State of California
AIR RESOURCES BOARD

Resolution 76-25

June 24, 1976

WHEREAS, Section 43000 (c) of the Health and Safety Code states that California has a responsibility to establish uniform procedures for compliance with standards which control or eliminate air pollution;

WHEREAS, Section 43000 (e) of the Health and Safety Code states that vehicle emission standards applied to new motor vehicles are standards with which all such vehicles shall comply;

WHEREAS, Section 43210 of the Health and Safety Code authorizes the Air Resources Board to conduct testing of motor vehicles on factory assembly lines or in such manner as the Board determines best suited to carry out the purpose of Part 5, Division 26 of the Health and Safety Code; and

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedure Act (Government Code, Title 2, Division 3, Part I, Chapter 4.5);

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby amends its regulations in Chapter 3, Title 13, California Administrative Code as attached;

BE IT FURTHER ORDERED AND RESOLVED, that the "California New Vehicle Compliance Test Procedures," dated June 24, 1976, are hereby adopted; and

BE IT FURTHER ORDERED AND RESOLVED, that these amendments shall be effective commencing with the 1977 model year, as designed by each manufacturer, and that the regulations in effect prior to these amendments shall remain in effect for the 1976 model year.

ATTACHMENT

Amendments to Chapter 3, Title 13
California Administrative Code

1. Amend Section 1900 (a) to read:

   (a) The definitions set forth in Chapter 2 (commencing with Section 39010), Part 1, Division 26 of the Health and Safety Code, and the definitions set forth in the applicable model-year new vehicle certification and assembly-line test procedures adopted in this Chapter shall govern the provisions of this chapter and are hereby incorporated by reference.

2. Add Sections 1900 (b)(6) and 1900 (b)(7) which read:

   (6) "Recall" means:

      (A) The issuing of notices directly to consumers that vehicles in their possession or control should be corrected, and/or

      (B) Efforts to actively locate and correct vehicles in the possession or control of consumers.

   (7) "Subgroup" means a set of vehicles within an engine family distinguishable by characteristics contained in the manufacturer's application for certification.

3. Delete Section 2100.

4. Renumber Section 2101 as new Section 2100.

5. Delete Sections 2102, 2103, 2104, and 2105.

6. Add a new Section 2101 which reads:

   2101. Compliance Testing and Inspection - Vehicle Selection, Evaluation, and Enforcement Action.
   (a) The Executive Officer may, with respect to any vehicle being sold, offered for sale, or manufactured for sale in California, order a vehicle manufacturer to make available for inspection and/or compliance testing a reasonable number of vehicles, and may direct that the vehicles be delivered to the Board

at its laboratory, 9528 Telstar Avenue, El Monte, California. Vehicles shall be selected at random from sources specified by the Executive Officer according to a method approved by him, which insofar as practical shall exclude (1) vehicles manufactured pursuant to the specific order of an ultimate purchaser or (2) vehicles the selection of which, if not excluded, would result in an unreasonable disruption of the manufacturer's distribution system.

A subgroup may be selected for compliance testing only if the Executive Officer has reason to believe that the emission characteristics of that subgroup are substantially in excess of the emissions of the engine family as a whole.

(b) If the vehicles are selected for compliance testing, the selection and testing of vehicles and the evaluation of data will be made in accordance with the "California New Vehicle Compliance Test Procedures", adopted by the Board on June 24, 1976.

(c) If the Executive Officer determines, in accordance with the "California New Vehicle Compliance Test Procedures", that an engine family, or any subgroup within an engine family, exceeds the emission standards for one or more pollutants, he shall notify the manufacturer and may invoke Section 2109. Prior to invoking Section 2109, the Executive Officer shall consider quality audit test results and any additional test data or other information provided by the manufacturer.

(d) If any vehicle selected for inspection fails to conform to any applicable law in Part 5, commencing with Section 43000, Division 26 of the Health and Safety Code, or any regulation adopted by Board pursuant thereto, other than an emissions standard applied to new vehicles to determine "certification" as specified in Subchapter 1, Article 2 of this code and an assembly-line test procedure specified in Subchapter 2, Article 1 of this code, the Executive Officer shall notify the manufacturer and may invoke Section 2109. Prior to invoking Section 2109, the Executive Officer shall consider any information provided by the manufacturer.

## California New Vehicle Compliance Test Procedures

These procedures are applicable commencing with the 1977 model year, to any engine family or any subgroup within an engine family selected for compliance testing pursuant to Section 2101 of Title 13, California Administrative Code.

Test procedure I shall apply to any engine family (or subgroup) if the engine family is evaluated according to quality audit test procedure Option I (90% pass rate) during assembly-line testing.

Test procedure II shall apply to any engine family (or subgroup) if the engine family is evaluated according to quality audit test procedure Option II (average emissions) during assembly-line testing.

All testing shall be conducted in accordance with the applicable model year certification emission test procedures. Mileage accumualtion before testing may be performed on test vehicles to the same extent as mileage accumulation is performed on on assembly-line quality audit test vehicles. No mileage accumulation or modifications, adjustments, or special preparation or maintenance will be allowed on vehicles chosen for compliance testing without the written consent of the Executive Officer, which consent shall not be unreasonbly withheld where such adjustment or alteration is required to conform the vehicle to the manufacturer's written instructions for predelivery preparation.

### Test Procedure I

Vehicles shall be randomly chosen from the selected engine family or subgroup. Each chosen vehicle shall be tested once to determine whether or not it fails the standards for one or more pollutants. If the manufacturer has previously implemented the retest option during the assembly-line testing of the selected engine family or subgroup, he may implement the same option during compliance testing. If a vehicle is retested, the second test shall be used to determine whether or not it fails the standards.

For purposes of this test procedure (I), a vehicle fails a pollutant if its emissions exceed the applicable model year new vehicle emission standard for that pollutant.

Vehicles shall be tested in groups of four until a "Pass" or "Fail" decision is reached for each pollutant independently for the engine family or subgroup in accordance with the following table:

| Number of Vehicles Tested | Decide "Fail" if at least this many vehicles fail the same pollutant | Decide "Pass" if no more than this many vehicles fail the same pollutant |
|---|---|---|
| 4 | 3 | 0 |
| 8 | 4 | 1 |
| 12 | 5 | 2 |
| 16 | 6 | 3 |
| 20 | 7 | 4 |
| 24 | 8 | 5 |

If no decision can be reached after 24 vehicles have been tested, testing shall be discontinued and the Executive Officer may not make a "Fail" decision on the basis of these tests.

If the Executive Officer makes a "Fail" decision in accordance with the above table, the Executive Officer has found that more than 10% of the vehicles within the selected engine family or subgroup exceed the applicable model year new vehicle emission standard for at least one pollutant.

## Test Procedure II

Vehicles shall be randomly chosen from the selected engine family or subgroup. Each chosen vehicle will be tested once to determine its emissions. All emissions shall be projected to 50,000 miles using the certification deterioration factors for the engine family or subgroup.

Vehicles shall be tested in groups of five until a "Pass" or "Fail" decision is reached for each pollutant independently for the engine family or subgroup in accordance with the following table:

| Number of Vehicles Tested | Decide "Fail" if "U" is greater than or equal to | Decide "Pass" if "U" is less than or equal to |
|---|---|---|
| 5 | 2.18 | -0.13 |
| 10 | 2.11 | 0.51 |
| 15 | 2.18 | 0.88 |
| 20 | 2.29 | 1.16 |

where:

$$U = \frac{\Sigma(x_i - \mu_0)}{\sqrt{\Sigma(x_i - \mu_0)^2}}$$

$x_i$ = the projected emissions of one pollutant for the ith vehicle tested.

$\mu_o$ = the applicable model year emission standard for that pollutant

n = the number of vehicles tested

If no decision can be reached after 20 vehicles have been tested, testing shall be discontinued and the Executive Officer may not make a "Fail" decision for the selected engine family or subgroup on the basis of these tests.

If the Executive Officer makes a "Fail" decision in accordance with the above table, the Executive Officer has found that the average emissions of the vehicles within the selected engine family or subgroup exceed the applicable model year new vehicle emission standard for a least one pollutant.