

**1994 California State Implementation Plan**  
**Volume III:**  
**Status of Enhanced Motor Vehicle Inspection**  
**& Maintenance and Pesticide Control**  
**Measures**  
**Volume III: Other State Level Sip Elements**

## Contents

A. Status of The Bureau of Automotive Repair's Enhance Vehicle Inspection and Maintenance Program.....	1
Background.....	1
Legislative History.....	2
Pending Enhancements to California Program.....	2
The Pilot Demonstration Study.....	3
Effect on Local Attainment Demonstrations.....	4
B. Status of The Department of Pesticide Regulation's Pesticide Control Measure.....	5
Background.....	5
DPR Approach for Managing Pesticide Emissions .....	6
Relationship of DPR Pesticide Measure to FIP and SIP .....	7

## A. Status of The Bureau of Automotive Repair's Enhance Vehicle Inspection and Maintenance Program

### Background

The federal Clean Air Act requires enhanced vehicle inspection and maintenance (I/M) programs in all serious, severe, and extreme ozone nonattainment areas with urbanized populations of 50,000 or more. In late 1992, the U.S. EPA issued regulations setting forth specific requirements for enhanced I/M programs. Briefly stated, the regulations require a centralized program where vehicle testing is separated from vehicle repair, a \$450 minimum expenditure prior to waivers, and a dynamometer test for measuring emissions. However, states may implement different programs provided they can demonstrate sufficient emission reductions and equivalent enforceability.

Under the Act, enhanced I/M programs were to have been submitted by all states on November 15, 1992. However, since federal rulemaking was so late and because most states needed new legislation, U.S. EPA accepted committal SIPs on that date instead. California made that commitment in November 1992.

The committal SIP policy was successfully challenged by the Natural Resources Defense Council (NRDC), who argued that the Act did not permit any extensions. On March 8, 1994, the U.S. Court of Appeals ruled that U.S. EPA had improperly allowed states to make enhanced I/M committals, thereby delaying compliance beyond the statutory deadline. In a supplemental order, U.S. EPA was directed to approve or disapprove all I/M submittals received to date, and to impose sanctions within 18 months of disapproval or deficiency findings.

California received a deficiency finding on its enhanced I/M submittal in December 1993, due to the lack of final implementing regulations. This deficiency must be corrected by June 1995, at the very latest, to avoid sanctions. However, there is a compelling reason to move even more expeditiously. The proposed Federal Implementation Plan (FIP) for Sacramento, South Coast and Ventura contains a federally-administered enhanced I/M program that would disrupt the improvements to California's Smog Check program that are already underway (see below, Pending Enhancements to California Program). If California does not submit final regulations before February 15, 1995, this federal I/M program could be promulgated as part of the final FIP.

The Bureau of Automotive Repair (BAR) is responsible for developing and adopting regulations to satisfy all I/M requirements. Programmatic elements affecting mechanic training and certification are already in place. Work on final regulations is underway. Once BAR completes the final I/M regulations, they will be transmitted by the Air Resources Board to U.S. EPA, as a revision to the California State Implementation Plan.

Final delivery of the comprehensive package is dependent on pilot project results (see below, The Pilot Demonstration Study) and U.S. EPA's subsequent determinations in early 1995. If necessary, additional changes will be made to BAR's proposed I/M regulations prior to submittal, so the enhanced Smog Check program fully satisfies federal requirements.

## Legislative History

In January 1994, Senate Bill 629 (Russell) was signed into law by Governor Wilson. SB 629 made several improvements to the existing decentralized Smog Check system, cracked down on fraud, and targeted gross polluting vehicles through the use of roadside remote sensing devices. The legislation was intended to satisfy federal law and regulations, while minimizing adverse socio-economic impacts on California residents and affected businesses.

By itself, SB 629 failed to convince U.S. EPA that federal requirements for an enhanced I/M program would be fully met. Negotiations between California and the federal government followed, and an agreement was struck in March 1994. The final compromise added new program elements to law, while retaining core elements of the State's program.

On March 30, 1994, Governor Wilson signed three trailer I/M bills to bring California's smog check program into compliance with EPA requirements: SB 521 (Presley), which commits the State to annually test at least 15% of all vehicles at test-only stations; AB 2018 (Katz), which calls for a pilot demonstration program to be undertaken by California and EPA to identify gross polluters and to determine which dynamometer test is most effective; and SB 198 (Kopp) establishing a vehicle repair assistance and buy-back program.

The final legislative package creates a hybrid system of test-only and test-and-repair stations in the State's serious, severe, and extreme ozone nonattainment areas. Once fully implemented, California's enhanced Smog Check program will achieve vehicle emission reductions and compliance rates that meet federal performance standards.

## Pending Enhancements to California Program

State law requires several modifications to the existing Smog Check program, beginning in January 1995. These changes are summarized below.

First, a new hybrid system of test-only and test-and-repair stations is being established in Sacramento, Fresno, Bakersfield, San Diego, Ventura, and the South Coast Air Basin. Test-only centers with the capacity to inspect 15% of vehicles subject to the program in urban areas are required. Gross polluters, tampered vehicles, and high mileage fleet vehicles such as taxi cabs will also be inspected at test-only stations. As a back-stop, additional vehicles will be required to go to test-only stations beginning in 1996 if necessary to achieve federal performance targets. State law requires loaded mode dynamometers for all inspection stations, as well as evaporative emissions testing. The Bureau of Automotive Repair is

directed to award one or more contracts for the test-only centers to each affected area by January 1, 1995.

Second, state law establishes "remote sensing" programs to detect gross polluting vehicles. A pilot project to test remote sensing equipment in this application is near completion in Sacramento (see related discussion below).

Third, fraud is being reduced and repair effectiveness is being increased through the following measures: increased enforcement and penalties, improved testing technician certification, improved repair technician training, real time computer monitoring of test stations, repair information data base and computerized diagnostic tools, and a public information program.

Fourth, state law establishes a repair and scrapping assistance program to cushion impacts on low income drivers. This will be funded by a voluntary fee of up to \$50 paid by new car buyers who will in turn, be allowed to skip one smog inspection. This is necessary because state law now sets repair limits of \$450 for most vehicles, no limits for tampered vehicles, and a one-time cost waiver for gross emitting vehicles, after which the owner pays all costs or sells the vehicles to the State under a scrappage program. The scrappage program will help to remove high polluting cars from California's roads.

## The Pilot Demonstration Study

In March 1994, the California Environmental Protection Agency (Cal/EPA) entered into a Memorandum of Agreement (MOA) with U.S. EPA. The MOA sets conditions for implementing the enhanced I/M program, executing a pilot demonstration study, and applying study results. Per agreement, California will complete its study by December 31, 1994. EPA has 45 days to review study results and make a determination on equivalency of the State's approach. Following EPA's determination, the California Bureau of Automotive Repair will adopt final I/M regulations.

A twelve member I/M Review Committee -- appointed by the Governor, the Senate Rules Committee, and the Assembly Speaker -- has been meeting regularly to review study progress. Cal/EPA, BAR and U.S. EPA staff are also working together to assure acceptance of the results of the pilot study by all parties.

There are two separate aspects to California's pilot demonstration study. The first addresses gross emitters and the effectiveness of remote sensing devices. This portion is: 1) quantifying emission reductions from remote sensing devices or alternative targeting methods designed to identify gross polluting vehicles beyond what is otherwise required by EPA; 2) designing a method to direct tagged vehicles to test-only stations; and 3) determining how many test-only facilities will be needed in each nonattainment area to meet EPA's emission reduction performance standard. The first phase of the remote sensing program began in July 1994

and was completed in September. Automated infrared smog-sensing devices were stationed along streets and freeway ramps in Sacramento to detect vehicles emitting excessively. In the next phase (which just started), 6,000 registered car owners will be randomly selected and required to report for a free smog inspection. Data gathered in this phase will be used to construct a profile of vehicles which pollute the most, based on age, make, model, and engine size.

The second aspect of the pilot demonstration study is to determine the effectiveness of alternative I/M tests compared to EPA's preferred diagnostic tool (the I/M 240 test). This element will address the relative ability of each test procedure to properly identify high emitting vehicles and to suggest appropriate repairs. This information will be used to determine what test procedure will be employed in both centralized and decentralized facilities. The vehicle testing aspect of the pilot project is expected to last through the month of October.

## Effect on Local Attainment Demonstrations

The California enhanced Smog Check program is a fundamental component of the attainment strategies for all six of the ozone nonattainment areas required to implement enhanced I/M. All six need the enhanced I/M program to comply with one or more requirements in the 1994 SIP revision.

Ventura and the South Coast would prefer a centralized I/M program despite the final, negotiated compromise between California and the federal government and regardless of the pilot demonstration study's outcome. The plans for Ventura County and South Coast contain centralized I/M as a future control measure. In essence, these Districts are asking the State Legislature to reconsider the final enhanced I/M legislation -- at least as it affects their individual nonattainment areas.

Staff recommended, and the Board concurred, that the components of these two plans calling for centralized I/M not be forwarded to U.S. EPA as a SIP revision. State law does not authorize a centralized I/M program at this time, ARB does not have the authority to override the Legislature's decision, and the Clean Air Act requires legal authorization for any emission reductions claimed in State Implementation Plans.

Setting centralized I/M aside does not affect the South Coast or Ventura attainment demonstrations. South Coast claimed no additional emission reductions from centralized I/M over the State's enhanced I/M program. Therefore, the District's policy position is not material to its attainment prospects. Ventura apparently claimed a small increment of additional ROG and NO<sub>x</sub> reductions. However, it is not clear how those calculations were done and the numbers are exceedingly small in any case. Moreover, Ventura's plan did not anticipate many of the strategies contained in ARB's mobile source and consumer products

plan. Now that these statewide strategies have been incorporated into local plans, there is no longer a gap in Ventura's attainment demonstration.

On a related front, the San Joaquin Valley is considering expanded implementation of enhanced I/M to bolster its attainment demonstration. Under the federal Clean Air Act, only the Fresno and Bakersfield urbanized areas are required to have the program. However, state law authorizes districts to expand program coverage beyond the minimum federal boundaries if they deem necessary. The Valley's adopted plan would exercise that option by expanding enhanced I/M to the Stockton and Modesto urbanized areas.

## **B. Status of The Department of Pesticide Regulation's Pesticide Control Measure**

### **Background**

Pesticides are a significant source of emissions in areas with major agricultural activity. In such districts, pesticide use accounts for 10 to 30 percent of the current stationary source emissions of volatile organic compounds (VOC). Integrated pest management practices and other voluntary actions will reduce future emissions to some degree. However, additional steps may be needed to bring pesticide emissions in line with local attainment strategies.

Four of California's ozone nonattainment areas are relying on pesticide controls to achieve the national standard: South Coast, Ventura County, the Sacramento Metropolitan Area, and the San Joaquin Valley. These districts' plans assume VOC emission reductions from pesticides on the order of 20-30%, beginning as early as 1998.

The draft Federal Implementation Plan (FIP) for Sacramento, South Coast and Ventura also includes a pesticide control measure. The U.S. EPA proposed a range of reductions, from 20-45%, as compared to the 1990 baseline. As described in the draft FIP, these reductions would be obtained by banning high VOC-content pesticides, product-by-product, until the needed reductions are achieved. As for timing, EPA has proposed a data collection process to be completed by June 1, 1996, followed by the issuance of a statewide VOC limit. Within two years of the limit's adoption, noncomplying pesticides could no longer be used in California. The U.S. EPA admits its proposed pesticide rule is crude and is encouraging the State to adopt an approvable replacement rule.

The Department of Pesticide Regulation (DPR) has the sole authority within California for regulating agricultural and structural pesticides. DPR has been at work on an up-to-date emission inventory and a suitable replacement measure, with ARB staff's assistance, since the FIP was first proposed. DPR held three public workshops on its proposed pesticide control plan on September 26 (Fresno), September 29 (Ventura) and October 6 (Sacramento). On November 4, 1994, the Department conducted a public hearing to consider its plan for reducing pesticide emissions. DPR's approach to pesticide emissions control is described in

more detail below. DPR's pesticide control plan was transmitted to U.S. EPA by the Air Resources Board as part of the November 1994 SIP submittal. The actual regulations will be submitted as a SIP revision, following final action by the Department.

## DPR Approach for Managing Pesticide Emissions

In August 1994, DPR released a draft plan for reducing emissions from agricultural and structural pesticide applications. The plan includes reevaluating the VOC content of pesticide products ("data call-in"), tracking VOC emissions related to pesticide use, and reducing pesticide VOC emissions through voluntary and mandatory measures. DPR's measures would not apply to pesticides subject to consumer product regulations as defined in Title 17 of the California Code of Regulations (sections 94507-94517), or to pesticides intended for use outside of California. The former are being addressed by the Air Resources Board as part of its consumer product program. The latter have no air quality impact in California nonattainment areas.

**Product Reevaluation ("Data Call-in"):** DPR issued a notice April 29, 1994, placing certain registered liquid formulation pesticide products into re-evaluation, requiring that registrants submit data regarding the volatility potential on each product. These data are to be submitted to the Department by April 1, 1995. A re-evaluation notice for solid pesticides will be issued in 1995. The re-evaluation will be completed by November 1995.

**Tracking Pesticide VOC Emissions:** DPR plans to use the VOC content of pesticides received from the data call-in, multiplied by the amount of each pesticide used as reported in the Pesticide Use Reports (PURs), to estimate total pesticide emissions. ARB will then re-estimate the 1990 emissions inventory baseline by backcasting 1991 PUR data to 1990.

**Voluntary Measures:** The initial part of DPR's program is to reduce pesticide emissions through a variety of voluntary actions, including improved application techniques (equipment and methods), reformulated products, the use of lower VOC pesticides where alternatives exist, the use of newer, more powerful products in very small amounts, and promoting education and information distribution regarding pesticide VOC emissions and their control.

Integrated Pest Management (IPM) is expected to further reduce pesticide emissions. IPM systems that combine biological controls, crop rotation, improved field monitoring (so applications are made only where and if needed), plant disease resistance, and expanding IPM information distribution and demonstrations, are expected to further decrease VOC emissions from pesticides.

Finally, DPR has streamlined the pesticide registration process. DPR is now doing concurrent review with the U.S. EPA to accelerate the registration of reduced risk pesticides and biologicals.



The following are examples of current, voluntary actions with the potential to significantly reduce pesticide VOC emissions:

- DPR has drafted regulations to require Pest Control Advisors to have four hours of continuing education credits in bio-intensive pest management as part of their required curriculum.
- Recent legislation has enhanced DPR's ability to direct funds for pest management research (SB 1752 (McCorquodale) and AB 3383 (Bornstein), enacted in 1994).
- DPR sponsored a workshop in the fall of 1994 to bring together parties interested in funding promotion and development of IPM. Also, information on high priority research projects identified by the DPR Pest Management Advisory Committee will be disseminated through use of the Internet.
- A reduced risk pest management strategy has been prepared by DPR and will be implemented in January 1995.

**Mandatory Measures:** To ensure California meets its goals for reducing pesticide emissions, DPR will track emission trends closely and impose mandatory measures to cover any shortfall in emission reductions. Specifically, DPR will track emissions seasonally and annually for each ozone nonattainment air district, compare actual emission reductions (calculated from VOC content and PURs) to emission reduction targets, and monitor total VOC. A backstop regulatory measure may be adopted in 1998 and will be automatically triggered if pesticide emissions fail to meet targeted reductions. DPR is evaluating alternative structures for the final regulations. Mandatory measures could be imposed annually or during the month(s) of VOC shortfalls. Some features of a product-by-product approach may also be retained, except that DPR does not want to preclude use of specific pesticides where there is no viable alternative product or integrated pest management technique.

## Relationship of DPR Pesticide Measure to FIP and SIP

As noted above, DPR's pesticide control plan was submitted to U.S. EPA in November 1994 as part of the California State Implementation Plan. If EPA acts quickly and grants conditional approval, DPR's plan could replace the proposed FIP rule immediately.

With respect to local plans and attainment demonstrations, DPR's pesticide control plan achieves somewhat lower emission reductions, and on a slightly different schedule. The district plans assume a stair-step function, with pesticide emissions increasing until some adoption year (e.g., 1998), then dropping immediately. The Department is assuming linear reductions from the 1990 emissions baseline through 2005, instead, with stable emissions thereafter. ARB staff have been working closely with local districts to ensure that DPR's plan does not jeopardize the districts' attainment demonstrations.