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VIA ELECTRONIC MAIL

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U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards
EMAD/EFPAG D243-02
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Re: Comments of NACS and SIGMA on Stage II Vapor Recovery Systems and Onboard Refueling Vapor Recovery Issues

Dear Mr. Driscoll and Ms. Langdon:

On behalf of the National Association of Convenience Stores (NACS) and the Society of Independent Gasoline Marketers of America (SIGMA), we are pleased to submit the following comments regarding the issues raised in the U.S. Environmental Protection Agency (EPA) paper on Stage II vapor recovery systems (VRS) and onboard refueling vapor recovery (ORVR).[1] These comments are intended to supplement and expand on the comments submitted jointly by NACS and SIGMA with the American Petroleum Institute and the Petroleum Marketers Association of America.

NACS and SIGMA are particularly concerned by the agency's "preferred" option for defining "widespread" use (Option C in the *Issues Paper*), as well as the notion that State Implementation Plan (SIP) credits may be made available for Stage II systems after the widespread use date. First, in defining "widespread use" it is imperative that EPA adopt a definition that is consistent with a reasonable interpretation of Congress' use of that term. EPA's Option C fails in this critical respect. Second, SIP credits should not be made available for the installation or maintenance of redundant Stage II technology given the extremely small emission reductions (if any) that are achievable at great marginal cost. To allow such credits after the widespread use date would contradict the clear policy choice of Congress in identifying ORVR as a superior technology to address refueling emissions, and specifying Stage II VRS only as an interim measure until ORVR achieved widespread use.

[1] *See* EPA Office of Air Quality Planning and Standards, Emissions Monitoring and Analysis Division, Emissions Factors and Policy Applications Group, *Stage II Vapor Recovery Systems Issues Paper* (August 12, 2004) ("*Issues Paper*").

NACS is an international trade association comprised of more than 1,700 retail member companies operating more than 100,000 stores. The convenience store industry as a whole sold 142.1 billion gallons of motor fuel in 2003 and employs 1.4 million workers across the nation.

SIGMA is an association of more than 250 independent motor fuel marketers operating in all 50 states. Last year, SIGMA members sold more than 48 billion gallons of motor fuel, representing more than 30 percent of all motor fuels sold in the United States in 2003. SIGMA members supply more than 28,000 retail outlets across the nation and employ more than 270,000 workers nationwide.

NACS and SIGMA members have spent hundreds of thousands of dollars installing and maintaining Stage II systems over the last decade. These burdens were assumed as part of the compromise reflected in section 202(a)(6) of the Clean Air Act and subsequent promulgation of ORVR requirements: service station owners would install Stage II systems in certain non-attainment areas over the interim period until ORVR was in place in a majority of the vehicle fleet to control these same refueling emissions. The timeframe for achieving "widespread use" was envisioned as approximately 10-15 years after promulgation of ORVR requirements. We are now approaching, or possibly in some areas at, the point of widespread use of ORVR. NACS and SIGMA members have done their part in controlling refueling emissions. Consistent with what Congress intended, it is now time to phase out Stage II requirements and recognize and promote ORVR as the more equitable and effective approach to controlling refueling emissions.

The following comments expand on these points in additional detail.

I. WIDESPREAD USE MUST BE DEFINED IN A WAY THAT IS CONSISTENT WITH THE INTENT OF CONGRESS

While "widespread use" is not explicitly defined in CAA Section 202(a)(6), the term is not unexplained. Congress provided ample indication of its intent by modifying "widespread use" with the phrase "throughout the motor vehicle fleet." Hence, a reasonable definition of "widespread use" must make reference to the prevalence of ORVR technology in the vehicle fleet. This is not only clear from the statute and legislative history, but consistent with a common sense notion of the term.

The *Issues Paper* presents four possible options for determining "widespread use." Three of these options (Options A, B, and D) reflect a reasonable interpretation of what "widespread use" means. That is, it is consistent with common sense to define widespread use in terms of (1) the number of ORVR-equipped vehicles in the fleet (Option A), (2) miles traveled by ORVR-equipped vehicles (Option B), or (3) the amount of gasoline sold to ORVR-equipped vehicles (Option D). Each measure attempts to identify "widespread use" by reference to a parameter that, as instructed by Congress, reflects the extent to which ORVR technology has penetrated the vehicle fleet. NACS and SIGMA believe that Options B and D warrant further consideration by EPA.

In contrast, the option that EPA appears currently to favor (Option C) misses the mark. Defining widespread use by attempting to determine the point at which VOC emissions from ORVR-equipped vehicles equals emissions with Stage II only does not measure the prevalence of ORVR technology in the fleet. In short, Option C identifies "widespread effect" – but not widespread use – of ORVR.

From a technical perspective, Option C is an exercise in futility. There is no way to know with any precision the level of VOC refueling emissions with either ORVR or, especially, Stage II VRS. Too many uncontrolled factors effect the calculation of emissions from Stage II – incompatibility with ORVR, proper use of the Stage II equipment during refueling, the capture efficiency of the equipment in place and its variability depending on the rate of inspection, *etc.* The in-use effectiveness of Stage II is largely dependent on not only the frequency of inspections by State authorities, but also on a number of largely uncontrollable human factors. As EPA has recognized, the "number of different parties involved in the successful use of Stage II controls could also have significant adverse impacts on the . . . in-use effectiveness of Stage II." 52 Fed. Reg. 31162, 31178 (Aug. 19, 1987). For example, Stage II effectiveness depends in large part on the user leaving the nozzle attached for at least a few seconds after refueling is completed (*see* 52 Fed. Reg. at 31176). This direct human involvement compromises the utility of Stage II and is one of the primary reasons why in 1987 EPA originally proposed a strategy of controlling refueling emissions that was based on ORVR.

Had Congress intended EPA to engage in a complicated exercise to determine the functional equivalence of Stage II VRS and ORVR before eliminating the Stage II mandate, it would have instructed the agency to do just that. Instead, Congress told EPA to base that determination on the actual usage of ORVR technology in vehicles. That instruction is consistent with the legislation's two-part strategy for controlling refueling emissions: rely on ORVR technology (which will apply nationally to most of the vehicle fleet) as the control mechanism, but use Stage II technology as an interim control measure in nonattainment areas until ORVR technology is in widespread use. Congress made the choice to control refueling emissions through reliance on ORVR (and move away from Stage II) as soon as that technology was present in a meaningful percentage of the fleet.

Such a policy makes sense for a number of reasons. Congress clearly recognized that Stage II and ORVR are redundant technologies that address the same emissions.[2] The only

[2] EPA Administrator Lee Thomas testified during Congressional hearings on the eventual 1990 CAA Amendments that "[t]he Administration is doubtful of the benefits of requiring Stage II technology on gasoline pumps in order to control basically the same refueling vapors captured by the onboard control required on new cars by Title III. Over the long term, this technological redundancy would lead to very high marginal costs and very little marginal control." Testimony of Lee M. Thomas, EPA Administrator, before the Subcommittee on Environmental Protection, Senate Committee on Environment and Public Works, at 19 (Jul 22, 1987) (quoted in S. Rep. No. 101-228, at 429 (1990)).

reason Congress required "interim" Stage II controls was due to the lag time in getting to widespread use of ORVR.[3] Congress recognized the high marginal costs associated with the use of duplicative Stage II technology over the long term – and also the costs to consumers of paying for both technologies.

Accordingly, given the clear long-term preference for ORVR technology, Congress instructed EPA to review and waive the Stage II requirements when ORVR achieved widespread use. Congress has already considered the issue and found that ORVR is a preferable emissions reduction strategy to Stage II once onboard technology is present in a significant percentage of the fleet. The determination of when "widespread use" is achieved, therefore, must be based on a measure of ORVR prevalence in the fleet – not on a calculation of emissions.

II. IDENTIFYING THE PERCENTAGE AT WHICH "WIDESPREAD USE" IS ACHIEVED

As noted, Options A, B, and D are all based on identifying "widespread use" at the point at which "x percent" of a certain parameter (ORVR-equipped vehicles, VMT by ORVR-equipped vehicles, or gasoline sold to ORVR-equipped vehicles) is achieved. Dictionaries define "widespread" as "widely circulated or diffused" and "generally prevalent." These terms imply that widespread use is attained when ORVR is present in a majority, but by no means all, vehicles on the road. While there is no exact specification of the percentage that equals "widespread," one could reasonably interpret the term as anywhere from 51 to, perhaps, 85 percent.

To pinpoint a more precise percentage, it may be appropriate to look at the in-use efficiency values assigned to Stage II systems in State SIPs. According to the *Issues Paper*, these values range from 56 to 90 percent when inspection frequency and rule penetration (*i.e.*, exemptions) are considered (based on a theoretical maximum control efficiency of 95 percent). In reality, NACS and SIGMA question whether such Stage II in-use control efficiencies are actually achieved, given the numerous "human factors" that hinder the effectiveness of Stage II controls. Previously, EPA estimated that Stage II would adequately control 48-66 percent of refueling emissions. *See* 52 Fed. Reg. at 31178 (this estimate was based on federal exemption

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See also H.R. Rep. No. 100-490, at 304 (1990) ("In allowing areas to waive application of the requirement for Stage II vapor recovery in future years, the Committee recognizes that full implementation of onboard vapor recovery, after a full turnover of the fleet, could render Stage II vapor recovery at gasoline dispensing stations unnecessary.").

[3] The legislative history references the "interim" nature of Stage II technology. *See, e.g.*, S. Rep. 101-228, at 41 (1990) ("With at least twelve to fifteen years required before the full benefit of the vehicle ("onboard") vapor recovery program . . . will be realized, the substantial reductions in VOCs and toxic emissions in the interim from Stage II is highly desirable.").

In interpreting CAA Section 202(a)(6), the D.C. Circuit similarly concluded that "the provisions in the CAA for Stage II controls provide for an interim solution to the problem of ozone accumulation until ORVR systems become commonplace." *NRDC v. EPA*, 983 F.2d 259, 273 (D.C. Cir. 1993).

levels of 10,000 gallons/month for independent stations and 50,000 gallons/month for non-independent stations).

In light of the questionable Stage II in-use efficiency control estimates, we suggest that EPA consider using the median Stage II in-use efficiency value from State SIPs to identify the percentage that would define ORVR widespread use under Options A, B, or D.

III. SIP CREDIT SHOULD NOT BE AVAILABLE FOR USE OF STAGE II TECHNOLOGY AFTER THE WIDESPREAD USE DATE

As noted, Congress viewed Stage II as an interim measure to control evaporative emissions during refueling. The legislative history could not make more clear Congress' view that ORVR and Stage II are "redundant" and "duplicative" technologies that control "basically the same emissions." After weighing these factors, Congress elected for ORVR as the preferred technology for controlling refueling emissions. Granting SIP credits after the widespread use date for enhancing or maintaining Stage II in existing areas or, certainly, for extending Stage II into new areas would be inconsistent with this Congressional policy choice. In fact, it would be illogical to grant SIP credits for Stage II controls that address the very same emissions for which credit is granted due to the use of ORVR. Of course, States should receive SIP credit for the emission reductions attributable to ORVR as Stage II is phased out.

The notion that EPA would consider granting SIP credits for Stage II after the widespread use date is deeply troubling given the extremely small emission reductions (if any) that are achievable at great marginal cost. Any marginal emission reductions that could be achieved by using Stage II in combination with ORVR will be of short duration and at great cost. Under these circumstances, it would not be reasonable or good policy for EPA to grant SIP credit for Stage II controls after the widespread use date, or promote the continued use of Stage II.

We therefore urge EPA not to grant SIP credits for continued use of Stage II or for extending Stage II to new areas. At a minimum, EPA must make clear that claims for SIP credits through the use of Stage II after the ORVR widespread use date face a significant hurdle for approval, given that the same emissions are addressed by ORVR and that any such Stage II emission reductions will be marginal at best and declining over time. The agency should also make clear that other, more cost-effective options are available for controlling VOC emissions.

Sound regulatory and cost-benefit policy dictates that SIP credit should not be available for Stage II after the widespread use date. The cost per ton of VOCs removed by Stage II is increasing dramatically and does not justify the use of Stage II or the availability of SIP credits. Executive Order 12866 ("Regulatory Planning and Review") instructs that "in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits" and that EPA "shall design its regulations in the most cost-effective manner to achieve the regulatory objective." 58 Fed. Reg. 51735-51736 (Oct. 4, 1993).

EPA has previously found that the costs associated with ORVR, which are spread across a much greater number of parties (*i.e.*, purchasers of new vehicles), are "inherently more equitable than that for Stage II." 52 Fed. Reg. at 31180. Indeed, as EPA concluded, the installation and maintenance of Stage II "clearly imposes a significant burden on service station owners." *Id.* When ORVR widespread use is achieved, there is no question that the continued use of Stage II controls will be dramatically cost-*in*effective. Hence, at that point, it would be inappropriate not only for EPA to maintain the Stage II mandate in certain nonattainment areas, but also to grant SIP credits for continued or new Stage II SIP requirements.

IV. EPA SHOULD NOT EXPAND STAGE II REQUIREMENTS INTO NEW AREAS AND MUST EXAMINE THE AMOUNT OF SIP CREDITS CURRENTLY AVAILABLE FOR STAGE II

As we near the ORVR "widespread use" date, EPA should not permit the expansion of Stage II VRS into new areas. In 1987, when EPA originally proposed to require ORVR technology, the agency stated that "Stage II is clearly more feasible as an interim refueling control measure where it has been installed (or is in the process of installation) than in a situation where regulations would have to be developed and approved under State procedures, and then go through the EPA review and approval process prior to implementation." 52 Fed. Reg. at 31182. The same logic applies today in advising against (1) the extension of Stage II into new areas (or parts of newly expanded nonattainment areas that currently do not have Stage II); and (2) State adoption of enhanced Stage II requirements, such as the California Enhanced Vapor Recovery (EVR) program. Further, as noted above, the substantial costs associated with installing new or enhanced Stage II controls are not justified by the diminishing marginal benefits that may be achieved by Stage II before the widespread use date arrives.

Similarly, as States now embark on a new round of SIP development, EPA must carefully examine the amount of SIP credits provided for application of Stage II requirements. As ORVR penetrates the vehicle fleet more and more every year, the emission reductions attributable to Stage II decline. Between six and nine model years of passenger cars are now equipped with ORVR, as well as increasing numbers of SUVs and light duty trucks. With the average life of a vehicle approximately 10-12 years, a substantial percentage of the vehicle fleet is currently ORVR-equipped. Accordingly, ORVR is now responsible for a significant percentage of refueling emission reductions. This reality should be reflected in SIP plans. That is, to be consistent with this reality, EPA should progressively reduce the amount of SIP credits available for adoption (or continued use) of Stage II over the next several years and, correspondingly, increase SIP credits for increased ORVR penetration. Failure to do so would be contrary to sound environmental policy and misrepresent the amount of emission reductions that are actually achievable under SIP plans due to Stage II controls.

V. THE SCOPE OF EPA'S AUTHORITY TO REVISE OR WAIVE THE STAGE II MANDATE IN CERTAIN NONATTAINMENT AREAS

In contrast to the mandate to "eliminate" Stage II requirements for moderate nonattainment areas after promulgation of onboard requirements, Congress instructed EPA to "revise or waive" the Stage II requirement "as appropriate" after the widespread use date for serious, severe, or extreme nonattainment areas. Given the legislative preference for ORVR and the statutory context, EPA's review of the Stage II mandate after the widespread use date is best understood as a check to ensure that Congress' assumptions were correct regarding the control efficiency of ORVR. If ORVR controls were, in fact, effective, then the Stage II mandate should be waived after the widespread use date.

We are aware that the North Carolina Petroleum Marketers Association (NCPMA) has submitted to EPA in-use test data for ORVR-equipped vehicles that was developed by the EPA Office of Transportation and Air Quality (OTAQ).[4] The data confirm the performance of ORVR as an effective control technology for refueling emissions. Accordingly, the data support the assumptions that underpin the policy choice by Congress to utilize ORVR over the long-term to control refueling emissions. EPA therefore should waive the Stage II mandate after the widespread use date.

VI. CONCLUSION

For the foregoing reasons, NACS and SIGMA support the development of a definition of "widespread use" that is consistent with the policy of Congress to favor ORVR over Stage II vapor controls. We urge EPA to craft a SIP credit policy that recognizes what Congress made clear – that Stage II and ORVR are redundant technologies that address essentially the same emissions. Accordingly, when ORVR widespread use is achieved SIP credits should not be available for continued use of Stage II controls.

NACS and SIGMA members, as well as the petroleum consuming public, have borne the burden of paying for Stage II controls over the last decade. Now that ORVR systems are increasingly common, and the time is rapidly approaching when the vast majority of the vehicle fleet will be ORVR-equipped, gasoline dispensing facilities and their customers should no longer be required to pay for redundant Stage II controls.

We appreciate the opportunity to submit these comments. As further information becomes available, we hope to provide EPA with additional data and analysis. If you have any questions, please do not hesitate to contact us.

[4] *See* Electronic Mail Message from Tim Laughlin, NCPMA, to Tom Driscoll, EPA, dated September 21, 2004.

Very truly yours,

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