

US EPA ARCHIVE DOCUMENT



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Thomas Driscoll
US EPA
OAPQS/EMAD/EFPAG D243-02
109 T. W. Alexander Dr.,
Research Triangle Park, NC 27709.

Subject: Comments on Stage II Vapor Recovery Systems Issues Paper - August 12, 2004

Dear Mr. Driscoll:

Thank you for providing us with an opportunity to comment on your August 12, 2004, Stage II Vapor Recovery Systems Issues Paper and the opportunity to comment. We expect and encourage that EPA will do follow-up rule making on the issues presented in this paper to develop national policy on the future of Stage II vapor recovery systems.

The issue paper provides potential definitions for "widespread use" of on-board refueling vapor recovery (ORVR) canisters, potential algorithms to determine "widespread use", and discusses how much additional testing (if any) would be needed to define "widespread use". In addition, as you point out, there are other ancillary issues associated with emissions from vehicle refueling at gasoline stations that are discussed in your document, including:

- potential opportunities to provide SIP credits for extending use of Stage II vapor recovery systems (VRS) past the widespread use date or enhancing inspections of gas stations,
- the quantification and control of fugitive VOC emissions from gasoline dispensing,
- determining the incompatibility between Stage II vapor recovery systems and on-board refueling vapor recovery (ORVR) canisters, and
- providing new or updated emissions factors for gasoline dispensing and associated emissions points.

We are providing comment because we are very interested in continuing Wisconsin's Stage II vapor recovery program and in the ability to obtain State Implementation Plan (SIP) credits for the program.

Definition of "widespread use"

EPA has indicated that its preference is to use method "c" as the basis for determining "widespread use". Given the range of in-use efficiency identified - anywhere between 56 - 90 % that is an element of this method - it seems that much more work would be needed in refining this method in order to provide a reasonable level of accuracy regarding the projection of "widespread use" dates. Given that uncertainty and based on the information that we have available, we suggest using either method "a" or "b". Incorporating either of the simple approaches with the development of an algorithm may be sufficiently accurate for projecting the approximate time when "widespread use" occurs. Once a method for defining

widespread use is selected, EPA should see that the method is used consistently in all states. We agree with the EPA analysis showing widespread use in each State may be different. Each state can then make determinations concerning future actions based on that projected date. If option c is chosen, EPA needs to provide states with information on how states can use readily available data to accurately determine in-use efficiency for existing Stage II systems.

SIP credits

We recommend EPA allow states to claim SIP credits for Stage II programs when the programs continue to be used in non-attainment areas after the "widespread use" date, or if the state requires the programs in new non-attainment areas. In either case, it would be up to the state to determine if Stage II controls presented a cost-effective strategy for inclusion in the SIP. Any state that demonstrates that their monitoring results in efficiencies greater than EPA's assumed efficiencies should be able to include that factor in their SIP. If there is a demonstrable SIP credit, Wisconsin would want to claim this credit.

Wisconsin has implemented Stage II vapor recovery in the severe and moderate 1 hour ozone standard non-attainment areas. With the change to an 8 hour ozone standard, the non-attainment area classifications will change so that Wisconsin will no longer have any severe areas and but will only have moderate, marginal and basic areas. Currently, Stage II vapor recovery credits are included as part of our State Implementation Plan to meet the 1 hour ozone standard.

Section 202(a)(6) of the Clean Air Act (CAA) states that the section 182(b)(3) Stage II requirement shall not apply in moderate areas after ORVR standards are promulgated. Also, section 202(a)(6) of the CAA 42 U.S.C. 7521(a)(6) provides that EPA may revise or waive section 182(b)(3) of the CAA, 42 U.S.C. 7511a(b)(3) for "serious" or worse ozone non-attainment areas after EPA determines that ORVR control systems are in "widespread use" in U.S. motor vehicles. We plan to continue to require Stage II vapor recovery in those ozone areas including the current non-attainment areas that have VRS in place. Currently operating VRS would need upgrading to make it acceptable to fuel the ORVR vehicles once "widespread use" is determined for Wisconsin. We believe that existing VRS systems would need to be ORVR compatible.

EPA also asks for comments on continuation of monitoring/testing after "widespread use" occurs. Those states that continue to require Stage II controls should continue to require periodic testing/monitoring. Since system efficiencies are directly related to inspection & repair frequency, periodic testing/monitoring provides another opportunity to improve the in-use efficiency of the Stage II equipment. The potential fugitive emissions are also related to the deterioration and aging of the gasoline dispensing equipment and periodic testing/monitoring would help to identify problem components. We have found that our observing the testing conducted on systems is more useful to insure compliance than some regular compliance inspections we make. Testing also leads to detecting and correcting leaks in Stage I vapor recovery systems. We encourage EPA to look at additional SIP credits for Stage I systems as a result of additional testing. Finally, we have a concern regarding monitoring and whether it will include assurances that stage-2 equipment be "disconnected" in the case that incompatibility claims prove warranted. We ask that EPA address this issue in the case that Stage II systems would no longer be used.

We recommend that states be allowed to claim SIP credit for continuing to require pre-EVR standards and for requiring any part of California Air Resources Board (CARB) Enhanced Vapor Recovery (EVR) controls (e.g., ORVR compatibility) that result in increased efficiency. We also recommend that EPA allow SIP credit for any new technology installed at gasoline dispensing facilities (GDF) that produces verifiable emission reductions, even though it may not be part of the CARB EVR program.

Ancillary Emissions Issues

1. We would agree that where Stage II is removed, continued use of pressure/vacuum (p/v) valves should be reviewed. All Stage I vapor recovery systems need to have working pressure/vacuum valves. If there is a benefit to the use of p/v valves in Stage I systems, EPA should recognize that in terms of SIP credits for those states that require p/v valves. More study of the emissions from the underground storage tanks, including when ORVR vehicles are fueling is needed
2. We encourage EPA to study and quantify fugitive emissions under various controlled and uncontrolled situations.
3. We agree that there is a need to develop new volatile organic compound (VOC) and hazardous air pollutant (HAP) emission factors and that more emissions testing is needed to do that.

In addition, we do have some other related questions that we believe need to be addressed for states that will still have systems that relied upon CARB to test and certify VRS systems and equipment and the impacts of ORVR. Our concerns include:

- How will ORVR efficiency be included?
- What are EPA's expectations in terms of in-use efficiency of ORVR? Will ORVR degradation be included as a factor? Is there a technical basis for these expectations?
- Could ORVR-compatible Stage II systems be viewed as "insurance" or "backup" for those ORVR systems that fail to operate correctly or efficiently?

If you have any questions regarding these comments, please contact Patrick Kirsop of my staff at (608) 266-2060.

Sincerely,



Lloyd L. Eagan, Director
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