

- Resolution 66-1 The MVPCB authorizes the Executive Officer to work with the U. S. P. H. Service in relation to survey grant funds for surveillance of 1966 model vehicles equipped with exhaust controls.
- Resolution 66-2 The MVPCB under Sec. 24390 (J) of the Health and Safety Code is given authority to exempt motor vehicles whose emissions are found by appropriate tests to meet State standards without additional equipment.
- Resolution 66-3 Citroen Cars, Inc. Beverly Hills, filed an application dated 1/6/66 for certification of a crankcase emission control system.
- Resolution 66-4 The Board requests appropriate legislative committees to continue and initiate studies in all areas appropriate to the conservation of the California air resource for consideration by the 1967 Regular Legislative Session.
- Resolution 66-5 Brisko's Mileage Saver, Inc. filed an application for a certificate of approval for a crankcase emission control system on Feb. 26, 1966.
- Resolution 66-6 Sec. 24386 (5) of the Health and Safety Code provides that the MVPCB shall exempt classifications of vehicles from the mandatory provisions of the law.
- Resolution 66-7 Hercules Division of the Hupp Corp. filed an application for a certificate of approval for a crankcase emissions control system on Feb. 28, 1966.
- Resolution 66-8 Rover Motors Co. Ltd., Solihull, England, filed an application for a certificate of approval for a closed crankcase emission control system.
- Resolution 66-9 The Standard Screw Co., Chicago Division, filed an application for a certificate of approval for a crankcase emission control system.
- Resolution 66-10 Isuzu Motors Limited filed an application for a certificate of approval for a crankcase emissions control system on April 18, 1966.
- Resolution 66-11 The MVPCB authorized the Executive Officer to work with the U. S. P. H. Service in relation to survey grant funds for emission surveillance of 1966 and 1967 model vehicles equipped with exhaust controls.
- Resolution 66-12 The MVPCB has approved the Report of the Committee on Information May 11, 1966 recommending production of a public service motion picture on the subject of smog and the automobile in California.
- Resolution 66-13 The MVPCB has designated Scott Research Labs. Inc. automotive testing facility as an authorized motor vehicle pollution control testing lab.

RESOLUTION INDEX CONTINUED

- Resolution 66-14 No used component of a certified crankcase emission control system may be sold, offered for sale, or utilized in any way as part of a certified emission control system which is not the original system from which the component was removed.
- Resolution 66-15 Chrysler's Cleaner Air Package for 1967 and subsequent model motor vehicles in classifications b, c, d, e, and f, .
- Resolution 66-16 Dr. Sweeney's commendation from the Board
- Resolution 66-17 Nissan Motor Company, Yokohama Japan certified as a vehicle lab- 8-10-66
- Resolution 66-18 Standard-Triumph Motor Company, Ltd. certified as a vehicle lab
- Resolution 66-19 Union Technique de l'Automobile du Motocycle et du Cycle (U.T.A.C., Paris, France as a vehicle lab.
- Resolution 66-20 Volvo certified as a vehicle lab at Gotegorg, Sweden
- Resolution 66-21 Ford Motor Company "Imco" certification for 1967 and subsequent model vehicles in classification (f)
- Resolution 66-22 American Motors certification for the "Engine Mod" system for 1967 and subsequent model vehicles in classification (c).
- Resolution 66-23 The Board must maintain a constant vigilance to protect our air quality and demand stricter controls and regulations in the future, as deemed necessary by the State Department of Public Health.
- Resolution 66-24 Associated Octel Company Limited at Bletchley Bucks England is certified as a vehicle testing lab.
- Resolution 66-25 Commendation to the retiring Board Chairman, William E. Nissen.
- Resolution 66-26 The Toyota Motor Company Ltd vehicle testing laboratory at Toyota-Shi, Aichi-Ken, Japan is authorized as a vehicle testing laboratory.
- Resolution 66-27 General Motors "Air Injection Reactor" system for engines in classifications (b) (c) (d) (e) and (f) for 1967 models.
- Resolution 66-28 Ford "Thermactor" Air Injection Exhaust system for engines in classifications (b) (c) (d) (e) and (f) for 1967 models.
- Resolution 66-29 American Motors "Air Guard" exhaust system for 1967 engines in classifications (b) (c) (d) and (e).
- Resolution 66-30 International Harvester Company Air Injection Exhaust System for 1967 and later models in classifications (b) (c) (d) and (e).
- Resolution 66-31 Kaiser Jeep "Air Guard" control system for 1967 and later models in classifications (c) and (e).

RESOLUTION INDEX CONTINUED

- Resolution 66-32 Regie National Des Usines Renault, Billancourt, France filed and application for a certificate of approval for a crankcase emissions control system on Sept. 23, 1966.
- Resolution 66-33 Toyota Motors Ltd., of Aichi-Ken, Japan filed an application for a certificate of approval for a closed crankcase emission control system described as the Toyota Motors Ltd. closed crankcase emission control system.
- Resolution 66-34 Ford Motor Company, Tld. Dagenham, Essex, England has been found to be equipped and qualified to conduct testing of exhaust and crankcase control devices.
- Resolution 66-35 Rovers Motors Co. Ltd., Solihull, Birmingham, England has been found to be equipped and qualified to conduct testing of exhaust and crankcase control devices.
- Resolution 66-36 This Board certified exhaust emission control systems for 1966 and 1967 model vehicles.
- Resolution 66-37 Checker Motors Corp. submitted an application on Aug. 9, 1966 for approval of a factory-installed exhaust emission control system for 1967 and later year models.
- Resolution 66-38 General Motors Corp. filed an application for approval of an exhaust emission control system on Oct. 27, 1966 for 1967 and later models.
- Resolution 66-39 The Co-Recti-Fire Company, Lake Worth, Florida filed an application for certificate of approval for a crankcase emission control system.

RESOLUTION 66-1

WHEREAS the Motor Vehicle Pollution Control Board authorized the Executive Officer to work with the United States Public Health Service in relation to survey grant funds for surveillance of 1966 model vehicles equipped with exhaust controls; and

WHEREAS the United States Public Health Service has authorized a grant of \$123,652.00 for surveillance of California vehicles; and

WHEREAS all necessary documents have been prepared and appropriate agreements reached with the Federal Government and the State Department of Finance.

NOW, THEREFORE, BE IT RESOLVED, That the Executive Officer is authorized to approve State contract number 283 with Scott Research Laboratories for \$74,888.00, dated August 1, 1965.

1-19-66

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RESOLUTION 66-3

WHEREAS Citroen Cars, Incorporated, Beverly Hills, filed an application dated January 6, 1966, for certification of a crankcase emission control system, which is described as follows:

The Citroen crankcase emission control system consists of a large diameter tube connecting the crankcase with the clean side of the air cleaner. A circular flame arrester is located in this tube next to the crankcase.

An additional short tube connects the rocker arm cover to the atmospheric side of the air cleaner. A wire mesh filter is located in the tube next to the rocker arm cover.

The system also incorporates a sealed oil filler cap and dip stick.

WHEREAS the system meets the crankcase emission standards of the State of California, Department of Public Health, as published in Title 17 of the California Administrative Code, Chapter 5, subchapter 5, Article 1, Section 30530; and

WHEREAS after considering representations submitted by the manufacturer, the Staff finds that the device meets the criteria of the Motor Vehicle Pollution Control Board as established in Title 13 of the California Administrative Code, Chapter 3, subchapter 1, Article 1, Section 2003.

THEREFORE, BE IT RESOLVED, that this Board issue a certificate of approval for the Citroen Crankcase Emission Control System for installation on 1966 and subsequent model Citroen cars in displacement class (a) as designated in Title 13 of the California Administrative Code, Chapter 3, subchapter 1, Article 1, Section 2004.

MOTOR VEHICLE POLLUTION CONTROL BOARD

RESOLUTION 66-4

WHEREAS, the State of California and its Motor Vehicle Pollution Control Board have pioneered in the field of air pollution control and in developing the concept of air resource conservation; and

WHEREAS, California has become a leader in the fight against air pollution, providing guidance in national and international air pollution control efforts; and

WHEREAS, many advances in air pollution control have been made in California by assignment of the responsibility for mobile source control to the State, and stationary source control to local Districts, further improvements are mandatory if California is to conserve its air resource; and

WHEREAS, it is now known that air pollution is no respecter of governmental or political jurisdictions which determine the boundaries of Air Pollution Control Districts, but is rather a regional problem defined by meteorological, geographical, and population concentration factors; and

WHEREAS, the legislation establishing this Board found that motor vehicle created air pollution, as well as other air pollution, must be controlled and eliminated "to protect and preserve public health and well-being, and for the prevention of irritation to the senses, interference with visibility, and damage to vegetation and property", and directed the Motor Vehicle Pollution Control Board to "submit a report to the Governor and the Legislature....covering the Board's recommendation concerning such legislation and other action as is necessary for the implementation and enforcement of this chapter"; and

WHEREAS, the Motor Vehicle Pollution Control Board has, in accordance with the directives of the California State Legislature, initiated a motor vehicle pollution control program in the State of California, and given consideration to the long-range needs for an air conservation plan for California;

NOW, THEREFORE, BE IT RESOLVED, that the Board respectfully requests appropriate legislative committees to continue and initiate studies in all areas appropriate to the conservation of the California air resource for consideration by the 1967 Regular Legislative Session, these studies to include the following:

- (1) An evaluation of the need for statewide applicability of State ambient air quality standards as a basis for control programs; a study of the need to develop emission standards for both mobile and stationary pollution sources, with statewide air shed application.
- (2) An evaluation of the present motor vehicle control program, with particular attention given to methods of enforcement and compliance, both within participating counties and throughout the State, the effectiveness of the program in terms of overall goals of air conservation and improvements needed, and the future relationship of the State program to Federal efforts in vehicular pollution control, it being understood that the Board should join with and cooperate with the Legislature in such evaluation and studies.

- (3) A thorough review of the role of the State in air resource conservation, including consideration of the inter-relationship of air pollution with metropolitan area growth, land use planning, transportation system development, agricultural needs, and other problems associated with California's continued growth.
- (4) A study of the possible need for State action in establishing regional air shed control through utilization of existing Air Pollution Control Districts.

BE IT FURTHER RESOLVED, that:

- (1) Full support be given to such legislation introduced during this 1966 Special Session which is consistent with the Board's legislative policy adopted in San Diego on January 19, 1966.
- (2) Recommended studies of the Board and legislative committees be appropriately funded so that the best citizen and professional attention can be given to this important air resource consideration.
- (3) Copies of this Resolution be forwarded to the Governor, the Senate and the Assembly of the California State Legislature, the County Supervisors' Association, and Air Pollution Control Agencies.

As revised and adopted by the  
Motor Vehicle Pollution Control Board  
on 3/9/66 at their regular meeting  
in San Francisco.

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- (3) A thorough review of the role of the State in air resource conservation, including consideration of the inter-relationship of air pollution with metropolitan area growth, land use planning, transportation system development, agricultural needs, and other problems associated with California's continued growth.
- (4) A study of the possible need for State action in establishing regional air shed control through utilization of existing Air Pollution Control Districts.

BE IT FURTHER RESOLVED, that:

- (1) Full support be given to such legislation introduced during this 1966 Special Session which is consistent with the Board's legislative policy adopted in San Diego on January 19, 1966.
- (2) Recommended studies of the Board and legislative committees be appropriately funded so that the best citizen and professional attention can be given to this important air resource consideration.
- (3) Copies of this Resolution be forwarded to the Governor, the Senate and the Assembly of the California State Legislature, the County Supervisors' Association, and Air Pollution Control Agencies.

As revised and adopted by the  
Motor Vehicle Pollution Control Board  
on 3/9/66 at their regular meeting  
in San Francisco.

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STATE OF CALIFORNIA

MOTOR VEHICLE POLLUTION CONTROL BOARD

RESOLUTION 66-5

WHEREAS Brisko's Mileage Saver, Inc. filed an application for a certificate of approval for a crankcase emission control system on February 26, 1966, and which system is described as the Brisko Crankcase Emission Control System, and is described as follows:

The Brisko Crankcase Emission Control System consists of a tube from the crankcase through a Brisko valve life extender to a spring loaded control valve to the intake manifold.

Another tube goes from the rocker arm cover to the clean side of the air cleaner. A sealed oil filler cap is used.

WHEREAS the system has been found to meet the crankcase emission standards established by the State Department of Public Health, as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS based upon demonstration of compliance with established test procedures, the Board finds that the device meets the criteria of the Motor Vehicle Pollution Control Board, including the odor criterion, as published in Title 13 of the California Administrative Code, Chapter 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003.

THEREFORE, BE IT RESOLVED, That this Board

Issue a certificate of approval for the Brisko Crankcase Emission Control System for used motor vehicles in classification (c), designated by Title 13, California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

IE:mj  
3/9/66

RESOLUTION 66-6

WHEREAS Section 24386(5) of the Health and Safety Code provides that the Motor Vehicle Pollution Control Board shall exempt classifications of vehicles from the mandatory provisions of the law when it is found that a device "not available"; and

WHEREAS after appropriate hearings this Board has found that there is, in fact, no exhaust control systems available for certain 1967 makes and models of motor vehicles; and

WHEREAS this non-availability is due primarily to the fact that at this time there is no practical engineering method to control these vehicles.

NOW, THEREFORE, BE IT RESOLVED, THAT

The following classifications of vehicles shall be exempt from the mandatory provisions of Section 24390 (a) of the California Health and Safety Code in respect to exhaust control requirements for the 1967-model new vehicles only:

1. Commercial vehicles in excess of  $\frac{1}{2}$ -ton nominal load rating. This rating corresponds approximately to 6000 pounds gross vehicle weight or 4000 pounds unladen weight.
2. Diesel vehicles.
3. Vehicles of foreign manufacturers and vehicles in class (a) (under 140 cubic inch) for which there is no exhaust device available based upon notification from the manufacturer to the Board and determination by the Board's Executive Officer that no device is in fact available to control exhaust emission.
4. Propane (LPG) vehicles, factory equipped.

STATE OF CALIFORNIA

MOTOR VEHICLE POLLUTION CONTROL BOARD

Report on the Hupp-Hercules Closed Crankcase Emissions Control System

Introduction:

This is a report on the staff evaluation of the Hupp-Hercules Crankcase Emissions Control System. The basis of the evaluation is the Alternate Testing Procedure for Evaluation of Devices to Control Crankcase Emissions (factory installation), September 15, 1965, revision. This report does not include evidence concerning compliance with the Board's criteria.

Description of System:

There are actually two systems being applied for.

1. Model 6182-FES Hall-Scott engine for use on fire-fighting equipment. Dual down-draft carburetors, 1091 in.<sup>3</sup> - 6 cylinders.

Two tubes, each going from the rocker arm cover through a spring loaded A.C. type valve to the intake manifold (two A.C. type valves).

An additional tube from the side of the crankcase to the clean side of the air cleaner.

A sealed oil filler cap.

2. Model 6156-FE Hall-Scott engine for use on fire-fighting equipment. Single updraft carburetor, 935 in.<sup>3</sup> - 6 cylinders.

A tube from the rocker arm cover, through an A.C. type spring loaded valve to the intake manifold.

A tube from the side of the crankcase to the clean side of the air cleaner.

Sealed oil filler cap.

Compliance With Crankcase Emission Standard:

The applicant has demonstrated to the satisfaction of the staff that the system, when operating efficiently, meets the State Standards.

Compliance With Board Criteria:

The Board has on file a letter from the Hercules Division - Hupp Corp., signed by a legal officer, containing the manufacturer's representation that the device, which will be installed on original equipment only, will comply with the Board's criteria, which includes odor criterion. The letter also states that the system will not be offered as replacement equipment for cars other than those for which it was originally certified.

Summary and Conclusions:

1. The Crankcase Emissions Control System meets the standards of the California Department of Public Health when operating efficiently.
2. The applicant has made representation that the device, as produced for original equipment installation, will comply with the Board's criteria.
3. The staff recommends that the Hupp-Hercules Closed Crankcase Emissions Control System be approved for new cars, factory installation, on 1966 and subsequent models of motor vehicles in Classification (F).

IE:la

3-9-66

RESOLUTION 66-7

WHEREAS, Hercules Division of the Hupp Corporation filed an application for a certificate of approval for a crankcase emissions control system on February 28, 1966. This system is now described as the Hupp-Hercules Closed Crankcase Emissions Control System, having the following specifications:

There are two systems:

1. Model 6182-FES (Hall-Scott fire truck engine). Two downdraft carburetors.

Two tubes, each tube going from the rocker arm cover, through a spring loaded A.C. type valve to the intake manifold.

An additional tube from the side of the crankcase to the clean side of the air cleaner.

A sealed oil filler cap.

2. Model 6156-FE (Hall-Scott fire engine). Single updraft carburetor.

A tube from the rocker arm cover, through an A.C. type spring loaded valve to the intake manifold.

A tube from the side of the crankcase to the clean side of the air cleaner.

Sealed oil filler cap.

WHEREAS, the applicant has demonstrated to the satisfaction of the staff that the system when operating efficiently meets the State Standards; and

WHEREAS, the Board has on file a letter from the Hercules Division of the Hupp Corporation, signed by a legal officer, containing the manufacturer's representation that the device, which will be manufactured for original equipment installation only, will comply with the Board's criteria including odor criterion. The letter also states that the system will not be used on cars other than those for which it was originally certified. The system will go 12,000 miles without service;

WHEREAS, the device has been found to meet the crankcase emissions standards established by the State Department of Public Health as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS, based upon representations submitted by the manufacturer, the Board finds that the device will meet the criteria of the Motor Vehicle Pollution Control Board as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003;

THEREFORE, BE IT RESOLVED,

That this Board issue a certificate of approval to the Hercules Division of the Hupp Corporation for a closed crankcase emissions control system for factory installation on new 1966 and subsequent model cars only in motor vehicle classification (f), as designated in Title 13, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

RESOLUTION 66-8

WHEREAS, Rover Motors Co. Ltd., Solihull, England, filed an application for a certificate of approval for a closed crankcase emission control system described as the Rover closed crankcase emission control system having the following specifications:

A tube from the crankcase through a flame arrester to the constant vacuum zone of a S.U. carburetor (between throttle plate and piston).  
A second tube from the rocker arm cover to the clean side of the air cleaner. A sealed oil filler cap.

WHEREAS, the system has been found to meet the crankcase emission control standards established by the California Department of Public Health as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS, after considering representations submitted by the manufacturer, the Board finds that the device meets the criteria, including odor criterion, of the Motor Vehicle Pollution Control Board as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003.

THEREFORE, BE IT RESOLVED, That this Board

Issue a certificate of approval for the Rover Motors Co. Ltd. closed crankcase emission control system for new Rover cars, factory installation, on 1966 and subsequent models of motor vehicles in classification (a), (b), as designated in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

3/9/66  
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STATE OF CALIFORNIA

MOTOR VEHICLE POLLUTION CONTROL BOARD

REPORT ON THE STANDARD SCREW CO., CHICAGO DIVISION,  
CLOSED CRANKCASE EMISSION CONTROL SYSTEM

INTRODUCTION

This report presents the evaluation of the Standard Screw Co., Chicago Division Closed Crankcase Emission Control System by the staff of the Motor Vehicle Pollution Control Board. The bases of the evaluation are the requirements set forth in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Section 2000 to 2004. Since approval is sought for used car installation, the report deals with both the California Crankcase Emission Standard and compliance with the Board's Criteria Cost and Marketing Factors will be discussed.

DESCRIPTION OF THE SYSTEM

The Standard Screw Co., Closed Crankcase Emission Control System consists of two conduits from the vehicle crankcase; one to the intake manifold and the other to the air induction system. The flow in the branch to the intake manifold is regulated by a spring loaded "Tapered Plunger Valve" actuated by intake manifold vacuum. Flow in excess of valve capacity is conveyed through a sealed oil filler cap equipped with a filter to a tube connecting the crankcase to the dirty side of the air cleaner. An ozone and oil resistant rubber hose together with necessary fittings is used to connect the various components of the system.

PREVIOUS APPROVAL

This device has previously been approved for new vehicles (classes b through f) factory installation only under Board Resolution 63-40 on August 14, 1963.

This device has been installed on 1963 and later American and Chrysler Motors and over 10,000,000 of these valves have been produced so far.

The company is now requesting approval for used cars.

COMPLIANCE WITH BOARD CRITERIA

According to Section 2003 entitled Other Criteria, every device controlling crankcase emissions from motor vehicles shall meet the following criteria:

- a) "Be so designed as to have no adverse effect on engine operation or vehicle performance".

The staff is satisfied that there will be no adverse effect on engine operation or vehicle performance with the correct installation.

- b) Operate in a safe manner.

Based on the four years experience since the operation of this device on motor vehicles, it is felt that the system will operate in a safe manner.

- c) Have sufficient durability so as to operate efficiently for at least 12,000 miles with maintenance.

Based on test results, the systems appear to have sufficient durability to operate for at least 12,000 miles without maintenance.

- d) "Operate in such manner so as not to create excessive heat, noise or odor beyond the standard characteristics of the motor vehicle without such a device.

The system does not create excessive heat, noise or odor beyond the standard characteristics of the motor vehicle without such a device.

- e) "The purchase or cost of installation of such a device shall not constitute an undue cost burden to the motorist.

The company has stated that the cost of the valve will not be in excess of \$3.00. The company intends to sell these valves as replacement valves primarily.

- f) "Installation of such device shall not create or contribute to a noxious or toxic effect in the ambient air."

Test data obtained by the company confirms that the average air/fuel ratio change for this device does not exceed the 4% lean or 1% rich limits.

Therefore, the installation of the Standard Screw Co., Chicago Division, Closed Crankcase Emission Control Device will not create nor contribute to noxious or toxic effects in the ambient air.

#### OTHER CONSIDERATIONS

- a) The company has tested a number of Class (a) engines and requests that this class be included as well.
- b) The company has submitted data to show that the system has sufficient capacity to handle 10th decile cars with less than 1.5 in H<sub>2</sub>O pressure in the crankcase.
- c) The Ethyl Corporation has tested 30 of the companies self-cleaning (Jiggle Pin) valves on Plymouth taxicabs in Philadelphia. We have a copy of the letter stating that the valves went 50,000 miles on the average without maintenance.

#### FINANCIAL CRITERIA

The firm has submitted their annual financial report for 1965 and their finances appear quite satisfactory.

Total Assets	-	48,287,260
Total Liabilities		10,704,417

- c) Have sufficient durability so as to operate efficiently for at least 12,000 miles with maintenance.

Based on test results, the systems appear to have sufficient durability to operate for at least 12,000 miles without maintenance.

- d) "Operate in such manner so as not to create excessive heat, noise or odor beyond the standard characteristics of the motor vehicle without such a device.

The system does not create excessive heat, noise or odor beyond the standard characteristics of the motor vehicle without such a device.

- e) "The purchase or cost of installation of such a device shall not constitute an undue cost burden to the motorist.

The company has stated that the cost of the valve will not be in excess of \$3.00. The company intends to sell these valves as replacement valves primarily.

- f) "Installation of such device shall not create or contribute to a noxious or toxic effect in the ambient air."

Test data obtained by the company confirms that the average air/fuel ratio change for this device does not exceed the 4% lean or 1% rich limits.

Therefore, the installation of the Standard Screw Co., Chicago Division, Closed Crankcase Emission Control Device will not create nor contribute to noxious or toxic effects in the ambient air.

#### OTHER CONSIDERATIONS

- a) The company has tested a number of Class (a) engines and requests that this class be included as well.
- b) The company has submitted data to show that the system has sufficient capacity to handle 10th decile cars with less than 1.5 in H<sub>2</sub>O pressure in the crankcase.
- c) The Ethyl Corporation has tested 30 of the companies self-cleaning (Jiggle Pin) valves on Plymouth taxicabs in Philadelphia. We have a copy of the letter stating that the valves went 50,000 miles on the average without maintenance.

#### FINANCIAL CRITERIA

The firm has submitted their annual financial report for 1965 and their finances appear quite satisfactory.

Total Assets	-	48,287,260
Total Liabilities		10,704,417

The information was sent to each member of the group for his opinion, comments and suggestions. No member offered adverse comment, or recommended against approval.

SUMMARY AND STAFF RECOMMENDATION

- a) Based on four years experience with this device, the staff feels that it meets the crankcase emission standards of the Department of Public Health when operating efficiently. Based on test data, the device has a durability well in excess of 12,000 miles.
- b) Based on submitted data, it is the judgment of the staff that the system can operate with minimal risk of adverse effects.
- c) The staff recommends approval of the Standard Screw Co., Chicago Division, Closed Crankcase Emission Control System for used cars in classes (a) through (f) as defined in section 2004.

IE:mj

5/11/66

RESOLUTION 66-9

WHEREAS the Standard Screw Company, Chicago Division, filed an application for a certificate of approval for a crankcase emission control system which is described as follows:

The Standard Standard Screw Company, Chicago Division, Closed Crankcase Emission Control System consists of the following:

A tube from the crankcase through a self-cleaning spring loaded "Tapered Plunger Valve" to the intake manifold.

A second tube connecting a modified oil filler cap to the dirty side of the air cleaner. The oil filler cap is sealed to the atmosphere and incorporates a filter to clean any air being drawn into the crankcase.

This system was certified by the Board for new cars factory installation under Resolution 63-40 on August 14, 1963.

WHEREAS the system has been found to meet the crankcase emission standards established by the California Department of Public Health, as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS after considering representations submitted by the manufacturer the Board finds that the device meets the criteria of the Motor Vehicle Pollution Control Board as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003.

THEREFORE, BE IT RESOLVED, that this Board

Issue a certificate of approval for the Standard Screw Company, Chicago Division, closed crankcase emission control system for used motor vehicles in classification (a), (b), (c), (d), (e), and (f) as designated in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

IE:mj

5/11/66

RESOLUTION 66-10

WHEREAS, Isuzu Motors Limited filed an application for a certificate of approval for a crankcase emissions control system on April 18, 1966. This system is now described as the Isuzu Motors Limited Sealed Crankcase Emissions Control System, having the following specifications:

An oil separator and tube from the crankcase to the atmospheric side of the air cleaner.

A sealed oil filler cap.

WHEREAS, the applicant has demonstrated to the satisfaction of the staff that the system when operating efficiently meets the State Standards; and

WHEREAS, the Board has on file a letter from the Isuzu Motors Limited, signed by a legal officer, containing the manufacturer's representation that the device, which will be manufactured for original equipment installation only, will comply with the Board's criteria including odor criterion. The letter also states that the system will not be used on cars other than those for which it was originally certified. The system will go 12,000 miles without service;

WHEREAS, the device has been found to meet the crankcase emissions standards established by the State Department of Public Health as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS, based upon representations submitted by the manufacturer, the Board finds that the device will meet the criteria of the Motor Vehicle Pollution Control Board as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003;

THEREFORE, BE IT RESOLVED,

That this Board issue a certificate of approval to the Isuzu Motors Limited for a sealed crankcase emissions control system for factory installation on new 1966 and subsequent model cars only in motor vehicle classification (a), as designated in Title 13, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

IE:mj  
5/11/66

RESOLUTION 66-11

WHEREAS the Motor Vehicle Pollution Control Board authorized the Executive Officer to work with the United States Public Health Service in relation to survey grant funds for emission surveillance of 1966 and 1967 model vehicles equipped with exhaust controls; and

WHEREAS the United States Public Health Service intends to authorize a grant for emission surveillance of California vehicles for fiscal year 1966-67.

NOW, THEREFORE, BE IT RESOLVED, That the Executive Officer is authorized to approve a contract with Scott Research Laboratories and the California Vehicle Pollution Laboratory for surveillance work subject to the approval of the Executive Committee of the Board.

5-11-66

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STATE OF CALIFORNIA

MOTOR VEHICLE POLLUTION CONTROL BOARD

Report on the Isuzu Motors Ltd. Sealed Crankcase Emissions Control System

Introduction:

This is a report on the staff evaluation of the Isuzu Motors Ltd. Sealed Crankcase Emissions Control System. The basis of the evaluation is the Alternate Testing Procedure for Evaluation of Devices to Control Crankcase Emissions (factory installation), September 15, 1965, revision. This report does not include evidence concerning compliance with the Board's criteria.

Description of System:

The system consists of an oil separator and tube from the crankcase to the dirty side of the air cleaner. The oil filler cap and other openings are sealed.

Compliance with Crankcase Emission Standard:

The applicant has demonstrated to the satisfaction of the staff that the system, when operating efficiently, meets the State Standards.

Compliance with Board Criteria:

The Board has on file a letter from the Isuzu Motors Ltd., signed by a legal officer, containing the manufacturer's representation that the device, which will be installed on original equipment only, will comply with the Board's criteria, which includes odor criterion. The letter also states that the system will not be offered as replacement equipment for cars other than those for which it was originally certified.

Summary and Conclusions:

1. The Crankcase Emissions Control System meets the standards of the California Department of Public Health when operating efficiently.
2. The applicant has made representation that the device, as produced for original equipment installation, will comply with the Board's criteria.
3. The staff recommends that the Isuzu Motors Ltd. Sealed Crankcase Emissions Control System be approved for new cars, factory installation, on 1966 and subsequent models of motor vehicles in Classification (a).



RESOLUTION 66-12

WHEREAS the Motor Vehicle Pollution Control Board has approved the Report of the Committee on Information May 11, 1966, recommending production of a public service motion picture on the subject of smog and the automobile in California; and

WHEREAS, the University of California has agreed to produce such a sound, color film,

NOW, THEREFORE, BE IT RESOLVED, That the Executive Officer is authorized to enter into a contract with the University of California for production of the motion picture for a sum not to exceed \$12,000.

5-11-66

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RESOLUTION 66-13

WHEREAS the Motor Vehicle Pollution Control Board has designated Scott Research Laboratories, Inc., automotive testing facility as an authorized motor vehicle pollution control testing laboratory; and

WHEREAS Section 24398, Chapter 3, Division 20 of the Health and Safety Code authorizes the Motor Vehicle Pollution Control Board to contract for the use of, or the performance of tests or other services; and

WHEREAS the California Vehicle Test Laboratory operated by the State Department of Public Health is not equipped and is unable to perform certain necessary tests as required by the criteria established by the Motor Vehicle Pollution Control Board; and

WHEREAS the Board has contracted with Scott for prior contracts and found their performance to be satisfactory; and

WHEREAS it is necessary for the State to evaluate automobile emission control devices as to their performance in relation to established criteria and State standards as published by the Department of Public Health; and

WHEREAS Scott Research Laboratories, Inc. has agreed to perform the desired work as specified in the contract and the Motor Vehicle Pollution Control Board finds the contract to be satisfactory:

THEREFORE, BE IT RESOLVED, that this Board authorizes the Executive Officer to execute a contract with Scott Research Laboratories, Inc. for a maximum amount of \$35,000 during the 1966-1967 fiscal year, subject to the approval of the executive committee of the Board.

BE IT FURTHER RESOLVED, that this action is contingent upon the approval of the budget for the MVPCB, now being considered by the State Legislature in Sacramento, since availability of funds is obviously essential to effectuating this resolution.

5/11/66  
mj

MOTOR VEHICLE POLLUTION CONTROL BOARD

RESOLUTION 66-14

WHEREAS, the Motor Vehicle Pollution Control Board under Section 26386, Chapter 3, Division 20, of the Health and Safety Code of the State of California, has the power and authority to adopt rules and regulations concerning the certification and approval of motor vehicle pollution control devices; and

WHEREAS, Section 24395 of the Health and Safety Code provides that no person shall sell, display, advertise or represent as a certified device any device which, in fact, is not a certified device; and

WHEREAS, some used component parts of crankcase emission control systems may be reconditioned and/or rebuilt and offered for sale as replacement parts; and

WHEREAS, such parts may be inferior in some respect, thereby rendering the system less efficient or inoperative and therefore not as certified by this Board.

THEREFORE, BE IT RESOLVED that no used component of a certified crankcase emission control system may be sold, offered for sale, or utilized in any way as part of a certified emission control system which is not the original system from which the component was removed.

IE:mj  
8/10/66

RESOLUTION 66-15

WHEREAS, Chrysler Corporation filed an application for approval of an exhaust emission control system on June 16, 1966, and

WHEREAS, the system is described as the Chrysler "Cleaner Air Package" with major components comprised as follows:

1. A vacuum-controlled valve for deceleration ignition advance
2. Leaner carburetion
3. Retarded ignition at idle
4. Recommended maintenance

WHEREAS, the Motor Vehicle Pollution Control Board finds that the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide, as established pursuant to Sections 426.1 and 426.5 of the Health and Safety Code, State of California, and as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Subchapter 1, Article 2, Section 2103,

NOW, THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (Commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for the "Chrysler Cleaner Air Package" for 1967 and subsequent model Chrysler Corporation motor vehicles in classifications (b), (c), (d), (e) and (f), pursuant to Title 13, California Administrative Code, Chapter 3, Subchapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

8/10/66  
en

RESOLUTION NO. 66-16

WHEREAS, Dr. M. Patrick Sweeney, Supervising Engineer, served the State of California Motor Vehicle Pollution Control Board for approximately four and one-half years; and

WHEREAS, Dr. Sweeney participated in much of the original research and testing for motor vehicle pollution control systems now on millions of California vehicles; and

WHEREAS, this effort and leadership by Dr. Sweeney resulted in a significant contribution to a cleaner, healthier atmosphere in this State; and

WHEREAS, Dr. Sweeney has left the service of the Motor Vehicle Pollution Control Board and the people of California;

NOW, THEREFORE, BE IT RESOLVED that the Motor Vehicle Pollution Control Board does hereby commend Dr. Sweeney for his outstanding contributions to the air pollution control effort in California.

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William E. Nissen, Chairman

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Eric P. Grant, Executive Officer

August 11, 1966  
en

RESOLUTION 66-17

WHEREAS Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS Nissan Motor Company, Ltd., Yokohama, Japan has been found to be adequately equipped and qualified to conduct testing of exhaust and crankcase control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS cross-checks will be undertaken periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS Nissan Motor Company, Ltd., Yokohama, Japan has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedures established by the Board;

NOW, THEREFORE, BE IT RESOLVED, That the Motor Vehicle Pollution Control Board hereby designates the Nissan Motor Company, Ltd., vehicle testing laboratory at Yokohama, Japan as an Authorized Vehicle Pollution Control Testing Laboratory.

8-10-66

RESOLUTION 66-18

WHEREAS Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS Standard-Triumph Motor Company, Ltd., Coventry, England has been found to be adequately equipped and qualified to conduct testing of exhaust and crankcase control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS cross-checks will be undertaken periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS Standard-Triumph Motor Company, Ltd., Coventry, England has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedures established by the Board;

NOW: THEREFORE, BE IT RESOLVED, That the Motor Vehicle Pollution Control Board hereby designates Standard-Triumph Motor Company, Ltd., vehicle testing laboratory at Coventry, England as an Authorized Vehicle Pollution Control Testing Laboratory.

8-10-66

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better notes*

RESOLUTION 66-19

WHEREAS Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS Union Technique de l'Automobile du Motocycle et du Cycle (U.T.A.C.), Paris, France has been found to be adequately equipped and qualified to conduct testing of exhaust and crankcase control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS cross-checks will be undertaken periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS Union Technique de l'Automobile du Motocycle et du Cycle (U.T.A.C.), Paris France has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedures established by the Board;

NOW, THEREFORE, BE IT RESOLVED, That the Motor Vehicle Pollution Control Board hereby designates Union Technique de l'Automobile du Motocycle et du Cycle (U.T.A.C.,) vehicle testing laboratory at Paris, France as an Authorized Vehicle Pollution Control Testing Laboratory.

8/10/66

RESOLUTION 66-20

WHEREAS Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS Volvo, Goteborg, Sweden has been found to be adequately equipped and qualified to conduct testing of exhaust and crankcase control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS cross-checks will be undertaken periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS Volvo, Goteborg, Sweden has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedure established by the Board;

NOW; THEREFORE, BE IT RESOLVED, That the Motor Vehicle Pollution Control Board hereby designates Volvo vehicle testing laboratory at Goteborg, Sweden as an Authorized Vehicle Pollution Control Testing Laboratory.

8-10-66

RESOLUTION 66-21

WHEREAS, Ford Motor Company filed an application for approval of an exhaust emission control system on July 13, 1966; and

WHEREAS, the system is described as the Ford Improved Combustion "IMCO" system with major components comprised as follows:

1. Leaner carburetion
2. Retarded spark at idle
3. Recommended maintenance

WHEREAS, the Motor Vehicle Pollution Control Board finds that the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide, as established pursuant to Sections 426.1 and 426.5 of the Health and Safety Code, State of California, and as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Sub-chapter 1, Article 2, Section 2103.

NOW, THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code, issue a certificate of approval for factory installation of the Ford "IMCO" system for 1967 and subsequent model Ford Motor Company engines in classification (f) pursuant to Title 13, California Administrative Code, Sub-chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

8/10/66  
en

RESOLUTION 66-22

WHEREAS, American Motors Corporation filed an application for approval of an exhaust emission control system on July 20, 1966; and

WHEREAS, the system is described as the American Motors "Engine-Mod" System with major components comprised as follows:

1. Combustion chamber modifications
2. Carburetor and distributor modifications
3. Recommended maintenance

WHEREAS, the Motor Vehicle Pollution Control Board finds that the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide, as established pursuant to Sections 426.1 and 426.5 of the Health and Safety Code, State of California, and as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Sub-chapter 1, Article 2, Section 2103,

NOW THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (Commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for factory installation of the "Engine-Mod" System for 1967 and subsequent model American Motors Corporation engines in classification (c), pursuant to Title 13, California Administrative Code, Chapter 3, Sub-chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

8/10/66

en

RESOLUTION NO. 66-23

WHEREAS, the Motor Vehicle Pollution Control Board is charged by the People of the State of California to control emissions from motor vehicles, and this effort has resulted in the certification of exhaust emission and crankcase control devices meeting established State standards for maximum allowable emissions from motor vehicles operated on the roads of California; and

WHEREAS, the Federal Government recognized the importance of these control systems and required them on all vehicles nationwide, commencing with the 1968 model vehicles; and

WHEREAS, the Federal requirements specify substantially those emission standards adopted by the California State Department of Public Health for motor vehicles; and

WHEREAS, the California State Department of Public Health has established emission standards for 1970 model vehicles which they have determined are essential for the protection of the health and safety of the people of this State; and

WHEREAS, these standards are established at 180 parts per million hydrocarbons and 1.0 percent carbon monoxide, and are based upon the absolute necessity of reducing emissions from motor vehicles as effectively and as rapidly as possible; and

WHEREAS, emission control standards have been established for diesel emission control, oxides of nitrogen control, and evaporation control for motor vehicles;

NOW, THEREFORE, BE IT RESOLVED, that it is the established policy of this Board that:

- (1) The automobile industry worldwide is hereby informed that the State of California shall require compliance with these standards, regardless of the emission requirements established by the Federal Government.
- (2) This Board shall continue its leadership, interest, and enforcement of strong air pollution laws, rules and regulations, to achieve the accomplishment of these objectives, and shall do everything within our technical and administrative means to secure compliance with these standards.
- (3) This Board recognizes that motor vehicles, in order to operate on the streets and highways of the great State of California, must not destroy our air as a natural resource.
- (4) In recognition of the needs of this State, this Board shall maintain a constant vigilance to protect our air quality and demand stricter controls and regulations in the future, as deemed necessary by the State Department of Public Health.

EPG:mj

8/10/66

RESOLUTION 66-24

WHEREAS Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS The Associated Octel Company Limited, Bletchley, Bucks, England, has been found to be adequately equipped and qualified to conduct testing of exhaust and crankcase control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS cross-checks will be undertaken periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS The Associated Octel Company Limited, Bletchley, Bucks, England, has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedures established by the Board;

NOW, THEREFORE, BE IT RESOLVED, that the Motor Vehicle Pollution Control Board hereby designates The Associated Octel Company Limited vehicle testing laboratory at Bletchley, Bucks, England as an Authorized Vehicle Pollution Control Testing Laboratory.

8/10/66

Resolution No. 66-25

WHEREAS, William E. Nissen has completed two terms as Chairman of the Motor Vehicle Pollution Control Board, and

WHEREAS, he has rendered extraordinary service to his fellow Californians and to his State government, and

WHEREAS, he has presided during a critical period of the Board's history when exhaust control systems have become a reality on automobiles and crankcase device installations have further progressed, and

WHEREAS, he has given unstintingly of his time and effort in fostering the Board's program, and

WHEREAS, he has always shown sound judgment, patience, and good humor in dealing with the important business of the Board, and

WHEREAS, he has always been available to the staff for counsel and guidance, and

WHEREAS, he plans to continue his service on the Board and to the people of the State of California

NOW, THEREFORE, Be It Resolved, that we, his fellow members of the Board, do hereby thank him for his devotion to duty and do commend him for a job well done.

8/10/66  
en

RESOLUTION 66-26

WHEREAS Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS The Toyota Motor Co. Ltd., Toyota-Shi, Aichi-Ken, Japan, has been found to be adequately equipped and qualified to conduct testing of exhaust and crank-case control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS recorder charts and cross-checks will be evaluated periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS The Toyota Motor Co. Ltd., Toyota-Shi, Aichi-Ken, Japan, has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedures established by the Board;

NOW, THEREFORE, BE IT RESOLVED, that the Motor Vehicle Pollution Control Board hereby designates The Toyota Motor Co. Ltd., vehicle testing laboratory at Toyota-Shi, Aichi-Ken, Japan as an Authorized Vehicle Pollution Control Testing Laboratory.

RESOLUTION 66-27

WHEREAS, General Motors Corporation has requested approval of a factory installed exhaust emission control system for 1967 and later models; and

WHEREAS, the system is described as the General Motors "Air Injection Reactor" exhaust control system with major components comprised as follows:

1. engine-driven air pump
2. air injection into each exhaust port
3. carburetor and distributor modifications
4. recommended maintenance, and

WHEREAS, the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide for the life of the vehicle as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Section 2103;

NOW THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for factory installation of the General Motors "Air Injection Reactor" system for engines in classifications (b), (c), (d), (e) and (f) pursuant to Title 13, California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

8/10/66  
jh

RESOLUTION 66-28

WHEREAS, Ford Motor Company has requested approval of a factory installed exhaust emission control system for 1967 and later models; and

WHEREAS, the system is described as the Ford "Thermactor" Air Injection Exhaust Control System with major components comprised as follows:

1. engine-driven air pump
2. air injection into each exhaust port
3. carburetor and distributor modifications
4. recommended maintenance

WHEREAS, the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide for the life of the vehicle as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Section 2103;

NOW THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for factory installation of the Ford "Thermactor" Air Injection Exhaust Control System for engines in classifications (b), (c), (d), (e) and (f), pursuant to Title 13, California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

RESOLUTION 66-29

WHEREAS, American Motors has requested approval of a factory installed exhaust emission control system for 1967 and later models; and

WHEREAS, the system is described as the American Motors "Air Guard" Exhaust Control System with major components comprised as follows:

1. engine-driven air pump
2. air injection into each exhaust port
3. carburetor and distributor modifications
4. recommended maintenance

WHEREAS, the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide for the life of the vehicle as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Section 2103;

NOW THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for factory installation of the American Motors "Air Guard" Exhaust Control System for engines in classifications (b), (c), (d) and (e), pursuant to Title 13, California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

RESOLUTION 66-30

WHEREAS, International Harvester Company has requested approval of a factory installed exhaust emission control system for 1967 and later models; and

WHEREAS, the system is described as the International Harvester Air Injection Exhaust Control System with major components comprised as follows:

1. engine-driven air pump
2. air injection into each exhaust port
3. carburetor and distributor modifications
4. recommended maintenance

WHEREAS, the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide for the life of the vehicle as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Section 2103;

NOW THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for factory installation of the International Harvester Air Injection Exhaust Control System for engines in classifications (b), (c), (d) and (e), pursuant to Title 13, California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

RESOLUTION 66-31

WHEREAS, Kaiser Jeep has requested approval of a factory installed exhaust emission control system for 1967 and later models; and

WHEREAS, the system is described as the "Air Guard" System with major components comprised as follows:

1. engine-driven air pump
2. air injection into each exhaust port
3. carburetor and distributor modifications
4. recommended maintenance, and

WHEREAS, the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide for the life of the vehicle as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Section 2103;

NOW THEREFORE, BE IT RESOLVED,

That this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for factory installation of the Kaiser Jeep "Air Guard" Control System for engines in classifications (c), and (e), pursuant to Title 13, California Administrative Code, Chapter 3, Sub-Chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

STATE OF CALIFORNIA

MOTOR VEHICLE POLLUTION CONTROL BOARD

RESOLUTION 66-32

WHEREAS Regie National Des Usines Renault, Billancourt, France, filed an application for a certificate of approval for a crankcase emissions control system on Sept. 23, 1966. This system is now described as the Renault Closed Crankcase Emissions Control System, having the following specifications:

There are two systems:

A tube from the rocker arm cover into a "T" connection. One leg from this "T" goes into an "AC" spring loaded control valve and then into the intake manifold.

The other leg from this "T" leads into the clean side of the air cleaner for System #1 and into the top of the carburetor (above the throttle plate) in System #2.

Both Systems use sealed oil filler cap.

These Systems will be used on the Renault 10 and the Caravelle.

WHEREAS the applicant has demonstrated to the satisfaction of the staff that the system when operating efficiently meets the State Standards; and

WHEREAS the Board has on file a letter from Renault signed by a legal officer, containing the manufacturer's representation that the system, which will be manufactured for original equipment installation only, will comply with the Board's criteria. The letter also states that the system will not be used on cars other than those for which it was originally certified. The system will go 12,000 miles without service; and

WHEREAS the device has been found to meet the crankcase emissions standards established by the State Department of Public Health as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS based upon representations submitted by the manufacturer, the Board finds that the device will meet the criteria of the Motor Vehicle Pollution Control Board as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003;

THEREFORE, BE IT RESOLVED,

That this Board issue a certificate of approval to Regie National Des Usines Renault for a closed crankcase emissions control system for factory installation on new 1967 and subsequent model cars in motor vehicle classification (a), as designated in Title 13, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

### Introduction

This is a report on the staff evaluation of the Toyota Motors Ltd. closed crankcase emission control system. The basis of the evaluation is the Alternate Testing Procedure for Evaluation of Devices to Control Crankcase Emissions, (Factory Installation), June 1, 1963, revision. This report does not include evidence concerning compliance with the Board's criteria.

### Description of System

#### 1. For 2 M Engine

Tube from crankcase (large diameter) from which smaller diameter tubes split off as follows:

- a) One tube contains a spring-loaded regulating valve and leads to intake manifold.
- b) The other tube leads to the clean side of the air cleaner.

#### 2. For 3 R-B Engine

- a) Tube from crankcase through a spring-loaded regulating valve to the intake manifold.
- b) Tube from rocker arm cover into the clean side of the air cleaner.

Both systems use a sealed oil filler cap.

### Compliance with Crankcase Emission Standards

The applicant has demonstrated to the satisfaction of the staff that the system when operating efficiently meets the State standards.

### Compliance with Board Criteria

The Board has on file a letter from the Toyota Motors Ltd., signed by a legally authorized officer, containing the manufacturer's representation that the device which will be manufactured for original equipment installation only, will comply with the Board's criteria, including odor criterion. The letter also states that the system will not be used as replacement other than for cars upon which it was originally installed.

### Summary and Conclusions

1. The crankcase emission control system meets the crankcase emissions standards of the California Department of Public Health when operating efficiently.
2. The applicant has made representation that the device as produced for original equipment installation only will comply with the Board's criteria.
3. The staff recommends that the Toyota Motors Ltd. closed crankcase emission control system be approved for new Toyota Motors Ltd. automobiles, factory installation, on 1967 and subsequent models of motor vehicles in classification (a).

RESOLUTION 66-33

WHEREAS Toyota Motors Ltd., of Aichi-Ken, Japan, filed an application for a certificate of approval for a closed crankcase emission control system described as the Toyota Motors Ltd. closed crankcase emission control system having the following specifications;

1) 2 M Engine.

A tube from crankcase, splitting into two smaller tubes.

- a) One tube containing a spring-loaded regulating valve going into the ~~intake~~ manifold.
- b) The other tube leading into the clean side of the air cleaner.

2) 3 R. B. Engine.

A tube from crankcase through a spring-loaded regulation, valve into the intake manifold.

A second tube from the rocker arm cover into the clean side of the air cleaner.

Both systems use a sealed oil filler cap.

WHEREAS the system has been found to meet the crankcase emission control standards established by the California Department of Public Health as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS after considering representations submitted by the manufacturer, the Board finds that the system meets the criteria of the Motor Vehicle Pollution Board as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003.

THEREFORE, BE IT RESOLVED, that this Board

Issue a certificate of approval for the Toyota Motors Ltd. closed crankcase emission control system for new Toyota Motors Ltd. cars, factory installation, on 1967 and subsequent models of motor vehicles in classification (a) as designated in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

11-16-66

gvc

RESOLUTION 66-34

WHEREAS, Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS, Ford Motor Company, Ltd., Dagenham, Essex, England has been found to be adequately equipped and qualified to conduct testing of exhaust and crankcase control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS, cross-checks will be undertaken periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS, Ford Motor Company, Ltd., Dagenham, Essex, England has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedures established by the Board;

NOW: THEREFORE, BE IT RESOLVED, That the Motor Vehicle Pollution Control Board hereby designates Ford Motor Company, Ltd., vehicle testing laboratory at Dagenham, Essex, England as an Authorized Vehicle Pollution Control Testing Laboratory.

11-16-66

gc

RESOLUTION 66-35

WHEREAS Chapter 3, Division 20, Section 24397 of the Health and Safety Code provides that "The Motor Vehicle Pollution Control Board may designate such laboratories as it finds are qualified and equipped to analyze and determine, on the basis of the standards established by the Board, devices which are so designed and equipped to meet the standards set by the State Department under Section 426.5 and the criteria established by the Motor Vehicle Pollution Control Board;" and

WHEREAS Rover Motors Co. Ltd., Solihull, Birmingham, England, has been found to be adequately equipped and qualified to conduct testing of exhaust and crankcase control devices in accordance with the standards established by the State Department of Public Health under Section 426.5 of the Health and Safety Code and Motor Vehicle Pollution Control Board criteria; and

WHEREAS cross-checks will be undertaken periodically to insure accurate and satisfactory test reports and evaluations; and

WHEREAS Rover Motors Co. Ltd., Solihull, Birmingham, England, has agreed in writing to conduct all tests and evaluations for the purposes of certification according to procedures established by the Board;

NOW, THEREFORE, BE IT RESOLVED, that the Motor Vehicle Pollution Control Board hereby designates Rover Motors Co. Ltd., vehicle testing laboratory at Solihull, Birmingham, England as an Authorized Vehicle Pollution Control Testing Laboratory.

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State of California

MOTOR VEHICLE POLLUTION CONTROL BOARD

Resolution 66-36

WHEREAS based upon California and Detroit test results and representations submitted by the vehicle manufacturers that emission control systems would continue to perform within State Standards, this Board certified exhaust emission control systems for 1966 and 1967 model vehicles submitted by the vehicle manufacturers; and

WHEREAS it is required by California law in Section 2104 (b) Article 2, Title 13 of the Administrative Code that "Such device shall operate on a designated classification of motor vehicles, as specified in Section 2104, so that, with vehicle maintenance which is characteristic of general usage by the motoring public, its average emissions are within the limits established by State Standards;" and

WHEREAS this Board must utilize all available authoritative data in its consideration of control systems with particular emphasis being placed on surveillance emission tests of vehicles in public use; and

WHEREAS preliminary surveillance tests of representative California vehicles as reviewed by this Board on August 10, 1966 indicated that exhaust emissions tend to increase with mileage on vehicles operated by the motoring public, and now additional surveillance data indicates that average emissions on vehicles tested is approaching established State Standards as increased mileage is accumulated; and

WHEREAS surveillance data exhibits a wide range of emissions between identical model vehicles indicating potential emission improvements are possible with better production quality control, predelivery preparation, and proper maintenance by the service industry; and

WHEREAS all exhaust device certifications granted by this Board for 1967 model vehicles specified the following limitation, "the continuing effectiveness of this certification for subsequent model years is dependent upon satisfactory surveillance data and all pertinent information relating to the performance of the system when in public use".

NOW, THEREFORE, BE IT RESOLVED, that this Board is very concerned that exhaust emission control systems deteriorate in effectiveness with increased mileage and normal vehicle maintenance and if surveillance data continues to show this trend the Board will be unable to approve exhaust emission control systems for use on vehicles in California for 1968 and later year models unless there is clear evidence that exhaust emissions shall be controlled within State Standards with increased mileage; and

BE IT FURTHER RESOLVED, that this Board places this responsibility upon the manufacturer of vehicles for sale in California, based upon the laws of this State and written statements of record from each of the manufacturers that exhaust emission control systems installed on their vehicles will continue to perform effectively within State Standards; and

BE IT FURTHER RESOLVED, that this Board recognizes that improvements have and are being made to emission control systems and that the systems now approved represent significant effort and accomplishment toward effective control systems that reduce exhaust emissions and estimated 70% on new vehicles, however, they must be improved to the extent that they do not deteriorate beyond State Standards with normal service; and

BE IT FURTHER RESOLVED, that the Executive Officer is directed to transmit a copy of this resolution to appropriate Federal Authorities and Presidents of all automobile manufacturers who produce vehicles for use in California.

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BE IT FURTHER RESOLVED, that this Board places this responsibility upon the manufacturer of vehicles for sale in California, based upon the laws of this State and written statements of record from each of the manufacturers that exhaust emission control systems installed on their vehicles will continue to perform effectively within State Standards; and

BE IT FURTHER RESOLVED, that this Board recognizes that improvements have and are being made to emission control systems and that the systems now approved represent significant effort and accomplishment toward effective control systems that reduce exhaust emissions and estimated 70% on new vehicles, however, they must be improved to the extent that they do not deteriorate beyond State Standards with normal service; and

BE IT FURTHER RESOLVED, that the Executive Officer is directed to transmit a copy of this resolution to appropriate Federal Authorities and Presidents of all automobile manufacturers who produce vehicles for use in California.

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State of California

MOTOR VEHICLE POLLUTION CONTROL BOARD

Summary and Conclusions of Report on Exhaust Control System of

CHECKER MOTORS CORPORATION  
Air Injection System

A. INTRODUCTION

Checker Motors Corporation submitted their application for an exhaust control system to the California Motor Vehicle Pollution Control Board on August 9, 1966.

B. THE SYSTEM

The Checker Motors Corporation air injection system comprises:

- 1) engine-driven air pump
- 2) air injection into each exhaust port
- 3) carburetor and distributor modifications
- 4) recommended maintenance

Checker Motors Corporation buys their engines from Chevrolet complete with the General Motors air injection system.

C. TESTING PROCEDURES

Test procedures were the "California Test Procedures and Criteria for Motor Vehicle Exhaust Emission Control" as amended by the Board September 29, 1965. These procedures provided for the emission testing of two fleets of vehicles.

One fleet was called the durability fleet and was composed of vehicles representing 70% of the manufacturer's sales in California for the previous year. The purpose of the emission testing of the durability fleet was to prove the capability of the exhaust control system to control emissions for the life of the vehicle (100,000 miles). Assuming that the emission deterioration of the exhaust control system is linear for 100,000 miles, emissions at 50,000 miles would represent the average emissions for the life of the vehicle. Therefore, the test procedure requires the durability fleet to be run for 50,000 miles with emission measurements approximately each 4,000 miles. The 50,000 miles was accumulated on a driving route simulating metropolitan area driving with an average speed not exceeding 32 miles per hour. From the emission durability testing, a deterioration factor is determined.

The second fleet of vehicles is called the certification emission data fleet. The purpose of this fleet of vehicles is to determine the emissions of each engine size at a low mileage or "new" condition. Since deposit formation on the combustion chambers increases hydrocarbon emissions rather rapidly in the first 4,000 miles of use of a vehicle, these certification emission vehicles are driven 4,000 miles in order for the deposits to become somewhat stabilized. The certification vehicles of each engine size are representative of transmission and carburetor options.

D. TEST RESULTS

1. Emissions

Checker Motors Corporation used the durability emission test data run by General Motors for this control system. Average emissions for each engine size were adjusted to car life expectancy by deterioration factors of 1.00 for hydrocarbons and 1.04 for carbon monoxide as determined by the General Motors durability fleet. These emissions are shown in Table 1.

TABLE 1

CERTIFICATION EMISSION DATA CHECKER MOTORS CORPORATION			
<u>Engine Displacement</u>	<u>No. of Vehicles</u>	<u>Hydrocarbons, ppm</u>	<u>Carbon Monoxide, %</u>
230	2	235	1.00
283	2	183	1.50
327	2	209	0.92

Each engine is below the California standards for the life of a vehicle.

2. Severe Conditions Criteria Evaluation

Tests as pertinent were accomplished, and the applicant has made representations which qualified the system for compliance with the Board criteria, as listed below:

<u>Criterion</u>	<u>Description</u>
(c)	Safety and driveability
(d)	Fail safe
(e)	Backfire
(f)	Passenger safety
(g)	Fire hazard
(h)	Vehicle performance
(i)	Mountain driving
(j)	Obnoxious and health effects including odor, oxides of nitrogen and aldehydes
(k)	Vehicle operation and performance

E. WARRANTY AND EXTENDED SERVICE PERFORMANCE

The system will be covered by the standard Checker Motors Corporation 24-month or 24,000 mile warranty of the complete motor vehicle.

A letter of representation, signed by a legal officer of the company, outlined their program to ensure that the system in public use will continue to comply with the California standards and criteria.

At present there are approximately 900,000 vehicles successfully operating in California with air injection systems.

D. TEST RESULTS

1. Emissions

Checker Motors Corporation used the durability emission test data run by General Motors for this control system. Average emissions for each engine size were adjusted to car life expectancy by deterioration factors of 1.00 for hydrocarbons and 1.04 for carbon monoxide as determined by the General Motors durability fleet. These emissions are shown in Table 1.

TABLE 1

<u>Engine Displacement</u>	<u>CERTIFICATION EMISSION DATA- CHECKER MOTORS CORPORATION</u>		
	<u>No. of Vehicles</u>	<u>Hydrocarbons, ppm</u>	<u>Carbon Monoxide, %</u>
230	2	235	1.00
283	2	183	1.50
327	2	209	0.92

Each engine is below the California standards for the life of a vehicle.

2. Severe Conditions Criteria Evaluation

Tests as pertinent were accomplished, and the applicant has made representations which qualified the system for compliance with the Board criteria, as listed below:

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(c)	Safety and driveability
(d)	Fail safe
(e)	Backfire
(f)	Passenger safety
(g)	Fire hazard
(h)	Vehicle performance
(i)	Mountain driving
(j)	Obnoxious and health effects including odor, oxides of nitrogen and aldehydes
(k)	Vehicle operation and performance

E. WARRANTY AND EXTENDED SERVICE PERFORMANCE

The system will be covered by the standard Checker Motors Corporation 24-month or 24,000 mile warranty of the complete motor vehicle.

A letter of representation, signed by a legal officer of the company, outlined their program to ensure that the system in public use will continue to comply with the California standards and criteria.

At present there are approximately 900,000 vehicles successfully operating in California with air injection systems.

F. CONCLUSIONS

Based on the test data, information submitted by the applicant, and information gathered by the MVPCB, the staff concludes as follows:

1. The Checker Motors Corporation "Air Injection" exhaust control system complies with the emission standard of the California Department of Public Health of 275 parts per million of hydrocarbons and 1.5% carbon monoxide, as determined according to established procedures of the Board.
2. The system complies with the Board's criteria.
3. The first year's experience with this type of system on a large number of vehicles in California has been generally good.

G. STAFF RECOMMENDATIONS

The staff recommends issuing a certification of approval for the Checker Motors Corporation exhaust control system for factory installation on Checker vehicles based on compliance with prescribed test procedures.

It is therefore recommended that Board Resolution 66-37 be approved.

11/16/66

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State of California

MOTOR VEHICLE POLLUTION CONTROL BOARD

Summary and Conclusions of Report on Exhaust Control System of

GENERAL MOTORS CORPORATION  
"CONTROLLED COMBUSTION" SYSTEM

A. INTRODUCTION

General Motors Corporation submitted their application for an exhaust emission control system on the "Controlled Combustion" system (CCS) exhaust control to the California Motor Vehicle Pollution Control Board on October 27, 1966. The system is to be used on all 400 cubic inch, low compression, Pontiac V-8 engines equipped with 2-barrel carburetors and automatic transmissions, and all 425 cubic inch Oldsmobile V-8 engines equipped with 2-barrel carburetors and automatic transmissions.

B. THE SYSTEM

The General Motors CCS exhaust control comprises:

- 1) carburetor with special calibration
- 2) special ignition timing
- 3) recommended maintenance

C. TESTING PROCEDURES

Test procedures used were the "California Test Procedures and Criteria for Motor Vehicle Exhaust Emission Control" as amended by the Board September 29, 1965. These procedures provided for the emission testing of two fleets of vehicles.

One fleet was called the durability fleet and was composed of vehicles representing 70% of the manufacturer's sales of the particular models in California for the previous year. The purpose of the emission testing of the durability fleet was to prove the capability of the exhaust control system to control emissions for the life of the vehicle (100,000 miles). Assuming the emission deterioration of the exhaust control system is linear for 100,000 miles, emissions at 50,000 miles would represent the average emissions for the life of the vehicle. Therefore, the test procedure requires the durability fleet to be run for 50,000 miles with emission measurement at approximately each 4,000 miles. The 50,000 miles was accumulated on a driving route simulating metropolitan area driving with an average speed not exceeding 32 miles per hour. From the emission durability testing, a deterioration factor was determined.

The second fleet of vehicles was called the certification emission data fleet. The purpose of this fleet of vehicles is to determine the emissions of each engine size at a low-mileage or "new" condition. Since deposit formation on the combustion chambers increases hydrocarbons emissions rather rapidly in the first 4,000 miles of use of a vehicle, these certification emission vehicles were driven 4,000 miles in order for the deposits to become somewhat stabilized.

The certification vehicles of each engine size are representative of transmission and carburetor options.

The official certification testing involved 14 vehicles driving over 330,000 miles. In addition, many other cars were run with the system in the course of normal vehicle development.

D. TEST RESULTS

1. Emissions

Average emissions for each engine size were adjusted to car life expectancy by the deterioration factors of 1.19 for hydrocarbons and 1.00 for carbon monoxide and are shown in Table 1.

TABLE 1

CERTIFICATION EMISSION DATA  
GENERAL MOTORS C.C.S. CONTROL

<u>Engine Displacement</u>	<u>Test Vehicles</u>	<u>Hydrocarbons, ppm</u>	<u>Carbon Monoxide, %</u>
400	4	205	1.13
425	4	242	1.02

Test results indicated that each engine size will be within the California standards for the life of the car.

2. Severe Conditions Criteria Evaluation

Tests as pertinent were accomplished, and the applicant has made representations which qualifies the system for compliance with the Board criteria.

<u>Criterion</u>	<u>Description</u>
(c)	safety
(d)	fail safe
(e)	backfire
(f)	passenger safety
(g)	fire hazard
(h)	vehicle performance
(i)	mountain driving
(j)	obnoxious and health effects including odor, oxides of nitrogen and aldehydes
(k)	vehicle operation and performance

E. WARRANTY AND EXTENDED SERVICE PERFORMANCE

The system will be covered by the standard General Motors Corporation 24-month or 24,000-mile warranty of the complete motor vehicle.

A letter of representation, signed by a legal officer of the Company, outlines their program to ensure that the system in public use will continue to comply with the California standards and criteria.

An aggressive program has been initiated by the manufacturer to train automotive service personnel on proper adjustment and servicing of exhaust control systems. This program has resulted in essentially all new car dealers having one or more mechanics trained by the manufacturer and licensed by the California Highway Patrol.

F. CONCLUSIONS

Based on the test data, information submitted by the applicant, and information gathered by the MVPCB, the staff concludes as follows:

1. The General Motors Corporation CCS exhaust control system complies with the emission standard of the California Department of Public Health of 275 ppm of hydrocarbons and 1.5% carbon monoxide, as determined according to established procedures of the Board.
2. The system complies with the Board's criteria.

G. STAFF RECOMMENDATIONS

The staff recommends issuing a certificate of approval for the General Motors CCS exhaust control for factory installation on new 400 cubic inch Pontiac engines and 425 cubic inch Oldsmobile engines as described, based on compliance with prescribed test procedures.

It is therefore recommended that Board Resolution 66-38 be approved.

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An aggressive program has been initiated by the manufacturer to train automotive service personnel on proper adjustment and servicing of exhaust control systems. This program has resulted in essentially all new car dealers having one or more mechanics trained by the manufacturer and licensed by the California Highway Patrol.

F. CONCLUSIONS

Based on the test data, information submitted by the applicant, and information gathered by the MVPCB, the staff concludes as follows:

1. The General Motors Corporation CCS exhaust control system complies with the emission standard of the California Department of Public Health of 275 ppm of hydrocarbons and 1.5% carbon monoxide, as determined according to established procedures of the Board.
2. The system complies with the Board's criteria.

G. STAFF RECOMMENDATIONS

The staff recommends issuing a certificate of approval for the General Motors CCS exhaust control for factory installation on new 400 cubic inch Pontiac engines and 425 cubic inch Oldsmobile engines as described, based on compliance with prescribed test procedures.

It is therefore recommended that Board Resolution 66-38 be approved.

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RESOLUTION 66-37

WHEREAS, Checker Motors Corporation submitted an application on August 9, 1966, for approval of a factory-installed exhaust emission control system for 1967 and later year models; and

WHEREAS, the system is described as the General Motors "Air Injection Reactor" exhaust control system with major components comprised as follows:

1. engine-driven air pump
2. air injection into each exhaust port
3. carburetor and distributor modifications
4. recommended maintenance, and

WHEREAS, the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM of hydrocarbons and 1.5% of carbon monoxide for the life of the vehicle as determined according to established procedures of the Board; and

WHEREAS, based upon determination of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Subchapter 1, Article 2, Section 2103;

NOW THEREFORE BE IT RESOLVED, That this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code,

Issue a certificate of approval for factory installation of the Checker Motors Corporation "Air Injection Reactor" system for 1967 model vehicles only with engines in classifications (c), (d), and (e) pursuant to Title 13, California Administrative Code, Chapter 3, Sub-chapter 1, Article 2, Sections 2104 and 2105.

AND BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

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RESOLUTION 66-38

WHEREAS, General Motors Corporation filed an application for approval of an exhaust emission control system on October 27, 1966 for 1967 and later year models; and

WHEREAS, the system is described as the General Motors Corporation Controlled Combustion System (C.C.S.) with major elements comprised as follows:

1. Special carburetion
2. Special spark timing
3. Recommended maintenance

WHEREAS, the Motor Vehicle Pollution Control Board finds that the system complies with the exhaust emission standards of the State Department of Public Health of 275 PPM hydrocarbons and 1.5% of carbon monoxide, as established pursuant to Sections 426.1 and 426.5 of the Health and Safety Code, State of California, and as determined according to established procedures of the Board; and

WHEREAS, based upon demonstration of compliance with established procedures, the Board finds that the system meets the criteria of the Board, as published in Title 13 of the California Administrative Code, Chapter 3, Subchapter 1, Article 2, Section 2103; and

NOW, THEREFORE, BE IT RESOLVED, that this Board, under the powers and authority granted in Chapter 3, (commencing at Section 24378) Division 20 of the Health and Safety Code, issue a certificate of approval for 1967 factory installation of the General Motors C.C.S. control for General Motors basic engines of Pontiac 400 cubic inches and Oldsmobile 425 cubic inches with automatic transmissions pursuant to Title 13, California Administrative Code, Sub-chapter 1, Article 2, Sections 2104 and 2105; and

BE IT FURTHER RESOLVED, that the continuing effectiveness of this certification is dependent upon satisfactory surveillance data and all other pertinent information relating to the performance of the system when in public use.

11/16/66

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State of California

MOTOR VEHICLE POLLUTION CONTROL BOARD

Resolution 66-39

WHEREAS the Co-Recti-Fire Company, Lake Worth, Florida, filed an application for a certificate of approval for a crankcase emission control system which is described as follows:

A Tube from the rocker arm cover to a spring-loaded crankcase emission control valve to a spacer plate under the carburetor.

This control valve contains a mixing chamber with a stainless steel mesh to separate out oil and dirt.

A second tube from a modified oil filter cap or the rocker arm cover or the road draft tube to the clean side of the air filter.

Sealed oil filler cap when needed.

WHEREAS the system has been found to meet the crankcase emission standards established by the California Department of Public Health as published in Title 17 of the California Administrative Code, Chapter 5, Sub-Chapter 5, Article 1, Section 30530; and

WHEREAS after considering representations submitted by the manufacturer the Board finds that the device meets the criteria of the Motor Vehicle Pollution Control Board as published in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2003; and

NOW, THEREFORE, BE IT RESOLVED, that this Board issue a certificate of approval for the Co-Recti-Fire Company, Lake Worth, Florida, closed crankcase emission control system for new and used motor vehicles in classifications (b), (c), (d), (e), and (f) as designated in Title 13 of the California Administrative Code, Chapter 3, Sub-Chapter 1, Article 1, Section 2004.

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