State Implementation Plan (SIP) take into account ORVR incompatibility? (verbal comment)

**Response:** The currently approved SIP does not account for ORVR incompatibility. However, for the purpose of removal of Stage II from the SIP, EPA has provided guidance<sup>1</sup> that includes updated calculations that account for incompatibility.

5. **Comment:** Will there be a change in testing. How long do we need to continue testing. (verbal comment)

**Response:** There will be a change in testing requirements with the removal of Stage II equipment, which will be developed through rulemaking included with the Stage II decommissioning process.

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<sup>1</sup> Guidance on Removing Stage II Gasoline Vapor Control Programs from State Implementation Plans and Assessing Comparable Measures, EPA-457/B-12-001, August 7, 2012.

Current testing in accordance with Title 20, Chapter 2, Article 9 will be required until Stage II is decommissioned at the gasoline dispensing facility.

6. **Comment:** What if we get rid of Stage II earlier, what are the offsetting control measures that could be used? (verbal comment)

**Response:** Based on discussions with EPA, it has been concluded that it would not make sense to add a permanent control measure to the SIP to offset a temporary increase in emissions.

7. **Comment:** No one is performing Stage I testing outside of Area A as required by NESHAPs. (verbal comment)

**Response:** Federal Regulations 40 CFR 63 Subpart CCCCCC regulates hazardous air pollutants from gasoline dispensing facilities<sup>2</sup>. These regulations require gasoline dispensing facilities that meet certain dispensing throughput requirements to install and test Stage I vapor recovery and are enforced by the EPA. In addition, there are requirements for Stage I vapor recovery equipment in local and state rules and statutes that are enforced by state and local agencies. We recommend gasoline dispensing facilities review requirements applicable to their facility and perform appropriate testing as required.

8. **Comment:** *The following comments were received regarding new stations:*

- How do new stations impact emissions? How will these requirements impact new stations? (verbal comment)
- EPA should grant a waiver for new stations/ should be exempt from Stage II installation requirements. (Arizona Petroleum Marketers Association (written comment, APMA))
- Other states have waived the requirement for new stations to install Stage II vapor recovery. Arizona should review this possibility. (written comment, Western Refining)

**Response:** As stated during the workshop, EPA does not provide an exemption for installation of Stage II equipment at new stations. The final rule states “*According to requirements established by the CAA that are applicable here, states will need to develop and submit SIP revisions to the EPA in order to change or eliminate SIP-approved state rules that set forth the compliance dates for newly constructed GDFs.*” We understand the concern of incurring costs to install Stage II vapor recovery at new facilities that will require removal by December 31, 2017, and we will continue to work with EPA to eliminate requirements for Stage II installation at new facilities as expeditiously as possible.

9. **Comment:** Rental car locations fuel 100% ORVR compatible vehicles. Can the requirements be removed for them earlier? (verbal comment)

**Response:** We agree that rental car locations may be fueling 100% ORVR compatible vehicles. We will work with stakeholders and EPA regarding this issue to evaluate the options available for removal Stage II requirements from rental car locations.

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<sup>2</sup> <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=e56a7eb801ddb15f669261046d4d091c&rgn=div6&view=text&node=40:15.0.1.1.1.16&idno=40>

**10. Comment:** *The following questions were received regarding the compatibility factor:*

- How is the Compatibility Factor (CF) calculated? If the CF understates the tank vent emissions due to ORVR incompatibility, delaying the phase-out of Stage II might adversely affect the overall air quality in Arizona. (written comment, Costco)
- Tank over-pressurization could increase the likelihood of fugitive emissions and impact the environment negatively. (written comment, Costco)
- A study of the compatibility of Vacuum-Assist systems was performed in the Phoenix area which showed venting approximately 80% of the time. This seems much higher than calculated by EPA (verbal comment).

**Response:** The equations used to calculate the emission reductions from the use of Stage II Vapor Recovery were calculated based upon the EPA Guidance Document<sup>1</sup>. In this document, EPA provides guidance to states, including calculations, needed to conduct an emissions inventory analysis related to phasing out an existing Stage II program in accordance with the Clean Air Act. According to the guidance document, EPA relied on the latest technical information and data available to EPA with respect to both ORVR and Stage II, and in some cases incorporates data not yet included in the MOVES model, which is traditionally used for estimating emission reductions for SIP purposes. The Compatibility Factor (CF) is one component of these calculations recommended by EPA. EPA described the methodology used to calculate the CF in a memorandum issued May 7, 2012<sup>3</sup>. According to the memorandum, EPA reviewed available test data from the California Air Resources Board (CARB) and the American Petroleum Institute (API) to develop the CF. While we agree that if the CF underestimates the tank vent emissions due to ORVR, the resulting tank over pressurization could increase the likelihood of fugitive emissions, we believe the use of the EPA calculation is warranted for the following reasons:

- 1) In order to decommission Stage II equipment, the state is required to submit a SIP revision for approval by EPA that meets the requirements of the Clean Air Act, including a demonstration that the SIP revision will not interfere with the attainment of the National Ambient Air Quality Standards (NAAQS) under CAA §110(l). Justification of this demonstration is more straightforward following the EPA guidance document since EPA has already approved the CF and associated calculations.
- 2) EPA relied on the latest technical information and test data based on both CARB and API. It would be difficult to justify the use of the test data from the OPW test site in Arizona since this was one test at one site and the quantification of the compatibility factor can change based upon numerous factors including RVP, station hours, fuel temperature, and fueling activity.

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<sup>3</sup> EPA Memorandum "Calculating Vacuum-assist Stage II VRS and ORVR Excess Emissions," Glenn W. Passavant, May 7, 2012

**11. Comment:** For the phase out process, will there be an opportunity for stations to change out hanging hardware as it fails, or do we have to update the whole station at once? It could cost a lot to change out equipment. (verbal comment)

**Response:** ADWM will undergo a rulemaking to develop the procedures to be followed for decommissioning the Stage II equipment. Although the details for station decommissioning will be developed through that process, it is anticipated that the entire station will be required to decommission at the same time in order to ensure the process is done safely and efficiently.

We realize there will be an initial cost for parts and labor related to decommissioning. Sites will have advance notice regarding the requirements for decommissioning to prepare for these costs. However, it is anticipated that sites will realize a savings from transitioning to non-Stage II equipment. For a site with 5 dispensers (10 nozzles), EPA calculates an estimated \$1,000 savings the first year a site decommissions Stage II, and a \$3,000 per year savings every year thereafter<sup>4</sup>.

**12. Comment:** Two questions were received regarding Option 2, upgrading to ORVR compatible equipment:

- What will the cost impact be to businesses for Option 2. (verbal comment)
- If we opt for Option 2, do we need to go through a SIP revision? (verbal comment)

**Response:** The costs for Option 2 vary depending on the type of upgrades to the system that may be chosen to improve the systems to make them compatible with ORVR vehicles. Following are examples of costs depending on the type of upgrade conducted at a station<sup>5</sup>:

- \$2,000 to \$14,000 for ORVR-compatible nozzles
- \$23,000 - \$42,000 for implementing CA EVR
- \$12,000 + - Pressure management system

Adoption of more stringent control measures to retain Stage II equipment would require a SIP revision to gain EPA approval for the program and any associated air quality benefits. As stated in response to Comment 1, we believe these costs are not warranted with the increasing use of ORVR vehicles and the diminishing emissions benefits associated of Stage II vapor recovery.

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<sup>4</sup> EPA "Final Regulatory Support Document, Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver, Decommissioning Stage II Vapor Recovery Financial Benefits and Costs," May 8, 2012.

<sup>5</sup> dKC de la Torre Klausmeier Consulting, "Final Report Analysis of Future Options for Connecticut's Gasoline Dispensing Facility Vapor Control Program," June 4, 2012.