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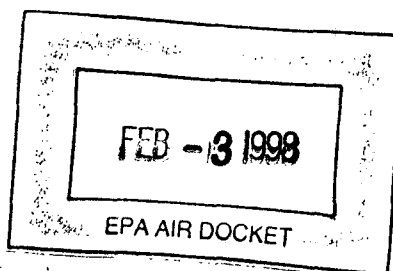
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ENVIRONMENTAL PROTECTION AGENCY

California State Motor Vehicle Pollution Control Standards; Waiver of Federal Preemption; Determination of the Administrator (OBD II Waiver)

I. Introduction

By this decision, issued under section 209(b) of the Clean Air Act, as amended ("Act") 42 U.S.C. § 7543(b), I am granting the State of California its request for a waiver of Federal preemption to enforce amendments to its motor vehicle pollution control program which establish the following: (1) new monitoring requirements covering catalyst system condition, engine misfire detection, evaporative control system operation, supplementary air system function, the exhaust gas recirculation (EGR) system flow rate, chloroflourocarbon loss, and monitoring of other components and systems controlled by the onboard engine control computer; and (2) tampering deterrence features. The standards and other requirements apply to 1994 and later model year passenger cars, light-duty trucks, and medium-duty vehicles.¹

Section 209(a) of the Act, 42 U.S.C. Section 7543(a) provides:

No State or political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle

¹ Title 13, California Code of Regulations (CCR), and the documents incorporated by reference therein: Section 1968.1 regarding on-board diagnostic system requirements for 1994 and later passenger cars, light-duty trucks, and medium-duty vehicles (OBD II).

engines subject to this part. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial sale, titling (if any), or registration of such motor vehicle, motor vehicle, or equipment.

Section 209(b)(1) of the Act requires the Administrator, after notice and an opportunity for public hearing, to waive application of the prohibitions of section 209(a) for standards adopted by the State of California if the State² determines that the standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards and if the Administrator does not find that: (A) the determination of the State is arbitrary and capricious; (B) the State does not need such State standards to meet compelling and extraordinary conditions; or © such State standards and accompanying enforcement procedures are not consistent with section 202(a) of the Act. State standards and enforcement procedures are inconsistent with section 202(a) if there is inadequate lead time to permit development of the necessary technology, given the cost of compliance within that time period, or if the Federal and California test procedures impose inconsistent certification requirements.³

Once California has been granted a waiver of Federal preemption for standards or enforcement procedures for a certain class of motor vehicles, it may adopt other conditions precedent to the initial retail sale, titling or registration of those vehicles without receiving an

² California is the only State that meets section 209(b)(1) eligibility criteria for obtaining waivers. See, e.g., Senate Report No. 403, 90th Congress, 1st Sess. 632 (1967).

³ See, e.g., 43 Fed. Reg. 32182 (July 25, 1978). To be consistent, the California certification procedures need not be identical to the Federal certification procedures. California procedures would be inconsistent, however, if manufacturers would be unable to meet both the state and the Federal requirements with the same test vehicle in the course of the same test.

additional waiver of Federal preemption.⁴

With regard to enforcement procedures accompanying standards, I must grant the requested waiver unless I find that these procedures may cause the California standards, in the aggregate, to be less protective of public health and welfare than the applicable Federal standard promulgated pursuant to section 202(a), or unless the California and Federal certification test procedures are inconsistent.⁵

If California acts to amend a previously waived standard or accompanying enforcement procedure, the amendment may be considered within the scope of a previously granted waiver, provided that it does not affect California's determination that its standards are as protective of the public health and welfare as comparable Federal standards, raises no new issues regarding previous EPA waiver decisions and is not inconsistent with section 202(a) of the Act.

By letter dated June 14, 1995, the California Air Resources Board (CARB) requested that the Administrator grant a waiver of Federal preemption for the amendments to its motor vehicle pollution control program that establish new monitoring requirements for on-board diagnostics (OBD) for 1994 and later Passenger Cars, Light-Duty Trucks (LDT), and Medium Duty Vehicles

⁴ See 43 FR 36679, 36680 (August 18, 1978).

⁵ See, e.g., Motor and Equipment Manufacturers Association, Inc. v. EPA (MEMA), 627 F.2d 1095, 1111-1114 (D.C. Cir. 1979), cert. denied, 446 U.S. 952 (1980); 43 Fed. Reg. 25729 (June 14, 1978).

While inconsistency with section 202(a) includes technological infeasibility, lead time, and cost, these aspects are typically relevant only with regards to standards. The aspect of consistency with 202(a) which is of primary applicability to enforcement procedures (especially test procedures) is test procedure consistency.

(MDV)⁶. On August 11, 1995, the Environmental Protection Agency (EPA) published a Notice of Opportunity for Public Hearing and request for comments regarding this waiver request.⁷ EPA received four requests for a hearing,⁸ and the hearing was held on October 17, 1995.⁹ The public comment period closed on December 1, 1995.

Subsequent to the close of the public comment period, EPA continued to receive comments from CARB, MEMA, AAMA, a jointly submitted comment from AAMA and AIAM, General Motors (GM), Ford Motor Company (Ford), and Chrysler. EPA also met individually with GM, Ford, and Chrysler. To ensure all other parties interested in this proceeding remained fully informed of the new information which could have a bearing on the Agency's review of the waiver request, all documents received from CARB and the industry parties were placed in the public record¹⁰ unless they contained information submitted under a claim of business confidentiality (also referred to as Confidential Business Information or CBI), as the Agency's

⁶ Docket entry II-A-34.

⁷ 60 Fed. Reg. 41066 (August 11, 1995).

⁸ See Docket entries II-B-1 through II-B-4.

⁹ The transcript of this hearing is filed in the Docket at IV-A-01.

It should be noted that the public comment period closed on December 1, 1995. Although AAMA choose to submit an additional round of comments more than three months after the close of the public comment and both CARB and AAMA continued to submit comments thereafter, EPA, to the extent possible, continued to review these submissions. Although EPA continued to review and address those comments submitted after the close of the public comment period there appears to be no reason why commenters could not have submitted most, if not all, information before the comment period closed. Additionally, as noted in docket entry IV-C-1, by July 1996 EPA was in the final stages of writing its decision regarding the current waiver, and EPA concludes that no comments submitted thereafter were significantly different in nature from prior submittals. Nor did any subsequent comments provide further information to persuade EPA that the party had met the burden of a party opposing a waiver.

regulations define this term.¹¹

On the basis of the record before me, I cannot make the findings required for a denial of a waiver under section 209(b)(1) of the Act and applicable case law with respect to the amendments to California's motor vehicle pollution control program. Therefore, EPA is granting to the State of California a waiver of Federal preemption for these amendments.

II. Background

In a letter dated August 24, 1990,¹² the California Air Resources Board ("CARB")

¹¹ EPA's regulations, at 40 C.F.R. § 2.201 (f) state:

Reasons of business confidentiality include the concept of trade secrets and other related legal concepts which give (or may give) a business the right to preserve the confidentiality of business information and to limit its use or disclosure by others in order that the business may obtain or retain business advantages it derives from its rights in the information. The definition is meant to encompass any concept which authorizes a Federal agency to withhold business information under 5 U.S.C. § 552(b)(4), as well as any concept which requires EPA to withhold information from the public under 18 U.S.C. § 1905 or any of the various statutes cited in § 2.301 through § 2.309.

In an effort to ensure as much information as possible was placed in the public docket of this proceeding, EPA requested that all persons who chose to submit CBI as part of their comments also submit for the public docket a non-confidential version of the CBI which summarizes the key data or information. This request was complied with by those persons who had submitted CBI.

EPA has reviewed GM, Ford, and Chrysler's CBI submissions and, while they contained information relevant to this proceeding, EPA has determined that the information contained only in the CBI submissions would not affect the conclusions reached in this waiver decision. EPA further notes that, as discussed more fully below, the burden of proof in this proceeding lies on the opponents to the grant of this waiver. A corollary of that is that the consequences of failing to present information to the agency in such a way that it can be relied upon in a final decision (i.e., in a public form that is available in the docket) rest upon them as well.

¹² See Letter from James D. Boyd, Executive Officer, CARB, to William K. Reilly, Administrator, EPA, dated August 24, 1990.

notified EPA that on September 14, 1989, it adopted Section 1968.1, Title 13, California Code of Regulations ("CCR") regarding on-board diagnostic system requirements for 1994 and later passenger cars, light-duty trucks, and medium-duty vehicles with feedback fuel control systems ("OBD II"). In this letter, CARB requested that EPA make a determination that the new amendment falls within the scope of previous section 209(b) waivers. CARB based its request on the facts that EPA has previously granted section 209 waivers to CARB for the underlying emission standards¹³ pertaining to these classes of vehicles and that CARB's earlier regulation requiring onboard malfunction and diagnostic systems ("OBD I") was found to be within the scope of previous waivers of Federal preemption.¹⁴ This request was withdrawn pending a September 1991 CARB hearing. In a letter dated September 15, 1992 CARB resubmitted its request that EPA make a within the scope waiver determination.¹⁵ In a letter dated September 14, 1993¹⁶ CARB notified EPA that it had adopted additional amendments to the OBD II regulations and requested that the September 15, 1992 letter be superseded by the September 14, 1993 letter and that a full waiver be granted for its accompanying enforcement procedures. Subsequently, in a letter dated February 4, 1994¹⁷, CARB requested that EPA postpone any

¹³ 42 Fed. Reg. 31637 (June 22, 1977); 43 Fed. Reg. 998 (January 5, 1978); 43 Fed. Reg. 1829 (January 12, 1978); 43 Fed. Reg. 15490 (April 13, 1978); 43 Fed. Reg. 25729 (June 14, 1978); 46 Fed. Reg. 36237 (July 14, 1981); 47 Fed. Reg. 1015 (January 8, 1982); and 49 Fed. Reg. 18887 (May 5, 1984).

¹⁴ 51 Fed. Reg. 22858 (June 23, 1986). See also 43 Fed. Reg. 32182 (July 25, 1978); 45 Fed. Reg. 54132 (August 14, 1980).

¹⁵ Docket entry I-A-15.

¹⁶ Docket entry I-A-21.

¹⁷ Docket entry I-A-31.

hearing to consider CARB's OBD II waiver request until August 1994, and in a letter dated July 21, 1994¹⁸, CARB notified EPA that it was planning to propose modifications to its OBD II regulations to address both concerns of vehicle manufacturers and developments in technology. The latter letter also requested that EPA not hold a waiver hearing until March 1995.

In a letter dated June 14, 1995¹⁹, (waiver request) CARB notified EPA that on December 8, 1994, the Board approved amendments that: removed the requirement for independent evaluation of front catalyst efficiency on Low Emission Vehicle (LEV) applications and instead required an overall catalyst system evaluation, modified the engine misfire monitor requirements, and required a more stringent monitoring strategy to detect evaporative system leaks, and provided relief to manufacturers with "deficiencies", among other provisions. The OBD II regulation is discussed in detail below.

A. The OBD II Regulation

A vehicle on-board diagnostics (OBD) system is a computer-based system incorporated into a vehicle's electronics system to monitor emission-related components for proper operation and warn the vehicle operator when a malfunction occurs. When malfunctions are detected, a malfunction indicator light ("MIL") illuminates on the instrument panel and a trouble code is stored in the computer memory identifying the system in which the fault has occurred.

CARB's waiver request lists several ways in which OBD II benefits air quality. First, it monitors emission-related components under actual driving conditions. This permits the

¹⁸ Docket entry I-A-33.

¹⁹ Docket entry II-A-34.

immediate identification of malfunctions that are not obvious to the driver and that are difficult to detect with visual checks or conventional test equipment that operate when the vehicle is stationary. Second, OBD II would permit the State Inspection and Maintenance (I/M) Program to reduce or eliminate underhood and tailpipe inspection and replace them with a check of the on-board computer for the presence of OBD II detected malfunctions. Third, CARB states that OBD II will result in more efficient and accurate repairs. By allowing a repair person to access the trouble code, thus identifying the cause of the problem, the likelihood that the repair will be made correctly the first time is increased. CARB believes OBD II facilitates both detection and repair of malfunctioning emission control system components, resulting in lower in-use emissions.

CARB's waiver request stated that OBD II encourages manufacturers to build more durable emission-related components as manufacturers believe that vehicle owners consider an illuminated MIL to be inconvenient and bothersome. In order to prevent owner dissatisfaction, manufacturers want to prevent MIL illumination. This is expected to provide an incentive for manufacturers to design emission components of sufficient durability to prevent frequent MIL illumination. EPA has itself promulgated regulations requiring OBD systems on federally certified vehicles. EPA's regulations are similar, but not the same as, CARB's regulations.²⁰

History

In 1985, CARB approved OBD I, which required monitoring of specified emission control components on all 1988 and later passenger cars, light-duty trucks, and medium-duty

²⁰ 58 Fed. Reg. 9468 (February 19, 1993).

vehicles equipped with three-way catalysts and feedback control systems. Although OBD I required the monitoring of a number of critical emission components and systems such as the exhaust gas recirculation ("EGR") system, fuel metering system and the oxygen sensor, the performance of other emission-related components and systems such as catalysts, engine misfire, and the evaporative emission control system were not included among those to be monitored under OBD I because of uncertainty regarding the technological feasibility of monitoring those systems in 1985.

Since the adoption of OBD I, CARB, working with EPA, the vehicle manufacturers, component suppliers, and other technical experts, has determined that it is now feasible to monitor additional emission-related components. OBD II applies to the same vehicle categories as OBD I but it eliminates the three-way catalyst and feedback control limitations thereby expanding OBD requirements to diesel fueled and alternative fueled vehicles, and diesel light-duty and medium-duty vehicles. The goal of OBD II is to monitor emission-related components and systems described below.

B. New Monitoring Requirements

1. Catalyst System

Excess emissions from vehicles with deteriorated catalysts adversely affect air quality. OBD II requires that the catalysts (except bypass catalysts) be monitored in such a way that a malfunction indication is given when catalyst conversion decreases to the point that hydrocarbon (HC) emissions increase above specific emission thresholds or, for LEV program vehicles, the federal test procedure (FTP) conversion efficiency of the monitored portion of the catalyst system drops below fifty percent. CARB's December 8, 1994 amendments added the emission

threshold portion of the catalyst monitor malfunction criteria for LEV program vehicles. Prior to that time, the malfunction criteria for LEV program vehicles had been solely based on conversion efficiency of monitored catalysts. The amendments require the manufacturer to monitor the catalyst system so that malfunctions are indicated before tailpipe emissions exceed 1.5 times the HC standard plus the 4000 mile HC emission level for non-LEVs, 2.0 times the HC standard plus the 4000 mile HC emission level for TLEVs, and 2.5 times the HC standard plus the 4000 mile HC emission level for LEVs. Additionally, the 1994 amendments require that, beginning with the 1998 model year, manufacturers begin phasing in LEV program vehicles meeting a new catalyst malfunction criterion based on an emission threshold of 1.5 times the HC standard, without inclusion of the 4000 mile emission level. As a result of the 1994 amendments manufacturers will be subject to a phase-in schedule that would require that 30 percent of a manufacturer's projected LEV sales for the 1998 model year comply with the new catalyst requirements (i.e., malfunction criteria of 1.5 times the HC standard, or monitored catalyst efficiency falling below 50 percent conversion); 60 percent in the 1999 model year; and 100 percent in the 2000 model year.

2. Engine Misfire

Engine misfire occurs when one or more cylinders fails to fire, causing raw fuel and or excess air to be emitted into the exhaust stream. Misfire will occur when there is 1) an abnormal fuel supply (due to faulty injectors or intake system vacuum leaks); 2) inadequate ignition spark; and/or 3) inadequate compression. Since these three general failure mechanisms account for a large variety of critical engine component failures, misfire detection plays a key role in an effective OBD monitoring system. If the degree or duration of engine misfire is severe, catalyst

failure due to overheating is likely. Moreover, CARB indicates that a small amount of misfire (even an amount which could go unnoticed by an average driver) has been found to cause a vehicle to exceed emission standards by a factor of three or more. In order to minimize both damage to the catalyst system and excess emissions, CARB has identified three malfunction criteria associated with engine misfire: the degree of misfire sufficient to (1) cause a vehicle to fail an I/M test, (2) cause a vehicle to marginally exceed emission standards, or (3) cause catalyst damage. Manufacturers will be required to provide a system that illuminates the MIL upon the occurrence of any of these levels of engine misfire. The OBD system, for purposes of model years 1994 through 1996, would require misfire detection during operating conditions within the scope of a Federal Test Procedure test. Commencing in model year 1997 CARB determined that manufacturers should be able to certify a significant percentage of vehicles with misfire detection systems that operate over almost the full speed and engine load operating range. Manufacturers would be allowed to disable the monitoring system at engine speeds above 3000 revolutions per minute with very light engine load. The OBD II regulation provides for a phase-in schedule for the "full speed" misfire detection capability of 50 percent of manufacturer's projected sales volume in the 1997 model year; 75 percent in the 1998 model year; 90 percent in the 1999 model year; and 100 percent in the 2000 model year.

3. Evaporative System Leak Detection

Vehicles are equipped with evaporative emission control systems to prevent the release of evaporative vapors into the atmosphere. These systems are designed to collect and store the harmful hydrocarbon vapors in a charcoal canister and then, under certain operating conditions, the collected hydrocarbon vapors are purged from the canister and burned with the air/fuel

mixture. Evaporative control systems are subject to a variety of malfunctions including deteriorated hoses, inoperative purge valves, damaged canisters, and misrouted hoses. Thus, OBD II requires that evaporative control systems be monitored to identify malfunctions which could result in an increase in evaporative emissions. For model years 1996 through 1999, vehicles certified to the enhanced evaporative emission test procedure must employ a monitoring strategy to detect evaporative system leaks as small as .040 inches in diameter. Commencing in model year 2000 a more stringent monitoring strategy to detect system leaks as small as .020 inches in diameter is phased-in on the following schedule: 50 percent of a manufacturer's projected sales volume must meet the .020 inch leak detection requirement in 2000 model year; 75 percent in the 2001 model year; and 100 percent in the 2002 model year.

4. Secondary Air System

Supplemental air systems are used to reduce emissions primarily during cold-start and warm-up operation by injecting air into the exhaust stream, improving the oxidation of hydrocarbons and carbon monoxide. These systems are subject to deterioration due to corrosion of air distribution tubes and check valves, missing air pump belts, and inoperative air switching valves. OBD II requires that the supplemental air system be monitored so that deterioration may be detected.

5. Chlorofluorocarbon (CFC)

CFCs, refrigerants used in vehicle air conditioning systems, have been discovered to destroy ozone in the stratosphere and to contribute to global warming. As these systems can lose CFC with no overt symptoms, manufacturers will be required to provide a system which indicates when significant loss is occurring. CARB's primary intent is to insure that if viable

CFC substitutes are not available by the mid-1990's, or if manufacturers choose not to use CFC substitutes, a monitoring scheme is in place that will reduce CFC losses from mobile air conditioning systems. Manufacturers that phase out the use of CFCs by the 1996 model year would not be required to monitor the refrigerant.

C. Correction of Deficiencies in OBD I

OBD II requires changes to OBD I to increase the effectiveness of the monitoring systems included in OBD I and includes the following.

1. Fuel System

Deterioration and malfunction of fuel system components were difficult for OBD I monitoring systems to detect until deterioration reached a level that caused substantial emissions increases. Fuel systems have an "adaptive shift" that adjusts their base calibration in order to maintain the ideal fuel-air mixture. When certain emission control components reach a high level of deterioration, the normal operating limits of the adaptive shift are exceeded. Although OBD I systems provide a signal when the adaptive memory is outside the expected range of operation, current OBD I systems do not signal all situations in which an out-of-specification component may cause elevated emissions. For example, some level of deterioration of components such as throttle position sensor, fuel pressure regulator, and coolant temperature sensor would not be detectable until emissions were extremely high. OBD II requires the MIL to illuminate at lower levels of deterioration, resulting in the repair of the vehicles at lower levels.

2. Oxygen Sensor

Although OBD I included oxygen sensor monitoring, many systems indicate a malfunction only after the sensor has completely failed and is unable to provide any feedback to

the fuel system regarding exhaust gas composition. OBD II requires that the oxygen sensor be monitored not only for presence of an electronic signal, but also for proper output voltages and adequate response rates (i.e., the time required for the oxygen sensor to change from a lean to a rich reading upon exposure to a rich air-fuel mixture, or the time required to change from a rich to a lean reading upon exposure to a lean air-fuel mixture). OBD II also requires that any oxygen sensor used for monitoring other emission control systems (e.g., the oxygen sensor placed downstream of the catalyst for catalyst monitoring) be monitored for proper output voltages and adequate response rates.

III. Preliminary Issues

A. Standard of Proof

In Motor and Equipment Manufacturers Assn. v. EPA, 627 F.2d 1095 (D.C. Cir. 1979) (“MEMA I or MEMA”), the U.S. Court of Appeals for the District of Columbia set out the role of the Administrator in a section 209(b) proceeding. This role is to:

[C]onsider all evidence that passes the threshold test of materiality and ... thereafter assess such material evidence against a standard of proof to determine whether the parties favoring a denial of the waiver have shown that the factual circumstances exist in which Congress intended denial of the waiver.²¹

The court in MEMA I considered the standards of proof under section 209(b) for the two findings necessary to grant a waiver for an “accompanying enforcement procedure”: the “protectiveness in the aggregate” and “consistency with section 202(a)” findings. The court instructed:

The standard of proof must take account of the nature of the risk of error involved in any

²¹ MEMA I at 1122.

given decision, and it therefore varies with the finding involved. We need not decide how this standard operates in every waiver decision.²²

The court upheld the Administrator's finding that to deny a waiver for an accompanying procedure "there must be clear and convincing evidence to show that the proposed procedures undermine the protectiveness of California's standards." The court noted that this standard of proof "also accords with the Congressional intent to provide California with the broadest possible discretion in setting regulations it finds protective of the public health and welfare"²³

With respect to the "consistency with section 202(a)" finding, the court did not articulate a standard of proof applicable to all proceedings, but found that the opponents of the waiver were unable to meet their burden of proof even if the standard were a mere preponderance of the evidence.²⁴ Although MEMA I did not explicitly consider the standard of proof under section 209 in connection with a waiver request for "standards," there is nothing in the opinion to suggest that the court's analysis would not apply with equal force to such determinations. EPA's past waiver decisions have consistently made clear that:

Even in the two areas concededly reserved for Federal judgment by this legislation - existence of "compelling and extraordinary" conditions and whether the standards are technologically feasible - Congress intended that the standard of EPA review of the State decision be a narrow one.²⁵

Congress's intent that EPA's review of California's decision making be narrow has led EPA in the past to reject arguments, whatever their apparent appeal, that are not specified as

²² Id.

²³ Id.

²⁴ Id. at 1122-23.

²⁵ 40 Fed. Reg. 23102, 23103 (May 28, 1975).

grounds for denying a waiver:

The law makes clear that the waiver requests cannot be denied unless the specific findings designated in the statute can properly be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209, so long as the California requirement is consistent with section 202(a) and is more stringent than applicable Federal requirements in the sense that it may result in some further reduction in air pollution in California.²⁶

Thus, my consideration of all the evidence submitted in connection with this waiver decision is circumscribed by its relevance to those questions which I may consider under section 209.

Finally, it is important to remember that the burden of proof is squarely upon the opponents of the waiver:

The language of the statute and its legislative history indicate that California's regulations, and California's determination that they comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them. California must present its regulations and findings at the hearing, and thereafter the parties opposing the waiver request bear the burden of persuading the Administrator that the waiver request should be denied.²⁷

With respect to the burden of proof, AAMA states that the burden of persuading the Administrator that the State's waiver request should be denied rests on the opponents of the

²⁶ 36 Fed. Reg. 17458 (August 31, 1971). Note that the "more stringent" standard expressed here, in 1971, was superseded by the 1977 amendments to section 209, which established that the California standards must be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.

See also, MEMA I, 627 F.2d at 1116-1117 (holding that EPA properly declined to consider the alleged anticompetitive effect of California's in-use maintenance regulations).

²⁷ MEMA I, 627 F.2d at 1121.

request.²⁸ Nevertheless, AAMA continues and states: “the statutory scheme requires the State initially come forward with a reasoned determination.” To support this contention AAMA cites MEMA I at 1123 with the accompanying parenthetical “discussing the shift to the decision-maker of the burden of reasonable action even though a party has the burden of proof.”²⁹ (Emphasis added).

CARB states that AAMA has misstated case law interpreting the waiver process, and that the burden of proof clearly lies with the parties challenging the waiver request, and that “the California regulations and determinations ‘are presumed to satisfy the waiver requirements.’”³⁰

Based on the case law, including MEMA I,³¹ and the legislative and procedural precedent, EPA finds that California is only required to submit a determination that it has complied with the waiver criteria, along with its regulation, and thereafter it is presumed that California has satisfied the waiver requirements and that the burden of proving otherwise falls upon those opposed to the granting of a waiver. It is unclear from AAMA’s comment whether it claims: (1) that AAMA has submitted sufficient evidence to “shift” the burden to California to prove that a waiver should be granted, or (2) that California has failed to initially submit a reasoned determination and thus a waiver should not be granted. Regardless, EPA finds that CARB has certainly met its initial obligation of submitting to the Administrator its OBD II regulation and its determination that it meets the requirements for a waiver. In fact, CARB’s waiver request letter

²⁸ Docket entry IV-B-2 at 4.

²⁹ Id.

³⁰ Docket entry IV-B-6 at 2.

³¹ MEMA I, 627 F.2d at 1121.

to EPA dated June 14, 1995, including references to earlier submittals, provides detailed reasoning for its determination of compliance with the waiver criteria. The issue of whether the burden of proof must be shifted from those opposing the waiver back to California will be considered under the general waiver criteria considered below.

B. Should CARB's OBD II requirements be considered a standard or an accompanying enforcement procedure?

If CARB's OBD II regulations are considered accompanying enforcement procedures then the requisite findings for a waiver are different than if the OBD II regulations are considered a standard. As noted above, the waiver criteria for standards under a full waiver include: whether California's determination that its standards will be, in the aggregate, at least as protective of public health and welfare as applicable federal standards is arbitrary and capricious; whether California needs such standards to meet compelling and extraordinary conditions; and, whether California's standards are consistent with section 202(a). The waiver criteria for accompanying enforcement procedures³², on the other hand, include: whether the enforcement procedures are "so lax" that they threaten the validity of California's determination that its standards are as protective as applicable federal standards; and, whether the procedures are consistent with section 202(a).³³

³² Accompanying enforcement procedures are mentioned only in the consistency with section 202(a) criterion, section 209(b)(1)(C).

³³ The court in MEMA I at 1114 states: "We accordingly hold that when considering a request for a waiver of in-use maintenance regulations pertaining to standards for which a waiver has already been granted the Administrator is not required to consider whether California reasonably determined that the regulations themselves are as protective of public health and welfare as applicable federal standards or whether the regulations themselves are needed to meet

In CARB's initial waiver request³⁴ CARB requested that EPA grant a within the scope waiver. In CARB's first revised waiver request submission³⁵ CARB requested that EPA find the OBD II regulations to be within the scope of existing waivers.³⁶ In CARB's second revised waiver request³⁷ CARB requested that EPA grant a "full waiver" for what CARB deemed accompanying enforcement procedures (AEPs). AEPs are criteria designed to determine compliance with applicable numerical standards.³⁸ In CARB's latest waiver request³⁹ CARB seeks a "full" or new waiver for what CARB still deems to be AEPs. Within the latest request CARB also states that a waiver should be granted even if it is determined that the OBD II regulations are standards.

AAMA states that the requirements for OBD systems are emission control standards under section 202 of the Act. AAMA notes that Congress' inclusion of the OBD requirements in the emission standards section of the Act (section 202) is a clear indication of its intent that OBD

compelling and extraordinary conditions in California."

³⁴ CARB Waiver Request, dated August 24, 1990, docket entry I-A-01 (hereinafter "initial waiver request"). CARB withdrew this request on August 27, 1991.

³⁵ CARB Waiver Request, dated September 15, 1992, docket entry I-A-15 (hereinafter "first revised request"). CARB withdrew this request.

³⁶ EPA may consider a CARB waiver request to be "within the scope" if CARB's regulations are minor amendments to previously waived standards or accompanying enforcement procedures.

³⁷ CARB Waiver Request, dated September 14, 1993, docket entry I-A-21 (hereinafter "second revised request"). CARB withdrew this request.

³⁸ MEMA I at 1111.

³⁹ CARB Waiver Request, dated June 14, 1995, docket entry I-A-34 (hereinafter "waiver request").

is to be considered an emission control standard.⁴⁰ AAMA points to the relationship between sections 202(a) and 202(m) (202(m) directs the Administrator to promulgate OBD “regulations under subsection (a)”) for further evidence that OBD should be treated as a standard. AAMA states that EPA itself has recognized that OBD requirements are OBD standards; EPA has referred to the federal and California OBD regulations as being requirements for which vehicles are certified, and, as AAMA points out, vehicles are certified to applicable standards, not to enforcement procedures.⁴¹ MEMA also states this position: Further, not only does the California OBD system *set* a new standard for permissible vehicle emissions, the rule *is itself* a standard which requires a complete waiver analysis. The OBD system is mandated equipment without which a new vehicle cannot be certified in California.⁴² Both AAMA and MEMA state that CARB’s requirement that the OBD system illuminate a malfunction indicator light (“MIL”) or store a fault code when vehicle emissions exceed one and one-half (1.5) the existing emissions standard establishes a new standard. Therefore, OBD II, according to both MEMA and AAMA, is not simply an enforcement provision as California classifies it, but is a “standard relating to the control of emissions for new motor vehicles” within the meaning of section 209.⁴³

CARB, both in its waiver request⁴⁴ and in its written comments, maintains the OBD II

⁴⁰ Docket entry IV-B-2 at 2 (Section 202 is specifically titled “Emission standards for new motor vehicle engines”).

⁴¹ *Id.* at 2-3.

⁴² Docket entry IV-A-4 at 4.

⁴³ Docket entry IV-B-2 at 4 and docket entry IV-B-5 at 4.

⁴⁴ Docket entry II-A-34 at 7.

requirements are enforcement procedures. CARB's belief is based on its assertion that the 1.5 times the applicable pollutant standard is a threshold measurement to determine in-use compliance of a certified vehicle. Therefore, according to CARB, the OBD II regulation does not create new emission standards for certification. CARB analogizes the OBD II requirements to the in-use maintenance requirements that were the subject of MEMA I and that OBD II is designed to determine compliance with the applicable standards throughout the motor vehicle's life. CARB acknowledges that the OBD II emission threshold parameters based on 1.5 times pollutant standards are quantitative numbers but states that such parameters are really no different from emission parameters or design tolerances used to determine whether emission parts and components have deteriorated or failed under applicable warranty and recall provisions.

EPA agrees with both AAMA and MEMA that CARB's OBD II regulation should be treated as a standard under section 209 and that all waiver criteria under section 209(b) must be met in order for California to receive a waiver within the current waiver determination. EPA believes that the classification of CARB's OBD II requirements as a standard for purposes of section 209 is consistent with statutory language, case law, and with past waiver practice.

The Agency's distinction between standards and accompanying enforcement procedures under section 209 was previously upheld by the U.S. Court for the District of Columbia Circuit in MEMA I, which found that the Administrator correctly classified California's in-use maintenance regulations as "accompanying enforcement procedures" rather than as "standards." In finding that the word "standard" means only a numerical value setting the quantitative level of permitted emissions of pollutants by a new motor vehicle, the court stated:

Petitioner's definition would eliminate the concept of enforcement regulations as

something distinct from a standard. As noted, subsection (b) refers to 'standard' and to 'accompanying enforcement procedures.' Subsection (a) provides that no state shall adopt or attempt to enforce standards.' These references to effort at enforcement would have been unnecessary if Congress intended that "standards" meant any regulation relating to motor vehicle emissions control. [Emphasis added.]⁴⁵

Accompanying enforcement procedures, on the other hand, are procedures to ensure that the standards accomplish the levels of emissions they seek or are criteria designed to determine compliance with applicable standards.⁴⁶

EPA's general authority to set standards for new vehicles is found at section 202. Section 206 and 207 address EPA's authority to test and certify vehicles as meeting such standards and to determine compliance of vehicles in actual use. EPA agrees with AAMA's assertion that Congress' intent was clear when it placed the federal OBD requirements within section 202.⁴⁷ Indeed, the heading for section 202 is "Establishment of Standards." Moreover, subsection 202(m) specifically states that federal OBD requirements shall be promulgated "under subsection [202](a)." Subsection 202(a) specifically refers to EPA promulgation of "standards."

OBD requirements are indeed somewhat distinct from the type of standards promulgated by CARB and EPA, and contemplated by the court, at the time of the MEMA I decision. They also do not resemble typical enforcement procedures used at that time. However, OBD

⁴⁵ MEMA I, at 1112.

⁴⁶ Id. at 1113.

⁴⁷ It should be noted that when EPA granted California a within-the-scope waiver for its OBD I regulations in 1986 (51 Fed. Reg. 22858 (June 23, 1986)) the OBD standard found at section 202(m) (added in the 1990 amendments to the Act) was not yet in place, nor did the question of whether the OBD I regulations were standards or accompanying enforcement procedures receive significant comment during that proceeding.

requirements appear to be closer in their application and effect to standards than to enforcement procedures: they establish specific levels of emissions that beyond which the MIL must be illuminated and fault codes be stored; they create direct requirements on the manner in which manufacturers build their vehicles; the OBD II requirements set forth how a vehicle must operate at time of certification and in use, and not how the state would ensure that the vehicle is operating properly as is typical of an accompanying enforcement procedure. The fact that an OBD II system must illuminate a MIL when emissions exceed a certain numerical level different from the emission level the car is otherwise subject to does indeed set an additional numerical emission threshold that the car must be designed to meet at the time of certification. For the above reasons, EPA believes that the OBD II requirements are indeed a standard.

C. Timing of Waiver Request

MEMA claims that EPA should deny the waiver because, according to MEMA, California has enforced its regulations in violation of section 209(a).⁴⁸ However, even presuming for the sake of argument that MEMA could prove its allegation, MEMA fails to provide any legal analysis regarding why a past violation of section 209(a) would have any impact on EPA's determination of whether a waiver should be granted under section 209(b). In fact, granting of such a waiver where the requirements of section 209 are met is the appropriate way to cure such a violation. EPA's determination of whether a waiver is appropriate is based solely on the three criteria of section 209(b). Therefore, any allegation of a violation of section 209(a) is not relevant to this determination.

Docket entry IV-A-4 at 1-4.

MEMA also claims that EPA is required to enforce the preemption of section 209(a). Though this issue is not relevant to its determination under section 209(b), EPA notes that nothing in section 209 or any other part of the Act provides EPA with a nondiscretionary duty to take enforcement actions for alleged violations of section 209(a).

IV. DISCUSSION

A. Public Health and Welfare

Under section 209(b)(1)(A) of the Act, I cannot grant a waiver if I find that CARB was arbitrary and capricious in its determination that its State standards are, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. CARB has made a determination that the adoption of the amendments referenced above "will not cause the California emission standards, in the aggregate, to be less protective of public health and welfare than applicable Federal standards."⁴⁹ According to CARB:

The Board adopted the OBD II regulations because they significantly achieve more stringent emission reduction than the present California OBD I regulations. The Board determined that the OBD regulations will achieve emission reductions by the year 2010 of 125 tons per day of hydrocarbons, 125 tons per day of oxides of nitrogen, and 2000 tons per day of carbon monoxide. The new California requirements are also more stringent than the recently promulgated federal on-board diagnostic regulation, both with respect to the scope of emission-related components and systems for which an on-board evaluation of performance is required, and the level of performance at which a malfunction is to be indicated by diagnostic systems.⁵⁰ Concerning the scope of component monitoring, the federal OBD requirements specifically call for the monitoring of only the catalyst, the presence of engine misfire, the oxygen sensor and the evaporative system. Other systems or components need only be monitored if by malfunctioning, vehicle emissions would increase by 0.2 grams per mile (g/mi) for Hydrocarbons (HC),

⁴⁹ CARB Resolution 91-42, dated September 12, 1993, and CARB Resolution 94-67, dated December 8, 1994.

⁵⁰ Docket entry I-A-21 at 3-4.

1.7 g/mi for Carbon Monoxide (CO), or 0.5 g/mi for Oxides of Nitrogen (NO_x). Therefore, for at least some manufacturers, even emission control devices such as EGR or secondary air systems would not have to be monitored. The ARB has received data from a number of manufacturers indicating that while complete failure of these systems would cause emissions to increase, the increase would not exceed the above specified thresholds. In contrast, OBD II requirements call for monitoring of all components which, upon deterioration or failure, cause a measurable increase in emissions.⁵¹ The OBD II regulations states that in general a malfunction is to be indicated before emissions exceed 1.5 times any of the standards the vehicle is certified to, or when a component or system is completely non-functioning, whichever occurs first. Therefore, permissible emission increases are a function of the standards the vehicle is certified to. Under the federal OBD requirements, a malfunction is to be indicated when vehicle emissions increase by a fixed amount. The gram per mile increase permitted depends on the component or system being monitored. For vehicles certified to California standards identical to the federal Tier 1 standards (0.25 g/mi HC, 3.4 g/mi CO, 0.4 g/mi NO_x), vehicle emission levels should not be significantly different at the time a malfunction is indicated based on the OBD requirements being met, whether OBD II or the federal requirements (assuming the component would be monitored under the federal requirements). However, as vehicle emission standards drop under California's low emission vehicle regulations, the fact that the OBD II regulation requires malfunction determinations relative to the standards causes California's OBD requirements to be more stringent than the EPA's.⁵²

CARB further states:

The most recent amendments [CARB's December 1994 amendments] do not affect the comparable stringency of the OBD II regulations. Although the amendments provide some compliance relief to manufacturers for meeting the catalyst requirements for LEVs and for misfire monitoring, the OBD II requirements continue to be more stringent than the federal regulations. With respect to monitoring catalyst system performance, the OBD II emission thresholds for the Malfunction Indicator Light (MIL illumination on LEVs are significantly lower than the .6 grams per mile permitted under the federal regulations (by a factor as great as 10 on Ultra-LEVs (ULEV)). For non-LEVs (i.e., vehicles meeting the federal tier one standards, or California's equivalent), the emission threshold is purposefully comparable to that specified in the federal regulations. Regarding misfire detection, the OBD II regulations continue to require that the MIL be illuminated to indicate misfire detection when emissions caused by misfire cause emissions to increase by more than 1.5 times the applicable standard, which is more

Id. at 4.

Id. at 4-5.

stringent with respect to all current emission standards than the federal OBD emission thresholds (0.4 g/mi HC, 3.4 g/mi CO and 1.0 g/mi NOx). Further, the OBD II regulation requires misfire detection over a greater engine operating range than does the federal requirements. In addition, the OBD II regulations, as amended, have been made more stringent by requiring, commencing in the model year 2000, that monitoring systems detect evaporative system leaks as small as 0.02 inches in diameter. The federal regulations presently provide for MIL illumination when emission equal or exceed the emissions that would escape from a hole of 0.04 inches in diameter.⁵³ ... Finally, although the amendments provide manufacturers with additional flexibility in certifying non-fully compliant systems in the 1996-2000 model years, the amendments do not provide for such a significant relaxation of standards that the California regulations are no longer as stringent as the federal regulations.⁵⁴

Commenters representing certain members within the aftermarket parts industry disagreed with the protectiveness determination made by CARB. MEMA states that CARB's standards for OBD systems cannot be as protective of the public health and welfare as the federal standards since CARB's standards are not written in accordance with Congressional intent to protect the competitive balance in the vehicle manufacturing and servicing industry. MEMA suggests that MEMA I should not constrain EPA. Rather, the "public welfare" requires consideration beyond the environment, especially since Congress specifically acted to ensure aftermarket competitiveness. Additionally, MEMA states that CARB's protectiveness determination is arbitrary and capricious because it failed to consider the consistency of OBD II with federal laws beyond the Clean Air Act, specifically the Semiconductor Chip Protection Act (SCPA).⁵⁵ MEMA states that the right to reverse engineer chip designs as expressed in the SCPA is restricted by CARB's criminalization of removing chips from the OBD system. In

Docket entry II-A-34 at 11.

⁵⁴ Id. at 11-12.

⁵⁵ 17 U.S.C. §§ 900, et. seq.

addition to MEMA's comments as noted above, MEMA believes that the transcript to the December 8, 1994, California Air Resources Board public hearing (where the Board considered the technical status and proposed revisions to OBD II) demonstrated that the California protectiveness determination was arbitrary and capricious in its failure to ensure the consistency of California regulations with the federal requirements for OBD systems.⁵⁶ SEMA commented that CARB's decision not to reconsider its antitampering provisions was itself arbitrary and capricious because it ignored EPA's agreement to vacate its own antitampering provisions. SEMA stated that EPA's agreement to vacate its antitampering provisions indicate that EPA agreed that its provisions violated section 202(m) of the Act.⁵⁷

CARB states in response that EPA's review under section 209(b)(1)(A) is limited to whether California's determination that its standards, in the aggregate, are at least as protective of the public health and welfare, was arbitrary and capricious. That is, EPA is not meant to review whether California's standards themselves are arbitrary and capricious, only whether the protectiveness determination was arbitrary and capricious. CARB points to MEMA I for this

⁵⁶ Docket entry IV-B-7. MEMA notes the following: the CARB Board failed to consider how to lessen the economic impact on the aftermarket despite Congressional concern for aftermarket competition, the CARB staff left unclear how the aftermarket would be allowed to reprogram the OBD system, that CARB ignored how the tampering provisions would prohibit the necessary reverse engineering for manufacturers to develop alternative components and the resulting effect on market prices if these alternative components are unavailable, and that the CARB board members failed to recognize that the Clean Air Act section 203 would accomplish the tampering protections that CARB was seeking to implement within its regulations.

⁵⁷ Docket entry IV-A-1 at 118-119.

assertion.⁵⁸ Therefore, according to CARB, the question of reasonableness of the regulation itself, and whether it is arbitrary and capricious, is not a subject for the purview of the Administrator within a waiver determination. CARB claims that the comments of MEMA and SEMA do not address California's protectiveness finding, but instead are directed at California's antitampering regulations. Additionally, CARB notes that MEMA recognized in its own testimony that its arguments are contrary to the decision in MEMA I where the court held that the phrase "public health and welfare," upon which the protectiveness finding is based, is limited to consideration of the effects of the standards, in the aggregate, on the environment.⁵⁹ Finally, CARB notes that the MEMA I court specifically rejected arguments from the aftermarket industry regarding claims of anti-competitiveness as an improper matter for the Administrator to consider in a waiver. CARB stated that nothing in the language of section 202 or 209 indicates that the meaning of the phrase "health and welfare" in section 209(b)(1)(A) was intended to be changed by the addition of section 202(m)(4) and (5).

CARB also stated that MEMA's resort to the Semiconductor Protection Act should be rejected because it is irrelevant to EPA's decision under section 209(b)(1)(A). CARB quoted the decision in MEMA I, which stated that "there is no such thing as a 'general duty' on an administrative agency to make decisions based on factors other than those Congress expressly or

⁵⁸ Docket entry IV-B-1 at 7, citing MEMA I, 627 F.2d 1095, 1125 ("whether the in-use maintenance regulations were themselves arbitrary and capricious ... is not a question for the Administrator or this court").

⁵⁹ Id. at 8, citing MEMA I, 627 F.2d 1095, 1117 (the phrase "public health and welfare" is directly related to the effects of pollution on the environment.").

impliedly intended the agency to consider."⁶⁰

EPA has carefully considered MEMA's contention that CARB's "protectiveness determination" must include a consideration of whether CARB's OBD II regulation has insured the requisite level of aftermarket competitiveness. As noted within the "consistency with Section 202(a)" portion of this Decision Document, MEMA makes the same or similar arguments that CARB's OBD II regulation is inconsistent with section 202(m) and therefore is inconsistent with section 202(a), and therefore the waiver should be denied. At the time of the 1990 amendments to the Act, Congress did not change any language within section 209(b) of the Act, nor did Congress indicate that any change in section 202 of the Act should affect EPA's review of CARB's protectiveness determination. Therefore, EPA believes that it must review CARB's protectiveness determination in the same fashion as explained in MEMA I. The relevancy of aftermarket competitiveness is appropriately considered under the third criteria of a waiver decision, consistency with section 202(a), if at all. The court in MEMA I was clear that the term "public health and welfare" relates to the effects of pollution on the environment, including the economic costs of pollution. It does not include the anticompetitive effects claimed by MEMA. MEMA I, 627 F.2d 1095, 1117-8. MEMA's arguments, which are focused on whether CARB's measures are inappropriate for reasons other than their ability to provide protection from the effects of pollution, are therefore misplaced.

The same is true also with regard to MEMA's claim regarding consistency with the SCPA. EPA's review under section 209(b)(1)(A) is narrow in focus and directed towards effects

⁶⁰ Id. at 9, citing MEMA I, 627 F.2d 1095, 1116.

of pollution on the environment. EPA is not required, nor authorized, under section 209, to review California's compliance with a federal statute separate from the Clean Air Act that is not even within EPA's general review authority in determining whether California has met the requirements of section 209(b)(1)(A). MEMA's complaint regarding the SCPA is misplaced in this proceeding. If MEMA believes it has a credible grievance under the SCPA, it has the ability to take whatever avenues are available to it under the SCPA. This proceeding is not such an avenue. EPA cannot find that CARB's protectiveness determination was arbitrary and capricious based on the arguments raised by MEMA.

Similarly, EPA cannot find that the protectiveness determination was arbitrary and capricious based on SEMA's arguments. First, SEMA's arguments again go to issues outside of the effect of pollution on the environment. As CARB notes, SEMA seems to be arguing that the regulations themselves, or the manner in which they were adopted, was arbitrary and capricious. Such an argument is beyond EPA's limited scope under section 209(b)(1)(A).

Second, the substance of SEMA's argument is faulty. SEMA seems to believe that EPA's decision to remand its own anti-tampering provisions was an indication it believed that those provisions, and also California's provisions, violate sections 202(m)(4) and (5). This is not the case. In fact, EPA made no statement that such provisions violated section 202(m)(4) and (5). The Joint Motion filed with the court specifically noted that EPA believed the issues raised by the aftermarket had not been addressed by EPA in its final rule and that the remand was in order for EPA to reconsider the anti-tampering provisions, address any tensions between the provisions and sections 202(m)(4) and (5) and, if necessary, to promulgate new regulations addressing

tampering.⁶¹ In EPA's Notice of Court Decision (59 FR 51114, October 7, 1994), EPA noted that it was continuing to review its policy concerns regarding tampering and that it may in the future promulgate new regulations to address these concerns. This language indicates that EPA believed further review was appropriate regarding the relationship between such anti-tampering provisions and section 202(m)(4) and (5) before EPA promulgated new anti-tampering provisions. However, it does not indicate that EPA had made a final determination on that issue.

AAMA similarly argued that EPA's review of CARB's protectiveness determination should go beyond a direct examination of CARB's standards and their effect on the environment. According to AAMA, "the requirements that trigger the signals for malfunctions in the enhanced evaporative leak detection system, the LEV catalyst monitors and the misfire detection system are set at level so stringent that given the current state of technology and the lack of lead time allowed, they are likely to defeat the effectiveness of the entire OBD II system."⁶² AAMA contends that such false MILs will eventually cause vehicle operators to ignore the signals as false, even when genuine malfunctions in the system may occur; thereby imperiling the overall effectiveness of CARB's OBD program. While recognizing that "lead time" and considerations of cost of compliance are factors under the requirement of section 202(a)(2), AAMA states that CARB, by failing to provide sufficient lead time for technological development, is undermining the effectiveness of its requirements. AAMA states that by failing to provide sufficient lead time

⁶¹ Joint Motion to Remand Administrative Record; SEMA, et al. v. EPA Doc. No. 93-1277 (D.C. Cir, May 9, 1994) at 2.

⁶² Docket entry IV-B-2 at 6.

CARB has acted in an arbitrary and capricious manner.⁶³

CARB responded to AAMA's comments by stating that industry focused only on the OBD regulation itself and not California's standards, in the aggregate. According to CARB, "[w]hen California's program is properly viewed in the aggregate, its protectiveness determination is highly reasonable and no basis exists for finding that it is arbitrary and capricious."⁶⁴ Indeed, CARB notes that AAMA does not refute CARB's overall determination of greater stringency, rather AAMA argues the protectiveness determination is arbitrary and capricious because of one aspect of CARB's standards -- the possibility of false illuminations of the MIL. CARB notes that its OBD regulatory record does not support a finding that its determination is arbitrary and capricious under the principles of the cases cited by AAMA.⁶⁵ CARB states that the issue of false MILs had been an ongoing subject of discussion during the course of adoption and implementation and was at the crux of all discussions regarding the feasibility of the regulation's monitoring requirements. CARB cites many examples of how the false MIL problem would be mitigated: (1) OBD systems are permitted to verify that a malfunction is present in two consecutive driving cycles before illumination the MIL (thus any

⁶³ Docket entry IV-B-2 at 7-8 (Citing Monsanto Co. v. EPA, 19 F.3d 1201, 1207 (7th Cir. 1994) and National Truck Equip. v. National Highway Traffic Safety Adm., 919 F.2d 1148 (6th Cir. 1990).

⁶⁴ Docket entry IV-B-6 at 3.

⁶⁵ Id. at 4 (AAMA cites Motor Vehicle Mfrs Assn. v. State Farm Mutual Automobile Insurance Co. 463 U.S. 29 (1982) apparently for the proposition that an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the program, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.)

single false indication of malfunction will not result in false MIL), (2) the regulation permits the use of alternate statistical algorithms (for example Exponentially Weighted Moving Average (EWMA)), (3) CARB has regularly reviewed the progress of monitoring technology development and has made amendments when necessary to ensure that monitoring systems are reliable (including amending the misfire detection requirements both in 1991 and 1994 to delay implementation of the full range speed and load requirement until 1997), and (4) as a safeguard, the OBD II requirements provide that manufacturers experiencing false MIL illumination problems may request to disable a monitor under CARB's deficiency provisions. Lastly, CARB states that even if a vehicle owner were to ignore a malfunction indication, its effects would be only for a short period of time because CARB intends a check of the OBD system as part of CARB's Inspection and Maintenance (I/M) program.

EPA agrees with CARB that, on the basis of the record, AAMA's argument should not lead to a finding that CARB's protectiveness finding is arbitrary and capricious. EPA agrees that AAMA's argument is directed at the appropriateness of CARB's regulation itself, not CARB's protectiveness finding. AAMA admits, in fact, that CARB's OBD requirements are very stringent.⁶⁶ AAMA's contention that CARB did not sufficiently review the likelihood of false MILs is belied by the record indicating that CARB has reviewed on many occasions the issue of false MILs. Moreover, AAMA's claim that false MILs will reduce the stringency of the program to a point where it is less protective of public health and welfare, in the aggregate, than the

⁶⁶ Docket entry IV-B-2 at 6, AAMA's statement that such requirements are so stringent that they are likely to defeat the effectiveness of the program seem more appropriately directed to the "consistency with 202(a)" requirement, dealt with below.

federal program, is not supported by specific data and is based in part on speculation regarding the actions of drivers when MIL lights are illuminated. Based on the evidence and argument provided, therefore, I cannot find that CARB's protectiveness finding is arbitrary and capricious.

In addition to the false MIL issue discussed above, AAMA contends that California has not adequately considered the "balance between: (1) the economic costs of inventing, adapting and producing systems that meet such stringent requirements given the short lead time available (including all costs associated with false MIL illuminations); and (2) the reasonably anticipated environmental benefits of the stringent standards for the evaporative leak detection system, LEV catalyst and misfire detection (including any reduction in benefits due to consumer disregard of signals due to false MIL illuminations). According to AAMA this type of balancing "is an integral part of the reasonable basis required under the arbitrary and capricious standard".⁶⁷

CARB responds to AAMA's remarks regarding cost-benefit analysis by once again restating the appropriate scope of CARB's protectiveness determination.⁶⁸ CARB notes an early waiver decision for the maxim that cost-benefit and other policy decisions are issues left to California's discretion: "The issue of whether a proposed California requirement is likely to result in only marginal improvements in California air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my

⁶⁷ Id. at 7. AAMA cites International Harvester Co. v. Ruckelshaus, 478 F.2d 615 (1973) (balancing environmental costs of a one-year suspension of emission control standards against potential economic and ecological cost), along with Executive Order No. 12,866.

⁶⁸ Docket entry IV-B-6 at 6. As stated above, EPA agrees that the scope of the protectiveness determination is whether CARB's standards, in the aggregate, are as protective of the environment as the federal standard. MEMA, 627 F.2d 1095, 1117-1118.

decision so long as the requirement is consistent with section 202(a)⁶⁹ Subsequent to CARB's comments, AAMA submitted additional comments (some three months after CARB's submittal and four months after EPA's official written comment period closed) which stated that CARB's reliance upon Administrator Ruckelshaus' statement was misplaced since CARB's requirements are not consistent with section 202(a) because CARB has not given due consideration to the cost of compliance within the lead time given. AAMA repeats its assertion that CARB has failed to justify the cost-effectiveness of the entire regulation, and therefore such regulation is inconsistent with section 202(a) and is thus arbitrary and capricious.⁷⁰

EPA must reject the argument of AAMA for the reasons given above. As previous case law and EPA decisions make clear, EPA's decision under section 209(b)(1)(A) is directed to the California regulations' ability to protect the environment from the effects of motor vehicle pollution, not on cost-effectiveness, lead time, or any of the other policy considerations that a regulator may weigh in determining the appropriateness of regulations. EPA is not authorized under section 209(b)(1)(A) to provide de novo review of all policy decisions made by CARB in the course of its regulatory proceedings and to comment on the appropriateness or arbitrariness of those decisions. Congress clearly intended that California be free to make its own decisions regarding what regulations are appropriate, without interference by EPA, except on the narrow grounds provided by section 209(b). Some of the issues raised by AAMA may be relevant to the "consistency with 202(a)" requirement in section 209(b)(1)(C), but they are not relevant to the

⁶⁹ Statement of Administrator Ruckelshaus, 36 Fed. Reg. 17458 (August 31, 1971).

⁷⁰ Docket entry IV-B-9 at 5-6.

requirement in section 209(b)(1)(A). Therefore, based on the record before me, I cannot find that CARB's determination that its State standards are, in the aggregate, at least as protective of public health and welfare as applicable Federal standards is arbitrary and capricious.

B. Compelling and Extraordinary Conditions

Under section 209(b)(1)(B) of the Act, I cannot grant a waiver if I find that California "does not need such State standards to meet compelling and extraordinary conditions,"

Under this criterion, EPA's inquiry is restricted to whether California needs its own motor vehicle pollution control program to meet compelling and extraordinary conditions, and not whether any given standards are necessary to meet such conditions.⁷¹ As to the need for the particular standards which are the subject of this decision, California is entrusted with the power to select "the best means to protect the health of its citizens and the public welfare."⁷²

California, in its waiver request letter, states that California needs its own motor vehicle program to meet serious air pollution problems unique to the state. CARB also states that the Administrator has previously and consistently recognized this need when granting waivers for motor vehicles under section 209(b) of the Act.⁷³ CARB states that the relevant inquiry under this criterion is whether California needs its own emission control program to meet compelling and extraordinary conditions, not whether any given standard is necessary to meet such

⁷¹ See, e.g., 49 Fed. Reg. 1887, 1889-1890 (May 3, 1984).

⁷² H.R. Rep. No. 95-294, 95th Cong., 1st Sess., 301-02 (1977) (cited with approval in MEMA I, 627 F.2d at 1110).

⁷³ See, e.g., 49 Fed. Reg. 1887, 1890-1891 (May 3, 1984), 58 Fed. Reg. 4144 (January 13, 1993).

conditions.

Several commenters from the aftermarket industry disagreed with CARB's assertion that California needs its own state standards to meet compelling and extraordinary conditions. MEMA asserted that CARB cannot demonstrate its need for OBD II in the absence of a showing that the state cannot attain satisfactory levels of air quality through compliance with Clean Air Act Title I mandates. "Before California can make a showing of compelling need to depart from the federal statutory scheme to adopt its own, inconsistent regulations, California must be required to employ the nationally-mandated options for air quality attainment and show that these options are insufficient for California. Because California has failed to make this showing, it is precluded from requesting a Section 209(b) waiver."⁷⁴ MEMA also asserted that a "complete" I/M program in California may obviate the need for a California OBD system which is separate from and inconsistent with federal requirements. MEMA stated that CARB must also adopt the transportation control measures per the requirements of section 182 of the Act.

In addition to the above arguments, MEMA also stated that California has made no showing that its tampering provisions are vitally necessary to meet its air quality conditions. In other words, MEMA is asserting that there is no showing of a substantial threat to the OBD system integrity that requires CARB's tampering protections, especially in light of the protections afforded by section 203 of the Act. Although MEMA does not clearly state that it is a "compelling need" argument, MEMA states that CARB's antitampering provisions are unnecessary because ample authority exists under federal law to prevent tampering.

⁷⁴ Docket entry IV-B-5 at 13.

EPA has considered carefully the testimony and comments of CARB and the aftermarket regarding this particular prong of the waiver test. EPA agrees with California that the basic inquiry here concerns whether “compelling and extraordinary conditions” exist that justify California’s continued need for its own program to control emissions from new motor vehicles. I reject MEMA’s interpretation of the test of section 209(b)(1)(B) for the following reasons.

As noted above, in its review of a waiver request under the standard of section 209(b)(1)(B), EPA is guided by the principle, recognized by the MEMA I court, that Congress intended California to be “afford[ed] the broadest discretion”⁷⁵ in its choice of air pollution control strategies. This principle is particularly pertinent here, where there is vigorous disagreement between CARB and the aftermarket over what California must implement before a compelling need is demonstrated and whether there is a compelling need for specific elements of CARB’s OBD II regulation. EPA believes CARB has met the “compelling and extraordinary conditions” criteria since MEMA itself recognizes that serious and unique air pollution problems continue to exist in California.⁷⁶ Given the contribution of motor vehicle pollution to these conditions, control of such pollution is a critical component of the measures California needs to take in addressing these extraordinary and compelling conditions.⁷⁷

Because it determined that California was entitled to exercise broad discretion in its choice of mobile source air pollution control methods, Congress acted to ensure that EPA’s

⁷⁵ H.R. Rep. 95-294, at 301-302 (1977) (cited with approval in MEMA I, 627 F.2d at 1110).

⁷⁶ Docket entry IV-A-01 at 68.

⁷⁷ Docket entry I-A-34 at 13.

review of California's decision making be narrow. From the outset, EPA has consistently complied with Congressional intent. For example, in a 1971 decision, (then) Administrator Russell Train said:

The law makes it clear that the waiver requests cannot be denied unless the specific findings in the statute can properly be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209, so long as the California requirement is consistent with section 202(a) and is more stringent than applicable Federal requirements in the sense that it may result in some further reduction in air pollution in California.⁷⁸

Later waiver decisions amplified and clarified this position. In a 1975 decision granting a waiver for California's light-duty vehicle standards for model years 1977 and beyond, the Administrator noted that:

The structure and history of the California waiver provision clearly indicate a Congressional intent and an EPA practice of leaving the decision on ambiguous and controversial public policy to California's judgment ... Sponsors of the (waiver) language eventually adopted referred repeatedly to their intent to make sure that no 'Federal bureaucrat' would be able to tell the people of California what auto emission standards were good for them, as long as they were stricter than the Federal standards.⁷⁹

In a 1976 decision granting a waiver to California's motorcycle emission standards for 1978 and later model years, the Administrator further elaborated on this standard of review:

Arguments concerning ... the marginal improvements that will allegedly result (from implementation of the standards at issue in this waiver request), and the question of whether these particular standards are actually required by California ... fall within the broad area of public policy. The EPA practice of leaving the decision on such controversial matters of public policy to California's judgment is

⁷⁸ 36 Fed. Reg. 17,458 (August 31, 1971).

⁷⁹ 40 Fed. Reg. 23,101, 23,102 (May 28, 1975) (emphasis added).

entirely consistent with the Congressional intent.⁸⁰

Congress affirmed its intent in the 1977 amendments to section 209(b). At that time, Congress amended the section to require California to determine that its standards will be as protective as Federal standards in the aggregate. This amendment, as noted above, allowed California to choose to adopt individual standards less stringent than the corresponding Federal standards when California determined that such a strategy is appropriate for their air pollution control efforts. The House Committee noted that "[t]he Committee amendment is intended to ratify and strengthen the California waiver provision, i.e., to afford the broadest discretion [to California] in selecting the best means to protect the health of its citizens and the public welfare."⁸¹

After the 1977 amendments, EPA addressed the issue of whether California had to demonstrate a need for its own motor vehicle program or a need for the particular standard at issue in the waiver proceeding. In a 1984 decision, EPA rejected arguments raised by the auto manufacturers and agreed with California that the basic "inquiry concerns whether compelling and extraordinary conditions exist that justify California's continued need for its own mobile source emissions control program."⁸² In that decision, the Administrator discussed how the legislative history of section 209 showed that Congress' concern for industry was largely focused on problems the industry might face from the administration of two programs. The

⁸⁰ 41 Fed. Reg. 44,209 , 44,210 (October 10, 1976).

⁸¹ H.R. Rep. 95-294, 301-302 (1977), (cited with approval in MEMA I, 627 F.2d at 1110).

⁸² 49 Fed. Reg. 18887, 18,890 (May 3, 1984).

Administrator proceeded to conclude: "Therefore, as CARB points out "[t]he "need" issue thus went to the question of standards in general, not the particular standards for which California sought [a] waiver in a given instance."⁸³ The Administrator determined that he could not deny the waiver on the basis of a lack of need because "the manufacturers have not demonstrated that California no longer has a compelling and extraordinary need for its own program."⁸⁴

This approach to the "need" criterion is also consistent with the fact that because California standards must be as protective as Federal standards in the aggregate, it is permissible for a particular California standard (or standards) to be less protective than the corresponding Federal standard.⁸⁵

Based upon EPA's review of the comments pertaining to the "compelling and extraordinary conditions" test of section 209(b)(1)(B), I have determined that my inquiry in this area continues to be limited to whether California needs its own motor vehicle program to meet

⁸³ Id.

⁸⁴ Id. at 18,890.

⁸⁵ The Administrator noted that:

Indeed, to find that the 'compelling and extraordinary conditions' test should apply to each pollutant would conflict with the amendment to section 209 in 1977 allowing California to select standards 'in the aggregate' at least as protective as federal standards.' In enacting that change, Congress explicitly recognized that California's mix of standards could 'include some less stringent than the corresponding federal standards.' See H.R. Rep. No. 294, 95th Cong., 1st Sess. 302 (1977).[cited with approval in MEMA I, 627 F.2d at 1110] Congress could not have given this flexibility to California and simultaneously assigned to the state the seemingly impossible task of establishing that 'extraordinary and compelling conditions' exist for each standard. (See LEV Waiver Decision Document at 50, EPA Air Docket A-91-71, docket entry II-A-14).

compelling and extraordinary conditions and not whether any given standards are necessary to meet such conditions.

I turn now to the aftermarket's second contention under this test, namely, that California has made no showing that its tampering provisions are vitally necessary to meet its air quality conditions. Again, under the "compelling and extraordinary conditions" criteria, EPA's review of California's decision making must be narrow. EPA believes that CARB's fulfillment of demonstrating a compelling need for its own new motor vehicle program is not contingent upon CARB's adoption of certain Clean Air Act Title I programs. EPA does not have the authority to deny California a waiver of federal preemption under the "compelling need" criteria based upon California's compliance with other programs under Title I of the Act let alone the entirety of the Act.

As discussed above, the necessity showing is based on California's need for its own program, not on whether it should choose one type of regulation over another type. MEMA's argument basically is that CARB should try all other possible motor-vehicle related regulations before promulgating anti-tampering regulations. Yet this type of argument could be made for any motor vehicle regulation. It is possible for any affected group to claim that a certain type of regulation is not necessary, because emissions reductions could be obtained through other types of motor vehicle regulations, or through more stringent regulation of other sources, such as nonroad sources, or stationary sources. If EPA were to take this approach, EPA would have to evaluate each claim to examine which type of regulation is most appropriate. Even if there were clear guidelines for establishing what regulations would be most appropriate (and there are no such guidelines under section 209), this type of evaluation is exactly the kind of micro-managing

of public policy that Congress, the courts and EPA itself has found forbidden by section 209.⁸⁶

Moreover, MEMA's claim that California's I/M plans will not meet the requirements of section 182 is out of place in this proceeding and is based on cursory arguments without any detailed discussion of the legal requirements.

MEMA's suggestion that California be forced to show that it has implemented all nationally-mandated options and that they are insufficient also turns the burden of proof required under section 209 on its head. In fact, it is MEMA that is obligated to produce evidence that California has failed to meet the requirements of section 209(b).

It is not necessary for the Administrator affirmatively to find that these conditions do not exist before granting a waiver. The statute does not say 'the Administrator shall grant a waiver only if' he makes the negative of these findings. ... If the Administrator has an obligation to deal with these factual findings it must arise out of the public hearing held to discuss them. The language of the statute and its legislative history indicate that California's regulations, and California's determination that they comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them.

MEMA at 1120-1121.

MEMA's summary speculation that California may not need its anti-tampering provisions if it implemented I/M 240 is unsupported by any evidence. "It was incumbent upon the manufacturers to come forward with *evidence* that the regulations were technologically

⁸⁶ Ford, supra, 606 F.3d at 1297, n. 30; See also Decision of the Administrator, 36 Fed. Reg. 17,158 (August 31, 1971) ("The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209"); Decision of the Administrator, 40 Fed. Reg. 23,102 (May 28, 1975) ("The structure and history of the California waiver provision clearly indicate both a Congressional intent and an EPA practice of leaving the decision on ambiguous and controversial matters of public policy to California's judgment.")

infeasible.” *Id.*, at 1126.

EPA believes that MEMA’s concern and question as to whether CARB’s tampering provisions are vitally necessary is not pertinent to section 209(b)(1)(B). The issue of whether CARB’s tampering provisions are an unwise use of regulatory power, even in light of MEMA’s argument that section 203 adequately protects the OBD system from tampering, is not legally relevant to EPA’s examination of whether California needs its own motor vehicle emissions control program. The question of whether the tampering provisions are specifically necessary falls within the broad area of public policy. “The practice of leaving the decision on such controversial matters of public policy to California’s judgment is entirely consistent with the Congressional intent.”⁸⁷ Therefore, I cannot deny granting California a waiver on the basis the claim that a compelling need has not been demonstrated for CARB’s OBD II tampering provisions.

Finally, I turn to a consideration of whether the compelling and extraordinary conditions that justify California’s motor vehicle emission control program continue to exist. EPA has received no comments to suggest that California no longer suffers from serious and unique and air pollution problems. CARB has repeatedly demonstrated the existence of compelling and extraordinary conditions in California justifying California’s need for its own motor vehicle pollution control program.⁸⁸ Based on previous showings by CARB in this regard, CARB’s submissions to the record and the absence of any persuasive public comments providing

⁸⁷ 41 Fed. Reg. 44,209, 44,210 (October 10, 1976).

⁸⁸ *See, e.g.*, 49 Fed. Reg. 1887, 1890-1891 (May 3, 1984), 58 Fed. Reg. 4144 (January 13, 1993).

evidence challenging the need for CARB's own motor vehicle pollution control program, I cannot deny the waiver on the basis of a lack of need for a California new motor vehicle program to meet compelling and extraordinary conditions.

C. Consistency with Section 202(a)

Under section 209(b)(1)(C), the Administrator cannot grant California its waiver request if she finds that California standards and accompanying enforcement procedures are not consistent with Section 202(a) of the Act. California's standards and enforcement procedures are not consistent with section 202(a) if there is inadequate lead time to permit the development of technology necessary to meet those requirements, giving appropriate consideration to the cost of compliance within that time frame. California's standards and enforcement procedures would also be inconsistent with section 202(a) if the Federal and California certification test procedures were inconsistent.⁸⁹ In addition, the commenters within the aftermarket have raised the issue of whether the statutorily prescribed requirements of section 202(m) apply to California's OBD II requirements.

The scope of EPA's review of whether California's action is consistent with section 202(a) is narrow; it is limited to determining whether those opposed to the waiver have met their burden of establishing that California's standards are technologically infeasible, or that California's test procedures impose requirements inconsistent with the Federal test procedures.⁹⁰ CARB has determined that its amendments to its OBD regulations "will not cause the California

⁸⁹ See INTRODUCTION, *supra*, for discussion of section 202(a).

⁹⁰ See MEMA I, 627 F.2d at 1126.

requirements to be inconsistent with section 202(a) of the Clean Air Act.”⁹¹

1. CARB’s Tampering Provisions

- a. Does consistency with 202(a) require that California’s tampering provisions be consistent with 202(m)?

With respect to “access” to the OBD system and CARB’s tampering protection regulation issue, the aftermarket commented that the Act, specifically section 202(m), is applicable to both federal and California OBD regulations, and prohibits California’s antitampering measures.⁹² The aftermarket believes that the statutory language plainly establishes a duty for EPA to promulgate any regulations for emissions standards in accordance with the applicable subsections of section 202. The aftermarket also points to the language in 202(m) which refers back to 202(a): “Regulations. --- Within 18 months after the enactment of the Clean Air Act Amendments of 1990, the Administrator shall promulgate regulations under subsection (a) requiring manufacturers to install on all new light duty vehicles and light duty trucks diagnostics systems capable of -- ...” According to the aftermarket “it defies common sense to suggest that California may now adopt regulations that would contravene the important protections Congress

⁹¹ Docket entry II-A-34 at 8.

⁹² Section 209(a) preempts states from adopting or attempting to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines. Section 209(b) states in relevant part “...(C) such State standards and accompanying enforcement procedures are not consistent with section 7521(a) [CAA §202(a)] of this title.” Section 202(a) states in relevant part “(1) The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emissions of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines...”

built into the subparts of section 202.”⁹³ The aftermarket also argues that American Motors Corp. v. Blum, (Blum), 603 F.2d 978 (D.C. Cir. 1979) supports its position that section 202(m) is relevant to a waiver decision.⁹⁴

CARB argues to the contrary that the Blum case is not controlling in this instance. CARB argues that the issue in Blum was whether a provision of section 202(b) which indisputably was relevant to the technological feasibility issue should be considered by EPA in making its consistency determination. CARB states that the decision of the court that such a provision should be considered does not mean that all of section 202, even sections not relevant to technological feasibility or consistency of test procedures, should be taken into account. CARB states that the issues in section 202(m)(4) and (5) are not relevant to technological feasibility or consistency of test procedures.

EPA believes a further discussion of the legislative history of section 209 is useful. Congress initially preempted states’ authority to establish and enforce emission standards for new motor vehicles to prevent the automotive industry from having to comply with the Federal and numerous possibly inconsistent state regulatory programs. However, because California had a regulatory program for control of emissions from new motor vehicles prior to the 1967 legislation and a unique air pollution problem, Congress provided a mechanism for waiver of this Federal preemption.⁹⁵

⁹³ Docket entry IV-B-5 at 4.

⁹⁴ Id.

⁹⁵ 113 Cong. Rec. 20948 (bound ed. Nov. 2, 1967).

Nonetheless, manufacturers still favored a single national standard and opposed the California waiver provision. In an attempt to limit the burden of manufacturers, Congress added the restriction that California's standards be consistent with section 202(a); that is, "the standards must be consistent with the test of economic practicability and technological feasibility required in section 202(a)" and the test procedures must not impose inconsistent certification requirements.⁹⁶ Thus, while Congress provided a waiver mechanism for California, Congress also intended that California's standards not impose undue economic or technological burdens on those who must comply with the standards.

The intended application of section 209 was further explained in the legislative history of the 1977 amendments. The House Report states that the intent of the waiver provision in the 1967 Act was to permit California to proceed with its own regulatory program.⁹⁷ Furthermore, the report states that the intent of the 1977 amendments is "to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare."⁹⁸ Congress also approved of EPA's construction of the waiver provision in its waiver decisions, which by allowing flexibility for California's program, were "in accordance with the intent of the 1967 Act."⁹⁹

This policy of narrow construction of preemption is balanced, however, with the other

⁹⁶ S. Rep. No. 403, 90th Cong., 1st Sess. 33 (1967).

⁹⁷ H.R. Rep. No 294, 95th Cong., 1st Sess. 301 (1977), reprinted in 4 Leg. Hist. at 2768, and in 1977 U.S. Code Cong. & Admin. News 1077, 1380.

⁹⁸ Id. at 301-02, 4 Leg. Hist. at 2768-69, 1977 U.S. Code Cong. & Admin. News at 1380-81.

⁹⁹ Id. At 301, 4 Leg. Hist. At 2768, 1977 U.S. Code Cong. & Admin. News at 1380.

policy goals expressed by Congress in the other provisions of Title II. In Blum, the Agency argued that under section 209 a waiver request must be denied if the California standards are inconsistent with section 202(a) - not section 202(b), where the small-volume lead time requirement is found. Accordingly, the consistency test would not relate to 202(b)(1)(B). The court rejected this argument and found that Congress, in section 202(b)(1)(B), had mandated that small-volume manufacturers receive two years of lead time in addition to whatever was necessary for the rest of the industry to meet the 1981 and 1982 model year Federal standards. The court concluded that the effect of this Congressional mandate was to "incorporate in section 202(a)(2) the proviso of section 202(b)(1)(B)."¹⁰⁰

As Congress intended, EPA has construed the section 209 waiver provision to give California broad discretion with its program. Nonetheless, EPA's discretion is not unlimited. As aftermarket commenters note, section 202(m)(4) and (5) were designed to allow the aftermarket to receive information that Congress believed was necessary for aftermarket repair and diagnosis. If California's regulations are, as aftermarket commenters suggest, clearly contrary to the intent of Congress, then EPA's granting of a waiver to California would effectively eliminate this key Congressional provision in California (and any other state that enacts California's regulations through section 177). Given the substantial implications of this, EPA must tread carefully before dismissing aftermarket commenters' claims.

On the other hand, CARB is correct that section 209(b)(1)(C) could not require that every mandate upon EPA in section 202 translates to a mandate on California merely on the basis of

¹⁰⁰ Blum at 981.

section 202(a)(1)'s "in accordance with the provisions of this section" language. As California notes, the Blum decision dealt specifically with the issue of technological feasibility (i.e., the lead time requirements of section 202(a)(2)) which is one of the basic issues to evaluate under section 209(b)(1)(C). If a requirement of section 202 does not address technological feasibility or consistency with test requirements, it is questionable whether the consistency criterion of section 209(b)(1)(C) should apply.

Certainly, for instance, California would not be denied a waiver if its CO standard were slightly higher than the federal Tier 1 CO standard, as long as California's standards were in the aggregate more protective than federal standards. This is despite the fact section 202(g) contains specific standards for CO that EPA must promulgate pursuant to section 202(a), and California's standards, if promulgated by EPA, would be in violation of section 202(g). Nor does section 202(m)(1)'s reference to section 202(a) require the result that the aftermarket seeks. Though that reference does indicate that the federal standards under section 202(m)(1),(2) and (4) are to be promulgated under section 202(a), the provisions do not spontaneously become a requirement of section 202(a) that California standards must be consistent with under section 209(b)(1)(C). They are not automatically "incorporated into section 202(a)(2)" such that lack of consistency with section 202(m) would mean lack of consistency with the technological feasibility requirements of section 202(a)(2). To make such an interpretation, especially given that the identical language appears in numerous other places in section 202, would lead to a tight restriction on California regulations that is contrary to the clear language of section 209 and all legislative history of that section. Moreover, the regulations promulgated under section 202(m)(5) are not "pursuant to subsection (a)" but instead are based on the specific authorization

of section 202(m)(5), which is wholly distinct from that of section 202(a).

Aftermarket commenters also state that California's regulations must meet the requirements of section 202(m)(4) and (5) because they would otherwise be "inconsistent with federal test procedures." The premise of this argument is that no automobile could be simultaneously compliant with California's anti-tampering provisions and compliant with the requirements of section 202(m)(4) and (5). CARB states that the aftermarket has misinterpreted this requirement and that its regulations are not inconsistent with federal test procedures, especially since federal regulations do not contain any prohibitions of such anti-tampering provisions.

EPA has serious reservations regarding aftermarket commenters' arguments that consistency with the requirements of section 202(m)(4) and (5) apply to the review under section 209(b)(1)(C). EPA doubts that such an interpretation was meant by Congress or could be upheld. However, the issue of whether California's regulations are inconsistent with section 202(m)(4) and (5) is sufficiently important, and the results of inconsistent regulatory requirements sufficiently problematic, especially given Congressional intent regarding availability of information to the aftermarket, that EPA believes it is critical to review the consistency of California's requirements with section 202(m)(4) and (5).

b. Are California's tampering provisions inconsistent with section 202(m)?

Section 202(m) provides in relevant part:

(m) Emission Control Diagnostics. -

(4) SPECIFIC REQUIREMENTS.- In promulgating regulations under this subsection, the Administrator shall require -

(A) that any connectors through which the emission control diagnostics system is accessed for inspection, diagnosis, service, or repair shall be standard and uniform

on all motor vehicles and motor vehicle engines;

(B) that access to the emission control diagnostic system through such connectors shall be unrestricted and shall not require any access code or any device which is only available from a vehicle manufacturer; and

© that the output of the data from the emission control diagnostics system through such connectors shall be usable without the need for any unique decoding information or device.

(5) INFORMATION AVAILABILITY. - The Administrator, by regulation, shall require (subject to the provisions of section 208© regarding the protection of methods or processes entitled to protection as trade secrets) manufacturers to provide promptly to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines, and the Administrator for use by any such persons, with any and all information needed to make use of the emission control diagnostics system prescribed under this subsection and such other information including instructions for making emission related diagnosis and repairs. No such information may be withheld under section 208© if that information is provided (directly or indirectly) by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines. Such information shall also be available to the Administrator, subject to section 208(c), in carrying out the responsibilities under this section.

According to MEMA and several other aftermarket organizations, California's OBD II antitampering regulation contravenes the language of section 202(m) (4) and (5). CARB's tampering provision, found at 1968.1, is as follows:

TAMPERING PROTECTION Computer-coded engine operating parameters shall not be changeable without the use of specialized tools and procedures (e.g. soldered or potted computer components or sealed (or soldered) computer enclosures). Subject to Executive Officer approval, manufacturers may exempt from this requirement those product lines which are unlikely to require protection. Criteria to be evaluated in making an exemption include, but are not limited to, current availability of performance chips, high performance capability of the vehicle, and sales volume. Manufacturers using reprogrammable computer code systems (e.g. EEPROM) shall employ proven methods to deter unauthorized reprogramming which may include copyrightable executable routines or other methods. Beginning with the 1999 model year, manufacturers shall include enhanced tamper protection strategies including data encryption using methods to secure the encryption algorithm, and write protect features requiring electronic access to an off-site computer maintained by the manufacturer. Equivalent methods shall also be considered by the Executive Officer.

According to MEMA, under the California regulation, access to the OBD system

information will not be "unrestricted" as required by section 202(m).¹⁰¹ MEMA states that CARB's regulations require soldering, potting and encryption techniques to restrict access. MEMA also states that the output data provided by the OBD II system will not be usable without unique decoding information only available from the manufacturer, noting that reprogramming must be performed through electronic access to an off-site computer which, according to MEMA, is expressly prohibited by section 202(m)(4). MEMA also points to CARB Mail-out No. 95-20 which, according to MEMA, "clarifies that OBD II system fault codes will not be standard or uniform." Further, aftermarket commenters state that "it is disingenuous for EPA to maintain that its responsibility under Sections 202(m)(4) and 202(m)(5) extends only to eliminating tampering prohibitions from federal regulations. Even if it were appropriate for EPA to grant this waiver, and the aftermarket does not agree that it is, EPA must recognize that the effect of such a decision is to make antitampering a national reality."¹⁰²

The comment points to an earlier waiver decision¹⁰³ for the proposition that there must be consistency in conformity certification: according to the commenters, a car certified to CARB's

¹⁰¹ Docket entry IV-A-4 at 12-13.

¹⁰² Docket entry IV-B-5 at 6. (Comments were submitted on behalf of the Auto International Association, Automotive Parts & Accessories Association, Automotive Parts Rebuilders Association, Automotive Service Association, Automotive Service Industry Association, Automotive Warehouse Distributors Association, Motor & Equipment Manufacturers Association, and the Specialty Equipment Market Association, all of which represent themselves as associations representing the "aftermarket.")

¹⁰³ *Id.* at 7 (citing an earlier waiver which read "If I find that California certification procedures conflict with the corresponding Federal procedures so as to make manufacturers unable to meet Federal and California requirements with the same test vehicle, I must deny the waiver..." (43 Fed. Reg. 32183 (1978))).

antitampering requirements could not also be certified nationally because of the requirements of section 202(m); thus, because the same test vehicle could not be used the waiver must be denied. According to the commenters, inconsistency would arise at the time of certification due to CARB's regulation requiring "... data encryption using methods to secure the encryption algorithm, and write protect features requiring electronic access to an off-site computer maintained by the manufacturer." The commenters also reiterate MEMA's argument that a vehicle OBD system that employs California "write protect features requiring electronic access to an off-site computer maintained by the manufacturer" will not meet the federal directive requiring that the system "not require any access code or any other device which is only available from a vehicle manufacturer." The commenters state that section 202(m)(4) is not limited to access to OBD "output data."¹⁰⁴ The commenters maintain that there are "abundant examples" that demonstrate that service and repair for OBD-equipped vehicles involves more than making use of OBD output data. The aftermarket cites as an example the ability of the aftermarket to perform reprogramming (commenters cite Sen. Rep. No. 101-228, 101st Cong. 1st Sess. 97 (1989)) which states "To assure the ability of repair facilities, including independent repair facilities, to properly diagnose emission component malfunctions, it is necessary to provide standardization of connectors to ECD [emissions control diagnostic] systems, fault code identification and *computer access protocols*." According to the aftermarket commenters "The antitampering provisions of the California regulation will make chip replacement impossible, however, and will further require that the aftermarket repair shop either obtain access to a vehicle

¹⁰⁴ *Id.* at 10-12.

manufacturer computer to effect the programming change as specifically prohibited by Section 202(m)(4)(B), or send its customer to a franchised dealer to have the programming change incorporated there.” According to the aftermarket, the aftermarket repair industry should not have to “vie” with automotive dealers to obtain access to a computer maintained by the vehicle manufacturers to accomplish repairs, because, according to the aftermarket, section 202(m)(4)(B) prohibits a vehicle manufacturer from prohibiting access to a computer which does such reprogramming.

In addition to the ability to reprogram, the aftermarket also states that CARB’s antitampering provision has the effect of disallowing reverse engineered parts to be installed since there are features on the OBD that prevent modifications which, according to the commenters, are necessary to install such parts. Since reprogramming is likely necessary for aftermarket parts to be effectively monitored by the OBD system, MEMA maintains that CARB’s requirement of “write protect features requiring electronic access to an off-site computer maintained by the vehicle manufacturer” unlawfully delegates to the vehicle manufacturer authority to allow or disallow an aftermarket programming change. According to MEMA “202(m)(4) and (5) were passed by Congress for the express purpose of preventing the vehicle manufacturers using OBD to control and potentially monopolize vehicle service and repair.”¹⁰⁵

In addition, SEMA commented that “Congress provided detailed language requiring that OBD-related information be made available to the aftermarket and that the systems not contain

¹⁰⁵ Id. at 12

features which could allow vehicle manufacturers to eliminate aftermarket service. Similar to MEMA, SEMA maintains that "CARB's anti-tampering provisions would make it impossible to meet both CARB and federal certification with the same test vehicle"¹⁰⁶ presumably on the notion that a vehicle certified to be in compliance with CARB's tampering provisions would be in violation of section 202(m)(4) and (5). SEMA then relies upon the specific language of section 202(m)(4) (as quoted by SEMA - "the Administrator shall require that access to the emission control diagnostics system through such connectors shall be unrestricted and shall not require any access code or any other device which is only available from a vehicle manufacturer") for support of its proposition that CARB's required use of data encryption and write protect features requiring electronic access to an off-site computer maintained by the manufacturer violates the federal directive requiring that the system not require any access code or any device which is only available from a vehicle manufacturer.¹⁰⁷ SEMA also responds to CARB's assertion that section 202(m)(4) intends the OBD system to be unrestricted only with respect to the diagnostic information generated by the OBD system (such as fault codes and vehicle operation parameters) and that its tampering restrictions would not interfere with this level of aftermarket access and therefore do not contravene section 202(m)(4). SEMA states that "There are abundant examples that demonstrate OBD reprogramming has been and will continue to be necessary in servicing and repairing vehicles."¹⁰⁸

¹⁰⁶ Docket entry IV-A-01 at 126, see also docket entry IV-A-6 at 11-13..

¹⁰⁷ Docket entry IV-A-01 at 129.

¹⁰⁸ Id. at 131.

Comments from APRA and AERA¹⁰⁹ quote section 202(m)(5)'s requirement for vehicle manufacturers to provide emission-related diagnostic and repair information to the vehicle service industry and state that this provision is "broad and all inclusive" and is only limited by the trade secrets provision of section 208(c). The comments claim that California's anti-tampering regulation "imposes blanket restrictions on the free availability of information in OBD II systems" without showing any need to protect trade secrets. The comments cite to EPA's service information regulations, stating that any restrictions on information in that rule were based on trade secret concerns.

APAA also comments that California's anti-tampering requirements violate section 202(m)(4) and (5) and states that the anti-tampering provisions "threatens the car owners with the possibility of a monopoly in the availability of vehicle parts and service."¹¹⁰

CARB, in response, disputes the aftermarket's contention that because the OBD II regulation includes tamper-resistance requirements and the federal rule does not, that therefore the certification procedures of the two rules are inherently inconsistent.¹¹¹ CARB points to EPA's regulation which, in effect, has incorporated by reference the California OBD II regulations, except that manufacturers are not required (but are permitted) to comply with California's anti-tampering provisions. Although the federal rule does not presently include any

¹⁰⁹ Docket entry IV-A-7

¹¹⁰ Docket entry IV-A-8 at 4.

¹¹¹ Docket entry IV-B-1 at 13 (citing written testimony, at hearing, of SEMA at p. 9)

tamper-proof provisions, CARB notes that neither does the federal rule “prohibit” them.¹¹²

Additionally, CARB notes that EPA’s Service Information Availability Rule expressly states that manufacturers are not prevented from “voluntarily installing security devices in their vehicles.”¹¹³

Therefore, according to CARB “[m]anufacturers may elect to comply with the federal regulations by using an OBD II system that includes anti-tampering protections” and thus, the certification procedures are not inconsistent.¹¹⁴

CARB also responds to the aftermarket argument that the OBD II regulations are inherently inconsistent with section 202(m) by primarily relying upon EPA’s Service Information Availability Rule.¹¹⁵ CARB refers to EPA’s Response to Comments with the Service Information Availability rule, wherein EPA considered the intent of Congress in adopting sections 202(m)(4) and (5) and EPA concluded:

¹¹² *Id.* at 13 (citing 40 C.F.R. Part 86, Subpart A, sections 86.094-17, 58 Fed. Reg. 9468 (February 19, 1993); see also Order of the United States Court of Appeals for the District of Columbia Circuit in SEMA v. Browner, Case No. 93-1277, May 19, 1994). EPA has expressly held in its Service Information Availability Rule Response to Comments at p. 373:

EPA disagrees with ... contentions [from the aftermarket industry] regarding EPA’s ability to require [antitampering provisions] EPA... has broad authority to prescribe regulations necessary to carry out its functions, including enforcement of sections 202 and 203 of the Act [and] has authority to promulgate regulations that prevent tampering with the emission control equipment or systems in regulated motor vehicles. Such regulations are well within EPA’s authority for enforcement of compliance with sections 202 and 203.

¹¹³ *Id.* at 14 (citing Response to Comments of Service Information Availability Rule (Docket entry II-A-1), July 1995, at p. 374)

¹¹⁴ *Id.*

EPA has placed EPA’s Service Information Availability Rule Response to Comments document in the OBD II Waiver docket at docket entry II-A-1; see also 60 Fed. Reg. 40474 (August 9, 1995).

[T]he clear intent of section 202(m)(4) is to require that the information received by the emission control diagnostics system concerning emission-related deterioration and malfunction be readily available to independent technicians. This requires easy access to the output of the OBD system (e.g. the trouble codes generated by the system) and standardized connection to these outputs.

The purpose of section 202(m)(5) is to ensure that the independent technicians have access to information needed to service and repair vehicles, thereby ensuring consumers with freedom of choice in where to take their vehicles for repairs. [Original Equipment Manufacturers] are only required to provide information in order for persons to service and repair vehicles. They are not required to provide recalibration information that is not needed to make emissions related diagnosis and repairs, even if such information may be useful for the manufacture of aftermarket parts. Nothing in the legislative history indicates that Congress intended section 202(m)(5) to assure access and information for the manufacture of aftermarket parts. On the contrary, the legislative history speaks only to the need to ensure equal access for vehicle repair facilities.

CARB maintains that its OBD II regulation is fully consistent with EPA's understanding of the legislative intent of section 202(m). "[I]ndependent service technicians are assured of all necessary access to both trouble codes and other diagnostic output data from the OBD II systems as well as information needed to make emission related diagnosis and repairs to vehicles [citing to 13 CCR §1968.1(k) and (l)]. The tamper-resistance measures in Title 13, CCR, section 1968.1(d) are directed at restricting access to the software that makes up the OBD II system (i.e., monitoring system logic and calibration data)."¹¹⁶ Thus, CARB differentiates trouble codes and other diagnostic output data from the software stored within the OBD computer access to which

¹¹⁶ Id. at 15. Indeed, CARB cites Title 13, CCR, section 1968.1(k) and (l) to demonstrate that the access required by section 202(m)(4) and (5) is also insured by California's OBD II regulations.

is not necessary to service and repair the vehicle.¹¹⁷ CARB states that information that is needed to make diagnosis and repairs is equally available under the OBD II regulation as it is under the Service Information Availability rule, and that this includes information and equipment necessary to install manufacturer copyrighted field fix recalibrations or reprogramming. CARB maintains that the aftermarkets' assertion that the tampering resistance requirements will prevent independent service providers from installing manufacturer "field fix" recalibrations (or reprogramming) is not correct; CARB states that similar to the federal Service Information Availability rule, manufacturers "will have to provide independent service providers with the same capability to install field fixes as given to licensed dealership."¹¹⁸ Additionally, CARB states that its intent was only to prevent the indiscriminate access to calibration parameters.

CARB notes that although the regulations specify data encryption and access to an offsite computer for the 1999 and later model years, the regulations state that other alternatives will be considered. Moreover, manufacturers have been employing tamper resistance even without CARB's regulations.

AAMA and NADA also provided comments stating that California's anti-tampering

¹¹⁷ Docket entry IV-B-1 at 14-15. (CARB states that EPA itself has recognized the proprietary nature of monitoring system logic and calibration data and is not subject to the access requirements of section 202(m)(4) - "Section 202(m)(4) does not require that the internal computer codes within the vehicle be accessible freely through standardized and uniform connectors. Section 202(m)(4) was merely designed to ensure that independent technicians be able to access the results of the vehicle's internal diagnostics check, not the internal checks themselves.")

¹¹⁸ Docket IV-B-6 at 17.

regulations do not violate section 202(m)(4) or (5). AAMA states¹¹⁹ that the aftermarket is incorrect that § 202(m) contemplates any requirement to provide information to allow the aftermarket to reverse engineer and/or to modify diagnostics devices to fit their specialized parts. The result, according to AAMA, would be that aftermarket parts manufacturers could by-pass the diagnostics systems with ease, which could undermine the entire OBD program. AAMA states that section 202(m)(4) applies only to the output of the vehicle's OBD system, not to the system's internal computer. AAMA also notes the fact that information required to be made available under section 202(m)(5) does not include trade secrets. AAMA cites to language in EPA's service information rule to support its contentions that § 202(m)(5) is designed to ensure equal access for repair of vehicles, not for the design of aftermarket parts. NADA similarly states that claims that California's anti-tampering regulations are inconsistent with section 202(m)(4) and (5) are without merit.¹²⁰

EPA believes that CARB has properly relied upon the federal Service Information Availability (SIA) rule for support of its position that the OBD II antitampering restrictions do not contravene section 202(m)(4) or (5). The scope of information that must be provided is direct and indirect information for making emission related service and repairs. This information is provided to aid those engaged in motor vehicle service, diagnosis, and repair. EPA has stated in the SIA rule that such "indirect" information includes emission-related reprogramming events, data stream information, and bi-directional control and that such information must be provided

¹¹⁹ Docket entry IV-B-2 at Attachment I, 15-18.

¹²⁰ Docket entry IV-B-3 at 2.

by manufacturers to persons engaged in the repair of vehicles in the same or similar manner as such information is provided to their dealers. However, EPA has made clear that manufacturers are not required to provide such information directly without regard to protection of trade secrets. EPA has previously stated that information for making emission-related diagnosis and repair, including the output of data from the emission control diagnostic system as described in section 202(m)(4)(C), does not include information used to design and manufacture parts, but may include manufacturer changes to internal computer calibrations.¹²¹ Therefore, manufacturers are only required to make available that recalibration or reprogramming information that it provides to its dealers.

Both MEMA and SEMA maintain that section 202(m)(4) is not limited to OBD "output data." However, despite MEMA's citation to a House Report and SEMA's assertion that reprogramming is a necessary part of servicing and repairing vehicles, there is no evidence either from legislative history, a plain reading of the statute, or from EPA's Service Information Availability rule to support an assertion that section 202(m)(4)(B) includes not only output data but also calibration and programming information. As CARB properly notes from EPA's Service Information Availability rule, EPA believes the intent of section 202(m)(4) is that the information received by the emission control diagnostics portion of the OBD system concerning emission-related deterioration and malfunction be readily available to independent technicians.¹²²

¹²¹ Service Information Availability Rule, 60 Fed. Reg. 40474, 40475-40476 (August 9, 1995).

¹²² Service Information Availability Rule, Response to Comments Document (Docket entry II-A-1) at 377-379. The House Committee Report cited by MEMA similarly states only that the information produced by the emission control diagnostics system be widely accessible. H.R.

This type of information requires the type of access as described in section 202(m)(4), including: (A) standard and uniform connectors through which the emission control information provided by the OBD may be accessed; (B) that access to the emission control diagnostic system (e.g. trouble codes, other information as described in the SIA) through the connectors described in (A) above shall be unrestricted so that such information is not encrypted or otherwise restricted in access; and © that the output of the system as insured by (B) above is usable and not so restricted as to require unique decoding information. As EPA made clear in the SIA rule, section 202(m)(4) requires easy access to the output of the OBD, not the complex computer codes within the OBD systems. As the legislative history makes clear, the purpose of this section is to ensure that aftermarket mechanics can access the results of the vehicle's diagnostic checks, in order to ensure proper repair of vehicles. As discussed at length in the SIA rule, it is simply unnecessary for a mechanic to have direct access to the underlying codes within the vehicle's computer to receive the necessary information to fix a vehicle. As the legislative history makes clear, the connectors referred to in section 202(m)(4) were intended to be the standard connectors already in existence at the time of the Clean Air Act Amendments through which standard diagnostics information was already, in some cases, being accessed. The legislative history is clear that the language of section 202(m)(4) was not intended to require proprietary information, like internal computer codes, to be subject to unlimited access through the standard data connectors.¹²³ California has specific requirements in subsections (k) and (l) of 1968.1 which require exactly the type of

Rep. No. 101-490, 101st Cong. 2d Sess. 306 (1990).

¹²³ See 36 Cong. Rec. 3272.

unrestricted access to OBD information contemplated by section 202(m).¹²⁴

California's requirement for potting computers or employing proven methods to deter unauthorized reprogramming are not prohibited by section 202(m)(4). These requirements have little to do with the "access to the emission control diagnostics system" that is protected by section 202(m)(4)(B), and instead are directed towards deterring modifications of the underlying computer routines that control the operation of the vehicle's emission control (as well as other) systems.

Though aftermarket parts manufacturers question the need for or advisability of these requirements, such requirements are simply irrelevant to section 202(m)(4)'s access provisions.

Similarly, as discussed in depth in the SIA rule, section 202(m)(5) does not require that auto manufacturers provide aftermarket parts manufacturers directly with internal computer algorithms. Section 202(m)(5) is designed solely to make sure that manufacturers provide aftermarket repair personnel with the same emission-related repair and diagnostic information that they provide to their dealers. Section 202(m)(5) does not require that manufacturers provide aftermarket parts manufacturers directly with internal computer codes that are not provided directly to dealers; nor, in fact, would dealers or aftermarket mechanics find significant use for such computer codes in diagnosing and repairing emission-related defects. Moreover, such information is proprietary and is protected from disclosure under sections 202(m)(5) and 208.

¹²⁴ Regarding MEMA's reference to Mail-out No. 95-20, MEMA does not provide any documentation for its claim. In any case, California's regulations are clear on their face that "Standardized access to emission-related fault codes, emission-related powertrain test information ... , emission related diagnostic procedures, and stored freeze frame data shall be incorporated based on the industry specifications" provided in section (k).

Certainly, the output of emissions diagnostics systems should be made available and manufacturer-specified changes to such computer codes must be made available. However, such availability, required under EPA's SIA rule, need not be direct. Manufacturers may provide such changes to aftermarket repair persons using indirect techniques that protect the integrity of the underlying computer codes. Availability of such information is not prevented by California's anti-tampering provisions. It is true that the 1999 model year provision limiting reprogramming capability to manufacturer computers does limit the flexibility that manufacturers would have under EPA's regulations. However, such restrictions are not inconsistent with EPA's regulations as long as manufacturers provide the same access to aftermarket technicians as they provide to their dealerships. Moreover, CARB allows for alternative procedures if approved by the Executive Officer.

It should be noted, as discussed in the preamble to the SIA, EPA agrees with the aftermarket that most reprogramming of an OBD system is emission-related either directly or indirectly. However, unlike the type of output data from the emission control diagnostic system which requires the type of access as described above, the computer codes revisions underlying reprogramming or recalibration need not be directly disclosed to the aftermarket because such information is not needed to make repairs, such information is not provided directly to dealers and because such information is proprietary. "EPA is allowing the manufacturers to indirectly provide this data to independent technicians in the same or similar fashion as they provide this data to dealership technicians by offering independent technicians reprogramming capabilities to the same extent manufacturers offer such capabilities to their own dealers. This will help insure that independent technicians remain competitive with dealerships as intended by section

202(m)(5)."¹²⁵

Regarding the claim that California's anti-tampering provisions create test procedure inconsistency, CARB is correct in its response that no such inconsistency exists. A vehicle that is in compliance with CARB's regulations would not, because of such compliance, be in violation of any EPA test procedures or regulations. The fact that EPA does not require such strategies does not lead to the conclusion that EPA forbids such strategies.

Regarding the issue of whether California has made reverse engineering illegal, it appears that the anti-tampering requirements for which California is seeking a waiver are directed towards original equipment manufacturers, not aftermarket parts manufacturers. Therefore, there does not appear to be any direct prohibition on reverse engineering. In any case, such activity is not the type of information gathering that was intended to be protected under section 202(m).

Regarding the comment that EPA is being disingenuous in limiting its responsibility under section 202(m)(4) and (5) to eliminating its own anti-tampering regulations, as discussed above, EPA's remand of its own regulations was to examine the need for the regulations and to examine their consistency with section 202(m)(4) and (5). As discussed herein and in the SIA rule, EPA has found such regulations to generally be permitted under section 202(m)(4) and (5). Thus, it has not avoided its responsibilities. Regarding whether it should affirmatively stop California's regulations merely because manufacturers may employ such procedures on non-California vehicles, aftermarket commenters admit that manufacturers would employ such procedures even in the absence of California's regulations. Moreover, as discussed above,

¹²⁵ SIA rule, preamble at 40491.

section 209(b) is designed to allow California the freedom to create its own motor vehicle emission control system, with little interference by the federal government. That EPA may choose not to include anti-tampering provisions in its own regulations is no barrier to California taking a different route in its regulations.

Therefore, EPA believes that CARB's requirement of "write protect features requiring electronic access to an off-site computer maintained by the manufacturer" is acceptable and not in contravention of section 202(m). Although on a national level EPA made a policy decision that manufacturers should be afforded flexibility in determining the most appropriate method of distributing and protecting its proprietary information, EPA notes that CARB has made its own policy determination that recalibration or reprogramming information only be made available through an off-site manufacturer controlled computer. However, as noted both in CARB's regulation and in their comments, "[e]quivalent methods shall also be considered by the Executive Officer."¹²⁶

Therefore, based on the record before the EPA and an examination of the Service Information Availability rule I cannot find that the OBD II tampering requirements are in contravention of section 202(m) of the Act, and thus I cannot make a finding that the tampering restrictions are inconsistent with section 202(a) of the Act and therefore I cannot deny the waiver on this basis.¹²⁷

c. Does consistency with section 202(a) require consistency with section 207?

¹²⁶ Docket entry IV-B-1 at 16.

¹²⁷ I therefore do not need to decide whether such provisions would be inconsistent with section 202(a) if they did contravene requirements of section 202(m)(4) or (5).

With respect to emissions warranty obligations of vehicle manufacturers, the aftermarket commented that the Act, specifically section 207, prohibits California antitampering provisions and its anticompetitive effect on the aftermarket. Their comments raised the argument that subsections (b) and © of Section 207 include important provisions to protect the aftermarket from being shut out of repair and service of emissions-related equipment on vehicles. According to the aftermarket “[t]hose subsections require that the vehicle manufacturer cannot condition the emissions warranty on the use of OEM service or parts or deny a warranty on the basis of the use of aftermarket service or parts.”¹²⁸ The aftermarket’s comments reflect the belief that CARB’s tampering provisions create a situation where only the manufacturer’s chip can be used in the OBD system since the chip must be potted or soldered to the system. Without referencing any legislative history, the aftermarket states “[t]hese important protections [section 207(b) and (c)] were added to ensure that vehicle manufacturers could not leverage their monopoly in vehicles sales to create a monopoly in vehicle service on the basis of the emissions warranty.”¹²⁹ Nowhere within the aftermarket’s comments was there mention of why section 207 should be relevant to the waiver criteria found in section 209(b) although elsewhere the aftermarket took considerable effort to explain the relevance of 202(m) to the consistency with 202(a) criteria, nor was there any mention of how the vehicle manufacturer itself was conditioning the emissions warranty on the use of OEM service or parts.

CARB responds to the aftermarket comments regarding the tampering provisions

Docket entry IV-B-5 at 8.

Id.

consistency with section 207 by stating that such comments do not fit within the Administrator's framework for determining the granting or denial of a waiver request under section 209(b).

According to CARB: "It is well established that the Administrator's review is narrow: 'The law makes it clear that the waiver requests cannot be denied unless the specific findings designated in the statute can properly be made.'"¹³⁰

EPA believes that the aftermarket's comments regarding both the applicability of section 207 to this waiver and that California's antitampering provisions are in violation of 207 are incorrect. . The legislative history evidences Congressional intent that my review of California's actions be narrow and limited to the criteria set forth in section 209(b).¹³¹ Congress, within section 209(b), did not state that California's standards must be consistent with anything other than section 202(a). Finally, the MEMA decision directly addressed this issue and found EPA under no "general duty" to make a waiver decision based on factors other than those express or implied by section 209(b). "[T]he determination of what is relevant turns in the first instance on analysis of the express language of the statute involved and the content given that language by implication from the structure of the statute, its legislative history, and the general course of administrative practice since its enactment."¹³² Therefore, anti-competitive concerns (other than

¹³⁰ Docket entry IV-B-6 at 18 (citing Low Emission Vehicle Waiver, 58 Fed. Reg. 4166 (January 7, 1993), Proposed Decision, at p. 20).

¹³¹ See H.R. Rep. No. 294, 95th Congress, 1st Session 302 (1977); U.S. Code Congressional & Admin. News 1977, p. 1381. See also 44 FR 61096, 61102 (October 23, 1979).

¹³² MEMA at 1116. As noted in the text above, there is no legislative history to support the aftermarket's contention that the waiver be denied on the basis of CARB regulation's inconsistency with section 207. Indeed the legislative history evidences Congressional intent that my review of California's actions be narrow and limited to the criteria set forth in section

those expressed in section 202(m) as discussed above) which may arise in the course of a waiver proceeding are beyond the scope of my review in the context of a section 209(b) waiver decision.

In addition, an examination of the statutory language of section 207 itself reveals no indication that it prohibits California from requiring that certain parts of an OBD system be tamper resistant. Section 207 reads in relevant part: "No such warranty shall be invalid on the basis of any part used in the maintenance or repair of a vehicle or engine if such part was certified as provided under subsection (a)(2)," (section 207(b)(2)(C)); and "The instruction under subparagraph (A) of this paragraph shall not include any condition on the ultimate purchaser's using, in connection with such vehicle or engine, any component or service (other than a component or service provided without charge under the terms of the purchase agreement) which is identified by brand, trade, or corporate name; or directly or indirectly distinguishing between service performed by the franchised dealers or such manufacturer or any other service establishments with which such manufacturer has a commercial relationship, and service performed by independent automotive repair facilities with which such manufacturer has no commercial relationship...." (Section 207(c)(3)(B)).

California's anti-tampering regulations do not affect the warranty provisions of section 207(b)(2)(C) of the Act. Manufacturers are not in any way exempted from section 207(b)(2)(C)

209(b). (See H.R. Rep. No. 294, 95th Congress, 1st Session 302 (1977); U.S. Code Congressional & Admin. News 1977, p. 1381. See also 44 FR 61096, 61102 (October 23, 1979)). In addition, EPA's past administrative practice reflects that EPA does not waive the requirements of section 207 when it issues a section 209 waiver (See California State Motor Vehicle Pollution Control Standards: Amendments Within the Scope of Previous Waivers of Federal Preemption, 51 Fed. Reg. 12391 (April 10, 1986)).

by California's anti-tampering regulations. In addition, as explained in the consistency with section 202(m) portion of this decision document, EPA finds no evidence to support the notion that California's (note, not the manufacturers') requirement of a tamper resistant chip will create any monopoly in the service of such chip. By today's decision EPA is not waiving the requirements of the federal Service Information Availability rule which requires that any reprogramming information provided by the manufacturer to its franchised dealers also be made available to independent service businesses. The aftermarket provides no evidence or discussion as to how vehicle service would be tied to vehicle sales or that manufacturers have denied any emission warranty based on any aftermarket service or repair. While EPA is concerned that California's antitampering provisions, in particular, the requirements beginning in 1999 requiring that vehicle reprogramming be accomplished through an off-site computer, could be misapplied to create a situation where consumers would rely upon dealerships for performing not only warranty-related repairs but routine repairs and maintenance, EPA does not believe that such regulations, if administered and complied with in accordance with EPA's Service Information Availability rule, will create such a situation or violate section 207.

Therefore, because of the irrelevancy of section 207 to a section 209(b) waiver and because EPA believes that nothing about California's antitampering requirements are in contravention of section 207, I cannot deny the waiver on this basis.

2. Technological Feasibility

a. The Standard of Review for Consistency

As stated above, California's standards are not consistent with section 202(a) if there is inadequate lead time to permit the development of technology necessary to meet those

requirements, giving appropriate consideration to the cost of compliance within that time frame.

The central issue in EPA's determination of whether California regulations are consistent with section 202(a) is the issue of technological feasibility. Congress has stated that the "consistency with section 202(a)" requirement relates to technological feasibility.¹³³ Section 202(a)(2) states, in part, that any regulation promulgated under its authority "shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." Section 202(a) thus requires the Administrator to first determine whether adequate technology already exists or, if not, whether there is adequate time to develop and apply the technology before the subject standards go into effect. The latter scenario also requires the Administrator to determine whether the costs of developing and applying the technology within that time frame are excessive.¹³⁴

As discussed earlier in Section III - Standard of Proof, the burden of proof in a waiver proceeding lies squarely with the parties who oppose the waiver. "The language of the statute and its legislative history indicate that California's regulations, and California's determination that they comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them. California must present its regulations and findings at the hearing, and thereafter the parties opposing the waiver request bear the burden of persuading the administrator that the waiver

¹³³ See H.R. Rep. No. 294, 95th Congress, 1st Sess. 301 (1977).

¹³⁴ MEMA I at 1118.

request should be denied.”¹³⁵ In the instant proceeding, automobile industry opponents of the waiver request have presented evidence for EPA’s consideration which they believe should lead EPA to make the finding of inconsistency with section 202, and therefore cause EPA to either deny this waiver request or issue a determination which bifurcates the decision and only grants the waiver though model year 1996. According to the automobile industry, CARB’s calculation of lead time, and inclusion of the phase-in period for purposes of further technological development, is incorrect.

CARB has reviewed the cases in which the U.S. Court of Appeals for the D.C. Circuit (the only court to have reviewed section 209 waiver decisions) has opined on the test for technological feasibility, and believes that the OBD II requirements must be analyzed along different points of a continuum, depending upon the compliance date in question. According to CARB, the question for the Administrator is not whether CARB has submitted data and whether that data is reliable, but whether the manufacturers have come forward with evidence that the regulations are technologically infeasible.¹³⁶

CARB believes that both International Harvester and NRDC¹³⁷ establish a test that reviews “available technology” on a “continuum.” According to CARB:

Both cases indicated that the degree of review and the deference that can be

¹³⁵ Id. at 1121.

¹³⁶ Docket entry IV-B-6 at 9 (CARB, citing MEMA I at 1126, states that if the manufacturers fail to produce evidence that the regulations are technologically infeasible then they lose).

¹³⁷ International Harvester Company v. Ruckelshaus (International Harvester) 478 F.2d 615, 642 (D.C. Cir. 1973), Natural Resources Defense Counsel v. U.S. EPA (NRDC), 655 F.2d 318 (D.C. Cir. 1981).

provided to the prediction of feasibility is dependent on the time element and the risks involved in a wrong decision. [CARB cites International Harvester at 629, and NRDC at 329-330.] When the two cases are reviewed together, they establish that the shorter lead time until the hour production commences, the closer the review of existing technology will be. [CARB cites discussion in NRDC at 329-330.] However, the more distant the forecast the greater the leeway and deference that will be accorded.¹³⁸

Therefore, according to CARB, EPA when considering lead time and compliance dates, must consider the flexibility that has been provided by CARB to manufacturers by allowing them to phase-in compliance over a three to four year period for each of the requirements at issue. According to CARB, the phase-in requirements provide manufacturers with an additional three to four years of time to develop monitoring systems for their complete product lines. AAMA correctly notes that "[t]he amount of lead time is an intrinsic part of the feasibility of the standards for which a waiver is sought." Unlike CARB, however, AAMA estimates that the OBD II requirements allow "less than several months to a maximum of three years to complete technological development to assure compliance with these requirements. Thus, EPA believes that two issues exist: (1) Can the phase-in period be measured or counted towards total lead time allowed for a monitoring requirement, thereby allowing CARB to have a reasonable basis for expecting manufacturers to develop or refine technology, for a particular monitoring requirement, during the phase-in for more difficult applications, and (2) Should EPA review the technological feasibility of the OBD II requirements (i.e., misfire monitoring, catalyst monitoring, etc. in general and specifically each individual monitoring requirement, i.e., misfire monitoring in MY 1997 versus misfire monitoring in MY 1998) on a "continuum" of flexibility or deference (i.e., less flexibility for the first phase-in year for misfire (1997) and catalyst

¹³⁸ Docket IV-B-6 at 9.

monitoring (MY 1998) and more flexibility for the first phase-in year for the evaporative emission leak detection requirement (a later first year of implementation of MY 2000) as well as more flexibility for later phase-in year periods (misfire in 1998 and beyond and catalyst monitoring in 1999 and beyond)) thereby evaluating the technological feasibility of a particular OBD monitoring requirement based on when it is first required on the vehicle and also based on what model year on the phase-in period is being examined.

Addressing the issue of whether the OBD II phase-in periods can be calculated into the amount of lead time provided by CARB, AAMA states that "CARB confuses the concepts of lead time and phase-in by asserting that the phase-in periods provided in the OBD II regulations count toward lead time." According to AAMA, "including phase-in as part of lead time is not only inconsistent with past practice in the industry ... and exacerbates the regulatory burden on industry," but also defeats what it claims to be the purpose of phase-in periods (to apply existing technology). AAMA maintains that phase-in periods can not be used as lead time to meet the technological feasibility requirement of section 202(a).¹³⁹ Rather than using the phase-in period to develop technology, according to AAMA "The intent and purpose of longer phase-in schedules is not to provide more lead time for basic research and development of technology. The intent and purpose of longer phase-in schedules is to provide manufacturers with the flexibility to implement an existing technology in a manner that is least disruptive to long-range planning with respect to product cycles, and that best assures an orderly implementation for

¹³⁹ Docket entry IV-B-8 at 3.

consumers.”¹⁴⁰

EPA is in agreement with the principle set forth in NRDC that the purpose of lead time and mandated lead time requirements is to allow manufacturers to design and develop engines in compliance with new standards. (NRDC at 435). EPA notes that the two court decisions cited by CARB (NRDC and International Harvester) were two cases where the amount of lead time for contested EPA rules was drawn into question. EPA agrees with CARB that where shorter lead time period exist that a closer scrutiny of technological feasibility must be performed and where more substantial lead time exists to either develop or refine technology that more deference should be given by EPA in its review.

In ensuring that EPA's review of the record in this proceeding is a reasoned one, EPA reviewed carefully the discussion of the above court decisions. A review of prior EPA waiver decisions reveals that, in previous evaluations of whether a California standard must be found inconsistent with section 202(a), the Administrator has referred to court decisions applying section 202(a) to the adoption of Federal standards. While helpful to the waiver process, EPA must also evaluate waiver requests in light of Congressional intent regarding the waiver program generally. An important motivation behind the enactment of section 209(b) was to foster California's role as a laboratory for motor vehicle emission control, in order “to continue the national benefits that might flow from allowing California to continue to act as a pioneer in this

¹⁴⁰ Id. at 7-8. (EPA believes that AAMA is somewhat inconsistent in making this assertion since within AAMA's earlier written comments (Docket entry IV-B-2 at 9) AAMA states “While manufacturers have been able generally to develop adequate monitoring systems for their less complicated powertrains, they have not yet been able to do so for their complicated powertrains.... Additional lead time would allow the development of these systems for the broad range of powertrains and models, as the Act intends. (Emphasis added)

field.”¹⁴¹

For this reason, EPA believes California must be given substantial deference in its choice of approach, including its evaluation of technological development during its prescribed phase-in periods, to solve its air pollution problems. This view has guided past waiver decisions. As stated by the Administrator in the 1975 waiver to the CARB 1977 model year standards:

[E]ven on this issue of technological feasibility I would feel constrained to approve a California approach to the problem which I might also feel unable to adopt at the Federal level in my own capacity as a regulator. The whole approach of the Clean Air Act is to force the development of new types of emission control technology where that is needed by compelling the industry to ‘catch up’ to some degree with newly promulgated standards. Such an approach to automotive emission control might be attended with costs, in the shape of a reduced product offering, or price or fuel economy penalties, and by risks that a wider number of vehicle classes may not be able to complete their development work in time. Since a balancing of these risks and costs against the potential benefits from reduced emissions is a central policy decision for any regulatory agency, under the statutory scheme outlined above I believe I am required to give very substantial deference to California’s judgment on that score.¹⁴²

Further, EPA believes that both International Harvester and NRDC offer valuable guidelines for review and that EPA should evaluate the technological feasibility of CARB’s OBD II regulations based on a continuum or sliding scale whereby a showing of more certain technological solutions is necessary for monitoring requirements which are near implementation and a showing of theoretical solutions and responses to technological concerns would be necessary for monitoring requirements which are either first implemented several model years from CARB adoption of the requirement or for a monitoring requirement with phase-ins where

¹⁴¹ 40 Fed. Reg. 23,102, at 21,103 (waiver decision citing views of Congressman Moss and Senator Murphy), (May 28, 1975).

¹⁴² Id. at 23,103 (emphasis added).

more theoretical solutions for later years of the phase-in would be allowed. The court in NRDC, in upholding EPA's promulgation of particulate standards for diesel cars and light trucks, reviewed the amount of lead time provided by EPA and concluded:

Given this time frame [a 1980 decision on 1985 model year standards], we feel that there is substantial room for deference to the EPA's expertise in projecting the likely course of development. The essential question in this case is the pace of that development, and absent a revolution in the study of industry, defense of such a projection can never possess the inescapable logic of a mathematical deduction. We think that the EPA will have demonstrated the reasonableness of its basis for prediction if it answers any theoretical objections to the (projected control technology), identifies the major steps necessary in refinement of the technology, and offers plausible reasons for believing that each of those steps can be completed in the time available.¹⁴³

CARB points to both International Harvester and NRDC for the proposition that the tests for determining technological feasibility "allow administrative agencies to project future technology, subject to the 'restraints of reasonableness'."¹⁴⁴ CARB used the framework of International Harvester and the three-part test articulated in NRDC to present its evidence of technological feasibility in its submissions. As more fully discussed below, EPA can not make a finding in contravention of CARB's statement that "[p]resent technology exists for the monitoring requirements that are to be implemented in the near term, and the ARB has satisfied the conditions for granting of a waiver for those requirements that will be implemented in the more distant future."¹⁴⁵ EPA believes that CARB has reasonably applied the "continuum" of the required showing of technological feasibility in the context of its OBD II regulation which

¹⁴³ NRDC, 655 F.2d at 331-32 (emphasis added)

¹⁴⁴ Docket entry IV-B-17 at 1-2. (citing International Harvester, 478 F.2d at 629).

¹⁴⁵ Id. at 4.

encompasses several monitoring requirements with staggered implementation dates for each requirement.

EPA also believes that CARB has accommodated AAMA's concern that motor vehicles are "far more complex now than they were before electronic controls were in wide-spread use." According to AAMA, "[t]his added complexity demands a new way of assessing technical feasibility. Previous methods of assessing technical feasibility, including those embodied in judicial precedents, are all from an era when the state of technology was electro-mechanically based and are currently of little or no relevance."¹⁴⁶ AAMA claims that, because of both the functional interdependency of all aspects of the system and because a particular monitoring strategy for a particular vehicle is not as easily transferrable to a different vehicle as when vehicles were less complex, demonstrated feasibility on a few vehicles does not mean the technique is feasible or cost-effective for all vehicles. Since the initial adoption of the OBD II regulations, CARB has held several hearings to formally review manufacturer progress with compliance and CARB has adopted amendments to address manufacturer concerns and has provided a measure of flexibility by implementing a phase-in schedule for the more demanding monitoring requirements. Such a phase-in schedule can realistically be used to both apply existing technology to some vehicles and to reconfigure other vehicles to accept such technology and also to modify existing technology or develop new technology for systems that industry views as more complex. Although AAMA seems to suggest that a showing of existing technology for all or most vehicles must be demonstrated by California, AAMA fails to point to

¹⁴⁶ Docket entry IV-B-8 at 1.

any statutory language, legislative history (Congress chose not to amend the section 209 technological feasibility showing requirements when it added the section 202(m) OBD requirements in the 1990 amendments), or any case decisions, to support its position that EPA has the discretion or authority to change the type of review it performs of CARB's standards under a waiver request, or the review of technological feasibility discussed in International Harvester and NRDC.¹⁴⁷ Because of the unique and serious air pollution problems within California, EPA sees no reason to ignore the legislative history as restated in MEMA:

According to the [Senate Committee of Public Works], the advantages of the California [waiver] included the benefits for the nation to be derived from permitting California to continue its experiments in the field of emissions control -- benefits the Committee recognized might "require new control systems and design," ... and the benefits for the people of California to be derived from letting that State improve on "its already excellent program" of emissions control....¹⁴⁸

Thus EPA believes that CARB's approach to utilizing phase-in periods as a method of allowing additional lead time for refining or developing technology is consistent both with the intent of Congress to allow California to become an experimental laboratory and to not require California to "wait" for those manufacturers that have not committed the necessary resources to research and develop new technology or who have erred in applying proven technologies in their designs.

Thus AAMA's assertion that technology must be existing and available for all vehicles

¹⁴⁷ EPA believes that AAMA's arguments regarding the complexity of modern vehicles is irrelevant to the International Harvester "basic demand test," discussed below, which specifically refutes the argument that feasibility must be shown for all vehicles.

¹⁴⁸ MEMA, 627 F.2d at 1109-1110.

and that the phase-in periods are for the purpose of not disrupting product cycles¹⁴⁹ is not relevant to EPA's limited review of CARB's waiver request nor an appropriate test of technological feasibility. As noted above, California is to be afforded the broadest discretion in selecting the best means to protect the health of its citizens and the public welfare.¹⁵⁰ AAMA's assertion that phase-in periods should not be considered as lead time to develop technology is simply not in accord with the discretion that Congress intended to provide California under section 209. Moreover, the courts both in International Harvester and NRDC concluded that technological improvements can continue immediately prior to production and that lead time continues up until the "base hour" of production.¹⁵¹

In addition, although EPA has never specifically applied the International Harvester "basic demand test" to a California waiver decision, EPA has not received evidence to suggest that basic vehicle demand cannot be met by manufacturers despite AAMA's claim of potential product cycle disruption. As stated by the court in International Harvester when reviewing EPA emission standards, "as long as feasible technology permits the demand for new passenger automobiles to be generally met, the basic requirements of the Act would be satisfied even though this might occasion fewer models and a more limited choice of engine types."¹⁵² EPA has previously concluded that the basic demand test, were it to be applied to California, "would not be applicable to its fullest stringency due to the degree of discretion given to California in

¹⁴⁹ Docket entry IV-B-8 at 8.

¹⁵⁰ MEMA at 1109-1110.

¹⁵¹ International Harvester, 478 F.2d at 629 and NRDC at 330.

¹⁵² International Harvester, 478 F.2d at 640.

dealing with its mobile source pollution problems.”¹⁵³

In EPA’s review of this waiver proceeding, the Agency has evaluated the information presented in support of the request, making appropriate note of CARB’s reliance on a “continuum” of the necessary showing for technological feasibility and the lack of any showing that the basic market demand of those vehicles being regulated will not be met. EPA also has evaluated the information and data provided by the industry in support of its position that EPA should only grant CARB’s waiver request thru the 1996 model year, making appropriate note of its reliance on the technological feasibility test in International Harvester. Based on EPA’s review of this record, as discussed below, I am not able to find that there is not adequate lead time to apply existing technology and to permit the development of technology necessary to meet the OBD II requirements giving appropriate consideration to the cost of compliance within the required time frame.

b. Technological Feasibility of OBD II Monitoring Requirements

As noted above, under section 209(b)(1)(C), the Administrator cannot grant California its waiver request if she finds that California standards and accompanying enforcement procedures are not consistent with section 202(a) of the Act. California’s standards and enforcement procedures are not consistent with section 202(a) if there is inadequate lead time to permit the development of technology necessary to meet those requirements, giving appropriate consideration to the cost of compliance within that time frame. California’s standards and

¹⁵³ 41 Fed. Reg. 44209, 44213 (October 7, 1978).

enforcement procedures would also be inconsistent with section 202(a) if the Federal and California certification test procedures were inconsistent.¹⁵⁴ CARB has determined that its OBD II requirements are consistent with section 202(a) of the Act.¹⁵⁵ EPA primarily received comments from manufacturers regarding the technological feasibility of the misfire monitoring requirements commencing in 1997, the catalyst monitoring requirements commencing in 1998, and the evaporative leak detection requirements commencing in 2000. A discussion of the technological feasibility of these requirements appears below.

1. Misfire Monitor

The phase-in of the enhanced full range speed and load misfire monitoring requirements, as described in the introduction above, commence with 50 percent of projected sales in MY 1997, 75 percent in MY 1998, 90 percent in the MY 1999, and 100 percent implementation for the MY 2000. According to AAMA, for those engine families meeting these phase-in percentages, misfire monitoring must be continuous under all positive-torque engine speed and load conditions, as defined by CARB's regulation.¹⁵⁶ According to AAMA "[m]anufacturers have been able generally to develop adequate monitoring systems for their less complicated powertrains, they have not yet been able to do so for their complicated powertrains. This represents a substantial portion of production for many manufacturers, with the result that some manufacturers will likely be forced to limit availability or pay fines under California's

¹⁵⁴ See Introduction, *supra*, for discussion of section 202(a).

¹⁵⁵ Docket II-A-34 at 8.

¹⁵⁶ Docket entry IV-B-2 at 9.

deficiency/penalty system. This will impact full line manufacturers who make more complicated powertrains, and thus adversely impact their competitive position in the market. Additional lead time would allow the development of these systems for the broad range of powertrains and models, as the Act intends.” Additionally, AAMA questions the need for full-range, multiple-cylinder misfire detection, “given that misfire events typically involve a failure mode that is continuously present, such as coil-pack failure or a disconnected spark plug wire, and are not restricted to occurrence at high engine speeds.” AAMA maintains that “misfire detection at high engine speeds is difficult to discern due to lower signal-to-noise ratio occurring at high engine speeds, and signal interference caused by other, sometimes transient, perturbations occurring at such speeds (e.g. road surface roughness). This problem is exacerbated for 8, 10, and 12 cylinder engines. Misfire detection is therefore heavily reliant on statistical treatment of variable and mixed signal input data. As such, the algorithms used are extremely complicated and difficult to develop, and time-consuming to validate -- particularly under all possible positive speed and load ranges, and under all possible driving conditions.”

According to AAMA, misfire technology developed for one engine family is not easily transferred to the next. “The number of cylinders, firing order, combustion characteristics, and material specifications cause each engine family to be unique, necessitating that unique calibrations be developed and validated for each. ... Development and validation can require 3 to 5 man-years for a 4 or 6-cylinder engine, and even longer times for 8, 10, or 12-cylinder engines. According to AAMA “A complicated powertrain is one for which the signal-to-noise ratio for the monitor is very low, due to torsional vibrations, interference caused by such things as a large number of cylinders and/or valves, and/or a design operating regime that includes high RPM

operation. AAMA responds to CARB's argument that the phase-in period can be used to develop requisite technology for the more difficult powertrains and that one manufacturer has developed a misfire monitor for a V-8 based on low data rate acquisition technology by stating "the phase-in period must not be misinterpreted to mean development time (i.e., lead time). Nevertheless, the fact that low data rate acquisition technology almost meets CARB misfire requirements on one particular V-8 engine does not prove that this, or another technology can be successfully applied to all other large (much less complicated) powertrains. In fact, some AAMA member companies are struggling to meet the misfire monitoring requirements even with high data rate acquisition technology, and even on four-cylinder applications."¹⁵⁷

CARB, responding to AAMA's comments submitted on December 11, 1995, states that "the AAMA simply asserts that manufacturers have not been able to develop successful monitoring strategies for their complicated powertrains and such powertrains represent a substantial portion of production for many manufacturers.... The Administrator is asked to accept on faith that compliance is not feasible, even with the liberal phase-in schedules that have been provided.... The ARB fully expects that manufacturers will be able to meet the 1997 compliance schedule by certifying the 'less complex' four and six cylinder powertrains."¹⁵⁸ According to CARB, as of December 1995, a number of vehicle manufacturers have indicated that the 1997 phase-in percentages can be met. CARB also explains that the phase-in percentages adopted by the Board in 1994 were intended to provide for the phase-in of high data rate misfire detection

¹⁵⁷ Docket entry IV-B-8 at 12.

¹⁵⁸ Id. at 14.

technologies. CARB points out that one manufacturer presented evidence to CARB regarding an eight cylinder application which indicated that misfire can be detected at nearly every required condition with essentially no risk of false malfunction detection when using a low data rate technology. CARB maintains that manufacturers have more than three years of lead time still available for the most "complex" powertrains which may use the high data rate technology envisioned by CARB.

In AAMA's supplemental comments, AAMA responds to CARB's December 22, 1995 comments by stating that individual manufacturers have shared "ample data" with CARB regarding all of their monitoring strategies including misfire and the types of problems manufacturers are experiencing. AAMA reiterates that manufacturers are experiencing problems with misfire detection on "complicated powertrains" which AAMA describes as those powertrains where the signal-to-noise ratio for the monitor is very low, due to unusual noise vibrations, interference caused by such things as a large number of cylinders and/or valves, and/or a design operating regime that includes high RPM operation. In addition, in response to CARB's assertion that manufacturers will be able to use the phase-in to develop requisite technology for the more difficult powertrains, AAMA restates its position that the phase-in period must not be misinterpreted to mean development time or lead time. AAMA also states that the fact that low data rate acquisition, though it may almost meet CARB misfire requirements on one V-8 engines does not prove that this, or any other technology can be successfully applied to other large and complicated powertrains. Though AAMA does not directly refute the viability of high data rate technology, it states "some AAMA member companies are struggling to meet the misfire monitoring requirements even with high data

acquisition technology, and even on four-cylinder applications. From this statement AAMA draws the conclusion that the misfire requirement is not consistent with section 202(a)(2).

Given the above, the Agency believes that AAMA has not met its burden on showing that misfire monitoring is not technologically feasible. The Agency accepts the arguments presented by CARB that a showing that currently available technology exists to meet the misfire monitoring requirements for 1997 and that CARB has adequately responded to manufacturer objections and provided technological solutions in terms of either modifying or creating new technology to apply towards 1998 and later model year vehicles. The requirement for continuous misfire monitoring during all positive torque conditions was first finalized by CARB in the 1992 OBD II regulations. At that time, the requirement was to be met no later than the 1996 model year. CARB subsequently provided more lead time by pushing the implementation date back one year, and providing the phase-in percentages already discussed for the 1997 through 2000 model years. Manufacturers therefore had several years with which to develop technology to meet the misfire requirements, and to take steps to ensure that the technology could be implemented in the time available. For these reasons and given the existence of technology to meet the misfire monitoring requirement, as discussed below, the claim of inadequate lead time for compliance with this requirement is not persuasive.

It is important to note two critical aspects of the OBD II regulation that AAMA ignored in its comments. The first of these is that the regulation allows, at 1968.1(b)(3.3.3), "As an exception to monitoring misfire during all positive torque operating conditions, manufacturers may disable misfire monitoring in the engine operating region bound by the positive torque line (i.e., engine load with the transmission in neutral), and the two following engine operating

points: an engine speed of 3000 rpm with the engine load at the positive torque line, and the redline engine speed with the engine's manifold vacuum at four inches of mercury lower than that at the positive torque line." This effectively eliminates from the required monitoring range the very high speed-very low load region that has been of greatest difficulty for most manufacturers. The second of these critical aspects is that this same section states, "...Further, with Executive Officer approval, the manufacturer may disable misfire monitoring when misfire cannot be distinguished from other effects (e.g., rough roads, transmission shifts, etc.) when using the best available monitoring technology."

In the Agency's opinion, this statement affords manufacturers considerable flexibility in complying with the misfire monitoring requirements of the OBD II regulation. The clear intent of the requirement is that the OBD II system be fully accurate over the entire positive torque operating range. But, where that accuracy cannot be maintained, it seems clear that CARB will approve a less capable monitoring strategy, rather than approving one likely to misdiagnose under monitoring conditions where accuracy cannot be maintained.¹⁵⁹ It appears that CARB is administering its certification program in a flexible manner consistent with its regulations; this flexibility is being utilized by CARB staff and indeed, misfire monitors not capable of full speed

¹⁵⁹ According to CARB approximately 80 engine families have been certified to meet the enhanced misfire detection requirements without deficiencies, including four, six, and eight cylinder engines, and will constitute approximately 50 percent of manufacturers' sales volume for the 1997 model year. EPA has received data from manufacturers that only a handful of vehicle engine families planned for production to meet the 1997 phase-in for misfire monitoring are having difficulty meeting the full-range requirements. EPA is not in receipt of any evidence to suggest that manufacturers have indeed failed to meet the phase-in requirements.

and load detection are being approved without being labeled as "deficient."¹⁶⁰ An example of this is CARB's allowance of disabled misfire monitors, for some engine families, during the initial seconds of vehicle operation following engine starting. This is a relaxation of the requirement for continuous monitoring with the sole purpose of avoiding misfire monitoring during a particularly difficult operating mode during which to accurately detect misfire. CARB has made this allowance in Mail-Out #95-20, and any monitors making use of the allowance are not considered "deficient."

Moreover, a review of AAMA comments and individual manufacturer data and information submitted to EPA reveals that many engine families are fully meeting CARB's misfire requirements and there is no evidence in the record to suggest that the basic market demand test from International Harvester, as described above and below, has not been met.¹⁶¹ Given that a substantial portion of the vehicle population can already meet the requirements for monitoring misfire, EPA cannot find that such requirements are technologically infeasible in the lead time provided.

2. LEV Catalyst Monitor

Beginning with the 1998 model year, the California OBD II regulations require phase-in of catalyst monitors capable of detecting catalyst deterioration or malfunction prior to emissions exceeding 1.5 times the applicable FTP HC standard. The phase-in, based on projected sales volume for LEV applications, shall equal or exceed 30 percent in the 1998 model year, 60

See docket entries IV-B-23, IV-B-18 at 7-8, and IV-B-17 at 7.

¹⁶¹ See docket entries IV-B-10, 12, 13, 14, 15, and 21.

percent in the 1999 model year, with 100 percent implementation for the 2000 model year.

The OEM industry makes two primary arguments against the California OBD II LEV catalyst monitoring requirements. The first of these arguments is that California has not demonstrated technological feasibility of the requirements for vehicles certified to the LEV and ULEV emission standards. The second argument is that California has not provided sufficient lead time to incorporate reliable OBD catalyst monitors on their LEV and ULEV families.

AAMA argues that the LEV catalyst monitor is perhaps the most problematical OBD II monitoring requirement "since in this case it is not even certain whether additional lead-time will enable manufacturers to comply with this requirement across all model lines." (AAMA submittal, 12/1/95, Attachment I) EPA believes that manufacturer concerns regarding compliance across all model lines are not relevant to EPA's limited scope when determining technological feasibility. In a previous court decision, International Harvester vs. Ruckelshaus, 478 F.2d 615 (D.C. Cir., 1973), the court held that "as long as feasible technology permits the demand for new passenger automobiles to be generally met, the basic requirements of the Act would be satisfied even though this might occasion fewer models and a more limited choice of engine types." (478 F.2d at 629) Therefore, the courts have determined that technological feasibility is not based upon ability to apply technology across all model lines, but rather to apply technology to a sufficient number of vehicles so as to satisfy generally the demand for new motor vehicles within the applicable area (i.e., the State of California in this case).

That issue aside, it is still necessary to determine whether or not the catalyst monitoring technology exists to satisfy new vehicle demands in the State of California. CARB has made what it considers a demonstration of technological feasibility using a 1990 Buick LeSabre

equipped with a 3.8 liter, V-6 engine. (see CARB Mail Out #94-38). In the testing conducted by CARB, the vehicle was modified to be a prototype ULEV by adding a 0.45 liter electrically heated catalyst (EHC) combined with a non-heated light-off substrate as a front catalyst, followed by two 1.4 liter catalysts in a single container. With this modified configuration, the vehicle achieved a baseline NMHC emission value of 0.034 g/mi, thereby meeting the 0.04 g/mi ULEV standard. Preliminary test results showed that the EHC/light-off combination achieved an average FTP total HC conversion efficiency of approximately 92 percent. Testing was then conducted with the 0.45 liter EHC/light-off catalyst combination removed and replaced with a 0.2 liter conventional catalyst to simulate a loss of conversion efficiency across the monitored front catalyst. Total HC conversion efficiency across the 0.2 liter catalyst was measured at approximately 80 percent, resulting in a tailpipe emission level of 0.060 g/mi NMHC. Thus, even with a relatively large (approximately 12 percent) drop in front catalyst efficiency over the front catalyst, tailpipe emissions did not exceed 1.5 times the ULEV HC standard.¹⁶² CARB believes that this data indicates that, by properly sizing the front catalyst volume, a sufficiently large decrease in its conversion efficiency can be used as the basis for identifying a fault before tailpipe emissions would exceed the 1.5 times the standard emission threshold. CARB argues that testing they conducted indicates that the dual oxygen sensor approach to catalyst monitoring can detect catalyst deterioration prior to exceeding 1.5 times applicable standards, even at ULEV levels. CARB goes on to say that their feasibility demonstration is applicable to those vehicles for which only a front portion of the total catalyst volume is actually monitored, as is allowed

¹⁶² CARB Staff Report, Docket entry II-B-24 at 11-16.

under the regulations. CARB states a concern that compliance with the requirements would be very difficult if the entire catalyst system is evaluated by the monitor.

AAMA has argued that the CARB demonstration of feasibility is inadequate in that it fails to demonstrate that the monitor accurately identified emission levels at or above 1.5 times the standard, and it fails to demonstrate that the monitor does so without causing false failures throughout the useful life of the vehicle. AAMA goes further to state that the method used by CARB to simulate catalyst deterioration was requested by one member company for certification demonstration purposes and was subsequently denied for use by CARB. AAMA also argues that, while this requirement may be theoretically feasible for some LEVs, the feasibility for ULEV's is in doubt. Contrary to CARB's assertion, AAMA states that CARB has not provided adequate demonstration of the feasibility of the 1.5 times HC standard on even one ULEV vehicle in the laboratory. Manufacturers face a much greater challenge trying to implement this requirement on a broad range of vehicles without sufficient lead time.¹⁶³

CARB counters these arguments by pointing out that, contrary to the assertions of the AAMA, the CARB intended the data to show that it would take a significant drop in front catalyst efficiency (approximately a twelve percent drop to an FTP HC efficiency of approximately eighty percent) to increase emissions to 1.5 times the standard. (CARB comments, docket entry IV-B-17) CARB argues that to support the feasibility of monitoring catalysts accurately and reliably for this drop in efficiency, they principally relied upon data submitted by industry, specifically data from current production catalyst monitoring strategies, which indicate

¹⁶³ Docket entry IV-B-2 at Attachment I.

that catalysts can be detected as malfunctioning when HC FTP efficiency falls to approximately eighty percent. CARB admits that while the test they conducted does not on its own demonstrate the feasibility of the catalyst monitoring requirements, when coupled with industry data and manufacturers' current catalyst monitoring systems, a valid demonstration of feasibility is made.

AAMA also argues that the LEV catalyst monitoring requirements are set at levels so stringent that given the current state of technology and lack of lead time allowed, they are likely to defeat the effectiveness of the entire OBD II systems. This is because the systems that manufacturers must install to comply with CARB's requirements are likely to result in the proliferation of false MIL illuminations.¹⁶⁴

CARB counters this argument by pointing out the several ways they have tried to address the issue of false MIL illuminations within the OBD II regulations. At the most basic level, the OBD II systems are permitted to verify that a malfunction is present in two consecutive driving cycles before illuminating the MIL. Therefore, any single false indication of a malfunction will not result in false illumination of the MIL. Also, at the request of industry, the OBD II regulations also expressly permit the use of alternate statistical algorithms (for example, Exponentially Weighted Moving Averages (EWMA)) to further reduce any danger of illuminating the MIL falsely. Further, the regulation permits manufacturers to select appropriate monitoring technologies and FTP based monitoring conditions to provide for the reliable detection of malfunctions.¹⁶⁵

¹⁶⁴ Docket entry IV-B-2, Attachment I.

¹⁶⁵ Docket entry IV-B-6 at 4.

AAMA argues that California has not provided manufacturers sufficient lead time to permit development and application of the technology to meet the more stringent misfire, catalyst, and evaporative system monitoring requirements for 1997 and subsequent model years. The amount of lead time is an intrinsic part of the feasibility of the standards for which a waiver is sought. AAMA argues that the LEV catalyst monitoring requirements begin to phase-in with the 1998 model year, when 30% of a manufacturer's LEVs must comply, thereby allowing a range of less than several months to a maximum of three years to complete technological development to assure compliance with these requirements. They state that this is simply inadequate time to design, test, validate and implement the technological changes which are necessary to comply with the LEV catalyst monitoring requirements.

AAMA goes on to argue that LEV catalyst monitoring at 1.5 times the applicable LEV HC standard requires manufacturers to monitor small catalyst volumes in the front most region of the exhaust system and to extrapolate a deterioration rate to the rest of the catalyst volume in the system. Substantial technical questions still remain with respect to the proper monitoring volume relative to total volume to properly infer conversion efficiency of the entire catalyst system. This is a critical determination in the reliability of the monitor. AAMA expresses a need for additional lead time for compliance to allow hard tooling changes to be made to accommodate acceptably-performing designs for new exhaust configurations. The current CARB regulation would require these changes to be done out of step with the planned product cycles, thus increasing these costs enormously.¹⁶⁶

¹⁶⁶ Id.

AAMA also argues that while CARB claims to have required front catalyst monitoring back in 1991, they made the requirements much more stringent in the December 1994 version of the regulations (detection of 50 percent conversion efficiency in 1991 vs. detection of 1.5 times the standard in 1994). They argue that the 1994 requirement is effectively much more stringent, and requires monitoring of even smaller up-front catalyst volumes, necessitating in some cases, redesign of the body floor pan to accommodate oxygen sensor location (for catalyst monitoring). AAMA claims that at the time that the current LEV catalyst monitoring requirement was adopted (December 8, 1994), manufacturers had no experience with a small volume catalyst monitoring approach. Due to the short lead time allowed, manufacturers have had to make hardware design decisions based on their best estimation of what volume ratio (monitored to unmonitored) will reliably result in MIL illumination when exhaust emissions are at or near 1.5 times the standard. Since their early development efforts, manufacturers have found that original estimates of the appropriate ratio for monitored to unmonitored catalyst volume are wrong for some vehicles -- too small, resulting in MIL illumination when emission are still below the standard, or too large, resulting in MIL illumination well above 1.5 times the standard. They state that it is too late for manufacturers to modify the monitored front catalyst volumes for their 1998-2000 model year LEVs to correct this problem, and, as a result, there is a risk that manufacturers will not meet the phase-in percentages for this requirement.¹⁶⁷

CARB states that the phase-in schedules will permit manufacturers to choose to certify

¹⁶⁷ Id. at Attachment II.

only TLEVs during the 1998 model year.¹⁶⁸ CARB points out that the comments of the AAMA do not appear to challenge the CARB's contention that the catalyst monitoring requirements for these vehicles (TLEVs) is presently feasible. CARB goes on to state that they do not anticipate that manufacturers will need to certify LEVs prior to the 1999 model year, and ULEVs prior to the 2000 model year.

CARB also states that, when they adopted the 1994 amendments to OBD II, they and the industry fully recognized that certain motor vehicle models would possibly require some redesign of the body floor pan. This was one of the principal reasons behind the three year phase-in, with a second principal reason for the phase-in schedule being to permit continued development of technology. Under the phase-in, manufacturers could elect to defer those models requiring redesign until the normal vehicle model change-over occurs. Additionally, CARB points out that one AAMA member company has indicated to the CARB that it plans to ignore the front catalyst monitoring allowance combined with inferring catalyst system efficiency by monitoring the entire catalyst volume. CARB considers this a demonstration of the flexibility of the 1994 amendments in contrast to the 1991 monitoring requirements which specifically required individual monitoring of front catalysts.

In separate meetings with EPA, GM and Ford each presented confidential information in support of their claims of technological infeasibility associated with the LEV/ULEV catalyst monitoring requirements. GM stated that the catalyst monitoring requirements may be feasible for Tier 1 and TLEV vehicles, but that both technology development and adequate lead time are

¹⁶⁸ Docket entry IV-B-6.

uncertain for LEVs and ULEVs. GM argued that prototype LEV and ULEV vehicles were unavailable for diagnostic development and validation testing. GM also argued that there exists a very high risk of illuminating the MIL while the vehicle is still operating below the applicable emission standards. GM pointed to what it believes to be a poor correlation between oxygen storage (the parameter measured by the catalyst monitor) and catalyst efficiency, which therefore causes an extremely high variability in the diagnostic. GM also complained that CARB staff does not consider the illumination of the MIL when emissions are below the standard to be a problem. Finally, GM stated it would be unable to meet the 1999 and 2000 model year phase-ins.

Ford argued that they could not meet the 30% phase-in requirement in the 1998 model year, primarily because the catalyst volume they have chosen to monitor is too small, resulting in MIL illumination prior to the vehicle exceeding the emissions standards. Ford presented data on one LEV vehicle that "clearly reveals that the MIL will be illuminated on a significant number of vehicles in-use prior to the vehicle exceeding the 100k LEV NMHC standard."¹⁶⁹

Given the conflicting evidence and arguments above, there is no clear indication that it is not technologically feasible to develop catalyst monitor technology that is capable of meeting the requirements of the OBD II regulation. CARB has presented strong evidence to support the feasibility of the monitoring technology with their simulated ULEV, combined with the ability to detect losses of conversion efficiency in the range of 12 percent.¹⁷⁰ The auto makers have

¹⁶⁹ Docket entry IV-B-15.

¹⁷⁰ CARB Staff Report, docket entry II-B-24 at 12-13.

presented many arguments, supported by limited data, suggesting that the primary difficulty associated with catalyst monitoring is that of avoiding MIL illumination below the malfunction threshold and even the emission standard. However, this does not show that the monitoring technology is not feasible, but rather that difficulties currently exist in fine tuning the monitor.

AAMA takes issue with the simulated ULEV demonstration of feasibility conducted by CARB because it fails to consider the likelihood of false failures, it does not demonstrate feasibility of detection at 1.5 times the standard, and it does not accurately simulate catalyst deterioration. CARB counters by admitting that the demonstration alone does not prove technological feasibility, but rather that it takes a significant amount of catalyst deterioration (12%) prior to exceeding the 1.5 times threshold, even for a ULEV. CARB argues that this, in conjunction with manufacturer data demonstrating that a 12% loss in conversion efficiency can be detected, demonstrates feasibility.¹⁷¹

EPA agrees with CARB on this showing of feasibility. While the auto makers are correct in that the demonstration does not accurately simulate catalyst deterioration, such a showing is not necessary for this purpose. The CARB ULEV demonstration adequately simulates catalyst deterioration for the purpose of demonstrating that a significant decrease in HC conversion efficiency (12%) would occur before emissions exceed 1.5 times the standard. EPA has maintained for several years that conversion efficiency losses of 10% and greater can be accurately detected with the dual oxygen sensor catalyst monitor.¹⁷²

¹⁷¹ Id. at 11-15.

See EPA's OBD Final Rule at 58 Fed. Reg. 9468 (February 19, 1993) and EPA's Final Rule for the Low Emission Vehicle Program for the Ozone Transport Region at 60 Fed. Reg.

AAMA also argues that the CARB ULEV demonstration fails to show that the technology can be applied to a broad range of vehicles. As discussed above, a previous court decision, International Harvester vs. Ruckelshaus, 478 F.2d 615 (D.C. Cir., 1973), held that "as long as feasible technology permits the demand for new passenger automobiles to be generally met, the basic requirements of the Act would be satisfied even though this might occasion fewer models and a more limited choice of engine types." (478 F.2d at 629) Therefore, the courts have determined that technological feasibility is not based upon ability to apply technology across all model lines, but rather to apply technology to a sufficient number of vehicles so as to satisfy the demand for new motor vehicles within the applicable area (i.e., the State of California in this case). Based on the evidence in the record, it appears very likely that manufacturers will be able to meet the phase-in requirement in 1998 with its production of TLEVs, in addition, EPA is in receipt of no evidence to suggest that low emission vehicle product offerings will be restricted thereafter. As noted below, manufacturers have already begun to monitor the front catalyst of some vehicles (which is likely on most LEV and ULEV applications) and with the additional lead time provided by CARB it seems likely that the LEV and ULEV market demand will be met. Based on CARB's assertions and lack of evidence to the contrary, EPA believes that the basic demand for new motor vehicles should be met.

Further, while EPA is sympathetic to those OEMs who are behind in product planning to incorporate the necessary oxygen sensors into their vehicle designs for the purpose of catalyst monitoring, EPA agrees with the CARB that those manufacturers that have not committed the

4712 (January 24, 1995).

necessary resources to research and development of new technology or who have erred in applying proven technology in their designs should not dictate the level of technology and implementation schedules for the entire industry. Anything other than such a policy would result in the lowest common denominator controlling technological progress.

AAMA also claims that the stringency of the catalyst monitoring requirement is such that it will lead to excessive MIL illumination thereby defeating the intent of the regulation. EPA shares this concern and believes that CARB does as well. CARB has argued that they have already made efforts to alleviate this concern by permitting 2 trips in which to conduct monitoring prior to illuminating the MIL, and by allowing EWMA based algorithms if justified by the manufacturer. These provisions should help to minimize the false MIL concern.

Therefore, the primary issue becomes one of lead time, rather than the ability of the technology to meet CARB's regulatory requirements. EPA agrees with CARB that industry was put on notice of front catalyst monitoring requirements with the 1991 version of the OBD II regulation. At that time, industry could reasonably be expected to devote resources to catalyst monitor development and floor pan redesign to accommodate front catalyst monitoring. AAMA argues that the December 1994 amendments made the catalyst monitoring requirements significantly more stringent. EPA agrees with AAMA. However, EPA also agrees with CARB that the ensuing 3 to 5 year phase-in (1998 through 2000 model year) should provide adequate lead time for redesigning vehicles where necessary, and for further technology development. As stated below, EPA believes that CARB has allowed manufacturers flexibility in choosing which vehicles, among those that may require some redesign of the body floor pan, to redesign first. In addition, CARB notes that since CARB's adoption of the phase-in percentages in 1994, where

AAMA member companies stated that the phase-in percentages would allow phase-in of the catalyst monitoring requirements with minimal impact to vehicle designs, no evidence has been produced to suggest that "additional significant hardware modifications would be necessary to meet the requirements, nor has any manufacturer claimed that the placement of the rear oxygen sensor for proper monitoring is technically infeasible."¹⁷³ EPA recognizes that some body floor redesign may be required but believes that manufacturers have not met their burden of providing sufficient evidence to refute CARB's assessment that such redesign can be accomplished within the lead time provided. EPA notes that at the October 17, 1995 hearing CARB presented several 1995 and 1996 OBD II equipped models that monitor the front catalyst by itself, which indicates that manufacturers had already begun to make adjustments for front catalyst monitoring before CARB's 1994 amendments and that such amendments provided an additional three to five years of lead time.¹⁷⁴ Also, EPA agrees with CARB that the allowed phase-in should have permitted auto makers to delay redesign until normal product planning changeover.

Additionally, EPA agrees with CARB that industry should be able to comply with the 30 percent phase-in requirement using TLEVs and, therefore, few if any LEV certified vehicles would be required to comply during the 1998 model year. CARB states that they do not anticipate that manufacturers will need to certify LEVs until the 1999 model year, and no ULEVs until the 2000 model year. EPA has seen no data either supporting or contradicting this claim.

3. Evaporative Leak Detection

¹⁷³ Docket entry IV-B-17 at 6.

¹⁷⁴ Docket entry IV-B-6 at 13.

As noted in the Background section above, CARB's OBD II regulations require that vehicle evaporative control systems be monitored to identify malfunctions which could result in an increase in evaporative emissions. In 1992 (Mail-out #92-56) CARB adopted revisions to the OBD II regulations that required monitoring of "the evaporative system for the loss of HC vapor into the atmosphere by performing a pressure or vacuum check of the complete evaporative system." These monitors were to be included on those 1996 and later model year vehicles certified to California's evaporative emission test procedures in place for 1995 and later model years. Thus for model years 1996 through 1999 vehicles must employ a monitoring strategy to detect evaporative system leaks as small as .040 inches in diameter. Commencing in model year 2000 a more stringent monitoring strategy to detect system leaks as small as .020 inches in diameter is phased-in.

CARB's rationale behind the more stringent monitoring requirement for the 2000 model year and beyond is that emissions associated with leaks between 0.040 and 0.020 inches are significant and therefore should be eliminated. As CARB staff presented at their December 1994 Board hearing, 3.7 percent of mostly 10 year old or newer vehicles, and as many as 7.8 percent of 25 year old or newer vehicles in the State of California have leaks in that range. Given the 7.8 percent value, and the effect of such leaks on vehicle emissions, CARB estimates that the effect of ignoring evaporative system leaks between 0.040 and 0.020 inches could be as high as a 50 percent increase on fleet average emissions. Further, CARB argues that while some in industry claim that due to evaporative system design advancements, emissions from leaks in that range are only 4 grams per test, such an emission value is still twice the applicable standard. As such, it cannot be ignored in the opinion of CARB staff.

AAMA sets forth two primary arguments against the more stringent 0.020 orifice leak detection requirement.¹⁷⁵ AAMA states that the 0.020" leak detection requirement "can probably be met if sufficient lead-time were allowed, although manufacturers continue to question the utility of these requirements, especially when the cost and difficulty of compliance are factored in."¹⁷⁶ Thus AAMA questions both the technological feasibility and the utility of the evaporative leak detection requirement.

Although AAMA states that the leak detection requirement can probably be met, AAMA maintains that "CARB's analysis for this requirement does not account for vehicle-to-vehicle variability, 'fuel slosh,' or high RVP fuels, all of which could cause false MIL illuminations." Apparently AAMA believes high RVP fuels are at issue since such fuel is available in border states to California and in the Northeast states that receive California vehicles. AAMA also asserts that CARB's analysis fails to demonstrate that vacuum based monitoring systems can be calibrated to detect 0.020 inch leaks and avoid false MIL illuminations under commonly occurring in-use conditions. AAMA responds to CARB's assertion that adequate lead time has been provided by putting off the 0.020 inch monitoring requirement until MY 2000 by stating that "manufactures have not yet been able to assess the long-term viability of the 0.040 inch system." Additionally, AAMA states "Even if the 0.040 inch system proves to be reliable, major system modifications must be designed for 0.020 inch device. For vacuum-based monitors, a redesign of the core system, including new and costly hardware, will most likely be necessary to

¹⁷⁵ It is noted that no where within the public docket is any objection raised to CARB's 0.040 leak detection requirement.

¹⁷⁶ Docket entry IV-B-2 at 1.

meet the 0.020 inch requirement. This redesign cannot reasonably be done in the lead time provided in the California regulations.”¹⁷⁷

In addition to AAMA’s technological feasibility concerns, AAMA also points out that at the time CARB approved of the enhanced evaporative leak detection requirement in December, 1994 manufacturers objected to the lower threshold as it would “increase the burden of compliance considerably, and may well not be feasible in the time-frame envisioned.” AAMA maintains that the enhanced leak detection requirement is likely to be completely unnecessary in light of the enhanced evaporative emission requirements and the existing 0.040 inch EVAP leak detection requirement. AAMA argues that both the enhanced evaporative emission requirement and the 0.040 inch leak detection requirement should be fully implemented and tested in-use before increasing the stringency of either.

EPA believes that CARB has adequately, in terms of the NRDC test and in terms of what is relevant to EPA’s consideration, responded to AAMA’s comments by stating three principles. First, CARB states that its regulations are presumed to satisfy the waiver requirements. Second, because CARB adopted the enhanced leak detection requirements in December, 1994, and therefore granted between five and seven years of lead time (based on the phase-in commencing in model year 2000), the appropriate model for review of technological feasibility for this requirement is the NRDC case. Third, CARB states that it “has provided a reasonable basis for its prediction in that it has answered the theoretical objections that the manufacturers have raised, has identified the major steps necessary in refinement of the OBD II system to allow for

¹⁷⁷ Id. at 10.

monitoring of the enhanced requirement, and has offered plausible justification for why it believes that each of the required steps for refinement can be completed in the time available.”¹⁷⁸

In response to AAMA’s challenges¹⁷⁹, CARB cites its Staff Report where CARB staff provided extensive and detailed data supporting the feasibility for compliance with the leak detection requirement for vacuum-based systems.¹⁸⁰ This Staff Report specifically addressed the issues raised by manufacturers and solutions to overcome such objections (the issues include: RVP, fuel-slosh and variability in production vehicles). The Staff Report identified four test vehicles used by CARB for tests conducted for a no-leak condition, a 0.020 inch orifice leak, and a 0.040 inch orifice leak. From the data gathered from these tests it was concluded that adequate separation between the no-leak case and the 0.020 inch orifice case exists. A discussion of the issues raised by manufacturers and CARB’s solution to such issues takes place below. Because of the substantial lead time still remaining EPA believes that CARB’s projection that such solutions and a period of time to perfect system modifications is still available is reasonable and that manufacturers have not met their burden of proving otherwise.

Regarding fuel vapor generation issues related to fuel volatility, CARB states that high RVP fuel should not cause false illumination of the MIL “because the first stage of the monitoring strategy would provide a direct indication of the magnitude of vapor generation and

¹⁷⁸ Docket entry IV-B-6 at 15 (citing MEMA I, 627 F.2d at 1121).

¹⁷⁹ In addition to AAMA’s December 1, 1995 comments at docket entry IV-B-2, AAMA submitted additional comments on March 7, 1996 at docket entry at IV-B-8 at 12-13.

¹⁸⁰ Id. at 14 (citing “Staff Report: Initial Statement of Reasons for Rulemaking” dated October 21, 1994, at 22-23).

that the system can be disabled if high pressure conditions exist.” Thus, CARB responds to AAMA’s statement that high pressure may cause false MILs by stating that this can be avoided “by sealing the system at ambient pressure and monitoring for rises in pressure as a result of vapor generation caused by high Reid vapor pressure (RVP) fuel and/or high temperature conditions. This vapor generation check would be run just before or after the leak check itself, and the results could be used to either abort the leak check or void its results if high vapor generation conditions are determined to exist.”¹⁸¹ EPA has received no evidence to make a finding that not enough lead time remains to develop or modify leak detection systems to incorporate such a strategy. CARB responds to AAMA’s statement that the leak check may occur when conditions have substantially changed within the fuel tank with resulting false MILs by suggesting “running the two checks one after the other without delay, monitoring can be completed in less than approximately one minute, an insufficient amount of time to significantly alter the vapor generation rate.”¹⁸²

In response to the fuel slosh concerns expressed by AAMA, CARB has suggested monitoring at idle conditions when the vehicle is stopped, or disabling the monitoring strategy when the effects of fuel slosh are evident.¹⁸³ Although AAMA claims that CARB does not approve checks that require lengthy idle times,¹⁸⁴ CARB states that only the current monitoring regulations require the monitoring strategy to operate over the course of an FTP-72 cycle (which

¹⁸¹ Docket entry IV-B-17 at 8.

¹⁸² Id.

¹⁸³ See OBD II requirement 4.1.3, and 4.3.

¹⁸⁴ Docket entry IV-B-8 at 12.

requires an idle-based monitoring strategy to execute within approximately 40 seconds).

However, for the future 0.020 inch leak detection requirement, the regulation “specifically permits more limited monitoring conditions (i.e., selection of monitoring conditions is not limited by the constraint that the monitor must execute over an FTP-72 cycle). Thus, according to CARB, “manufacturers may perform monitoring during idle periods longer than encountered during the FTP cycle, provided they allow for reasonably frequent checking in-use.”¹⁸⁵ CARB also addresses AAMA’s statement that it may be too difficult to calibrate a system to assure that any degree of fuel slosh will not trigger a false MIL, CARB states “AAMA acknowledges that disablement of the monitoring system will prevent false MIL illumination” and also states that AAMA’s statement regarding any degree of fuel slosh, without any evidence or data, does not support a finding of technological infeasibility.¹⁸⁶ EPA agrees with CARB, that without further evidence from the manufacturers, the manufacturers have not met their burden of producing evidence or data to show persuasively that CARB’s solutions created by the flexibility within its regulations (e.g. disabling the monitoring strategy during certain conditions) is not technologically feasible.

Regarding vehicle to vehicle variability, CARB argues that AAMA has not presented any data to support its claims of difficulties associated with vehicle to vehicle variability and, standing alone, the claims should not be grounds for finding the evaporative leak requirements infeasible. CARB argues that CARB staff has presented data for three distinct vehicles with

¹⁸⁵ Docket entry IV-B-17 at 8.

¹⁸⁶ Id.

approximately 15 tests per vehicle. Due to time and resource constraints, multiple vehicles of the same model could not be tested; however, they have seen no evidence to suggest that vehicle to vehicle variability would significantly affect the reliability of the monitoring technology. CARB points out that their data was obtained using a vacuum-based monitoring technology, which is most susceptible to the influences compounding the difficulty associated with the leak detection monitor. CARB states that pressure based systems, already in production on some vehicles for the detection of 0.040 inch leaks, are generally not subject to reliability issues associated with fuel vapor generation.¹⁸⁷

CARB further argues that the primary obstacle to refining current vacuum based technology is to develop algorithms to disable the monitoring strategy during conditions of excessive fuel vapor generation. These refinements will be made through the modifications to the leak detection software algorithms. For pressure based monitoring technologies, CARB claims to have already been informed by two manufacturers that 0.020 inch leaks can be detected reliably.¹⁸⁸

Given the above arguments, EPA believes that the existing leak detection monitoring requirements of the OBD II regulation meet the waiver criteria. AAMA has not adequately demonstrated that even current technology is not capable of detection in the 0.020 inch range. Indeed, at least two manufacturers have informed CARB that pressure based systems are capable of reliable detection at that level.

¹⁸⁷ Docket entry IV-B-6 at 15.

¹⁸⁸ Id.

AAMA argues that detection in the 0.020 inch range cannot be done reliably due to variations in vapor generation, fuel slosh, and vehicle-to-vehicle variability. However, CARB has presented a viable strategy to deal with variations in vapor generation suggesting that the monitor first evaluate the magnitude of vapor generation. If excessive vapor exists, the monitor can either be disabled, or its results ignored until a more suitable condition exists for monitoring.

As for fuel slosh, CARB argues that fuel slosh can be dealt with by simply exercising the monitor only during non-slosh conditions (i.e., engine idling while the vehicle is stopped). Such a strategy would require at least 60 seconds according to CARB (30 seconds for evaluation of vapor generation, and 30 seconds to conduct the system integrity check. This approach will be allowed under the OBD II regulation which requires an FTP based monitor for 0.04 inch detection, but allows non-FTP based monitors for detection of 0.020 inch leaks. This will allow manufacturers to exercise the monitor only during extended idle periods, thereby minimizing the concerns associated with both vapor generation and fuel slosh.

As for vehicle-to-vehicle variability, CARB's arguments are less persuasive than its responses to the other issues. However, CARB has presented data on three distinct vehicles, conducting 15 tests/vehicle. These tests used a vacuum based approach, which tends to be less accurate than the positive pressure approach, demonstrating a significant and detectable pressure change between a 0.020 inch and a 0.040 inch hole. However, CARB admits that they have not conducted testing on several vehicles of the same model. Therefore, while the Agency agrees that the monitor is feasible, the issue of vehicle-to-vehicle variability is still a concern. Such variability could prevent the use of an identically designed and calibrated leak detection monitor on every vehicle of similar evaporative control system design. CARB offers the argument that

while they have not demonstrated vehicle-to-vehicle feasibility, AAMA has likewise not supported its arguments that vehicle-to-vehicle variability is a problem. On this issue, the Agency agrees with CARB. While vehicle-to-vehicle variability is a concern on this monitor, as well as most other OBD monitors, EPA believes that viable solutions have been identified by CARB and will continue to be developed. In addition, the amount of lead time provided by CARB appears sufficient to overcome such variability. CARB has provided, on balance, greater evidence refuting vehicle-to-vehicle variability than manufacturers have provided indicating that it will be a significant problem. Given this, the weight of evidence is with CARB. Moreover, as discussed above, technological feasibility need not be proven for every vehicle model; feasibility is sufficiently demonstrated by CARB unless otherwise controverted by those opposed to the granting of a waiver if the basic needs and market demand of the public for new vehicles is met, even if this may result in perhaps fewer models available. In regards to lead time, the Agency believes that the 5 to 7 year lead time provided by CARB should be adequate for compliance without significant impacts on product planning. Based on the above, commenters have not met their burden of proof to show evaporative emission monitoring requirements are inconsistent with section 202(a).

Lastly, regarding the AAMA contentions that CARB has not demonstrated a need for the 0.020 inch requirement, the Agency agrees with CARB. Although the question of whether CARB needs the tighter leak detection standard and whether the benefits justify the cost are not within EPA's review under section 209(b) and the narrow scope of review set forth by Congress therein, a review of CARB's data reveals a low but far from insignificant percentage of vehicles having these very small leaks. AAMA's argument against that data is that future vehicles will

not follow the same patterns as older technology vehicles. Whether or not some time should pass to allow evaluation of AAMA's contention is an issue directed at the discretion of CARB and its staff, not the Agency. EPA's limited review authority under section 209(b) does not allow EPA to review such a policy decision of California in deciding whether to grant a waiver under section 209(b).

c. Cost of Compliance

Another important part of the review of this waiver request is the evaluation of the costs associated with California's OBD II program over the lead time allowed, which is necessary to make a determination of consistency with section 202(a). This section states, in part, that any regulation promulgated under its authority "shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." Therefore, EPA must find that California's standards are not consistent with section 202(a) if there is inadequate lead time to permit the development of technology necessary to meet those requirements, giving appropriate consideration to the cost of compliance within that time frame. As EPA has already determined that the adequate technology either already exists, or can be developed and applied in the time frame available, EPA must now consider the costs associated with the development and application of the technology required to meet the California standards.

It is important to note that, as previous waiver decisions have held, the cost of compliance is relevant only when the technology needed for compliance with California's standards does not

exist.¹⁸⁹ This is because section 202(a) is concerned with the cost of compliance during the period “necessary to permit the development and application of the requisite technology.”

In MEMA I, the court addressed the “cost of compliance” issue at some length in the context of reviewing a waiver decision. According to the court:

Section 202's “cost of compliance” concern, juxtaposed as it is with the requirement that the Administrator provide the requisite lead time to allow technological developments, refers to the economic costs of motor vehicle emission standards and accompanying enforcement procedures. See S. Rep. No. 1922, 89th Cong., 1st Sess. 5-8 (1965); H.R. Rep. No. 728 90th Cong., 1st Sess. 23 (1967), U.S. Code Cong. & Admin. News 1967, p. 1938. It relates to the timing of a particular emission control regulation rather than to its social implications. Congress wanted to avoid undue economic disruption in the automotive manufacturing industry and also sought to avoid doubling or tripling the cost of motor vehicles to purchasers. It therefore requires that emission control regulations be technologically feasible within economic parameters. Therein lies the intent of the “cost of compliance” requirement.¹⁹⁰

Prior waiver decisions are fully consistent with this discussion in MEMA I, which indicates that the cost of compliance must reach a very high level before a waiver can be denied. These prior decisions indicate that the costs must be excessive in order to find that the California standards are not inconsistent with section 202(a).¹⁹¹

Before undertaking a discussion of the comments on the issue submitted in the course of this waiver proceeding, it should be noted that, as with other issues related to the determination

¹⁸⁹ See, e.g., 41 Fed. Reg. 42209 (October 7, 1976) and 55 Fed. Reg. 43028 (October 25, 1990).

¹⁹⁰ 627 F.2d at 1118 (emphasis in original). See also id. At 1114 n. 40 (“[T]he ‘cost of compliance’ criterion relates to the timing of standards and procedures.”).

¹⁹¹ See, e.g., 47 Fed. Reg. 7306, 7309 (February 18, 1982), 43 Fed. Reg. 25729, 25735 (June 14, 1978), and 46 Fed. Reg. 26371, 26373 (May 12, 1981).

of consistency with section 202(a), the burden of proof regarding the cost issue falls upon the opponents of the grant of the waiver.

It is uncontroverted that the California OBD II program will entail costs to the industry. However, with the exception of some limited cost estimates for misfire monitoring requirements submitted under a claim of confidentiality by General Motors (GM), EPA is in receipt of no data or evidence to suggest that the cost of complying with CARB's OBD II requirements will be extraordinary or excessive or place an undue economic burden upon manufacturers. An examination of GM's non-confidential submission reveals that GM estimates that the cost of technology to meet the misfire monitoring requirements "would be several times the \$45 that CARB predicted for the entire OBD system."¹⁹² GM provides no indication or argument that such a cost is legally excessive or extraordinary. EPA cannot make a finding, even considering the estimates in GM's confidential submission and assuming their accuracy, that GM has met its burden of showing that such costs are excessive or cause an economic disruption to the manufacturers. EPA is in receipt of no other cost estimates or data, submitted by commenters, regarding the cost of any of the other monitoring requirements.

¹⁹² Docket entry IV-B-16 at 1-2. CARB in its Staff Report: Initial Statement of Reasons for Proposed Rulemaking, dated July 28, 1989 (docket entry II-B-3 at 16), estimated the cost of compliance would average approximately \$45 per vehicle based on the need of an additional oxygen sensor for monitoring catalyst efficiency, a camshaft sensor for identifying a misfiring cylinder, one or two electrical solenoids for activating the exhaust gas recirculation or secondary air systems when performing a diagnostic check, and a pressure sensor for some vehicles to perform exhaust gas recirculation checks. CARB acknowledged that some manufacturers have cited costs exceeding \$200 per vehicle. CARB in its Final Statement of Reasons dated September 12, 1991 (docket entry II-B-16) updated its estimated the cost per vehicle to approximately \$60, and in CARB's Staff Report: Initial Statement of Reasons for Rulemaking (docket entry II-B-24) CARB states it does not expect an incremental cost per vehicle as a result of the 1994 amendments.

AAMA attacks the technology-forcing nature of the OBD II regulations by claiming that there are “hidden costs” resulting in “public policy being implemented without due consideration to cost. In effect, the initial cost-effectiveness analysis performed at the time of regulatory implementation is completely undermined by the need to constantly adapt and develop new solutions for particular applications.”¹⁹³ Although AAMA produces no data or other evidence to support a claim that the costs of compliance are excessive, within its March 7, 1996 comments AAMA states that CARB has not given due consideration to the cost of compliance and therefore the cost-effectiveness of CARB’s regulations are not justified and thus such regulations are inconsistent with section 202(a).¹⁹⁴

EPA believes that AAMA has misapplied both the “protectiveness” criteria (EPA discusses the irrelevancy of cost to this criteria above) and the type of cost consideration under section 202(a). CARB is not required to perform a cost-benefit analysis for purposes of section 202(a), rather it must not create regulations which impose excessive or extraordinary costs on the manufacturer. AAMA has submitted no evidence to suggest that CARB has created such regulations. It is not entirely clear whether AAMA, by means of its March 7, 1996 comments, is claiming that CARB fails to meet the “protectiveness” criteria or the consistency with section 202(a) criteria, but in either case AAMA has failed to meet its burden of proof.

With respect to the level of costs necessary for the costs of compliance to be considered excessive, MEMA I clearly indicates that section 202(a) contemplates that extraordinarily high

¹⁹³ Docket entry IV-B-9 at 2.

¹⁹⁴ Id. at 5-6.

levels must be demonstrated. EPA believes that it is also circumscribed in its consideration of the costs associated with the OBD II program by the direction of Congress to grant California broad discretion in choosing the program that is best suited to the State's air pollution problems. As noted earlier, hand in hand with this concept is the principle that Congress wanted California to remain the pioneer in the field of motor vehicle emission control. This was discussed in MEMA I: "...Congress intended the state to continue and expand its pioneering efforts at adopting and enforcing motor vehicle emission standards different from and in large measure more advanced than the corresponding Federal program; in short, to act as a kind of laboratory for innovation."¹⁹⁵

For this reason, when faced with a waiver request, EPA is not required to perform a searching review of the economic, environmental and cost-benefit implications of California's decisions.¹⁹⁶ Rather, EPA is directed by Congress to perform a narrow review because California is presumed to have made the "tough calls" on controversial issues such as cost and the forcing of technology.

EPA has evaluated the information submitted to this docket regarding the costs of compliance with the monitoring requirements of the OBD II program. In light of the above information, EPA believes that it is reasonable to conclude that the costs of compliance in the lead time provided are not so excessive as to warrant a denial of a waiver on these grounds.

¹⁹⁵ MEMA I, 627 F.2d at 1111. See also, 113 Cong. Rec. H 14407 (Congressman Moss), (daily ed. November 2, 1967), S 16395 (Senator Murphy (daily ed. November 14, 1967)).

¹⁹⁶ MEMA I, 627 F.2d at 1114, n. 40 (rejecting contention that EPA was obligated to conduct a cost-effectiveness study as part of examination of "cost of compliance").

d. Is CARB's Deficiency Policy Relevant to Technological Feasibility?

1. Background

As explained in CARB's waiver request of June 14, 1995, CARB has acknowledged that the OBD II regulations "require the implementation of a significant number of technology forcing monitoring strategies and that manufacturers may experience unanticipated problems in developing systems despite good faith efforts to comply with the regulations." Thus CARB provided measures of regulatory relief for compliance during the 1994-2000 model years.

Vehicles equipped with OBD II systems in model year 1994 may be certified even if one or more of the monitoring strategies does not meet the minimum requirements. CARB has also set forth within its regulations "relief" provisions which allow a manufacturer to certify that it complies with the parameters of a monitoring requirement although not all parameters are fulfilled.¹⁹⁷ These relief provisions, which are set forth in some of CARB's monitoring requirements, allows a manufacturer to certify a vehicle family even if the manufacturer fails to completely fulfill a monitoring requirement, if the "conditions" for relief set forth in the regulation regarding the monitor at issue are met.¹⁹⁸ These relief "conditions", according to CARB, are also fully set forth in the regulations.

In addition, CARB has provided "deficiency provisions" that allow manufacturers to

¹⁹⁷ An example of a OBD II relief provision can be found at section 1968.1(b)(3.3.3) where a manufacturer, with CARB's Executive Officer approval, may disable misfire monitoring when misfire cannot be distinguished from other effects (rough roads, transmission shifts, etc.) when using the best available technology.

¹⁹⁸ Docket entry IV-B-18.

certify vehicle families even though they do not meet all applicable OBD II requirements.¹⁹⁹ For 1995 model year vehicles, certification of an engine family is permitted even though the engine family does not meet all of the applicable OBD requirements, provided that the manufacturer is able to receive authorization for deficiencies from the Executive Officer of CARB. However, if a particular engine family has more than two deficiencies, the manufacturer would be assessed fines of \$25 to \$50 per vehicle for each deficiency above the second with the level of the fine dependent on the monitoring system in which the deficiency was present. CARB's December, 1994 amendments carry forward the 1995 deficiency policy to the 1996 model year. For 1997-2000 model years, manufacturers would continue to be permitted to request allowances for deficiencies in order to certify engine families meeting the applicable OBD II requirements. In most cases the number of permitted deficiencies for a vehicle model without incurring a fine would be reduced to one. Additionally, a manufacturer would incur a fine for its first deficiency if a monitoring strategy were completely absent from the monitoring system. Manufacturers would not be allowed to carry over monitoring system deficiencies from one year to the next unless a manufacturer demonstrated that vehicle hardware modifications would be necessary to correct the deficiencies.

2. Are CARB's Deficiency Provisions Necessary to Demonstrate Technological Feasibility?

Nowhere within the record of this waiver proceeding has CARB suggested that it primarily relies upon its deficiency policy for showing the feasibility of the requisite technology

¹⁹⁹ The use of relief provisions by a manufacturer does not equate to a "deficiency" against the manufacturer.

to meet the requirements of the OBD II regulations. Although, AAMA states that "CARB asserts that the technological feasibility of its OBD II regulations is established by the administrative features [including the deficiency policy and adjustments of requirements - the latter is discussed in the ad hoc discussion below] of its regulations", AAMA's reference to EPA's hearing transcript is unpersuasive.²⁰⁰ As stated by CARB, the use of deficiencies have not "been necessary to address basic feasibility issues as is evidenced by the many engine families that have already been certified without deficiencies [in 1995 and 1996]."²⁰¹

EPA believes that CARB has reasonably projected the feasibility of necessary technology to meet the OBD II requirements without the reliance upon a deficiency policy, and that CARB's deficiency policy and its use by manufacturers is a supplemental gauge of how well the manufacturers are doing across all models at a time closer to certification. EPA believes that if CARB relies primarily on deficiencies to ensure vehicle certification of a large number of engine families, then the feasibility of its standards is indeed drawn into question.

However, EPA believes that the evidence discussed in section IV.C.2.b. above supports CARB's claim of technological feasibility of the OBD II regulations without reliance on CARB's deficiency policy. California meets the basic market demand requirements without

²⁰⁰ Docket entry IV-B-2 at 12 (citing IV-A-1 at 24). CARB, at EPA's hearing, merely noted that it will "allow for OBD II certification even if one or more monitoring requirements could not be met in time for production." EPA believes that this is a policy decision made by CARB to ensure that manufacturers can continue to certify all or most of their vehicles in California even though such manufacturers have been unable to timely apply available technology. EPA believes that if an initial demonstration of technological feasibility has been met by CARB, then an additional policy decision to provide regulatory relief to manufacturers does not affect EPA's determination of consistency with section 202(a).

²⁰¹ Docket entry IV-B-17 at 13.

such reliance. EPA believes that CARB's deficiency policy buttresses such a showing, in that it ensures that manufacturers will be able to certify most if not all vehicles in California, which ensures that more than enough vehicles will be available to meet basic market demand.

3. Are "Deficiencies" a Proper "Safety Valve"?

Though CARB does not rely on its deficiency provisions for its claim that the OBD II regulations are technologically feasible, CARB does state that its deficiency provisions are a proper "safety valve" that may be taken into account in making that determination. Before analyzing AAMA's concerns that CARB is using its deficiency policy in a manner not consistent with the requirements in International Harvester, it is important to examine the necessary elements of a "safety valve." The court in International Harvester, while considering the absolute standard Congress had created, viewed flexibility in the statute (in terms of a one year suspension of the standard) as a means of strengthening the absolute standard. The court provided little description of the necessary elements of a "safety valve" but stated the "[C]onsiderations of fairness will support comprehensive and firm, even drastic, regulations, provided a 'safety valve' is also provided - ordinarily a provision for waiver, exception or adjustment, in this case a provision for suspension. Continuing, the court states "The limited safety valve permits a more rigorous adherence to an effective regulation."²⁰² One of the court decisions noted in International Harvester stated that "[A] rule is more likely to be undercut if it does not in some way take into account considerations of hardship, equity, or more effective implementation of overall policy, considerations that an agency cannot realistically ignore, at

²⁰² International Harvester, 478 F.2d at 641 (citing Permian Basin Area Rate Cases, 390 U.S. 747, 781; Wait Radio v. FCC, 135 U.S.App.D.C. 317, 321, 418 F.2d 1153, 1157 (1969).

least on a continuing basis. The limited safety valve permits a more rigorous adherence to an effective regulation.”²⁰³ Therefore, although EPA need not make a determination of whether CARB’s deficiency policy is a proper safety valve for purposes of this waiver proceeding, EPA believes that CARB should abide by the concepts set forth in the cases noted above.

Among the various “safety valves” noted by CARB, CARB states that the “deficiency provisions through the 2000 model year have been put in place that will allow for OBD II certification even if one or more monitoring requirements could not be met in time for production.”²⁰⁴

AAMA maintains that the deficiencies feature of CARB’s regulation is not the type of “safety valve” described in NRDC or International Harvester and is thus not a substitute for a determination of technological feasibility. AAMA states that the analysis of technological feasibility in both of these cases turned on engineering and statutory factors and did not rely upon “enforcement discretion.” According to AAMA, “International Harvester’s reference to a safety valve referred only to the ‘realistic escape hatch’ placed in the statute by the 1970 amendments that allowed manufacturers to seek a one-year suspension of the 1975 emission standards for light-duty vehicles.” Therefore, according to AAMA, “the deficiency allowances described as “safety valves” by California are clearly not contemplated by International Harvester because enforcement discretion played no part in the Court’s analysis, or in EPA’s

²⁰³ Wait Radio v. FCC, at 1159.

²⁰⁴ Docket entry IV-A-01 (hearing transcript) at 24. CARB also noted that another safety valve regarding the OBD II program comes in the form of periodic reviews. Since the initial adoption of the regulation CARB has on three separate occasions modified requirements.

underlying action.”

In supplemental comments submitted by CARB and AAMA²⁰⁵, a debate was created as to whether a “safety hatch” must exist within a statute itself or whether it may also be created by regulation. CARB cites language from International Harvester to support its position that a safety valve may indeed be created by regulation, “Considerations of fairness will support comprehensive and firm, even drastic, regulations, provided a ‘safety valve’ is also provided -- ordinarily a provision for waiver, exception or adjustment...” AAMA apparently recognizes that “safety valves” may indeed be created by “regulations” but then states that CARB’s deficiency policy still does not measure up since it “applies to unspecified requirements on a case-by-case basis. It is the ad hoc nature of the deficiency policy, and lack of any discernible criteria, that AAMA finds objectionable.”²⁰⁶ The issue of whether CARB’s deficiency policy is indeed like a “waiver, exception or adjustment” will be examined below along with the degree of fairness, equity, and definiteness or discernible criteria that is required by such policy.

CARB responds to AAMA’s criticism of the ad hoc nature of CARB’s deficiency policy and lack of discernible criteria by relying upon case law cited within International Harvester and by pointing to the specific criteria set forth in its OBD II regulations, thereby creating a flexible but equitable deficiency regulation that provides a safety valve for those vehicles that are otherwise not able to apply viable technology.²⁰⁷ CARB cites to a court decision relied upon in

²⁰⁵ See docket entry IV-B-6, docket entry IV-B-8, docket entry IV-B-18.

²⁰⁶ Docket entry IV-B-8 at 14.

²⁰⁷ Docket entry IV-B-17 at 11-12.

International Harvester for the proposition that safety valves can be applied on an ad hoc basis, where the court stated:

[A] rule is more likely to be undercut if it does not in some way take into account considerations of hardship, equity, or more effective implementation of overall policy, considerations that an agency cannot realistically ignore, at least on a continuing basis. The limited safety valve permits a more rigorous adherence to an effective regulation.²⁰⁸

CARB states that it provides similar types of safety valves to manufacturers. CARB cites the specific criteria, which CARB believes creates a system of fairness and equity while providing definitive criteria, found within respective sections of the regulation. For example, the basic guideline for granting monitoring system deficiencies is found at section (m)(6.0) and reads:

[T]he Executive Officer shall consider the following factors: the extent to which [the monitoring] requirements are satisfied overall on the vehicle applications in question, the extent to which the resultant diagnostic system design will be more effective than systems developed according to section 1968, Title 13, and a demonstrated good-faith effort to meet these requirements in full be evaluating and considering the best available monitoring technology.

In addition, CARB points to its 1994 OBD II Staff Report which further describes how limited compliance deficiencies would be granted: (1) when a monitoring strategy is found to perform unreliably (during validation testing) and insufficient time exists for modifications to be made in time prior to commencing production; and (2) when a manufacturer has incorrectly implemented a monitoring requirement. CARB states that it has implemented these provisions for 1995 and 1996 model year and in no case has it been necessary to address basic feasibility. CARB states that it "believes that case-by-case treatment of these issues is necessary and

Wait Radio v. FCC, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

appropriate because the conditions under which disturbances can occur are not the same among vehicle makes and models. ... Therefore, to remove the Executive Officer's discretion in this matter in favor of exact conditions and circumstances would work against a uniform and consistent implementation of misfire detection requirements among vehicle manufacturers."

Although EPA has not historically micro-managed the administration of CARB's program and EPA has left policy choices to the broad discretion afforded California by Congress, EPA believes that careful consideration of CARB's deficiency policy would be required, if such a policy is intended to be considered as part of a technological feasibility showing, to ensure that CARB's regulatory language regarding deficiencies is certain and clear.

EPA could not rely upon the deficiency portion of CARB's OBD II regulation for its determination of technological feasibility if such reliance depended upon the unfettered discretion of CARB's Executive Officer or CARB staff in their granting of deficiencies. However, EPA does not believe that manufacturers have shown that such conditions exist. CARB's deficiency regulations, as set forth at Title 13 CCR section 1968.1(m)(6.0-6.2), clearly outlines CARB's policy should a manufacturer fail to produce an OBD system that meets one or several monitoring requirements. AAMA asserts, in its March 7, 1996 comments, that CARB is administering its deficiency policy in an ad hoc fashion without any discernible criteria. However, EPA is in receipt of no evidence to support this assertion.²⁰⁹ Therefore, EPA is unaware of any examples of CARB implementing its deficiency policy in a manner not consistent with the existing criteria set forth in its regulations.

²⁰⁹ Docket entry IV-B-8 at 14.

On the other hand, AAMA's April 30, 1996 comments contain examples of what AAMA claims to be ad hoc compliance determinations and an assertion that CARB through various mechanisms is adding additional requirements to its OBD II regulations. As explained below under the discussion "Flexibility and Implementation of CARB's OBD II Regulations" these compliance determinations relate either to CARB's interpretation of its relief provisions and not its deficiency policy, or relate to CARB's implementation of its monitoring regulations. Based on the evidence in the record before the EPA in this proceeding and for the preceding reasons, EPA does not believe that the deficiency language in CARB's OBD II regulations has been shown to create a mechanism unlike that described in International Harvester.

EPA will discuss AAMA's assertion that CARB is administering its regulation in an ad hoc fashion below.

4. Consistent Certification Procedures

California's standards and accompanying enforcement procedures would also be deemed inconsistent with section 202(a) if the California test procedures were to impose certification requirements inconsistent with the Federal certification requirements. Inconsistency is interpreted to mean that manufacturers would be unable to demonstrate compliance with both the state and the Federal requirements with the same test vehicle in the course of a single test sequence.²¹⁰

²¹⁰ See e.g., 43 Fed. Reg. 32182 (July 25, 1978). Dual certification in the course of one test can be accomplished one of two ways. First, the respective test procedures may be so compatible or similar that all of the requirements of each test can be accomplished in the course of one composite test. Alternatively, if prima facie test procedure inconsistency exists, one sovereign may accept the data generated by the other's procedure as proof of compliance with that sovereign's requirements. If neither of these circumstances exist then the prohibited test

CARB determined that its OBD II regulations are consistent with section 202(a) of the Act.²¹¹ CARB states that the test procedure consistency problem does not exist "in that the CARB and U.S. EPA have worked closely in developing their respective OBD strategies. The federal OBD rule provides that through the 1998 model year compliance with the California OBD II requirements will satisfy the requirements of the federal rule. (40 CFR Part 86, section 86.094-17(j).) Similarly, the OBD II regulations provide that after the 1998 model year, California will accept compliance with the federal OBD requirements for non-LEVs. Presently, there are no federal LEV standards; thus, no inconsistency exists between federal and state regulations as to these vehicle."²¹² EPA received no comments from vehicle manufacturers stating that CARB and EPA had inconsistent test procedures for OBD certification.

Based on the foregoing information, I cannot find that California's standards and accompanying enforcement procedures are inconsistent with section 202(a) of the Act based on inconsistent certification procedures. Manufacturers will be able to satisfy both the current Federal certification requirements and the CARB certification requirements running the same test on a single vehicle. EPA agrees with CARB's statement that a vehicle manufacturer may satisfy federal OBD certification requirements by demonstrating compliance with CARB OBD II requirements through model year 1998 and thereafter CARB will accept EPA test data. Therefore I cannot deny the waiver request on the basis on certification test procedure

procedure inconsistency remains as a bar to consistency with section 202(a) and therefore, precludes a waiver of Federal preemption.

²¹¹ See docket entry II-A-21 at 13 and II-A-34 at 10.

²¹² Docket entry II-A-34 at 10.

inconsistency.

As noted above, comments received from the aftermarket associations state that a vehicle manufactured to comply with CARB's tampering protection provisions would be in violation of section 202(m)(4) and 202(m)(5). As such, the aftermarket contends that such conflicts "render it impermissible for EPA to allow California cars certified to this standard [CARB's tampering protection regulation] to be deemed to comply with federal certification requirements."²¹³ EPA disagrees with this assertion. EPA regulations regarding OBD certification and service information availability contain no language to suggest that a vehicle manufactured and certified to CARB OBD II test procedures would not be able to be certified to EPA's OBD regulations. Though EPA's regulations do not require CARB's specified tampering protection features on federally certified vehicles, EPA also does not forbid them. In addition, EPA believes (as discussed above) that a vehicle manufactured to comply the tampering protection provision of CARB's OBD II regulation would not be in violation of section 202(m)(4) or 202(m)(5). EPA believes that even if vehicle manufacturers chose to certify all of its vehicles to CARB's OBD requirements and test procedures, through model year 1998, such a result would not be inconsistent with the requirements of section 202(m)(4) or 202(m)(5) and would not otherwise create a scenario where a vehicle manufactured to meet CARB's OBD II would not also meet the requirements for federal certification. Commenters have not meet the burden of demonstrating that inconsistent certification test procedures exist and therefore EPA cannot deny the waiver on this basis.

²¹³ Docket entry IV-B-5 at 6.

5. Flexibility and Implementation of CARB's OBD II Regulations

EPA received extensive comments regarding the regulatory complexity of the OBD II regulations and the manner in which such regulations are being implemented and interpreted within CARB's certification process and also the way such regulations are being amended, either formally or informally, by CARB. EPA believes that it should review such comments to determine their relevance to EPA's limited scope of review and, if relevant, determine whether the "changes" that AAMA claims have occurred within CARB's OBD II regulation have made the regulation technologically infeasible.²¹⁴ As the court in MEMA stated:

[T]here is no such thing as a "general duty" on an administrative agency to make decisions based on factors other than those Congress expressly or impliedly intended the agency to consider. The general principles of administrative law and procedure call upon an agency to give reasoned consideration to all facts and issues relevant to the matter at hand, but the determination of what is relevant turns in the first instance on analysis of the express language of the statute involved and the content given that language by implication from the structure of the statute, its legislative history, and the general course of administrative practice since its enactments.²¹⁵

Therefore, EPA will only examine AAMA's comments regarding CARB's *ad hoc* enforcement of its OBD II regulations as they relate to the three criteria of a waiver determination. EPA will not review CARB's regulatory practice to determine whether CARB is in compliance with California laws governing its administrative practice. By today's waiver

²¹⁴ CARB responds to AAMA's April 30, 1996 letter (docket entry IV-B-17) by stating that AAMA's charges of changing regulatory requirements "appears only to be relevant to an inquiry of technical feasibility under the third criterion." (Docket entry IV-B-18 at 2) EPA agrees with CARB since AAMA makes no suggestion that the "changes" in CARB's requirements affect either the protectiveness finding or the compelling need determination.

²¹⁵ MEMA I at 1116; 36 Fed. Reg. 17158 (August 31, 1971); 40 Fed. Reg. 23102, 23104 (May 28, 1975); 58 Fed. Reg. 4166 (January 7, 1993), Decision Document, at p. 20.

decision, EPA is granting California a waiver of federal preemption for those standards and accompanying enforcement procedures that were part of California's regulations when California requested its waiver on June 14, 1995. Should CARB either formally change its regulations through Board action or implement its regulations in a manner not consistent with its regulations, then EPA may review such action for its consistency with section 209.

According to AAMA, "During the approximately five years since its original waiver submittal²¹⁶ CARB has continuously changed the regulation, either through formal or ad hoc means, and shows no signs of discontinuing this practice since resubmitting the waiver request late last year."²¹⁷ AAMA maintains that both through interpretive guidance (i.e., manufacturer advisory correspondence and mail-out notices) and by official action by the Board, CARB has continued to change its regulatory requirements. AAMA states that by CARB continuously changing or modifying its regulation, to generally reflect the best monitoring performance capabilities available, CARB is creating a constantly moving target and CARB is incorrectly assuming that a monitoring strategy that works on one application can necessarily work on a different application.

EPA is currently unaware of any attempt by CARB to require manufacturers to comply with standards that are not part of its waiver request. CARB states that its staff has continually monitored manufacturer progress with compliance and has reported back to its Board with

²¹⁶ As EPA explained in the introduction, CARB has since revised its waiver request as of June 14, 1995 and included in its latest request a waiver for the amendments the CARB Board adopted in December 1994.

²¹⁷ Docket entry IV-B-16 at 2.

recommendations (in some cases granting regulatory relief and in other cases adding additional monitoring requirements). EPA agrees with CARB that such progress review hearings and modifications to its regulations is fully consistent with the regulatory practice envisioned in NRDC.²¹⁸ EPA believes that CARB has made the requisite showing of technological feasibility of its monitoring requirements, including those that have been added since the original adoption of OBD II in 1989. AAMA's comments that CARB's "moving target" will result ultimately in misplaced or untimely expenditures or resources by the manufacturers or effect the overall effectiveness of the OBD program is directed to an evaluation of the policy choices made by CARB and EPA does not believe that such an evaluation relevant under EPA's waiver examination.

In addition to formal changes to CARB's regulations, AAMA states that CARB has made a series of manufacturer-specific, ad hoc compliance determinations that have had the effect of changing the requirements of CARB's regulations. As noted above, EPA's limited role within a waiver proceeding is to determine whether CARB's regulations fulfill the waiver criteria of section 209(b). EPA's authority within a waiver proceeding is limited to the criteria set forth in section 209(b). EPA only grants a waiver for those standards and accompanying enforcement procedures which are presented to the Agency. If AAMA or others believe that CARB's compliance determinations, which are necessarily not part of regulations submitted to EPA as part of the waiver request, are arbitrary or ad-hoc or are not a reasonable interpretation of

²¹⁸ NRDC, 655 F.2d 318 (D.C. Cir. 1981).

CARB's regulations, the proper forum for such a complaint is not this waiver proceeding.²¹⁹ In any case, EPA believes that a review of the examples of ad hoc compliance determinations provided by AAMA does not indicate, on the basis of the information within the record, that such determinations have resulted in amendments to CARB's OBD II regulations.

As an example, in response to AAMA's assertion that the requirement to limit after-start misfire detection to 5 seconds in 1997 and 0 seconds thereafter was created by CARB Mail-Out #95-20 and did not exist in the regulation,²²⁰ CARB states that the mail-out was simply providing manufacturers with notice on how existing regulatory requirements are being interpreted in order to better facilitate implementation and compliance. Section 1968.1(b)(3.3.3) provides that with Executive Officer approval, a manufacturer may disable misfire monitoring under certain conditions if using best available technology. CARB's mail-out is meant to instruct manufacturers on the best available technology and to clarify when approval will be granted. EPA believes that CARB has made the requisite showing that such a monitoring requirement is feasible and that with adequate data manufacturers may still deviate from the guidance of Mail-Out #95-20 when necessary.²²¹ In addition, CARB states that its "application of section (b)(3.3.3) has ... been consistent and in accordance with the guidelines set forth in the text of the regulation. ... Manufacturers have been permitted to temporarily 'turn-off' misfire detection

²¹⁹ This waiver proceeding forum may be appropriate if such compliance determinations render such regulations technologically infeasible. However, manufacturers have not shown these determinations to have led to such technological infeasibility. In fact, the determinations generally appear to be relaxations of the applicable regulations.

²²⁰ Docket entry IV-B-16 at Attachment 2.

²²¹ Docket entry IV-B-18 at 8.

when conditions exist that may lead to false malfunction detections.”²²²

EPA has been presented with no evidence to conclude that the “ad hoc” compliance determinations are not in fact forms of CARB providing some relief in accordance with the provisions of the OBD II regulations.

CARB responds to AAMA’s concern regarding the idle air control valve²²³ by stating that its regulation requires manufacturers to monitor the idle air control system for lack of function. Section (b)(10.2.2) states that system is to be considered malfunctioning when “proper response to computer commands does not occur.” CARB states that “Mail-out #95-20 specifies the maximum tolerances the CARB believes are reasonable in accepting this form of technology.” Thus CARB has determined the maximum tolerance to allow before it is determined that a lack of function exists. Thus it appears CARB’s Mail-Out was intended as interpretive guidance to allow flexibility in selecting a strategy that verifies movement of the idle control valve, including a strategy of ensuring idle speed within a specific tolerance of target speed and the requisite showing should such a strategy be chosen. The other examples provided by AAMA are of a similar nature and seem to be a reasonable interpretation and implementation of CARB’s existing regulations. The concerns raised by commenters on these points do not show that CARB’s standards and accompanying enforcement procedures are inconsistent with section 202(a).

VI. Decision

The Administrator has delegated the authority to grant a State a waiver of Federal

²²² Docket IV-B-17 at 13.

²²³ Docket entry IV-B-16 at Attachment 2.

preemption, under section 209(b) of the Act to the Assistant Administrator for Air and Radiation.

Based upon the above discussion and findings, I cannot make the determinations required for a denial of a waiver under section 209(b) of the Act, and therefore, I hereby waive application of section 209(a) of the Act to the State of California for passenger cars, light-duty trucks, and medium-duty hicles for model years 1994 and later with respect to Title 13, California Code of Regulations (CCR) and the documents incorporated by reference therein: Section 1968.1 regarding on-board diagnostic system requirements for 1994 and later passenger cars, light-duty trucks, and medium-duty vehicles.

Dated: _____

Mary Nichols
Assistant Administrator
for Air and Radiation