

- Resolution 69-1 Contract with Chromolloy-American Corp- George Cornelius and University of Calif. State Highway Commission, \$50,00 contract
- Resolution 69-2 Steam Project demonstration project for \$2,000.00
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- Resolution 69-5 Auto-Quip, Inc. (formerly Fog-Aire, Inc.) Oakland, Ca. De-Certification, (not adopted)
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- Resolution 69-21 Continental Motors carbon monoxide only exhaust control (fork -lift)
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- Resolution 69-23 Arco contract for \$ 30,000
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- Resolution 69-25 Contintntal Motors approval for its S-R Exhaust Control System (fork-lifts) for 140-200 cu in displacement
- Resolution 69-26 Approval for International Harvester over 6,000 pounds for 1970 models 196, 232, 304, 308, 345, 392, 401, 406, 450, 478, 501 and 549.
- Resolution 69-27 NOT USED
- Resolution 69-28 Nissan Motor Company, Japan for 1970 model vehicles under 6000 pounds for 97.3, 97.4, 110.8 and 120.9
- Resolution 69-29 De Yeiser permit for an experimental control device for one year from July 16, 1969.
- Resolution 69-30 Mitsubishi Heavy Industries experimental control device for year from 7-16, 1968 (2 devices)
- Resolution 69-31 Volkswagenwerk A.G. Germany for 1970 vehicles less than 6000 pounds with engines of the 96.7 and 102.5 cubic inch size
- Resolution 69-32 International Harvester for 1970 model vehicles less than 6,000 pounds gross weight with engines of the following sizes 196, 232, 304, 345 and 392
- Resolution 69-33 Toyota Motor Company for 1970 model vehicles, less than 6,000 pounds with engines of the following sizes 71.2, 113.4, 115.8, 137.4 and 236.7
- Resolution 69-34 Chrysler Corporation for 1970 model vehicles under 6000 pounds for engines of the following sizes; 198, 225, 318, 340, 383, 426 & 440.
- Resolution 69-35 Chrysler Corporation for 1970 models over 6000 pounds with engines of the following sizes 225, 318, 361, 383 and 413.
- Resolution 69-36 AB Volvo for 1970 model vehicles under 6,000 pounds with engines of 121 182 cubic inch size
- Resolution 69-37 Saab of Sweden for 1970 model vehicles under 6,000 pounds with engines of 91.4 and 104.2 cubic inch size
- Resolution 69-38 Ford Motor Company for 1970 larger than 6000 pounds with engines for the following sizes 240, 300, 302, 330, 360, 361, 390, and 391.
- Resolution 69-39 American Motors for 1970 model vehicles for engines of the following sizes 199, 232, 304, 360, and 390.
- Resolution 69-40 Dr. Ing. h.c.f. Porsche KG for 1970 model vehicles under 6,000 pounds with engines of the 121.5 and 133.9 cubic inch size.
- Resolution 69-41 Algas Industries for carbon-monoxide only for new and used portable and mobile internal combustion engines using LPG for 100-140, 140-200, 200-250 and 250-300.
- Resolution 69-42 British Leyland Motor Corporation for 1970 model vehicles with engines for the following sizes - 77.9, 79, 109.8, 122, 152, 215 and 258.
- Resolution 69-43 General Motors for 1970 model vehicles - CCS and OECS Opel

- Resolution 69-44 General Motors for 1970 model vehicles greater than 6,000 pounds for engines 250, 292, 305, 307, 350, 351, 366, 400, 401, 427, 478, and 637.
- Resolution 69-45 (amended) Ford Motor Company for 1970 model vehicles less than 6000 pounds for 97.6, 170, 200, 240, 250, 300, 302, 351, 360, 390, 428, 429 and 460.
- Resolution 69-46 Auto Union G.M.B.H. subsidiary of Volkswagen for 1970 Audi vehicles less than 6,000 pounds with 107.5 cubic inch size engine
- Resolution 69-47 Fuji Heavy Industries Ltd. for 1970 model vehicles for less than 6,000 pounds with engines of 66.4 cubic inch size
- Resolution 69-48 Experimental device permit for testing a control device for one year from September 17, 1969.
- Resolution 69-50 Experimental device for Energy Sciences for "Funcell" for 30 vehicles one year from September 17, 1969.
- Resolution 69-51 Regie Nationale de Usines Renault for 1970 model vehicles less than 6000 pounds with 67.6, 77.8 and 95.5 cubic size engines
- Resolution 69-52 Checker Motors for 1970 model vehicles less than 6,000 pounds for engines less than 6,000 pounds for engines of 250 and 350
- Resolution 69-53 Pacific Lighting Service Company (Natural Gas) on vehicles of 1966 1969 model year for engines over 100 cubic inches
- Resolution 69-54 Not used
- Resolution 69-55 Kaiser-Jeep Corporation for 1970 model vehicles greater than 6,000 pounds for engine sizes 232 and 350.
- Resolution 69-56 Checker Motors for 1970 model vehicles greater than 6,000 pounds with engines of 350 cu in size
- Resolution 69-57 Daimler-Benz, Inc. for 1970 model vehicles under 6000 pounds gross vehicle weight
- Resolution 69-58 Bayerische Motoren Werke A.G. certification, 1970, 6000 pounds or less with engines of the following sizes 96, 121.3, 152.3 and 170.
- Resolution 69-59 Authorization for Executive Officer to execute an interagency agreement with SDPH for services 1969-70 fiscal year.
- Resolution 69-60 Adopt new Section 2109 (f)
- Resolution 69-61 Amend Section 2109 (e)
- Resolution 69-62 Adopt new Section 1942 - Exhaust Emissions 1970 Low Emission Standards 1.9 grams per mile of Hydrocarbons and 18 grams per mile of Carbon Monoxide
- Resolution 69-63 Fiat, S.p.A. certificate of approval 1970 vehicles 6,000 pounds or less with 55.08 and 87.75 cubic inch size.

State of California

AIR RESOURCES BOARD

Resolution 69-1

WHEREAS, The State Highway Commission has voted the sum of \$50,000 to assist in financing the exhaust control device testing program, per AB 690, which is to establish, among other things, that low emission devices are feasible; and

NOW, THEREFORE, BE IT RESOLVED, that this Board authorizes the Executive Officer to execute an interagency agreement with the Department of Public Works to accept these funds and authorizes the Chairman to utilize such funds as necessary to execute contracts with Chromalloy-American Corporation, G. W. Cornelius and the University of California (R.D. Kopa), for purchase and installation of control systems to be installed on State-owned vehicles; the aggregate amount of such contracts not to exceed \$250,000.00.

1/15/69

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State of California

AIR RESOURCES BOARD

Resolution 69-2.

WHEREAS, The California State Assembly Rules Committee (on December 17, 1968), made application to the United States Department of Transportation for a steam-bus project; and

WHEREAS, The Air Resources Board has a concern about urban air pollution problems and is interested in the development and demonstration of low motor vehicle emission control systems;

NOW, THEREFORE, BE IT RESOLVED, that this Board authorizes the Air Resources Board staff to participate in this project in the amount of approximately \$2,000.00.

1/15/69

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State of California

AIR RESOURCES BOARD

Resolution 69-3

WHEREAS, the All-O-Matic Manufacturing Corporation filed an application on December 23, 1968 for a certificate of approval for a crankcase emission control valve which is described as follows:

A spring-loaded, tapered-plunger flow control valve identical in all respects to the "AC" valve approved by the Board as part of the "AC" closed crankcase emission control system under Resolution 62-30 on December 18, 1962; and

WHEREAS the company has represented in writing and has submitted proof that their valve is identical in material, workmanship and in all other respects to the AC valve; and

WHEREAS the company has stated its intention to market this valve only as a replacement for combination-type crankcase emission control systems; and

WHEREAS the Board under Title 13, Chapter 3, Sub-Chapter 2, Article 4, is empowered to approve a device if it is identical in all respects with a device which has been certified by the Air Resources Board pursuant to the Health and Safety Code, Section 39083 (d); and

WHEREAS this valve meets said requirements; and

NOW, THEREFORE BE IT RESOLVED, That this Board issue a certificate of approval for the All-O-Matic Manufacturing Corporation tapered-plunger valve to be used as a replacement in certified combination-type crankcase emission control systems on new and used motor vehicles in classifications (b), (c), (d), (e), and (f) designated by Title 13, California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1.

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State of California

AIR RESOURCES BOARD

Resolution 69-4

WHEREAS, the Co-Recti-Fire Company, Lake Worth, Florida was granted a certificate of approval for used car installation of its crankcase emission control system under Resolution 67-6 on January 18, 1967; and

WHEREAS, said company did not fulfill the requirements for adequate distribution and availability of said device as stated in Title 13, Chapter 3, Subchapter 2, Article 1, Section 2003, Criteria (e) and (g), and as also stated in the "California Test Procedure and Criteria for Motor Vehicle Crankcase Emission Control," Criteria (e) and (g); and

WHEREAS, Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code states as follows:

"The board may revoke, suspend or restrict an accreditation of a previously accredited device or an exemption previously granted upon a determination by the board that the device no longer operates within the standards set by the board or no longer should be exempted. Provided that once any motor vehicle is equipped with an accredited device it shall not thereafter be deemed in violation of this chapter or Section 27156 of the Vehicle Code because the accreditation of such device is subsequently revoked, suspended or restricted, and replacement parts for such device may continue to be supplied and used for such vehicle, unless such revocation, suspension or restriction is based upon a finding that the accredited device has been found to be defective, in which event such devices must be brought into compliance with this chapter within 30 days after such finding."

NOW, THEREFORE, BE IT RESOLVED that this Board under the powers and authority granted in Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code, revokes the certification of the Co-Recti-Fire Company, Lake Worth, Florida closed crankcase emission control system, previously certified by Motor Vehicle Pollution Control Board Resolution 67-6.

1/15/69

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State of California

AIR RESOURCES BOARD

Resolution 69-5

WHEREAS, Auto-Quip, Incorporated (formerly Fog-Aire, Inc.) Oakland, California was granted a certificate of approval for used car installation of its crankcase emission control systems under Resolutions 65-22 (System Number 1) on September 15, 1965, and 65-31 (System Number 2) on September 29, 1965; and

WHEREAS, said company did not fulfill the requirements for adequate distribution and availability of said device as stated in Title 13, Chapter 3, Subchapter 2, Article 1, Section 2003, Criteria (e) and (g), and as also stated in the "California Test Procedure and Criteria for Motor Vehicle Crankcase Emission Control," Criteria (e) and (g); and

WHEREAS, Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code states as follows:

"The board may revoke, suspend or restrict an accreditation of a previously accredited device or an exemption previously granted upon a determination by the board that the device no longer operates within the standards set by the board or no longer should be exempted. Provided that once any motor vehicle is equipped with an accredited device it shall not thereafter be deemed in violation of this chapter or Section 27156 of the Vehicle Code because the accreditation of such device is subsequently revoked, suspended or restricted, and replacement parts for such device may continue to be supplied and used for such vehicle, unless such revocation, suspension or restriction is based upon a finding that the accredited device has been found to be defective, in which event such devices must be brought into compliance with this chapter within 30 days after such finding."

NOW, THEREFORE, BE IT RESOLVED, that this Board under the powers and authority granted in Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code, revokes the certifications of Auto-Quip, Incorporated (formerly Fog-Aire, Inc.) Oakland, California crankcase emission control systems numbers 1 and 2 previously certified by Motor Vehicle Pollution Control Board Resolutions 65-22 and 65-31.

1/15/69

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State of California

AIR RESOURCES BOARD

Resolution 69-6

WHEREAS, De Paolo Auto Smog Control Products, San Francisco, California was granted a certificate of approval for used car installation of its crankcase emission control system under Resolution 65-9 on May 12, 1965; and

WHEREAS, said company did not fulfill the requirements for adequate distribution and availability of said device as stated in Title 13, Chapter 3, Subchapter 2, Article 1, Section 2003, Criteria (e) and (g), and as also stated in the "California Test Procedure and Criteria for Motor Vehicle Crankcase Emission Control, " Criteria (e) and (g); and

WHEREAS, Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code states as follows:

"The board may revoke, suspend or restrict an accreditation of a previously accredited device or an exemption previously granted upon a determination by the board that the device no longer operates within the standards set by the board or no longer should be exempted. Provided that once any motor vehicle is equipped with an accredited device it shall not thereafter be deemed in violation of this chapter or Section 27156 of the Vehicle Code because the accreditation of such device is subsequently revoked, suspended or restricted, and replacement parts for such device may continue to be supplied and used for such vehicle, unless such revocation, suspension or restriction is based upon a finding that the accredited device has been found to be defective, in which event such devices must be brought into compliance with this chapter within 30 days after such finding."

NOW, THEREFORE, BE IT RESOLVED that this Board under the powers and authority granted in Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code, revokes the certification of De Paolo Auto Smog Control Products, San Francisco, California closed crankcase emission control system, previously certified by Motor Vehicle Pollution Control Board Resolution 65-9.

1/15/69

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State of California

AIR RESOURCES BOARD

Resolution 69-7

WHEREAS, the K & B Manufacturing Company, a subsidiary of Aurora Plastics, Incorporated was granted a certificate of approval for used car installation of its Vac-U-Tron crankcase emission control system under Resolution 65-23 on September 15, 1965; and

WHEREAS, said company did not fulfill the requirements for adequate distribution and availability of said device as stated in Title 13, Chapter 3, Subchapter 2, Article 1, Section 2003. Criteria (e) and (g), and as also stated in the "California Test Procedure and Criteria for Motor Vehicle Crankcase Emission Control," Criteria (e) and (g); and

WHEREAS, Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code states as follows:

"The board may revoke, suspend or restrict an accreditation of a previously accredited device or an exemption previously granted upon a determination by the board that the device no longer operates within the standards set by the board or no longer should be exempted. Provided that once any motor vehicle is equipped with an accredited device it shall not thereafter be deemed in violation of this chapter or Section 27156 of the Vehicle Code because the accreditation of such device is subsequently revoked, suspended or restricted, and replacement parts for such device may continue to be supplied and used for such vehicle, unless such revocation, suspension or restriction is based upon a finding that the accredited device has been found to be defective, in which event such devices must be brought into compliance with this chapter within 30 days after such finding."

NOW, THEREFORE, BE IT RESOLVED, that this Board under the powers and authority granted in Division 26, Part 1, Chapter 4, Article 5, Section 39178 of the California Health and Safety Code, revokes the certification of the K & B Manufacturing Company, Downey, California Vac-U-Tron crankcase emission control system, previously certified by Motor Vehicle Pollution Control Board Resolution 65-23.

1/15/69

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State of California

AIR RESOURCES BOARD

Resolution 69-8

WHEREAS, in 1968 the California Legislature amended Section 27156 of the Vehicle Code to provide for operation of vehicles on fuel other than gasoline where the emissions are at levels which comply with existing emission standards, and

WHEREAS, in August 1968, the Air Resources Board staff, on instructions from the Board, published a demonstration program for systems operating on fuel other than gasoline to show compliance with emission standards, and

WHEREAS, on January 9, 1969, IMPCO Division of A. J. Industries, Inc. submitted test data from such a demonstration program on two models of carburetors utilizing liquified petroleum gas (LPG), and

NOW, THEREFORE, BE IT RESOLVED, that this Board finds that the emissions of IMPCO carburetors model numbers CA 225 and CA 300 comply with existing standards, making these carburetors legal for use in California on vehicles of 1966 through 1969 model year with engine sizes between 300 and 375 cubic inches.

State of California

AIR RESOURCES BOARD

Staff Discussion of Proposed Resolution 69-9

The law offices of Mori and Katayama representing Mitsubishi Heavy Industries, Ltd., Tokyo, Japan, was granted an experimental control device permit for one 1968 Colt vehicle by the Board on September 18, 1968.

The Mitsubishi exhaust emission control system consists of :

- (1) Leaner carburetion,
- (2) Special idle system,
- (3) Retarded spark-timing,
- (4) Deceleration throttle opener,
- (5) Recommended maintenance.

Mori and Katayama now have applied for permits for five additional vehicles. These vehicles have been run 4,000 miles and the emissions measured by the Mitsubishi Heavy Industries Laboratory and found to meet the 1968 standards.

Oxides of nitrogen emission measurements have not been submitted by Mori and Katayama. Mitsubishi Heavy Industries is not required to submit a report on its research and development activities because it has never sold cars in the State of California.

The staff recommends that the Board grant five additional permits while requesting data on the oxides of nitrogen emission of these vehicles. If oxides of nitrogen data is not available from Mitsubishi Heavy Industries, the Air Resources Laboratory will be made available to obtain it.

3/19/69

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State of California

AIR RESOURCES BOARD

Resolution 69-10

WHEREAS, the Air Resources Board finds it necessary to revise the "California Fuel Evaporative Emission Standard and Test Procedure for 1970 and Subsequent Model Gasoline-Powered Motor Vehicles Under 6,001 Pounds Gross Vehicle Weight," dated November 20, 1968; and

WHEREAS, Section 39052(k) of the Health and Safety Code authorizes the Air Resources Board to adopt test procedures specifying the manner in which new vehicles shall be approved; and

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedure Act, Title 2, Government Code,

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board hereby repeals, amends and adopts its regulations, Title 13, California Administrative Code, as follows:

1. Amends Section 2508 to read:

2508: Test Procedures. The test procedures for determining compliance with the fuel evaporative losses specified in Section 39106 of the Health and Safety Code are:

- (a) "California Fuel Evaporative Emission Standard and Test Procedure for 1970 and Subsequent Model Gasoline-Powered Motor Vehicles Under 6,001 Pounds Gross Vehicle Weight," dated November 20, 1968 as amended on March 19, 1969.

State of California

AIR RESOURCES BOARD

Resolution 69-10 (amended)

May 21, 1969

WHEREAS, the Air Resources Board finds it necessary to revise the "California Fuel Evaporative Emission Standard and Test Procedure for 1970 and Subsequent Model Gasoline-Powered Motor Vehicles Under 6,001 Pounds Gross Vehicle Weight" dated November 20, 1968; and

WHEREAS, Section 39052(k) of the Health and Safety Code authorizes the Air Resources Board to adopt test procedures specifying the manner in which new vehicles shall be approved; and

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedure Act, Title 2, Government Code,

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board hereby repeals, amends and adopts its regulations, Title 13, California Administrative Code, as follows:

1. Amends Section 2508 to read:

2508. Test Procedures. The test procedures for determining compliance with the fuel evaporative losses specified in Section 39106 of the Health and Safety Code are:

- (a) "California Fuel Evaporative Emission Standard and Test Procedure for 1970 Model Gasoline-Powered Motor Vehicles Under 6,001 Pounds Gross Vehicle Weight" dated November 20, 1968 as amended on March 19, 1969.
- (b) "California Fuel Evaporative Emission Standard and Test Procedure for 1971 and Subsequent Model Gasoline-Powered Motor Vehicles Under 6,001 Pounds Gross Vehicle Weight" dated May 21, 1969.

State of California

AIR RESOURCES BOARD

Resolution 69-11

WHEREAS, Section 39052(m) of the Health and Safety Code requires the Air Resources Board to adopt regulations specifying the manner in which motor vehicles on factory assembly lines are to be emission tested by March 31, 1969; and

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

NOW, THEREFORE, BE IT RESOLVED, That the Air Resources Board hereby amends and adopts its regulations, Title 13, California Administrative Code, as follows:

Adopts new Section 2110 to read:

2110: Test Procedure for Assembly Line or Pre-Delivery Testing. New motor vehicles will be tested in compliance with the Air Resources Board's "Test Procedure for Assembly Line or Pre-Delivery Testing of Motor Vehicle Exhaust Emissions" dated March 19, 1969.

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State of California

AIR RESOURCES BOARD

Resolution 69-12

WHEREAS, Section 39051(c) of the Health and Safety Code authorizes the Air Resources Board to adopt rules and regulations necessary for the proper execution of its powers and duties; and

WHEREAS, Section 39100.1, Health and Safety Code, requires vehicle manufacturers to file with the Board reports of research and development data on the control of oxides of nitrogen; and

WHEREAS, Section 39154, Health and Safety Code, authorizes the Board to prescribe by regulation other conditions for those manufacturers failing to comply with Section 39100.1; and

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedures Act (Title 2, Government Code);

NOW, THEREFORE, BE IT RESOLVED, That the Air Resources Board hereby repeals, amends and adopts its regulations, Title 13, California Administrative Code, as follows:

1. Adds Section 2111 to read:

- A. Any manufacturer of new motor vehicles who fails to comply with the reporting requirement set forth in Health and Safety Code Section 39100.1 shall comply with the following conditions:
 1. Any manufacturer who fails to file with the Air Resources Board the initial report required under Health and Safety Code Section 39100.1 shall:
 - a. File a report of the kind and nature specified in Health and Safety Code Section 39100.1 for the period from January 1, 1968 to the effective date of the Executive Officer's initial finding of non-compliance.
 - b. File additional reports of the kind and nature specified in Health and Safety Code Section 39100.1 at intervals of two-months thereafter until July 1, 1970.
 2. Any manufacturer of new motor vehicles who files the initial report specified in Health and Safety Code Section 39100.1 but fails to file additional reports at three-month intervals shall file with the Air Resources Board a report of the kind and manner specified in Health and Safety Code Section 39100.1 no less than every two-months until July 1, 1970.

- B. The above conditions shall become applicable 60-days from the findings of the Executive Officer of the Air Resources Board that any manufacturer has failed to comply with the Health and Safety Code Sections 39100.1 or 39154 or any regulations promulgated thereunder. Such finding shall be mailed immediately to the manufacturer concerned and the date of mailing shall be the effective date of such findings.
- C. Any manufacturer found by the Executive Officer to be in violation of the regulations of the Health and Safety Code Section 39100.1 or 39154 or any regulations promulgated thereunder shall have the right of appeal to the Air Resources Board. Such appeal shall be filed with the Board no later than 20 days from the effective date of the Executive Officer's findings and shall contain a full and concise statement of the appellant's contentions and argument.

- B. The above conditions shall become applicable 60-days from the findings of the Executive Officer of the Air Resources Board that any manufacturer has failed to comply with the Health and Safety Code Sections 39100.1 or 39154 or any regulations promulgated thereunder. Such finding shall be mailed immediately to the manufacturer concerned and the date of mailing shall be the effective date of such findings.
- C. Any manufacturer found by the Executive Officer to be in violation of the regulations of the Health and Safety Code Section 39100.1 or 39154 or any regulations promulgated thereunder shall have the right of appeal to the Air Resources Board. Such appeal shall be filed with the Board no later than 20 days from the effective date of the Executive Officer's findings and shall contain a full and concise statement of the appellant's contentions and argument.

State of California

AIR RESOURCES BOARD

Resolution 69-13

WHEREAS, Ford Motor Company on March 3, 1969, submitted an application and test data for 1970 California approval of an exhaust and evaporative emission control system for its Maverick model; and

WHEREAS, the applicant's emission control systems are described as follows:

An engine-modification type exhaust control system called "IMCO" with major elements:

- (1) leaner carburetion with plastic idle rich limiters,
- (2) retarded spark at idle,
- (3) recommended maintenance.

An evaporative emission control system with major elements:

- (1) carbon canister,
- (2) regulator valve,
- (3) liquid separator,
- (4) recommended maintenance.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Articles 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080 of the Health and Safety Code,

Hereby approves the 1970-model Ford Motor Company exhaust and evaporative emission control systems for the Maverick models with 170 and 200 cubic inch engine sizes. This approval is limited to a period ending September 30, 1969, pending the successful qualification of the remaining models using the same engines.

3/19/69
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State of California

AIR RESOURCES BOARD

Resolution 69-14

WHEREAS, in 1968 the California Legislature amended Section 27156 of the Vehicle Code to provide for operation of vehicles on fuel other than gasoline where the emissions are at levels which comply with existing emission standards, and

WHEREAS, in August 1968, the Air Resources Board staff, on instructions from the Board, published a demonstration program for systems operating on fuel other than gasoline to show compliance with emission standards, and

WHEREAS, on February 10, 1969, Marvel-Schebler Division of Borg-Warner Corporation submitted test data from such a demonstration program on two models of Century carburetors utilizing liquified petroleum gas (LPG);

NOW, THEREFORE, BE IT RESOLVED, that this Board finds that the emissions of engines equipped with Century carburetors listed below comply with existing standards, making these carburetors legal for use in California on both light and heavy-duty vehicles of 1966 through 1969 model year for those engine sizes listed below:

<u>Carburetor Model</u>	<u>Engine Sizes</u>
3CG-706-LE	200-300 cubic inches
3CG-705-DTLE	over 300 cubic inches

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State of California

AIR RESOURCES BOARD

Resolution 69-15

WHEREAS, Pacific Lighting Service and Supply Company, 720 West Eight Street, Los Angeles, 90054 has received permits for the testing of an experimental pollution control device on motor vehicles; and

WHEREAS, Pacific Lighting now has applied for permits for six additional vehicles; and

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits;

NOW, THEREFORE, BE IT RESOLVED, Pacific Lighting Service and Supply Company is hereby granted a permit for testing an experimental control device installed on six vehicles, for a period of one year from this date.

3/19/69

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State of California

AIR RESOURCES BOARD

RESOLUTION 69-16

WHEREAS, the Echlin Manufacturing Company filed an application for a certificate of approval for a crankcase emission control system which is described as follows:

The Echlin Manufacturing Company closed crankcase emission control system consists of the following:

A tube from the crankcase through a teflon-coated spring-loaded tapered-plunger valve to the intake manifold.

A second tube connecting the oil filler cap to the dirty side of the air cleaner. The oil filler cap incorporates a filter to clean air drawn into the crankcase.

WHEREAS, the system has been found to meet the crankcase emission standards as published in the California Administrative Code, Title 13, Section 1960; and

WHEREAS, based on test data and information submitted by the manufacturer, the Board finds that the device meets the criteria of the Air Resources Board as published in Title 13, Section 2003 of the California Administrative Code;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Issue a certificate of approval for the Echlin Manufacturing Company closed crankcase emission control system for new and used motor vehicles with engine sizes over 140 cubic inches.

State of California

AIR RESOURCES BOARD

Resolution 69-17

WHEREAS, Dyna-Truck Division of Dynamics Corporation of America on March 17, 1969 submitted an application and all test data for 1969 California certification of an exhaust emission control system; and

WHEREAS, the applicant's exhaust control system is described as follows:

Engine-modification type system with major elements:

- (1) leaner carburetion plus idle rich limiter,
- (2) retarded spark at idle,
- (3) recommended maintenance.

WHEREAS, the Board finds that the system complies with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2:

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Dynamics Corporation of America with respect to 1969-model vehicles 6,000 pounds and less gross vehicle weight with 196 and 232 cubic inch engines and to 1969-model vehicles greater than 6,000 pounds gross vehicle weight with 196, 232 and 304 cubic inch engines.

State of California

AIR RESOURCES BOARD

Resolution 69-18

April 3, 1969

WHEREAS, Fuji Heavy Industries, Ltd. on March 27, 1969, submitted an application and all test data for 1969 California certification of an exhaust emission control system used on Subaru vehicles; and

WHEREAS, the applicant's exhaust control system is described as an air-injection type system with major elements:

- (1) rotary-vane air pump,
- (2) air injection into each exhaust port,
- (3) carburetor and distributor modifications,
- (4) recommended maintenance.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2:

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Fuji Heavy Industries, Ltd. with respect to 1969-model Subaru vehicles, 6,000 pounds or less gross vehicle weight, with an engine size of 66.44 cubic inches.

State of California

AIR RESOURCES BOARD

Resolution 69-19

WHEREAS, Pacific Lighting Service and Supply Company, 720 West Eight Street, Los Angeles, 90054 has received permits for the testing of an experimental pollution control device on motor vehicles; and

WHEREAS, the Equipment Department of the Division of Highways has started an experimental program to equip ten vehicles to operate on compressed natural gas; and

WHEREAS, these vehicles will be converted by the Pacific Gas and Lighting Company and will operate in the Los Angeles area; and

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits;

NOW, THEREFORE, BE IT RESOLVED, the Department of Public Works, Division of Highways, is hereby granted a permit for testing an experimental control device installed on ten vehicles, for a period of one year from this date.

5/21/69

jh

State of California

Air Resources Board

Resolution 69-20

WHEREAS, de Yeiser Research, 3401 Troy Drive, Los Angeles, California, has applied for a permit for the testing of an experimental motor pollution control device installed in a motor vehicle, and

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits;

NOW, THEREFORE, BE IT RESOLVED, de Yeiser Research is hereby granted a permit for testing an experimental control device a period of one year from this date.

5/21/69

State of California

AIR RESOURCES BOARD

Resolution 69-21

WHEREAS, Continental Motors Corporation on May 12, 1969, submitted an application and all test data for California certification of an exhaust emission control system for portable and mobile internal combustion engines (fork lifts) used inside buildings; and

WHEREAS, the applicant's exhaust control system is described as an engine modification type system with major elements:

- (1) Leaner carburetor (gasoline and liquified petroleum gas fuel) with fixed jets in the main metering system and limited idle mixture adjustment
- (2) Specially matched intake manifold
- (3) Recommended maintenance

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-chapter 2, Article 5; and

WHEREAS, the Board explicitly states that this compliance does not imply safe operation within buildings, but simply certifies compliance with the above emission standards;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Continental Motors Corporation with respect to its exhaust control system for carbon monoxide only for new and used portable and mobile internal combustion engines of the following size classifications:

- (a) (3) 100-140 cubic inch displacement
- (b) 140-200 cubic inch displacement
- (c) 200-250 cubic inch displacement

5/21/69

State of California

AIR RESOURCES BOARD

Resolution 69-22

WHEREAS, Exhaust Controls, Inc. on May 15, 1969 submitted an application and all test data for California certification of an exhaust emission control system for portable and mobile internal combustion engines (fork-lift) used inside buildings; and

WHEREAS, the applicant's exhaust control system is described as a catalytic type system to be used only with vehicles fueled by liquefied petroleum gas (LPG) with major elements:

- (1) Platinum catalyst deposited on porous ceramic
- (2) Venturi air supply
- (3) Recommended maintenance

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-chapter 2, Article 5; and

WHEREAS, the Board explicitly states that this compliance does not imply safe operation within buildings, but simply certifies compliance with the above emission standards;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Exhaust Controls, Inc. with respect to its PTX Purifier exhaust control system for carbon monoxide only for new and used portable and mobile internal combustion engines using liquefied petroleum gas (LPG) of the following size classifications:

- (a) (3) 100-140 cubic inch displacement
- (b) 140-200 cubic inch displacement
- (c) 200-250 cubic inch displacement

5/21/69

State of California

AIR RESOURCES BOARD

Resolution 69-23

WHEREAS, the Air Resources Board has received a Federal grant to demonstrate the feasibility of exhaust gas recirculation as a means of nitrogen oxides control; and

WHEREAS, This Board authorized the Executive Officer to execute a contract with the ARCO Chemical Company for the design and installation of exhaust gas recirculation devices in test vehicles, in the amount not to exceed \$62,400 at the July 17, 1968 meeting; and

WHEREAS, these funds will be exhausted before the completion of the project;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Authorizes the Executive Officer to execute a supplementary contract, with ARCO Chemical Company in the amount not to exceed \$30,000, to complete the installation of the nitrogen oxides control devices.

5/21/69

State of California

AIR RESOURCES BOARD

Resolution 69-24

WHEREAS, air quality in California is a matter of concern and a responsibility of the Air Resources Board; and

WHEREAS, the generation of electricity using fossil fuels produces large quantities of atmospheric pollutants and the amount of these pollutants will grow as additional plants are built to meet the growing demand for electricity; and

WHEREAS, a major energy source that can be used to generate electricity in California without producing atmospheric pollutants remains largely untapped; and

WHEREAS, expected passage of federal legislation for leasing on federal lands, combined with advancing technology, opens great opportunities in the field of geothermal resource; and

WHEREAS, planning is now underway to provide California's future needs for electricity;

NOW, THEREFORE, BE IT RESOLVED, That

1. The Air Resources Board declares its policy to be to encourage the development of California's geothermal resource, particularly for the generation of electric power.
2. The staff be directed to take appropriate action as indicated from time to time in the furtherance of this policy.

I approve Resolution 69-24

I disapprove Resolution 69-24

Signed: _____

State of California

AIR RESOURCES BOARD

Resolution 69-25

WHEREAS, Continental Motors Corporation on June 2, 1969, submitted an application and all test data for California certification of an exhaust emission control system for portable and mobile internal combustion engines (fork lifts) used inside buildings; and

WHEREAS, The Continental S-R System of exhaust emission control consists of a two path system for induction of fuel and air into the engine. The system utilizes a conventionally designed automotive type carburetor with a limited idle mixture adjustment. The two path system consists of a main channel for the air and vaporized fuel to be introduced into the engine and a secondary channel whereby the unvaporized fuel in the main channel is separated and diverted into a fuel vaporizing retort assembly. The vaporized fuel from the retort is then re-entrained with the main channel fuel and air mixture at the secondary venturi assembly and introduced into the engine intake manifold.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 2, Article 5; and

WHEREAS, the Board explicitly states that this compliance does not imply safe operation within buildings, but simply certifies compliance with the above emission standards,

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Continental Motors Corporation with respect to its S-R exhaust control system for carbon monoxide only for new and used portable and mobile internal combustion engines of the following size classification:

(b) 140-200 cubic inch displacement

7/16/69

State of California

AIR RESOURCES BOARD

Resolution 69-26

WHEREAS, International Harvester Company on June 4, 1969, submitted an application and all test data for 1970 California certification of an exhaust emission control system for heavy-duty vehicles; and

WHEREAS, the applicant's exhaust control system is described as follows:

Engine-modification type system with major elements:

- (1) leaner carburetion plus idle rich limiter,
- (2) retarded spark at idle,
- (3) recommended maintenance.

WHEREAS, the Board finds that the system complies with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1, and Sub-Chapter 2, Article 2;

NOW THEREFORE, BE IT RESOLVED, That this Board under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a resolution of approval to International Harvester Company with respect to 1970-model vehicles, greater than 6,000 pounds gross vehicle weight, with engines of the following sizes (cubic inches); 196, 232, 304, 308, 345, 392, 401, 406, 450, 478, 501 and 549.

State of California

AIR RESOURCES BOARD

Resolution 69-28 (Amended)*
July 16, 1969

WHEREAS, Nissan Motor Company, Ltd., Japan, submitted an application and all test data for 1970 California approval of exhaust emission control systems for the Datsun model vehicles; and,

WHEREAS, the applicant's emission control systems are described as follows:

- A. Air-injection type exhaust emission control system with major elements:
 - (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.

- B. Engine modification-type exhaust emission control system with major elements:
 - (1) leaner carburetion, with deceleration enricher and vacuum limiter,
 - (2) retarded spark at idle and low engine speeds,
 - (3) recommended maintenance.

- C. Crankcase storage type evaporative emission control system with major elements:
 - (1) positive sealing filler cap,
 - (2) vapor-liquid separator,
 - (3) vapor vent line to crankcase,
 - (4) flow guide valve (exception Datsun 1800).

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, that this Board,

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Nissan Motor Company, Ltd., Japan, with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches): 71.5, 97.3, 97.4, 110.8 and 120.9 and 146.0.

*Amended October, 1969 to include the 71.5 and 146.0 cubic inch size engines.

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Nissan Motor Company Limited

October 1969

Nissan Motors Company, Limited has submitted a supplementary application for approval of the emission control systems to be used on the 1970 model Datsun vehicles to include their 71.5 and 146.0 cubic inch size engines.

The applicant's emission control systems are either an air-injection or engine-modification type of exhaust emission control system and a crankcase storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

<u>Engine Size</u> <u>Cubic Inches</u>	<u>Vehicle</u> <u>Number</u>	<u>Exhaust</u> <u>Control</u> <u>System</u>	<u>Projected Exhaust Emissions</u> <u>at 50,000 Miles</u>		<u>Projected Evaporative</u> <u>Emissions at 12,000 Miles</u>
			<u>HC-gms/mi</u>	<u>CO-gms/mi</u>	<u>HC-gms/test</u>
71.5	A95	EM	1.7	11.3	0.5
71.5	A103	EM	1.9	14.6	0.7
97.3	F91	AI	1.7	8.3	0.4
97.3	F92	AI	1.6	10.4	0.4
97.4	B347	AI	1.7	14.4	0.7
97.4	B348	AI	1.7	13.5	0.4
97.4	B352	AI	1.8	12.5	0.5
97.4	B300	AI	1.7	15.0	0.6
110.8	T112	AI	1.6	10.7	0.6
110.8	S112	EM	1.9	14.5	1.3
120.9	F70	AI	1.5	11.3	0.3
120.9	F86	AI	1.4	13.6	0.4
146.0	D204	AI	1.8	14.1	0.9
146.0	D207	AI	1.7	18.5	0.7

AI = Air Injection

EM = Engine Modification

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Nissan Motor Company exhaust and evaporative emission control systems meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-28 (amended).

State of California

AIR RESOURCES BOARD

Resolution 69-29

WHEREAS, de Yeiser Research, 3401 Troy Drive, Los Angeles, California, has applied for a permit for the testing of an experimental motor pollution control device installed in a motor vehicle, and

WHEREAS, de Yeiser Research is conducting research on the control of oxides of nitrogen from internal combustion engines by water injection, and

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits;

NOW, THEREFORE, BE IT RESOLVED, de Yeiser Research is hereby granted a permit for testing an experimental control device a period of one year from this date.

7/16/69

State of California

AIR RESOURCES BOARD

Resolution 69-30

July 16, 1969

WHEREAS, the law offices of Mori and Katayama, 250 East First Street, Los Angeles 90012, representing Mitsubishi Heavy Industries, Ltd., Tokyo, Japan, was granted by the Board an experimental control device permit for one 1968 Colt vehicle on September 18, 1968, and for five additional vehicles on March 19, 1969; and

WHEREAS, Mitsubishi Heavy Industries, Ltd., Los Angeles office, 606 South Hill Street, Los Angeles, California 90014, has now applied for permits for two additional vehicles equipped with newly designed engines; and

WHEREAS, Mitsubishi experimental emission control system consists of:

- (1) Modified combustion chambers,
- (2) Leaner carburetion,
- (3) Throttle opener on deceleration,
- (4) Temperature modulated air cleaner,
- (5) Retarded idle spark-timing,
- (6) Mitsubishi type fuel evaporative emission control system.

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits,

NOW, THEREFORE, BE IT RESOLVED, Mitsubishi Heavy Industries, Ltd. are hereby granted permits for testing an experimental control device on two additional vehicles, identification numbers A23Y-0001 and A23X-1002, for a period of one year from this date.

State of California

AIR RESOURCES BOARD

Resolution 69-31

WHEREAS, Volkswagenwerk A.G., Germany, on July 8, 1969, submitted an application and all test data for approval of its emission control systems for the 1970 model vehicles; and

WHEREAS, the applicant's two exhaust control systems are described as follows:

1. Engine-modification system with major elements:
 - (1) Throttle positioner for deceleration control
 - (2) Leaner carburetion plus idle rich limiter
 - (3) Retarded spark at idle
 - (4) Recommended maintenance
2. Fuel-injection system with major elements:
 - (1) Fuel injection with deceleration fuel shutoff
 - (2) Retarded spark at idle
 - (3) Recommended maintenance

WHEREAS, the applicant's evaporative emission control system is described as follows:

Activated carbon trap system with major elements:

- (1) Expansion tank
- (2) Activated carbon trap
- (3) Connections to fuel tank, air filter and engine fan housing

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Volkswagenwerk A.G., Germany, with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the 96.7 and 102.5 cubic inch size.

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Volkswagenwerk A.G.

July 16, 1969

Volkswagenwerk A. G. has submitted an application for approval of the emission control systems to be used on the 1970 model vehicles.

The applicant's emission control systems are either a fuel-injection or engine-modification type of exhaust emission control system and an activated carbon trap type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Control System	Projected Exhaust Emissions at 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
			HC-gms/mi	CO-gms/mi	HC-gms/test
96.7	WOB-VE65	EM	1.2	14.6	trace
96.7	WOB-VE79	"	1.8	17.2	trace
96.7	WOB-VH10	"	1.8	20.2	trace
96.7	WOB-V802	FI	2.0	10.7	trace
102.5	WOB-VC11	FI	2.2	14.8	trace
102.5	WOB-V557	FI	2.1	8.9	trace

EM= Engine Modification

FI= Fuel Injection

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Volkswagen A. G. exhaust and evaporative emission control systems meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-31.

State of California

AIR RESOURCES BOARD

Resolution 69-32

July 16, 1969

WHEREAS, International Harvester Company on July 9, 1969, submitted an application and test data for California approval of an exhaust and evaporative emission control system for its 1970-model vehicles less than 6,001 pounds gross vehicle weight; and

WHEREAS, the applicant's emission control systems are described as follows:

An engine-modification type exhaust control system with major elements:

- (1) leaner carburetion with idle rich limiters,
- (2) retarded spark at idle,
- (3) recommended maintenance.

An evaporative emission control system with major elements:

- (1) carbon canister,
- (2) regulator valve,
- (3) liquid separator,
- (4) sealed gas cap,
- (5) recommended maintenance.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Articles 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080 of the Health and Safety Code,

Issue a resolution of approval to International Harvester Company with respect to 1970-model vehicles, less than 6,001 pounds gross vehicle weight, with engines of the following sizes (cubic inches); 196, 232, 304, 345, and 392.

State of California

AIR RESOURCES BOARD

Resolution 69-33

July 16, 1969

WHEREAS, Toyota Motor Company, Ltd., Japan, on July 11, 1969, submitted an application and all test data for approval of its emission control systems for the 1970-model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows;

A. Air-injection type exhaust emission control system with major elements:

- (1) rotary-vane air pump,
- (2) air injection into each exhaust port,
- (3) carburetor and distributor modifications,
- (4) recommended maintenance.

B. Engine modification type exhaust emission control system with major elements:

- (1) vacuum switching valve,
- (2) modified carburetor with throttle positioner,
- (3) speed detector,
- (4) speed marker,
- (5) recommended maintenance.

C. Container storage type evaporative emission control system with major elements:

- (1) sealed filler cap,
- (2) thermal expansion tank,
- (3) fuel vapor storage case,
- (4) purge control valve.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Toyota Motor Company Ltd., Japan, with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches): 71.2, 113.4, 115.8, 137.4 and 236.7.

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Toyota Motor Company

July 16, 1969

Toyota Motor Company has submitted an application for approval of the emission control systems to be used on its 1970-model vehicles less than 6,001 pounds gross vehicle weight.

The applicant's emission control systems are an air injection or engine-modification type of exhaust emission control system and a container storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Control System*	Projected Exhaust Emissions 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
			HC-gms/mi	CO-gms/mi	HC-gms/test
71.2	KE10-370545	AI	1.8	14	2.8
71.2	KE16-196961	AI	1.8	16	2.2
113.4	RT62-104700	EM	1.1	11	0.7
113.4	RT62-104704	EM	1.7	16	0.9
113.4	RT78-10000	EM	1.6	17	1.5
113.4	RN12-000002	EM	1.8	16	2.4
115.8	RT43-120001	AI	2.0	19	1.6
115.8	RT43-120002	AI	2.0	17	3.1
137.4	MS53-103133	AI	1.8	15	2.5
137.4	MS55-116128	AI	1.8	19	2.5
236.7	FJ40-64234	EM	1.2	16	0
236.7	FJ40-64505	EM	1.4	14	0

*

AI= Air injection

EM= Engine modification

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Toyota Motor exhaust and evaporative emission control systems for vehicles less than 6,001 pounds gross vehicle weight meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-33.

State of California

AIR RESOURCES BOARD

Resolution 69-34 (Reamended)*

July 16, 1969

WHEREAS, Chrysler Corporation submitted an application and all test data for 1970 California approval of emission control systems for vehicles less than 6001 pounds gross vehicle weight; and

WHEREAS, the applicant's emission control systems are described as follows:

- A. Engine modification-type exhaust emission control system with major elements:
 - (1) leaner carburetion, plus idle with limiter,
 - (2) retarded spark at idle,
 - (3) recommended maintenance.
- B. Crankcase storage type evaporative emission control system with major elements:
 - (1) sealed filler cap,
 - (2) vapor-liquid separator,
 - (3) vapor vent lines to crankcase.
- C. Activated carbon storage type evaporative emission control system with major elements (Rootes vehicles only):
 - (1) fuel tank with inner chamber,
 - (2) vapor-liquid separator,
 - (3) activated carbon canister.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6:

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Chrysler Corporation with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches): 73, 91, 105, 198, 225, 318, 340, 383, 426, 440.

Amended October, 1969 to include the Simca Model Vehicles (73 cubic inch size engine).

* Reamended December, 1969 to include the Rootes Motors model vehicles (91 and 105 cubic inch size engines).

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Chrysler Corporation

July 16, 1969

Chrysler Corporation has submitted an application for approval of the emission control systems to be used on the 1970 model Chrysler vehicles under 6001 pounds gross vehicle weight.

The applicant's emission control systems are an engine-modification type of exhaust emission control system with a crankcase storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Projected Exhaust Emissions at 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
		HC-gms/mi	CO-gms/mi	HC-gms/test
198	655	1.7	13	0.0
198	621	1.6	14	0.0
198	636	1.6	12	0.0
198	614	2.0	15	0.0
225	141	1.8	20	0.0
225	203	1.5	17	0.0
225	699	1.7	17	0.0
225	712	1.8	17	0.0
318	609	2.2	21	0.9
318	675	2.0	17	0.0
318	706	1.6	16	0.0
318	740	2.1	17	0.0
340	134	2.1	17	0.0
340	442	2.0	14	0.0
383	497	1.9	21	0.0
383	529	1.7	14	0.0
383	690	2.2	21	0.1
383	631	1.7	20	0.0
426	721	1.6	19	0.0
426	604	2.0	16	0.0
440	667	1.9	18	0.0
440	685	2.0	13	0.0
440	736	1.9	14	0.0
440	694	1.9	19	0.0

(2)

Chrysler Staff Report continued

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Chrysler Corporation exhaust and evaporative emission control systems meet California requirements for vehicles under 6001 pounds gross vehicle weight for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-34.

Chrysler Staff Report continued

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Chrysler Corporation exhaust and evaporative emission control systems meet California requirements for vehicles under 6001 pounds gross vehicle weight for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-34.

State of California
AIR RESOURCES BOARD
Staff Report

1970 Emission Control Systems Approval
Chrysler Corporation

October, 1969

Chrysler Corporation has submitted additional data to include "the 1970" Simca Model vehicles to their application for approval of the emission control systems to be used on the 1970 model Chrysler vehicles under 6001 pounds gross vehicle weight.

The applicant's emission control systems are an engine-modification type of exhaust emission control system with a crankcase-storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Projected Exhaust Emissions at 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
		HC-gms/mi	CO-gms/mi	HC-gms/test
73	077	1.3	12	0.7
73	180	1.9	16	0.0
73	131	1.4	18	0.8
198	655	1.7	13	0.0
198	621	1.6	14	0.0
198	636	1.6	12	0.0
198	614	2.0	15	0.0
225	141	1.8	20	0.0
225	203	1.5	17	0.0
225	699	1.7	17	0.0
225	712	1.8	17	0.0
318	609	2.2	21	0.9
318	675	2.0	17	0.0
318	706	1.6	16	0.0
318	740	2.1	17	0.0
340	134	2.1	17	0.0
340	442	2.0	14	0.0
383	497	1.9	21	0.0
383	529	1.7	14	0.0
383	690	2.2	21	0.1
383	631	1.7	20	0.0
426	721	1.6	19	0.0
426	604	2.0	16	0.0

Chrysler Staff Report continued

Projected Emissions of Each Test Vehicle

<u>Engine Size</u> <u>Cubic Inches</u>	<u>Vehicle</u> <u>Number</u>	<u>Projected Exhaust Emissions</u> <u>at 50,000 Miles</u>		<u>Projected Evaporative</u> <u>Emissions at 12,000 Miles</u>
		<u>HC-gms/mi</u>	<u>CO-gms/mi</u>	<u>HC-gms/test</u>
440	667	1.9	18	0.0
440	685	2.0	13	0.0
440	736	1.9	14	0.0
440	694	1.9	19	0.0

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Chrysler Corporation exhaust and evaporative emission control systems meet California requirements for vehicles under 6001 pounds gross vehicle weight for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-34 (amended).

State of California

AIR RESOURCES BOARD

Resolution 69-35

WHEREAS, Chrysler Corporation on July 11, 1969, submitted an application and all test data for 1970 California approval of an exhaust emission control system for vehicles greater than 6000 pounds gross vehicle weight; and

WHEREAS, the applicant's exhaust control system is described as follows:

Engine-modification type system with major elements:

- (1) leaner carburetion plus idle rich limiter,
- (2) retarded spark at idle,
- (3) recommended maintenance.

WHEREAS, the Board finds that the system complies with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1, and Sub-Chapter 2, Article 2;

NOW, THEREFORE, BE IT RESOLVED, That this Board under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a resolution of approval to Chrysler Corporation with respect to the 1970-model vehicles, greater than 6,000 pounds gross vehicle weight, with engines of the following sizes (cubic inches); 225, 318, 361, 383 and 413.

July 16, 1969

State of California

AIR RESOURCES BOARD

Staff Report

1970 Exhaust Emission Control System Certification

July 16, 1969

Chrysler Corporation has submitted an application containing all of the information required by the California Exhaust Emission Test Procedure for 1970-Model vehicles over 6000 pounds gross vehicle weight.

The applicant's exhaust control system is an engine-modification system.

Projected Emission Data of Each Test Engine

<u>Engine Size</u> <u>Cubic Inches</u>	<u>Test Engine</u> <u>Number</u>	<u>Projected Emission Level</u> <u>at 1,500 Hours</u>	
		<u>Hydrocarbons, ppm</u>	<u>Carbon Monoxide %</u>
225	XET-225-1 309A	179	1.4
225	XET-225-2310A	176	1.2
318	EE-318-T-712-1	226	1.4
318	EE-318-T-691-1	166	1.1
361	EE-361-V-697	183	1.0
361	EE-361-W-698-00	185	0.9
383	EE-383-T-686-00-3	229	1.2
383	EE-383-T-708-00	187	1.4
413	EE-413-W-729-3	130	1.3

Each test engine in the certification fleet met the emission standard.

Based on the test data and other information submitted by the applicant, the staff finds that the Chrysler Corporation exhaust control system for vehicles greater than 6000 pounds gross vehicle weight meets California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-35.

State of California

AIR RESOURCES BOARD

Resolution 69-36

WHEREAS, AB Volvo, Sweden, on July 18, 1969, submitted an application and all test data for approval of its emission control systems for the 1970 model vehicles; and

WHEREAS, the applicant's two exhaust control systems are described as follows:

1. Engine-modification system with major elements:

- (1) dual intake manifold,
- (2) lean carburetion,
- (3) retarded spark at idle,
- (4) recommended maintenance.

2. Fuel-injection system with major elements:

- (1) fuel injection with deceleration fuel shutoff,
- (2) retarded spark at idle,
- (3) recommended maintenance.

WHEREAS, the applicant's evaporative emission control system is described as follows:

Carbon storage system with major elements:

- (1) activated carbon canister,
- (2) expansion tank,
- (3) connections to fuel tank, throttle bore, and carburetor float chambers if carburetors are used.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to AB Volvo, with respect to the 1970-model vehicles, 6,000 pounds or less gross vehicle weight, with engines of the 121 and 182 cubic inch size.

State of California

AIR RESOURCES BOARD

Resolution 69-37

WHEREAS, SAAB Aktiebolag, Sweden, on July 18, 1969, submitted an application and all test data for approval of its emission control systems for the 1970 model vehicles; and

WHEREAS, the applicant's two exhaust control systems are described as follows:

1. Engine-modification system with major elements;
 - (1) leaner carburetion,
 - (2) retarded spark at idle,
 - (3) injection of an air fuel mixture during deceleration.
2. Fuel-injection system with major elements;
 - (1) fuel injection with deceleration fuel shutoff,
 - (2) retarded spark at idle,
 - (3) recommended maintenance.

WHEREAS, the applicant's evaporative emission control system is described as follows:

Carbon storage system with major elements;

- (1) expansion tank,
- (2) carbon canister,
- (3) connections to fuel tank, air filter and carburetor float chamber on carbureted models.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code.

Issue a certificate of approval to SAAB Aktiebolag, Sweden, with respect to the 1970-model vehicles, 6,000 pounds or less gross vehicle weight, with engines of the 91.4 and 104.2 cubic inch size.

9/17/69

State of California

AIR RESOURCES BOARD

Resolution 69-38

WHEREAS, Ford Motor Company has submitted an application and all test data for 1970 California approval of an exhaust emission control system for vehicles greater than 6000 pounds gross vehicle weight; and

WHEREAS, the applicant's exhaust control system is described as follows:

Engine-modification type system with major elements:

- (1) leaner carburetion plus idle rich limiter,
- (2) retarded spark at idle,
- (3) recommended maintenance.

WHEREAS, the Board finds that the system complies with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1, and Sub-Chapter 2, Article 2;

NOW, THEREFORE, BE IT RESOLVED, That this Board under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a resolution of approval to Ford Motor Company with respect to the 1970-model vehicles, greater than 6,000 pounds gross vehicle weight, with engines of the following sizes (cubic inches); 240, 300, 302, 330, 360, 361, 390, 391, 401, 477, and 534.

8/22/69

State of California

AIR RESOURCES BOARD

Resolution 69-39

August 22, 1969

WHEREAS, American Motors Corporation has submitted an application and all test data for California approval of the emission control systems for its 1970 model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows;

- A. Air-injection type exhaust emission control system with major elements:
- (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.
- B. Engine modification-type exhaust emission control system with major elements:
- (1) leaner carburetion,
 - (2) retarded spark at idle and low engine speeds,
 - (3) recommended maintenance.
- C. Crankcase storage type evaporative emission control system with major elements:
- (1) sealed filler cap (0.5 to -0.3 pound per square inch pressure),
 - (2) liquid check valve,
 - (3) vapor vent line to engine valve cover.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to American Motor Corporation with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches): 199, 232, 304, 360 and 390.

State of California

AIR RESOURCES BOARD

Resolution 69-40 (Amended)*

WHEREAS, Dr. Ing. h.c.F. Porsche KG, has submitted an application and all test data for approval of its emission control systems for the 1970 model vehicles; and,

WHEREAS, the applicant's two exhaust control systems are described as follows:

1. Engine-modification system with major elements:

- (1) electronically controlled dashpot,
- (2) leaner carburetion,
- (3) retarded spark at idle,
- (4) recommended maintenance.

2. Fuel-injection system with major elements:

- (1) fuel injection with deceleration fuel shutoff,
- (2) retarded spark at idle,
- (3) recommended maintenance.

WHEREAS, the applicant's evaporative emission control system is described as follows:

Activated carbon trap system with major elements:

- (1) equalizing chambers,
- (2) activated carbon trap,
- (3) connections to fuel tank, air filter and engine fan housing.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1, and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, that this Board,

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Dr. Ing. h.c.F. Porsche KG, with respect to the 1970 model vehicles, 6,000 pounds or less gross vehicle weight, with engines of the 102.5, 121.5, and 133.9 cubic inch size.

*Amended November, 1969 to include the 102.5 cubic inch engine.

State of California

AIR RESOURCES BOARD

Resolution 69-41

WHEREAS, Algas Industries, Inc. has submitted an application for California certification of an exhaust emission control system for portable and mobile internal combustion engines (fork lifts) used inside buildings;

WHEREAS, the applicant's exhaust control system is described as an LPG (liquified petroleum gas) fuel system with major elements:

- (1) carburetor with a limited idle adjustment,
- (2) converter and,
- (3) recommended maintenance.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 5:

WHEREAS, the Board explicitly states that this compliance does not imply safe operation within buildings, but simply certifies compliance with the above emission standards,

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Algas Industries, Inc. with respect to its exhaust control system for carbon monoxide only for new and used portable and mobile internal combustion engines using liquefied petroleum gas (L.P.G.) of the following size classifications:

- (a) (3) 100-140 cubic inch displacement,
- (b) 140-200 cubic inch displacement,
- (c) 200-250 cubic inch displacement,
- (d) 250-300 cubic inch displacement.

8/22/69

State of California

AIR RESOURCES BOARD

Staff Report

Exhaust Emission Control System Certification
(fork lifts)

Algas Industries, Inc.

August 22, 1969

Algas Industries, Inc. has submitted an application for approval of an exhaust control system for carbon monoxide only for new and used portable and mobile internal combustion engines of 100-300 cubic inch displacement.

The applicant's exhaust control system is LPG (liquified petroleum gas) carburetion with a limited idle adjustment.

The Algas LPG carburetors were installed on the fork lifts when new and were operated the number of hours shown in the table. During the testing to demonstrate the capability of the system to maintain emissions below the standards for extended periods of time, a problem exhibited itself. Emissions were found to be high due to unauthorized maladjustment of the idle mixture. Algas then designed an idle mixture adjustment screw having a limited range. The full-rich adjustment of this screw was then tested on three vehicles and found to be capable of maintaining emissions below the standards.

<u>Vehicle Number</u>	<u>Engine Size Cubic Inches</u>	<u>Test Hours</u>	<u>Emissions CO%</u>	<u>Standard</u>
19	112	323	0.14	2.0
29	112	464	0.26	2.0
87	112	205	0.35	2.0
38	112	974	0.21	2.0
A 33	140	524	0.70	2.0
A 49	140	134	0.52	1.5
98	140	206	0.56	1.5
504	145	238	0.22	1.5
A 97	162	271	0.44	1.5
51	162	971	0.61	1.5
49	162	3702	0.70	1.5
115	162	1409	0.93	1.5
107	162	3672	0.73	1.5
112	162	1608	0.28	1.5
A 86	209	3918	0.37	1.5
140	216	1239	0.89	1.5
A130	216	1705	0.83	1.5
122	216	4110	0.66	1.5
124	265	174	0.61	1.5
A312	265	148	0.17	1.5

Each test engine in the certification fleet met the emission standard.

Based on the test data and other information submitted by the applicant, the staff finds that the Algas Industries, Inc. exhaust control system meets California requirements. The staff, therefore, recommends adoption of Resolution 69-41.

State of California

AIR RESOURCES BOARD

Resolution 69-42

August 22, 1969

WHEREAS, British Leyland Motor Corporation has submitted an application and all test data for approval of its emission control systems for the 1970-model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows:

- A. Air-injection type exhaust emission control system with major elements;
 - (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.
- B. Engine modification type exhaust emission control system with major elements:
 - (1) leaner carburetion,
 - (2) retarded spark at idle,
 - (3) dual intake manifold.
- C. Carbon storage type evaporative emission control system with major elements:
 - (1) carbon canister, sealed filler
 - (2) sealed filler cap,
 - (3) external thermal expansion tank,
 - (4) connections to fuel tank, air cleaner, valve cover, and carburetor float chamber.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080 of the Health and Safety Code,

Issue a certificate of approval to British Leyland Motor Corporation, with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches) 77.9, 79, 109.8, 122, 152, 215 and 258.

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

British Leyland Motor Corporation

August 22, 1969

British Leyland Motor Corporation has submitted an application for approval of the emission control systems to be used on its 1970-model vehicles less than 6,001 pounds gross vehicle weight.

The applicant's emission control systems are an air injection or engine-modification type of exhaust emission control system and a carbon storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle .

Engine Size Cubic Inches	Vehicle Number	Exhaust Control System ¹	Projected Exhaust Emissions 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
			HC-gms/mi	CO-gms/mi	HC-gms/test
British Motor Corporation					
77.9	AA2sD 23085	AI	1.4	8	1.6
77.9	AA2sD 23608A	AI	1.2	10	3.8
109.8	GHD4u-168464	AI	1.7	10	0
109.8	GHN4u-150699G	AI	1.9	10	0
Jaguar Cars Limited					
258	7R6009-9	EM	1.8	17	0
258	7R37311-9	EM	1.8	18	0
Rover Company Limited					
215	43300002A	EM	1.9	16	0
215	JXC818D	EM	1.6	21	0
Standard-Triumph Motor Co., Ltd.					
79	JHP180E	EM	1.7	14	0
79	PDU845G	EM	1.9	18	0
122	LRW453F	EM	1.8	14	0
122	PDU847G	EM	1.0	9	0
152	LRW454F	EM	1.5	16	0
152	PDU846G	EM	1.1	15	0

1

AI=Air injection

EM=Engine modification

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the British Leyland Motor Corporation exhaust and evaporative emission control systems for vehicles less than 6,001 pounds gross vehicle weight meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-42.

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the British Leyland Motor Corporation exhaust and evaporative emission control systems for vehicles less than 6,001 pounds gross vehicle weight meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-42.

State of California

AIR RESOURCES BOARD

Resolution 69-43

August 22, 1969

WHEREAS, General Motors Corporation has submitted an application and all test data for California approval of the emission control systems for its 1970 model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows;

- A. An engine-modification type system called "C.C.S." and "O.E.C.S." for Opel vehicles with major elements:
 - (1) leaner carburetion plus idle rich limiter,
 - (2) retarded spark at idle,
 - (3) recommended maintenance.

- B. An air-injection type system called "A.I.R." with major elements:
 - (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.

- C. Carbon storage type evaporative emission control system called "G.M.E.C.S." with major elements:
 - (1) Sealed Fuel tank with provisions for routing vapors to an activated charcoal canister.
 - (2) Canister containing activated charcoal for storage of fuel vapors.
 - (3) Provision for removing vapors from the canister and carrying them into the engine where they are consumed.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to General Motors Corporation with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches):

Chevrolet 153, 230, 250, 292, 302, 307, 350, 400, 400(Mark) 454

Buick 350, 455

Pontiac 350, 400, 455

Oldsmobile 350, 455

Cadillac 472, 500

Adam Opel 65.8, 115.8

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to General Motors Corporation with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches):

Chevrolet 153, 230, 250, 292, 302, 307, 350, 400, 400(Mark) 454

Buick 350, 455

Pontiac 350, 400, 455

Oldsmobile 350, 455

Cadillac 472, 500

Adam Opel 65.8, 115.8

State of California

AIR RESOURCES BOARD

Resolution 69-44

WHEREAS, General Motors Corporation submitted an application and all test data for 1970 California approval of exhaust emission control systems for vehicles greater than 6,000 pounds gross vehicle weight; and

WHEREAS, the applicant's two exhaust control systems are described as follows:

1. An engine-modification type system called "C.C.S." with major elements:
 - (1) leaner carburetion plus idle rich limiter,
 - (2) retarded spark at idle,
 - (3) recommended maintenance.
2. An air-injection type system called "A.I.R." with major elements:
 - (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to General Motors Corporation with respect to 1970-model vehicles, greater than 6,000 pounds gross vehicle weight, with engines of the following sizes (cubic inches):

250, 292, 305, 307, 350, 351, 366, 400, 401, 427, 478 and 637

State of California

AIR RESOURCES BOARD

Resolution 69-45 (Amended)*

September 17, 1969

WHEREAS, Ford Motor Company has submitted an application and all test data for California approval of the emission control systems for its 1970 model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows:

- A. An engine-modification type exhaust emission control system called "IMCO" with major elements:
 - (1) leaner carburetion plus idle rich limiter,
 - (2) retarded spark at idle,
 - (3) recommended maintenance.
- B. An air-injection type exhaust emission control system called "Thermactor" with major elements:
 - (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.
- C. A carbon storage evaporative emission control system with major elements:
 - (1) carbon canister,
 - (2) regulator valve,
 - (3) vapor-liquid separator.
- D. A crankcase storage evaporative emission control system with major elements:
 - (1) vent lines from fuel tank and carburetor to crankcase,
 - (2) regulator valve,
 - (3) vapor-liquid separator.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Ford Motor Company with respect to 1970-model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches): 97.6, 170, 200, 240, 250, 300, 302, 351, 360, 390, 428, 429, and 460.

*Amended to include the Ford of Europe 97.6 cubic inch size engine.

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Ford (Ford of Europe)

September 17, 1969

Ford Motor Company has submitted an application for approval of the emission control systems to be used on its 1970 model Ford of Europe vehicles.

The applicant's emission control systems are either an air-injection or engine-modification type of exhaust control system and a carbon storage of evaporative control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Test Vehicle Number	Exhaust Emission Control System	Projected Exhaust Emissions at 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
			HC-gms/mi	CO-gms/mi	HC-gms/test
97.6	EEL3	EM	1.3	16	0.1
97.6	EEL4	AI	1.8	18	0.3
97.6	EEL5	AI	2.0	17	0.1
97.6	EEL6	EM	1.6	14	0.7

AI=Air Injection

EM=Engine Modification

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Ford of Europe exhaust and evaporative emission control systems meet California requirements for the 1970-model year. The staff, therefore, recommends amending of Resolution 69-45 to include the 97.6 cubic inch size engine.

State of California

AIR RESOURCES BOARD

Resolution 69-46

WHEREAS, Volkswagen submitted for Auto Union G.M.B.H., a subsidiary company, an application and all test data for approval of its emission control systems for the 1970-model Audi vehicles; and

WHEREAS, the applicant's emission control systems are described as follows:

A. Engine-modification exhaust control system with major elements:

- (1) lean carburetion,
- (2) retarded spark at idle,
- (3) recommended maintenance.

B. Carbon storage evaporative emission control system with major elements:

- (1) fuel tank with sealed cap,
- (2) expansion tank,
- (3) activated carbon canister.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Auto Union G.M.B.H., a subsidiary of Volkswagen with respect to the 1970-model Audi vehicles, 6,000 pounds or less gross vehicle weight, with the 107.5 cubic inch size engine.

8/22/69

State of California

AIR RESOURCES BOARD

1970 Emission Control Systems Approval

Auto Union G.M.B.H.

August 22, 1969

Volkswagen has submitted an application for approval of the emission control systems of Auto Union G.M.B.H., a subsidiary company, to be used on its 1970-model Audi vehicles less than 6,001 pounds gross vehicle weight.

The applicant's emission control systems are an engine-modification type of exhaust control system and a carbon storage type of evaporated emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle No.	Projected Exhaust Emissions 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
		HC-gms/mi	CO-gms/mi	HC-gms/test
107.5	INAH-77	1.7	15	1.5
107.5	INAH-37	1.6	14	2.1
107.5	INAH-57	2.0	15	3.0
107.5	INAH-83	2.0	15	3.0

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Auto Union G.M.B.H. exhaust and evaporative emission control systems for vehicles less than 6,001 pounds gross vehicle weight meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-46.

State of California

AIR RESOURCES BOARD

Resolution 69-47

September 17, 1969

WHEREAS, Fuji Heavy Industries, Ltd., Japan, has submitted an application and all test data for approval of its emission control systems for the 1970-model Sabaru vehicles; and

WHEREAS, the applicant's emission control systems are described as follows:

A. Air-injection type exhaust emission control system with major elements:

- (1) rotary-vane air pump,
- (2) air injection into each exhaust port,
- (3) carburetor and distributor modifications,
- (4) recommended maintenance.

B. Crankcase storage type evaporative emission control system with major elements:

- (1) sealed fuel tank cap,
- (2) thermal expansion tanks,
- (3) purge control valve,
- (4) connection from the fuel tank to the air cleaner.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Fuji Heavy Industries Ltd., Japan, with respect to the 1970-model Sabaru vehicles, 6000 pounds or less gross vehicle weight, with engines of 66.4 cubic inch size.

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Fuji Heavy Industries, Ltd.

September 17, 1969

Fuji Heavy Industries Ltd., has submitted an application for approval of the emission control systems to be used on its 1970-model Sabaru vehicles less than 6,001 pounds gross vehicle weight.

The applicant's emission control systems are an air injection type of exhaust emission control system and a crankcase storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Projected Exhaust Emissions 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
		HC-gms/mi	CO-gms/mi	HC-gms/test
66.4	EE-1	1.8	19	1.5
66.4	ED-1	1.8	19	1.2
66.4	ED-2	2.0	21	0.6
66.4	ED-3	1.8	19	0.9
66.4	ED-4	1.9	18	1.0

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Fuji Heavy Industries Ltd., exhaust and evaporative emission control systems for Sabaru vehicles less than 6,001 pounds gross vehicle weight meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-47.

State of California

AIR RESOURCES BOARD

Resolution 69-48

WHEREAS, Robert S. Siebert, 3019 Fairbairn Street, Orange, California, has applied for a permit for the testing of an experimental motor pollution control device installed in a motor vehicle, and

WHEREAS, Mr. Siebert wishes to operate his vehicle on natural gas. The purpose of this experiment is to gain first-hand experience for a magazine article on the practicality of alternate fuels to gasoline.

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits;

NOW, THEREFORE, BE IT RESOLVED, Mr. Siebert is hereby granted a permit for testing an experimental control device for a period of one year from this date.

9/17/69

State of California

AIR RESOURCES BOARD

Resolution 69-49

WHEREAS, Mr. Alvin W. Evans was granted a permit for testing an experimental control device installed in a 1967 Cadillac Coupe de Ville, California License No. UMP-050 until September 18, 1969, and

WHEREAS, Mr. Alvin W. Evans has requested an experimental permit for a 1969 Ford License No. XQF-486, and an extension of his present experimental permit, and

WHEREAS, Mr. Alvin W. Evans has reported successfully reducing the exhaust emissions of hydrocarbons, carbon monoxide, and oxides of nitrogen to very low levels, and

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits;

NOW, THEREFORE, BE IT RESOLVED, Mr. Alvin W. Evans is hereby granted two permits for testing an experimental control device one year from this date.

September 17, 1969

State of California

AIR RESOURCES BOARD

Resolution 69-50

WHEREAS, Energy Sciences Inc., 343 Coral Circle, El Segundo, California, has applied for a permit to test an experimental pollution control device installed in motor vehicles, and

WHEREAS, the device, named "Fumcell," is claimed to generate ultra-sonic vibrations which atomize the fuel in the intake manifold, thereby allowing leaner air/fuel mixtures to be utilized, and

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits,

NOW, THEREFORE, BE IT RESOLVED, Energy Sciences Inc. is hereby granted permits for testing the "Fumcell" experimental pollution control device for a period of one year from this date for 30 vehicles as requested.

9/17/69

State of California

AIR RESOURCES BOARD

Resolution 69-51

WHEREAS, Regie Nationale des Usines Renault has submitted an application and all test data for approval of its emission control systems for its 1970-model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows:

A. Engine-modification exhaust control system with major elements:

- (1) lean carburetion.
- (2) retarded spark at idle
- (3) deceleration throttle positioner
- (4) recommended maintenance.

B. Carbon storage evaporative emission control system with major elements:

- (1) fuel tank with sealed cap
- (2) expansion tank
- (3) activated carbon canister.
- (4) control valve which connects the carburetor float chamber to the canister when the engine is off or to the air intake when the engine is running
- (5) connections to the fuel tank, expansion tank, carbon canister, carburetor float chamber, air intake and crankcase emission control system.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Regie Nationale de Usines Renault with respect to the 1970-model vehicles, 6,000 pounds or less gross vehicle weight, with 67.6, 77.8 and 95.5 cubic inch size engines.

9/17/69

State of California

AIR RESOURCES BOARD

1970 Emission Control Systems Approval

Regie Nationale des Usines Renault

September 17, 1969

Renault has submitted an application for approval of the emission control systems to be used on its 1970-model vehicles less than 6,001 pounds gross vehicle weight.

The applicant's emission control systems are an engine-modification type of exhaust control system and a carbon storage type of evaporated emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle No.	Projected Exhaust Emissions 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
		HC-gms/mi	CO-gms/mi	HC-gms/test
67.6	1	1.7	18	0
67.6	2	1.6	19	0
77.8	3	1.7	17	0
77.8	4	1.7	17	0
95.5	5	1.8	13	0
95.5	6	1.3	18	0.4

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Renault exhaust and evaporative emission control systems for vehicles less than 6,001 pounds gross vehicle weight meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-51.

State of California

AIR RESOURCES BOARD

Resolution 69-52

WHEREAS, Checker Motor Corporation has submitted an application and all test data for 1970 California approval of emission control systems for vehicles less than 6,001 pounds gross vehicle weight; and

WHEREAS, the applicant's emission control systems are described as follows:

- A. Engine modification-type exhaust emission control system with major elements:
 - (1) leaner carburetion, plus idle rich limiter,
 - (2) retarded spark at idle,
 - (3) recommended maintenance.

- B. Carbon storage type evaporative emission control system with major elements:
 - (1) Sealed fuel tank with provisions for routing vapors to an activated charcoal canister.
 - (2) Canister containing activated charcoal for storage of fuel vapors.
 - (3) Provision for removing vapors from the canister and carrying them into the engine where they are consumed.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Checker Motor Corporation with respect to the 1970-model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches): 250 and 350.

State of California

AIR RESOURCES BOARD

1970 Emission Control Systems Approval

Checker Motors Corporation

September 17, 1969

Checker Motors Corporation has submitted an application for approval of the emission control systems to be used on its 1970-model vehicles less than 6,001 pounds gross vehicle weight.

Checker Motors Corporation buys their engines from Chevrolet complete with the approved General Motors emission control systems. All emission testing has been conducted by General Motors.

The applicant's emission control systems are an engine-modification type of exhaust emission control system and a carbon storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Projected Exhaust Emissions at 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
		HC-gms/mi	CO-gms/mi	HC-gms/test
250	C-9121	1.7	11	0.5
	91025	1.6	18	0.5
	93017	1.8	13	0.9
	96125	1.4	19	0.4
	93950	1.9	11	1.2
350	92383	1.5	16	0.0
	23115	1.4	13	0.4
	92254	2.0	7	0.3
	96126	2.0	10	0.3
	93721	1.6	14	0.5

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant and General Motors, the staff finds that the Checker Motors Corporation exhaust and evaporative emission control systems for its vehicles less than 6,001 pounds gross vehicle weight meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-52.

State of California

Air Resources Board

Resolution 69-53

WHEREAS, in 1968 the California Legislature amended Section 27156 of the Vehicle Code to provide for operation of vehicles on fuel other than gasoline where the emissions are at levels which comply with existing emission standards, and

WHEREAS, in March 1969, the Air Resources Board staff, on instructions from the Board, published a demonstration program for systems operating on fuel other than gasoline to show compliance with emission standards, and

WHEREAS, Pacific Lighting Service Company has submitted test data from such a test program on its dual-fuel system model 1.25 comprised of the following elements:

1. Variable venturi mixer with lean adjustment
2. Gas pressure regulator adjusted between \pm 0.5 inches of water
3. Modified vacuum spark advance

Now, Therefore, Be It Resolved, that this Board find that the emissions of vehicles equipped with the Pacific Lighting Service Company system complies with existing standards, making this system legal for use in California on vehicles of 1966 through 1969 model year for engines over 100 cubic inches in size.

State of California

Air Resources Board

Staff Report

Exhaust Emission Control Demonstration for
Compliance with Standards for Vehicles
Modified to Use Fuel Other Than Gasoline

Pacific Lighting Service Company
September 17, 1969

Pacific Lighting Service Company has submitted test data, in accordance with the Air Resources Board demonstration program, dated March 1969, for its model 1.25 dual-fuel system for vehicle operation on natural gas fuel in addition to operation on gasoline.

The test data are included in Air Resources Laboratory Report, Project AP, dated August 1969. Results of tests on a 289 cubic inch vehicle were given in Air Resources Laboratory report M-185. Pacific Lighting Service Company also has compiled a report, dated September 1969. The latter report utilizes a different correction factor for the test data, which is not in the Board's existing test procedure.

Included in the reports are results on exhaust gas reactivity (smog-forming potential) and on nitrogen oxides emissions. The natural gas fuel system yields significant reductions of both items.

Based on the test data, the staff finds that the Pacific Lighting Service Company dual-fuel system model 1.25 complies with existing emission standards when operating on natural gas fuel and does not increase emissions when operating on gasoline. The staff, therefore, recommends adoption of resolution 69-53.

Look up:
a) AB 356
b) Availability of fuel
D. Identification

State of California

AIR RESOURCES BOARD

Resolution 69-55

September 17, 1969

WHEREAS, Kaiser Jeep Corporation submitted an application and all test data for 1970 California approval of exhaust emission control systems for vehicles greater than 6,000 pounds gross vehicle weight; and

WHEREAS, the applicant's two exhaust control systems are described as follows:

- I. Engine modification-type system for the 350 cubic inch 8 cylinder engine with major elements:
 - (1) leaner carburetion plus idle rich limiter,
 - (2) retarded spark at idle,
 - (3) deceleration control, dashpot type,
 - (4) recommended maintenance.

- II. Air-injection system for the 232 cubic inch 6 cylinder engine, with major elements:
 - (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2;

NOW, THEREFORE, BE IT RESOLVED, That this Board under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a resolution of approval to Kaiser Jeep Corporation with respect to 1970-model vehicles greater than 6,000 pounds gross vehicle weight, with the following engine sizes (cubic inches): 232 and 350.

State of California

AIR RESOURCES BOARD

Staff Report

Exhaust Emission Control System Approval
1970 Model Vehicles Over 6,000 Pounds Gross Vehicle Weight

KAISER-JEEP CORPORATION

September 17, 1969

Kaiser-Jeep Corporation has submitted an application containing all of the information required by the California Exhaust Emission Test Procedure for 1970-Model vehicles over 6,000 pounds gross vehicle weight.

The applicant utilizes two exhaust control systems, an engine modification type system for their 350 cubic inch size engines and an air injection type system for their 232 cubic inch size engines.

Emission Data of Each Test Engine
projected to 1,500 Hours

<u>Engine Size</u> <u>Cubic Inches</u>	<u>Test Engine</u> <u>Number</u>	<u>Projected Emission Level</u> <u>at 1,500 Hours</u>	
		<u>Hydrocarbons, ppm</u>	<u>Carbon Monoxide, %</u>
232	201L09A	170	1.3
232	201L09B	201	1.0
350	KR-0-421A	205	1.1
350	KR-0-421B	183	1.3

Each emission data engine met the emission standards of 275 ppm hydrocarbon and 1.5% carbon monoxide.

Based on the test data and other information submitted by the applicant, the staff finds that the Kaiser-Jeep Corporation exhaust control systems for vehicles over 6,000 pounds gross vehicle weight meets California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-55.

State of California

AIR RESOURCES BOARD

Resolution 69-56

September 17, 1969

WHEREAS, Checker Motors Corporation submitted an application and all test data for 1970 California approval of exhaust emission control system for vehicles greater than 6,000 pounds gross vehicle weight; and

WHEREAS, the applicant's exhaust control system is described as follows:

An air-injection type system called "A.I.R." with major elements:

- (1) rotary-vane air pump,
- (2) air injection into each exhaust port,
- (3) carburetor and distributor modifications,
- (4) recommended maintenance.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, Division 26 of the Health and Safety Code,

Issue a certificate of approval to Checker Motors Corporation with respect to 1970-model vehicles, greater than 6,000 pounds gross vehicle weight, with engines of the 350 cubic inch size.

State of California

AIR RESOURCES BOARD

Staff Report

Exhaust Emission Control System Approval
1970 Model Vehicles Over 6,000 Pounds Gross Vehicle Weight

Checker Motors Corporation

September 17, 1969

Checker Motors Corporation has submitted an application containing all of the information required by the California Exhaust Emission Test Procedure for 1970-Model vehicles over 6,000 pounds gross vehicle weight.

Checker Motors Corporation buys their engines from Chevrolet complete with the approved General Motors emission control system. All emission testing has been conducted by General Motors.

The applicant's exhaust emission control system is an air injection system.

Projected Emissions of Each Test Engine

<u>Engine Size</u> <u>Cubic Inches</u>	<u>Test Engine</u> <u>Number</u>	<u>Projected Exhaust Emissions to 1,500 Hours</u>	
		<u>Hydrocarbons, ppm</u>	<u>Carbon Monoxide, %</u>
350	19644-4B	194	1.2
350	19644-15D	238	1.3

Each emission data engine met the emission standards of 275 ppm hydrocarbon and 1.5% carbon monoxide.

Based on the test data and other information submitted by the applicant and General Motors Corporation, the staff finds that the Checker Motors Corporation exhaust control system for vehicles over 6,000 pounds gross vehicle weight meets California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-56.

State of California

AIR RESOURCES BOARD

Resolution 69-57

WHEREAS, Daimler-Benz, Inc., Germany, submitted an application and all test data for approval of its emission control systems for the 1970 model vehicles; and

WHEREAS, the applicant's two exhaust control systems are described as follows:

1. Engine-modification system with major elements:
 - (1) Leaner carburetion plus idle rich limiter
 - (2) Retarded spark at idle
 - (3) Recommended maintenance
2. Fuel-injection system with major elements:
 - (1) Fuel injection with deceleration fuel shutoff
 - (2) Retarded spark at idle
 - (3) Recommended maintenance

WHEREAS, the applicant's evaporative emission control system is described as follows:

Crankcase storage system with major elements:

- (1) Expansion tank
- (2) Valve system, consisting of a vent valve to crankcase, a breathing valve and a pressure relief valve

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Daimler-Benz, Inc., Germany, with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of 134.0, 152.3, 169.4 and 386.3 cubic inch sizes.

10/14/69

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Daimler-Benz, Inc.

October 1969

Daimler Benz, Inc. has submitted an application for approval of the emission control systems to be used on the 1970 model vehicles.

The applicant's emission control systems are either a fuel-injection or engine-modification type of exhaust emission control system and an crankcase storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Control System	Projected Exhaust Emissions at 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
			HC-gms/mi	CO-gms/mi	HC-gms/test
134.0	A.5-027310	EM	1.4	19.6	0.3
134.0	A.6-027245	EM	1.3	14.9	0.3
152.3	A.7-024256	EM	1.9	18.8	2.6
152.3	A.8-023457	EM	2.0	16.9	1.3
169.4	A.4-025379	EM	1.5	20.9	3.4
169.4	A.10-026318	FI	1.8	9.7	3.7
386.3	A.11-001622	FI	1.9	21.1	0.8
386.3	A.12-000575	FI	2.2	13.5	1.6

EM = Engine Modification

FI = Fuel Injection

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Daimler-Benz, Inc. exhaust and evaporative emission control systems meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-57.

State of California

AIR RESOURCES BOARD

Resolution 69-58

October 1969

WHEREAS, Bayerische Motoren Werke A.G. has submitted an application and all test data for California approval of the emission control systems for its 1970 model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows;

- A. Air-injection type exhaust emission control system with major elements:
 - (1) rotary-vane air pump,
 - (2) air injection into each exhaust port,
 - (3) carburetor and distributor modifications,
 - (4) recommended maintenance.

- B. Engine modification-type exhaust emission control control system with major elements:
 - (1) leaner carburetion plus idle rich limiter,
 - (2) retarded spark at idle and low engine speeds,
 - (3) recommended maintenance.

- C. Crankcase storage type evaporative emission control system with major elements:
 - (1) sealed filler cap,
 - (2) vapor-storage tank,
 - (3) vapor vent line to crankcase.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval to Bayerische Motoren Werke A.G. with respect to the 1970 model vehicles, 6000 pounds or less gross vehicle weight, with engines of the following sizes (cubic inches): 96, 121.3, 152.3 and 170.

State of California

AIR RESOURCES BOARD

Staff Report

1970 Emission Control Systems Approval

Bayerische Motoren Werke A.G.

October, 1969

Bayerische Motoren Werke A.G. has submitted an application for approval of the emission control systems to be used on its 1970 model vehicles.

The applicant's emission control systems are either an air-injection or engine-modification type of exhaust emission control system and a crankcase storage type of evaporative emission control system.

Projected Emissions of Each Test Vehicle

Engine Size Cubic Inches	Vehicle Number	Exhaust Control System	Projected Exhaust Emissions at 50,000 Miles		Projected Evaporative Emissions at 12,000 Miles
			HC-gms/mi	CO-gms/mi	HC-gms/test
96	1569618	A.I.	2.2	22	0.2
96	1569544	A.I.	1.7	14	0.3
121.3	2530022	A.I.	2.0	20	0.3
121.3	1664608	A.I.	2.0	22	0.6
152.3	2150557	E.M.	1.9	23	0.1
152.3	2120262	E.M.	1.8	23	0.1
170	2420011	E.M.	1.9	20	0.1
170	2000267	E.M.	1.4	22	0.2

A.I. = Air Injection

E.M. = Engine Modification

Each test vehicle met the emission standards of 2.2 grams per mile hydrocarbons, 23 grams per mile carbon monoxide, and 6 grams per test for evaporative emissions.

Based on the test data and other information submitted by the applicant, the staff finds that the Bayerische Motoren Werke A.G. exhaust and evaporative emission control systems meet California requirements for the 1970-model year. The staff, therefore, recommends adoption of Resolution 69-58.

AIR RESOURCES BOARD

State of California

Resolution 69-59

WHEREAS the 1969-70 fiscal year budget for the Air Resources Board provides funds to contract with the Department of Public Health for the services of the Air and Industrial Hygiene Laboratory in the amount of \$283,276, and for Data Processing services in the amount of \$65,000; and

WHEREAS Federal funds have been made available for the 1969-70 fiscal year to assist the Board in carrying out its program of air pollution control; and

WHEREAS the Department of Public Health in its Air and Industrial Hygiene Laboratory and Data Processing unit has the personnel and technical capability to assist the Board in meeting its responsibilities under Section 39051, Section 39052, Section 39054 and Section 39061 of the Health and Safety Code;

NOW THEREFORE BE IT RESOLVED, That this Board authorizes the Executive Officer to execute an interagency agreement with the State Department of Public Health to provide the services necessary to assist the Board in meeting its program objectives for the 1969-70 fiscal year.

State of California

AIR RESOURCES BOARD

Resolution 69-60

WHEREAS, Section 39052 (q), Section 39110 and Section 39111 of the Health and Safety Code requires the Air Resources Board to adopt regulations specifying the manner in which motor vehicles modified to use liquified petroleum gas or natural gas fuel are to be emission tested; and

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

NOW, THEREFORE, BE IT RESOLVED, That the Air Resources Board hereby amends and adopts its regulations, Title 13, California Administrative Code, as follows:

Adopts new Section 2109, paragraph(f) to read:

- (f) The test procedures for determining compliance with Sections 39052 (q), 39110 and 39111 of the Health and Safety Code are, "California Exhaust Emission Standards and Test Procedures for Motor Vehicles Modified to Use Liquified Petroleum Gas or Natural Gas Fuel," dated November 19, 1969.

State of California

AIR RESOURCES BOARD

Resolution 69-61

WHEREAS, the Air Resources Board finds it necessary to revise the "California Exhaust Emission Standards and Test Procedures for Used Vehicles Under 6,001 Pounds Gross Vehicle Weight," dated November 20, 1968; and

WHEREAS, Section 39052 (1) of the Health and Safety Code authorizes the Air Resources Board to adopt test procedures specifying the manner in which used motor vehicles shall be accredited; and

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedure Act, Title 2, Government Code,

NOW, THEREFORE, BE IT RESOLVED, That the Air Resources Board hereby repeals, amends and adopts its regulations, Title 13, California Administrative Code, as follows:

1. Amends Section 2109, paragraph (e) to read:

- (e) The test procedures for determining compliance with exhaust emission standards specified in Sections 39052.2, 39092, 39107, 39108, 39175-39184 of the Health and Safety Code are:
"California Exhaust and Fuel Evaporative Emission Standards and Test Procedures for Used Motor Vehicles Under 6,001 Pounds Gross Vehicle Weight," dated November 19, 1969.

11/19/69

State of California

AIR RESOURCES BOARD

Resolution 69-62

WHEREAS, Section 39009.3 of the Health and Safety Code requires the Air Resources Board to establish a low emission standard; and

WHEREAS, the Board finds that not more than 50 percent of the 1970 certification vehicles would comply with a low emission standard of 1.9 grams per mile hydrocarbons and 18 grams per mile carbon monoxide;

NOW, THEREFORE BE IT RESOLVED, That the Air Resources Board hereby amends and adopts its regulations, Title 13, California Administrative Code, as follows:

Adopts new Section 1942 to read:

1942 Exhaust Emissions (1970 Low Emission Standards)

The low Emission Standards pursuant to Health and Safety Code Section 39009.3 are:

Hydrocarbons: 1.9 grams per mile.

Carbon Monoxide: 18 grams per mile.

11/7/69

State of California

AIR RESOURCES BOARD

Resolution 69-63

WHEREAS, Fiat, S.p.A., has submitted an application and all test data for approval of its emission control systems for its 1970-model vehicles; and

WHEREAS, the applicant's emission control systems are described as follows:

A. Engine-modification exhaust control system with major elements:

- (1) dual-throat carburetor
- (2) leaner carburetor calibration including idle
- (3) retarded spark at idle
- (4) deceleration throttle positioner
- (5) recommended maintenance

B. Carbon storage evaporative emission control system with major elements:

- (1) fuel tank with sealed cap
- (2) activated carbon canister
- (3) three-way control valve with connections to fuel tank, carbon canister and fuel tank air inlet.

WHEREAS, the Board finds that the systems comply with the California Administrative Code, Title 13, Chapter 3, Sub-Chapter 1 and Sub-Chapter 2, Article 2 and 6;

NOW, THEREFORE, BE IT RESOLVED, That this Board

Under the powers and authority granted in Chapter 4, commencing at Section 39080, of the Health and Safety Code,

Issue a certificate of approval with respect to the 1970-model vehicles, 6,000 pounds or less gross vehicle weight, with 55.08 and 87.75 cubic inch size engines.

11/19/69

State of California

AIR RESOURCES BOARD

Resolution 69-64

WHEREAS, Emission Control Technology, 144 E. Emerson Street, Orange, California, has applied for a permit to test an experimental pollution control device installed in motor vehicles, and

WHEREAS, the device, named "Cal-Air" comprises an electronic ignition system and carburetor idle circuit bypass, and

WHEREAS, Section 39181 of the Health and Safety Code authorizes the Board to issue such permits,

NOW, THEREFORE, BE IT RESOLVED, Emission Control Technology is hereby granted permits for testing the "Cal-Air" experimental pollution control device for a period of one year from this date for 50 vehicles as requested.

11/19/69