

2002, by SEC and DMV, and, in the case of draft revisions to NAC 445B.580 Inspection of vehicle: Procedure (NRS 445B.785), as submitted by NDEP by letter dated January 30, 2002. We will consider final action on the vehicle I/M program once we receive the final adopted version of NAC 445B.580. (This section includes final test procedures and equipment used for inspecting certified OBD systems. A new section number will replace NAC 445B.580.) Our approval of the statutory and regulatory basis for the revised vehicle low enhanced I/M program would supercede the existing statutory and regulatory basis for vehicle I/M in the Nevada SIP (as approved by EPA in 1981 and 1984) as it relates to Las Vegas Valley.

*F. Are Any Special Fuels Used in Motor Vehicles Operated in Las Vegas Valley?*

Wintertime gasoline specifications in Clark County reduce CO emissions in Las Vegas Valley. Specifically, these wintertime specifications relate to oxygen, Reid Vapor Pressure (RVP), sulfur content and aromatic hydrocarbons ("aromatics"). In a separate, prior action, we approved the wintertime oxygenated fuels regulation in Clark County under sections 187(b)(3) and 211(m) of the Act. See 64 FR 29573 (June 2, 1999). The low RVP wintertime gasoline regulation was submitted as part of the 1995 CO plan and the most recent version of that regulation was submitted to EPA on June 4, 2002. EPA is proposing to approve that regulation into the Nevada SIP in this notice, as discussed below. The wintertime sulfur and aromatics specifications are contained in Clark County's Cleaner Burning Gasoline regulation, which has been submitted as an additional control measure in the 2000 CO plan and which is discussed following the low RVP wintertime gasoline discussion.

*Low RVP Wintertime Gasoline*

RVP is a measure of the stabilized pressure exerted by a volume of liquid at 100° F, and is generally used as a measure of the volatility of gasoline fuel. Fuels with high RVP values volatilize more readily than fuels with low RVP values. The effect of the increased rate of volatilization at any given RVP value is largely dependent on ambient temperature. Lowering the RVP specification of gasoline reduces CO emissions from vehicles equipped with functional evaporative control systems (e.g., on-board carbon-canister). The evaporative control systems adsorb gasoline vapors which are then desorbed into the vehicle's fuel intake system causing enrichment of the fuel

mixture and an increase in CO exhaust emissions. A lower volatility gasoline decreases the amount of vapors adsorbed by carbon canisters which in turn lowers subsequent fuel mixture enrichment and CO exhaust emissions. Newer vehicles operate "closed-loop," using oxygen sensors and constantly adjusting the air/fuel ratio. Such vehicles, which represent virtually all 1990 and later cars, are programmed to make adjustments to avoid undue enrichment (and associated emission increases) during canister purge. As a result, the effect of lower RVP on CO emissions on average will be larger for open-loop than for closed-loop cars, but there is considerable variation among manufacturers, models and model years.

The Nevada legislature granted authority to adopt regulations relating to fuel standards to the State Board of Agriculture through NRS chapter 590, section 590.070. Nevada Board of Agriculture's wintertime RVP regulations are found in chapter 590, section 590.065 of the Nevada Administrative Code ("NAC 590.065"). The specific regulation that was submitted as a control measure in the 1995 CO plan was adopted by the Board of Agriculture on September 21, 1995. Since that date, this regulation has been revised several times, e.g. to modify the applicable wintertime period, most recently on October 28, 1998. The current regulation, NAC 590.065 paragraphs (3) and (4), limits the RVP of gasoline sold in Clark County during the winter season (October 1 through March 31) to 9.0 pounds per square inch (psi) with no allowance for ethanol blended fuel. NDEP submitted the current adopted regulation to us for incorporation into the SIP under a letter dated June 4, 2002.

The wintertime low RVP requirement is enforced through random sampling and testing conducted by the Nevada Department of Agriculture. Funding for enforcement and monitoring activities associated with the RVP requirement is provided through a portion of the annual vehicle emission testing certificate fee.

To evaluate the effects of RVP on exhaust emissions, state and local air agencies use our MOBILE model. CCDCP used MOBILE5a to evaluate the CO emissions benefits of low RVP under wintertime conditions for the 1995 CO plan. At the time of the 1995 CO plan, the supporting documentation indicated that CCDCP properly modeled RVP controls using appropriate temperatures. However, members of the Western States Petroleum Association (WSPA) objected to the 1995 CO plan's conclusion that gasoline with higher

RVP results in higher CO emissions, especially during vehicle startup. They asserted that MOBILE5a overestimated the benefit of reducing RVP and expressed their concern over the related emission reduction predictions contained in the plan.

To address these concerns, CCHD commissioned a study of vehicle emissions to assess the validity of MOBILE5a results. Because of the unusual meteorological conditions in Las Vegas Valley that are associated with historic CO exceedances, and the relative lack of data within the MOBILE5a model for evaluating the RVP effects on CO emissions under colder temperatures, the study called for a shift in the normal series of events specified by the Federal Test Procedure for vehicle certification to simulate the effect of a diurnal temperature profile accompanied by a morning and evening commute.

This study culminated in the publication of the Society of Automotive Engineers' (SAE971726), Effects of RVP Reduction on Vehicle CO Emissions During Las Vegas and Los Angeles Winter Conditions—Petroleum Environmental Research Forum Project Number 95-06 in May 1997. As part of this study, two fleets of vehicles were emissions-tested to determine the effect of gasoline RVP reductions on tailpipe CO emissions in Las Vegas and Los Angeles under conditions typical of winter CO exceedances. The analyses had two locations and two RVP's (9 and 12 psi), including separate sets of temperature ranges, base gasoline types, and oxygenate types and levels. The conclusion was that RVP reduction is a significant control measure for reducing CO emissions under conditions typical of CO exceedances in Las Vegas and Los Angeles. It was estimated that reducing RVP by 3 psi (from 12 psi to 9 psi) would reduce winter CO emissions by 12% in Las Vegas and between 0 and .8% in Los Angeles.

As part of our decision whether to approve the State's low RVP wintertime gasoline regulation into the Nevada SIP, we also must consider whether the fuel specification in that regulation is preempted under the Act. Under section 211(c)(4)(A) of the Act preempts certain state fuel regulations by prohibiting a state from prescribing or attempting to enforce "any control or prohibition respecting any characteristic or component of a fuel or fuel additive" for the purposes of motor vehicle emission control, if EPA has prescribed under section 211(c)(1), "a control or prohibition applicable to such characteristic or component of the fuel or fuel additive," unless the state