

Date: April 12, 1979

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Committee in Session at 9:11 A.M. on Thursday, April 12, 1979.

Senator Keith Ashworth in the Chair.

PRESENT: Chairman Keith Ashworth
Senator Jim Kosinski
Senator Clifton Young
Senator Rick Blakemore
Senator Wilbur Faiss

ABSENT: Vice-Chairman Joe Neal

GUESTS: Mr. John Sardelli, Department of Motor Vehicles
Mr. M. M. Crane, Department of Motor Vehicles
Dr. Thorne J. Butler, Chairman, State Board of Health

Chairman Ashworth opened the hearing on auto emission standards.

Mr. John Sardelli, Department of Motor Vehicles, presented a memo and "State of Nevada Air Quality Regulations for Mobile Equipment, (Exhibit "A"). He stated the present inspection maintenance program is in Clark and Washoe counties. In 1974 a pilot program started in Clark County. Phase I was inspecting of light duty vehicles upon transfer to new registered owners; Phase II in 1978 expanded to Washoe county and included all first time registrations, this meant people coming into this state from another state would have to be registered; Phase III requires all light duty vehicles be inspected annually. These vehicles are inspected in authorized stations. The overall average fee is approximately \$13, which includes the \$2 certification fee. Some vehicles are exempted: these include brand new vehicles and vehicles over 15 years of age. Others exempted include motorcycles, diesels, and vehicles over 6,000 pounds (includes pick-ups, motor homes). He stated that if a person has spent \$25 for emission related parts and \$75 labor and still cannot pass the standard, they are given a waiver through the station. Application is then made to the Department of Motor Vehicles who again inspect the vehicle to see if the waiver is appropriate. Eighty to ninety waivers are inspected in approximately a month in the county of Washoe. In Clark County they are giving approximately 165 waivers a month. He said the best way, instead of citations, is to condition it to the renewals which come up on a monthly cycle starting July 1st.

Mr. M. M. Crane, Department of Motor Vehicles, stated the inspection stations are authorized by the state. At present there are 90 authorized stations in Washoe County. The average cost for equipment for these stations is approximately \$7,000. Mr. Sardelli stated you get better gas mileage from the program. You can receive a

citation for excessive smoke. He presented a graph (Exhibit B) which is a sample run of one year, this study was done by the State Environmental Commission. The inspection stations must post their rates in their shops.

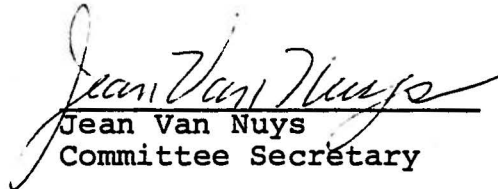
Dr. Thorne J. Butler, Chairman, State Board of Health, presented Exhibit "C" which gives the history and purpose of the inspection/maintenance program for motor vehicles in Nevada. He stated the program started with the Federal Clean Air Act of 1977 which involved air pollutants. Clark and Washoe counties do not meet the national air quality standards. Under the 1977 act you are mandated to have an inspection maintenance program for carbon monoxide and hydrocarbon pollutants. He further stated under the 1977 Clean Air Act, if you do not have a plan to attempt to reduce those two pollutants, and do not have maintenance/inspection plans, then the sanctions can be applied. The sanctions being that all federal monies will end in those areas. In the federal law the sanction can be applied. He stated if there is good attempt to reach the standards that would be considered satisfactory. He said a substantial reduction is now taking place with new cars changing to catalytic converters, other control measures are brought in, including transportation vehicles. He stated the people who live in high pollutant areas tend to have higher absenteeism, pulmonary disease, upper respiratory disease, as compared to individuals who do not live in those kinds of environments. Senator Blakemore stated that when they started with the auto emission systems that our mileage ratio dropped from 20 to 10, evidently we are increasing the pollution problem with the fuel consumption. Dr. Butler stated that the size of the car and the way the engines are designed and operate have a great deal to do with how much hydrocarbon and carbon monoxide is expelled out of the tailpipe. Senator Blakemore stated that with catalytic converters we are burning twice the fuel, therefore defeating the purpose, as catalytic converters are putting out acids. Dr. Butler said the catalytic converters are putting out sulfides. Chairman Ashworth questioned whether we could go for another 2 years with this pilot program in the state of Nevada without implementation of this auto emission standards program. Dr. Butler responded that he did not know whether, or how the sanctions would be applied if the current program were to continue. Chairman Ashworth stated, with the cost of gasoline going up, that people may voluntarily save gas instead of instituting this mandatory program. He further stated that economics may possibly solve this problem and save the people the cost of the emission inspection also. Dr. Butler agreed that some people felt they were being abused by the inspection station. He stated that car pools and public transportation are part of the projection for the emission control program.

The time element did not allow further testimony. An informal meeting has been scheduled April 25, 1979 from 8:30 A.M. to 11 A.M. There is no bill pending, the legislature asked the commission to review the program for presentation.

S.B. 351 pertaining to minimum health standards to protect
prisoner's rights has been rescheduled for April 25th.

The meeting adjourned at 10 A.M.

Respectfully submitted,



Jean Van Nuys
Committee Secretary

Approved:

Chairman
Senator Keith Ashworth

MEMO

To: Frank W. Daykin

From: Robert Angres

Re: Relationship between present and prospective requirements of Nevada law and requirements of Federal law respecting emission control of used motor vehicles.

At present paragraph (b) of NRS 445.635 governs emission control of used motor vehicles. It requires evidence of compliance for used motor vehicles which are being registered to a new owner or for the first time. On or after July 1, 1979 paragraph (c) of NRS 445.635 will require that all used motor vehicles be in compliance with the adopted state standards. (NRS 445.690 provides for certain exemptions from these provisions.)

"Emission standards for moving sources," 42 USC §7521 et. seq. does not specifically mandate a program or schedule for emission control of used vehicles by the state. The state is prohibited from enacting provisions which are inconsistent with federal control of new vehicles, 42 USC §7543. The state is affirmatively required to establish and carry out a comprehensive plan which will bring the state in compliance with the national standard by 1982 under the provisions of the Clean Air Act, as amended in 1977, 42 USC §7502.

The programs of emission control in Nevada are part of this comprehensive plan designed to meet the standard by the deadline. A deferral of the effective date of these programs in NRS would most likely result in a failure to meet the national standard by 1982. Failure to meet the standard could result in the loss of federal funds for various purposes such as highway construction and maintenance. It would render the state liable to civil action for noncompliance and the federal government could seek an injunction against construction of "point sources" to which it could direct its complaint that the state is not in overall compliance. The owners of "point sources" which are not in compliance could be fined and imprisoned (\$25,000 to \$50,000 per day and up to 2 years).

Conceivably the state could decide to extend the deadline for the emission control on used motor vehicles and enhance the clean up of another source of pollution within the comprehensive plan, ie. a stack from a smelting plant, so that the comprehensive air quality picture in Nevada would still meet the standard in 1982.

Aside from the potential loss of funds and liability for fines, there is no federal standard which is specifically applicable to emission control on used motor vehicles.

STATE OF NEVADA
AIR QUALITY REGULATIONS
FOR MOBILE EQUIPMENT

Adopted By

Nevada Environmental Commission
John Fransway, Chairman

Department of Motor Vehicles
Howard Hill, Director

Administered By

Department of Motor Vehicles
Howard Hill, Director
Carson City, Nevada

and

Peace Officers
of the State

Approved August 16, 1978

WHEREAS, the Nevada State Implementation Plan shows that from the available ambient air quality data for carbon monoxide and oxidants, Clark County, specifically the Las Vegas Valley, and Washoe County, specifically the Truckee Meadows, is in violation of the State and national ambient air quality standards; and

WHEREAS, such standards were promulgated by the United States Environmental Protection Agency and the State Environmental Commission for the express purpose of protecting the health and welfare of the citizens residing therein; and

WHEREAS, the control strategy for reducing carbon monoxide and the oxidant levels by the reduction of the carbon monoxide and hydrocarbon emissions respectively includes the implementation of a strategy for inspecting and maintaining in-use motor vehicles; and

WHEREAS, the Fifty-Ninth Session of the Nevada State Legislature provided guidance to the State Environmental Commission to establish an annual inspection and maintenance program in progressive steps; and

WHEREAS, the State Environmental Commission now deems said inspection program necessary to aid in the achievement of the required ambient air quality standards; and

WHEREAS, the Fifty-Ninth Session of the Nevada State Legislature established authority for the Department of Motor Vehicles to promulgate requirements for licensing and inspecting authorized stations;

NOW, THEREFORE, be it resolved that the State Environmental Commission and the Department of Motor Vehicles promulgate these regulations with the express purpose of developing data upon which to define the reductions in emissions for in-use motor vehicles and to affect a portion of the implementation plan for the reduction of emissions to aid in the achievement of the ambient air quality standards which are presently being violated predominantly because of motor vehicle emissions; and be it further resolved that such progressive step implementation is based on the requirements of Chapter 445 of NRS; and be it further resolved that a cooperative study to be completed by January 1979, such study will show acceptance by and protection of consumers, cost for improvement of air quality, and the effectiveness of the program as a whole; and be it further resolved that the motor vehicle owner will be provided with information explaining the reason for the methods of inspections.

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ARTICLE 1 - DEFINITIONS

- 1.1 Ambient air. That portion of the atmosphere surrounding people, animal, and plant life.
- 1.2 Approved inspector. An individual person who has qualified by passing the written examination as prepared by the Department of Motor Vehicles, and has successfully demonstrated the ability to operate the required diagnostic equipment, and has been issued a license as an approved inspector.
- 1.3 Authorized station, as defined in subsection 1 of Chapter 445 of NRS, means, a station licensed by the Department of Motor Vehicles for inspecting motor vehicles and pollution control devices for compliance with Chapter 445 of NRS or any applicable federal or Commission regulation and for installing, repairing, and adjusting pollution control devices and motor vehicles to meet the Commission's requirements.
- 1.4 Carbon monoxide (CO). A colorless, odorless, highly toxic gas that is a normal byproduct of incomplete fossil fuel combustion.
- 1.5 Certificate of compliance. A certificate, issued by an approved inspector in an authorized station which declares that the motor vehicle identified on the certificate is properly equipped with the pollution control devices indicated on the certificate that such devices conform with the requirements of Chapter 445 of NRS and rules and regulation as adopted by the State Environmental Commission.
- 1.6 Commission. The State Environmental Commission, as defined in Chapter 445 of NRS.
- 1.7 Crankcase emissions. Air contaminants emitted into the atmosphere from any portion of the engine crankcase ventilation or lubrication systems.
- 1.8 Department means the Department of Motor Vehicles.
- 1.9 Diagnostic equipment. Tools used to diagnose engine performance.
- 1.10 Emission. The act of passing into the atmosphere an air contaminant or a gas stream which contains, or may contain, an air contaminant; or the material passed to the atmosphere.
- 1.11 Established place of business. (1) the permanent structure owned either in fee or leased with sufficient space to test, inspect, or adjust, if needed, one or more motor vehicles for which a certificate of compliance or evidence of compliance may be issued; and (2) large enough to accommodate the office or offices of an authorized station to provide a safe place to keep the books, certificates of compliance, and all other records of this authorized station, at which site or location the principal portion of such licensee's business shall be open to inspection during usual business hours by any authorized agent of the Department of Motor Vehicles.

- 1.12 Evidence of compliance, as defined in subsection 3 of Chapter 445.610 of NRS, includes a certificate issued when a motor vehicle has been inspected and (a) has the required equipment; or (b) does not meet the emission control requirements after the repairs have been made and the motor vehicle is exempted by the provisions of Article 3.14.2 or Article 3.14.3.
- 1.13 Exhaust emissions. Air contaminants emitted into the atmosphere from any opening downstream from the exhaust ports of a motor vehicle engine.
- 1.14 Exhaust gas analyzer. A device for sensing the amount of air contaminants in the exhaust emissions of a motor vehicle.
- 1.15 Fleet owner. An owner or lessee of three or more motor vehicles.
- 1.16 Fleet station, as defined in subsection 4 of Chapter 445.610 of NRS, means a facility which is licensed by the Department to conduct inspections of the motor vehicles of qualified owners or lessees.
- 1.17 Gross vehicle weight. The manufacturer's gross weight rating for the individual motor vehicle.
- 1.18 Heavy-duty motor vehicle. A gasoline fueled motor vehicle whose GVW is greater than 2,721 kilograms (6,000 pounds).
- 1.19 Hydrocarbons. A family of compounds containing carbon and hydrogen in various combinations, found especially in fossil fuels.
- 1.20 Inspection/Maintenance. A strategy to reduce emissions from in-use motor vehicles by identifying vehicles that need emissions-related maintenance and requiring that such maintenance be performed.
- 1.21 Light-duty motor vehicle. A passenger car or passenger car derivative capable of seating 12 persons or less and having a GVW rating of 2,721 kilograms (6,000 pounds) or less; or a motor vehicle designed primarily for the transportation of property, or the derivation of such a vehicle, having a GVW rating of 2,721 kilograms (6,000 pounds) or less.
- 1.22 Local air pollution control agency. Any city, county, or district air pollution control agency approved by the Commission.
- 1.23 Model year of vehicle. The production period of new motor vehicles designated by the calendar year in which such period ends. If the manufacturer does not designate a production period, the model year with respect to such vehicles shall mean the 12 month period beginning January of the year in which production begins.
- 1.24 Motor vehicle, as defined in subsection 5 of Chapter 445 of NRS, means every self-propelled vehicle in, upon, or by which any person or property is, or may be, transported or drawn upon a public highway, except devices moved by human or animal power or used exclusively upon stationary rails.

- 1.25 New motor vehicle. A motor vehicle that has never been registered with the Department, and has never been registered with the appropriate agency of authority of any other state, the District of Columbia, any territory or possession of the United States or foreign state, province, or country.
- 1.26 Nitrogen oxides. A gas formed in great part from atmospheric nitrogen and oxygen when combustion takes place under high temperature and high pressure, as in internal combustion engines. All oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.
- 1.27 Opacity. The property of a substance tending to obscure vision and measured in terms of percent obscuration. The relationship between opacity and Ringelmann number is approximately equal to the following in shades of white to gray.

Opacity (Percent)	Ringelmann Number
20.	1
40.	2
60.	3
80.	4
100.	5

- 1.28 Person. The State of Nevada, any individual, group of individuals, partnership, firm, company, corporation, association, trust, estate, political subdivision, administrative agency, public or quasi-public corporation, or other legal entity.
- 1.29 Registered owner. An individual, firm, corporation, or association whose name appears in the files of the motor vehicle registration division of the Department of Motor Vehicles as the person to whom the motor vehicle is registered.
- 1.30 Ringelmann chart. The chart published by the U.S. Bureau of Mines, which illustrates graduated shades of gray to black, for use in estimating the light obscuring capacity of smoke.
- 1.31 Smoke. Small particles consisting predominantly, but not exclusively, of carbon, ash, or other combustible material, resulting from incomplete combustion.
- 1.32 Special mobile equipment. Every motor vehicle not designed or used primarily for the transportation of persons or property and only incidentally operated or moved upon a paved roadway.
- 1.33 Standard. A standard of performance proposed or promulgated under these regulations.
- 1.34 Tampering. Rendering inoperative, or intentional misadjustment of any motor vehicle device or element of design intended to control exhaust emissions.

- 1.35 Water. Visible mist or condensed water vapor.
- 1.36 Used motor vehicle. A motor vehicle that has been registered with the Department, or has been registered with the appropriate agency of authority of any other state, the District of Columbia, or any territory or possession of the United States or foreign state, province, or country.
- 1.37 Waiver. A document which would permit registration of a vehicle that does not meet the emission standard as set forth by the State Environmental Commission, and is issued only by the Department of Motor Vehicles, which shall expire one year from the date of issuance.
- 1.38 The abbreviations used in these regulations have the following meanings:

- °C - degree celsius (centigrade)
- CO - carbon monoxide
- GVW - gross vehicle weight
- HC - hydrocarbons
- kg - kilogram (s)
- lb - pound (s)
- NO_x - nitrogen oxides
- ppm - parts per million

ARTICLE 2 - GENERAL PROVISIONS

2.1 Severability:

2.1.1 These regulations and their various portions are severable. Should any portion thereof be declared invalid or unconstitutional it shall not affect any other portion.

2.2 Circumvention:

No person shall install, construct, or use any device which conceals any emission without resulting in a reduction in the total release of air contaminants to the atmosphere.

ARTICLE 3 - ENVIRONMENTAL COMMISSION REGULATIONS FOR MOBIL EQUIPMENT

- 3.1 No person shall operate or leave standing on any highway any motor vehicle which is required by State or federal law to be equipped with a motor vehicle pollution control device, unless such device is correctly installed and in operating condition. No person shall disconnect, alter, or modify any such required device. The provisions of this Article shall not apply to an alteration or modification found by the Commission not to reduce the effectiveness of any required motor vehicle emission control device. Neither shall the provisions of this Article apply to an alteration or modification of a motor vehicle to fuel use other than gasoline or diesel fuel where such alteration or modification is effected without violating existing federal and State standards for the control of exhaust emissions.
- 3.2 No gasoline-powered motor vehicle shall be operated which emits visible smoke while moving for a distance of more than 90 meters (100 yards) upon the streets, roads, or highways of the State.
- 3.3 Visible emissions of diesel-powered motor vehicles or special mobile equipment operated at or below 1,500 meters (5,000 feet) elevation and manufactured on or after January 1, 1970, shall not exceed an opacity of 20 percent for more than 15 consecutive seconds or for periods aggregating more than five (5) minutes in any one (1) hour. Visible emissions of diesel-powered motor vehicles or special mobile equipment operated at or below 1,500 meters (5,000 feet) elevation and manufactured before January 1, 1970, shall not exceed an opacity of 40 percent for more than 15 consecutive seconds or for periods aggregating more than five (5) minutes in any one (1) hour.
- 3.4 Visible emissions diesel-powered motor vehicles or special mobile equipment operating above 1,500 (5,000 feet) elevation shall not exceed an opacity of 40 percent for more than 15 consecutive seconds or for periods aggregating more than five (5) minutes in any one (1) hour.
- 3.5 Except as provided by federal regulation, no person shall operate a device manufactured on or after January 1, 1970, used exclusively upon stationary rails at or below 1,500 meters (5,000 feet) elevation where the period of continuous visible emission is of an opacity greater than 40 percent for more than 15 consecutive seconds. Visible emissions for devices used exclusively upon stationary rails operated above 1,500 meters (5,000 feet) elevation shall not exceed an opacity greater than 60 percent for more than 15 consecutive seconds.
- 3.6 Except as provided by federal regulation, visible emissions from devices manufactured prior to January 1, 1970, used exclusively upon stationary rails shall not exceed an opacity greater than 60 percent for more than 15 consecutive seconds.

3.7 Exceptions to This Article

- 3.7.1 Scheduled maintenance or repairs which result in emissions of air contaminants performed in an area determined by the Department as constituting a repair shop do not violate this Article.
- 3.7.2 Diesel-powered motor vehicles and special mobil equipment may exceed the visible emissions set forth in Article 3.3 and 3.4 for not longer than 15 minutes for stationary warm-up of cold engines to achieve operating temperatures.
- 3.7.3 Visible emissions in excess of those set forth in Articles 3.5 and 3.6 do not violate the requirements of this Article if the visible emissions occur:
- 3.7.3.1 During maintenance or repairs.
 - 3.7.3.2 For a period of 40 consecutive seconds or less during acceleration under load.
 - 3.7.3.3 For a period of 4 consecutive minutes or less when loaded after a period of idle.
- 3.7.4 The provisions of Article 3.9 do not apply to any:
- 1. Heavy-duty motor vehicle having a GVW of more than 2,721 kilograms (6,000 pounds);
 - 2. light-duty motor vehicle produced in a model year 15 or more years earlier than the current model year;
 - 3. light-duty motor vehicle having an engine displacement of less than 819 cubic centimeters (50 cubic inches);
 - 4. motorcycle;
 - 5. motor vehicle which is subject to prorated registration pursuant to Chapters 706.801 to 706.861 of NRS, inclusive, and which are not based in this State;
 - 6. new motor vehicle; or
 - 7. transfer of:
 - (a) registration or ownership between spouses or companies whose principal business is leasing vehicles; and
 - (b) registration if evidence of compliance was issued within 90 days before transfer.

3.7.5 The provisions of Article 3.8 do not apply if the requirements contained in Article 3.14 are met.

3.8 Motor Vehicle Inspection Standards

3.8.1 Except as provided in Article 3.14 any motor vehicle which is subject to inspection in accordance with the provisions of Chapter 445 of NRS and the timetable set forth in Article 3.8, as a condition of compliance with the inspection, must have all required federal and State emission control devices installed and properly operating in accordance with emission control specifications of the motor vehicle manufacturer.

3.8.2 Any light-duty gasoline-fueled motor vehicle which is subject to inspection in accordance with the provisions of Chapter 445 of NRS and the timetable set forth in Article 3.9, as a condition of compliance with the inspection, must not emit:

1. Visible smoke in its exhaust emissions or in its crankcase emissions, when the prescribed inspection test procedure is used; or
2. carbon monoxide (CO) and hydrocarbons (HC) in its exhaust emissions in excess of standards set forth in Table 1 when measured with an approved exhaust gas analyzer and by the prescribed inspection procedure.

Table 1

Exhaust Emission Standards

<u>Model Year of Vehicle</u>	<u>CO (%)</u>	<u>HC (ppm)</u>
Up to and including 1967	7.5	1200
1968 to 1969, inclusive	5.0	600
1970 to 1974, inclusive	4.0	400
1975 and later	3.0	300

NOTE: All measurements shall be made after the engine has been operating for a sufficient period to attain normal operating temperature and the engine has been purged it is has been operating at an idle for more than five (5) minutes, subject to the provisions of Article 4.1.

3.9 Time of Implementation

3.9.1 All used light-duty motor vehicles shall be inspected and certified as having all federal or State required emission control devices installed and properly operating and shall meet the adopted exhaust emission standards in accordance with the timetable set forth in this Article.

- 3.10.2 The Department of Motor Vehicles shall investigate any applicant for an authorized station license, and before an applicant for an authorized station is approved, an inspection of the premises will be made by an authorized representative of the Department of Motor Vehicles.
- 3.10.3 No license shall be issued to an applicant unless the applicant employs at least one approved inspector, who may be the station owner.
- 3.10.4 All inspections must be performed only at the established place of business using an approved exhaust gas infra red analyzer and diagnostic equipment.
- 3.10.5 The authorized station license and all other licenses issued to approved inspectors shall be displayed in a conspicuous place under glass or other transparent material within the authorized station.
- 3.10.6 Authorized station shall be required to keep attached to their infra red analyzer manufacturer's quick reference guides for hookup and testing procedures for their infra red equipment.
- 3.11 Application, Fee for Authorized Stations; Issuance of License Certificate
- 3.11.1 Application for an authorized station license shall be filed upon forms supplied by the Department of Motor Vehicles, and the applicant shall furnish:
- 3.11.1.1 Such proof as the Department of Motor Vehicles may deem necessary that the applicant qualifies as an authorized station, including proof that the applicant has an established place of business in this State:
- 3.11.1.2 Fee of \$25.
- 3.11.2 License expires at midnight on December 31 of each calendar year.
- 3.11.3 Upon receipt of such application, when satisfied that the applicant is entitled thereto, the Department of Motor Vehicles shall issue to the applicant an authorized station license certificate containing the station's name and the address of his fixed place of business.
- 3.12 Approval of Inspectors
- 3.12.1 No person will be approved as an inspector unless he has demonstrated his qualifications and ability to the satisfaction of the Department of Motor Vehicles by the following:
- 3.12.1.1 Submit an application on the form provided by the Department of Motor Vehicles, which establishes that the candidate is qualified to make all necessary adjustments of emission control devices according to manufacturer's specifications, record necessary information, and inspect and test for the operation of federally required emission control devices.

3.9.2

- a. Upon change of the registered owner in accordance with Chapter 445 of NRS after July 1, 1974, all used light-duty motor vehicles based in Clark County shall be inspected and certified, by an authorized station, that State and federally required emission control devices are installed on the motor vehicle and operating properly and the motor vehicle is in compliance with the emission standards adopted in this Article.
- b. In accordance with Chapter 445 of NRS, on or after July 1, 1977, all used light-duty motor vehicles being registered to a new owner or being registered for the first time are required to have evidence of compliance, in Clark County.
- c. In accordance with Chapter 445 of NRS, on or after July 1, 1979, all used light-duty motor vehicles being registered or reregistered are required to have evidence of compliance, in Clark County.

3.9.3

- a. Upon change of the registered owner in accordance with Chapter 445 of NRS, on or after February 1, 1978, all used light-duty motor vehicles based in Washoe County shall be inspected and certified, by an authorized station, that State and federally required emission control devices are installed on the motor vehicle and operating properly and the motor vehicle is in compliance with the emission standards adopted in this Article.
- b. In accordance with Chapter 445 of NRS, on or after September 1, 1979, all used light-duty motor vehicles being registered to a new owner or being registered for the first time are required to have evidence of compliance, in Washoe County.
- c. In accordance with Chapter 445 of NRS, on or after July 1, 1979, all used light-duty motor vehicles being registered or reregistered are required to have evidence of compliance, in Washoe County.

3.9.4

On or after July 1, 1979, all used light-duty motor vehicles, including those owned by the State and any of its political subdivisions, shall be inspected and certified annually, that State and federally required emission control devices are installed on the motor vehicle and operating properly and the motor vehicle is in compliance with the emission standards adopted in this Article.

3.10 Licensing of Authorized Station required

3.10.1

No person may engage in the business of inspecting, repairing, installing, or adjusting a motor vehicle pollution control device for the purpose of issuing a certificate of compliance or be entitled to any other license or permit required by Chapter 445 of NRS or these rules and regulations, until he has applied for and has been issued an authorized station license.

- 3.12.1.2 Submit a certificate of competence which indicates his technical ability in major motor vehicle tune-ups in accordance with accepted industry practices, certified by a principal or owner of the authorized station where he will be employed.
- 3.12.1.3 Submit a certificate of competence as issued by the manufacturer of an exhaust gas analyzer approved by the Department of Motor Vehicles indicating his ability to adjust and operate that equipment.
- 3.12.1.4 Successfully complete a test and practical demonstration presented by the Department of Motor Vehicles with a grade score of no less than 75 percent.
- 3.12.1.5 At the discretion of the Department of Motor Vehicles, an applicant who fails to pass the inspector test may be required to wait for a period of seven calendar days before he may retake the approved inspector's test.
- 3.12.2 Upon acceptance and approval of the application, a license as an approved inspector will be issued by the Department of Motor Vehicles.
- 3.13 Fleet Station
- 3.13.1 An authorized station license may be issued to an owner of a fleet of three or more motor vehicles.
- 3.13.2 An authorized station license may be issued to the State of Nevada or any of its political subdivisions as an owner of a fleet of three or more motor vehicles.
- 3.13.3 Such a station shall meet all the requirements applicable to an authorized station, as set forth by these rules and regulations except a fleet station may inspect and certify only those motor vehicles which constitute such fleet and may issue a certificate of compliance for those fleet motor vehicles which are sold to the public.
- 3.14 The Department of Motor Vehicles may grant a waiver from the emission standards contained Table 1 of Article 3.8, if the application for waiver includes:
- 3.14.1 Receipts or other evidence of parts and repairs, including labor, shall be dated after inspection and before registration and presented to the Department of Motor Vehicles. The repair parts shall be emission related such as, but not limited to, points, plugs, wires, carburetor kits, vacuum hoses, air filters, PCV, etc. The repair labor shall be emission related such as carburetor cleaning or rebuilding, installation of emission parts, etc.
- 3.14.2 A waiver may be granted if the cost of repair parts, exclusive of a catalytic converter, exceeds \$25.00, provided that evidence is submitted and that \$25.00 has been spent and parts have been installed.
- 3.14.3 A waiver may be granted if the combined cost of parts and labor, exclusive of a catalytic converter, for any vehicle, exceeds \$75.00 provided that evidence is submitted, showing that \$75.00 or more has been spent and parts have been installed.

- 3.14.4 A waiver also may be granted for vehicles with missing pollution control devices, provided emission standards or conditions of Article 3.14.2 or Article 3.14.3 have been met.
- 3.14.5 A waiver cannot be granted to model year 1975 or newer if the vehicle was equipped with a catalytic converter and the converter has been removed.
- 3.14.6
- a. Prior emission test means a vehicle emission test performed by an authorized station where the hydrocarbons and carbon monoxide readings were recorded. For the purpose of complying with this Article this reinspection must be performed within ten days of prior inspection.
- b. If a vehicle exceeds emission standards as set forth in Article 3.8 and the vehicle requires repair work, this repair work may be performed by an authorized station or elsewhere. Upon evidence of prior emission test having been performed and evidence of repair having been made, the Department of Motor Vehicles will reinspect the vehicle free of charge. This reinspection is to be done at the Department of Motor Vehicles test laboratory.

ARTICLE 4 - DEPARTMENT OF MOTOR VEHICLES POLLUTION CONTROL REGULATIONS

4.1 Prescribed Inspection Test Procedures

Step 1: Consisting of a visual inspection for visible smoke and blowby gases, at idle and fast idle, and a check under the hood making sure all federal and State required emission control devices are connected.

Step 2: After the motor vehicle has been brought to normal operating temperature, connect motor vehicle to engine diagnostic equipment. The infr red exhaust analyzer shall be adjusted according to the manufacturer's specifications. Place the probe in the tail pipe. With engine running, record the RPM idle and steady HC and CO levels. If dual exhaust, probe both. Increase RPM to 2250, record steady levels of HC and CO.

Step 3: Adjust the following to manufacturer's specifications including recommended tolerances:

- A. idle speed (± 50 rpm).
- B. Dwell.
- C. Air gap.
- D. Timing ($\pm 5\%$), in addition to manufacturer's recommended tolerances.

Step 4: While vehicle is still connected to the diagnostic equipment, record the steady HC and CO levels at the manufacturer's idle RPM. Increase RPM to 2250, record steady HC and CO levels.

Step 5: If the vehicle is found not to exceed the maximum levels for HC and CO set forth in these regulations at either the idle or 2250 RPM range, and all federal and State required emission control devices are connected and operating properly, and no blowby or visible smoke are evident, the approved inspector will complete and sign the certificate of compliance.

Step 6: The following shall be recorded on certificate of compliance:

Make, Model, and year of vehicle	_____	_____
Engine type	_____	_____
Vehicle identification number	_____	_____
Odometer reading	_____	_____
Before HC and CO readings	_____	_____
Dwell or air gap	_____	_____
Ignition timing	_____	_____
Idle setting (rpm)	_____	_____
After HC and CO readings	_____	_____
Cost of adjustments and parts	_____	_____

4.2 Exhaust Gas Analyzer Performance Specifications

4.2.1 The analyzing device shall measure carbon monoxide expressed as percent carbon monoxide in air and measure hydrocarbons as hexane expressed as parts per million of hydrocarbons (hexane) in air. The device shall be designed meeting these performance specifications:

	<u>CARBON MONOXIDE</u>	<u>HYDROCARBONS</u>
Units	%	PPM
Accuracy of reading	±0.3 units on 10% scale	±50 units on 2000 scale ppm
Drift---2 hours	±0.1 units	±15 units
Repeatability	1% FS	1% FS
Min. detectable limits	0.5 units	100 units

Calibration--Two (2) point dynamic calibration.

Readout--Dual digital or dual meters. Digital elements must be 1.25 centimeters (0.5 inch) in height, or each meter shall have a 10 centimeters (4 inch) effective scale width.

If the Department has reason to believe any infra red exhaust gas analyzer is not in compliance with requirements of this section, the Department may require such equipment to be laboratory tested by an independent source other than the manufacturer of the equipment.

4.2.2 A list of approved exhaust gas analyzers is on file with the Director of the Department of Motor Vehicles and may be obtained by writing to:

Department of Motor Vehicles
Registration Division
Emission Control Section
2701 East Sahara Avenue
P O Box 1899
Las Vegas, Nevada 89101

Department of Motor Vehicles
Registration Division
Emission Control Section
Reno, Nevada 89502
After February 1, 1978

4.3 Inspection and Certification

4.3.1 The Department of Motor Vehicles will inspect and certify that authorized stations are properly equipped and personnel are adequately trained to issue certificates of compliance in accordance with Department of Motor Vehicles procedures.

4.3.2 The Department of Motor Vehicles will dynamically calibrate and certify the exhaust gas analyzer at intervals of not more than 30 days.

- 4.3.3 The Department of Motor Vehicles will disapprove in writing any authorized station found not in compliance. Certificates of compliance shall be immediately surrendered and tests conducted after disapproval shall not be acceptable to the Department of Motor Vehicles until the instrument is repaired or the inspector is recertified.
- 4.3.4 The authorized station shall have adequate information available to the inspector or have a procedure posted in a conspicuous place on how to obtain access to adequate information to determine:
- 4.3.4.1 What State or Federal emission control devices are required for specific motor vehicles.
- 4.3.4.2 What are the motor vehicle manufacturer's emission control performance specifications for the specific motor vehicle.
- 4.3.5 The Department of Motor Vehicles, with the technical support of the Environmental Commission, will establish a written test for licensing of approved inspectors. The approved inspectors shall be qualified to make all necessary adjustments according to manufacturer's specifications, of emission control devices, record necessary information, and inspect and test for the operation of required emission control devices.
- 4.3.6 The authorized station shall maintain and submit the records of all inspections to the Department of Motor Vehicles for data evaluation.
- 4.3.7 The Department and the Commission will interpret and correlate the submitted data to determine the amount of reductions of emissions achieved.
- 4.3.8 All inspection records at the authorized station shall be maintained at the established place of business for one (1) year and shall be made available to the Department of Motor Vehicles and the Environmental Commission or its representative when conducting a compliance inspection.
- 4.3.9 Forms for applications of waiver will be supplied to all authorized stations by the Department of Motor Vehicles. All applications for waiver must be submitted to the Department of Motor Vehicles, Las Vegas Office, 2701 East Sahara Avenue, Las Vegas, Nevada, or Reno Office, 305 Galletti Way, Reno, Nevada, for approval.
- 4.4 Responsibility for obtaining Certificates of Compliance
- 4.4.1 Any used motor vehicle dealer, as defined in NRS 482-133, shall furnish evidence of emission control compliance at the same time a dealer's report of sale is issued under the provisions of NRS 482, 424. In all other sales or purchases of a motor vehicle, the purchaser shall be responsible for providing a certificate of emission control compliance.

4.5 Approved Authorized Station Sign

An authorized station shall post a sign in a conspicuous place indicating the set fee or hourly rate, on a time and material basis, advising the total inspection fee and the \$2.00 certificate fee as approved by the Department of Motor Vehicles and shall include the words " Authorized Station".

- 4.5.1 The sign shall be of material that shows a white background with dark contrasting letters and figures.
- 4.5.2 Dimensions of the sign shall be no less that 60 centimeters (24 inches) wide and 60 centimeters (24 inches) high.
- 4.5.3 All letters and figures appearing on the sign shall not be less than 5 centimeters (2 inches) in height.

4.6 Authorized Station's Bond; Action on Bond

- 4.6.1 Before any authorized station license shall be furnished to any person as provided in Chapter 445 of NRS and these rules and regulation, the Department of Motor Vehicles shall require that the applicant procure and file with the Department of Motor Vehicles a good and sufficient bond in the amount of \$1,000 with a corporate surety thereon, duly licensed to do business within the State of Nevada, approved as to form by the Attorney General, or place on deposit with the Department of Motor Vehicles (a) cash; (b) United States bond; (c) State of Nevada bond; or (d) Savings Certificate in the amount of \$1,000, and conditioned that the applicant shall conduct his business as an Authorized Station without fraud or fraudulent representation and without violation fo the provisions of Chapter 445 of NRS or these rules and regulations.
- 4.6.2 The undertaking in the bond or deposit shall be deemed to include and shall include any fraud or fraudulent representation or violation of any of the provisions of Chapter 445 of NRS and these rules and regulations by any approved inspector or employed agent for or on the behalf of the authorized station.
- 4.6.3 The bond or deposit shall provide that any person injured by the action of the licensee or employee acting on the behalf of the licensee in violation of any provisions of Chapter 445 of NRS and these rules and regulations may bring an action on the bond.

4.7 Misleading, Inaccurate Advertising, False Information Exhibited by Authorized Station

No authorized station may intentionally publish, display, or circulate any advertising which is misleading or inaccurate in any material particular or misrepresents any of the services rendered, products sold, manufactured, handled, or furnished to the public.

- 4.7.1 The Department of Motor Vehicles will provide a brochure for distribution to the public which will explain the reasons and methods for the emission control inspection.
- 4.8 An authorized station which does not have an approved inspector in its employ shall immediately cease to operate as an authorized station:
- 4.8.1 An authorized station without an approved inspector in its employ shall remove or cover the authorized station sign and shall not inspect and issue a certificate of compliance. If an approved inspector is not employed within sixty (60) days, the authorized station shall surrender the station license, all forms, and supplies to the Department of Motor Vehicles.
- 4.8.2 An authorized station which has its license revoked, cancelled, or suspended or has surrendered its license may submit a new application sixty (60) days after any such revocation, cancellation, suspension, or surrendering of license.
- 4.9 Denial, Revocation of Authorized Station License: Grounds
- 4.9.1 The Department of Motor Vehicles may deny the issuance of, or revoke, an authorized station's license upon any of the following grounds:
- 4.9.1.1 Failure of the applicant to have an established place of business in this state.
- 4.9.1.2 Material misstatement on the application.
- 4.9.1.3 Evidence of unfitness of the applicant or licensee.
- 4.9.1.4 Willful failure to comply with any of the provisions of these rules and regulations or the directives of the Director of the Department of Motor Vehicles.
- 4.9.1.5 Failure or refusal to furnish and keep in force any bond.
- 4.9.1.6 Failure on the part of such licensee to maintain an established place of business in this State.
- 4.9.1.7 Failure or refusal by a licensee to pay or otherwise discharge any final judgment rendered and entered against such licensee arising out of any fraud or misrepresentation of any services rendered as an authorized station.
- 4.9.1.8 Failure of the licensee to maintain any license or bond required by any political subdivision of the State.
- 4.9.2 For the purposes of Article 4.9.1.4, failure to comply with the directives of the Director of the Department of Motor Vehicles advising the licensee of his noncompliance with any provisions of these rules and regulations within ten (10) days of the receipt of such directive is prima facie evidence of willful failure to comply with such directive.

- 4.9.3 The Department of Motor Vehicles is not limited to the above grounds, but may deny the issuance of the license to an applicant or revoke a license already issued if the Department of Motor Vehicles is satisfied that the applicant or licensee is not entitled thereto.
- 4.10 Hearing by Director of the Department of Motor Vehicles upon Denial of Application, Revocation of Authorized Station License.
- 4.10.1 The applicant or licensee may, within thirty (30) days after the receipt of the notice of denial or revocation, petition the Director of the Department of Motor Vehicles, in writing, for a hearing which may be conducted by the Director of the Department of Motor Vehicles or his authorized representative.
- 4.10.2 Upon filing the petition, a date for hearing will be fixed no longer than twenty (20) days after the receipt of the request for hearing, and the applicant or licensee shall have the right to be present at a hearing and testify in his own behalf and to have such other persons as he desires to be present and testify at the hearing.
- 4.10.3 Within ten (10) days after the hearing, the Director of the Department of Motor Vehicles or his authorized representative will either grant or finally deny the application or revoke the license.
- 4.10.4 Notwithstanding the provisions of Article 4.10.1 to 4.10.3, inclusive, the Department of Motor Vehicles may, if the Director of the Department of Motor Vehicles finds that the action is necessary in the public interest, upon notice to the licensee, temporarily suspend or refuse to renew the license certificate for a period not to exceed thirty (30) days. In any such case, a hearing will be held and a final decision rendered within thirty (30) days after notice of the temporary suspension.
- 4.11 Application to District Court for Denial, Revocation of Authorized License: Judicial Review.
- If the application of the licensee is denied or revoked, applicant or licensee may, within thirty (30) days from the date of denial or revocation, appeal to the District Court of Carson City, or of the county of his principal place of business by judicial review as outlined in NRS 233B.130.
- 4.12 Denial of an Inspector's License
- 4.12.1 The Department of Motor Vehicles may refuse to issue a license to an applicant who fails to pass the examination as described in Article 3.12.1.4.
- 4.12.2 The Department of Motor Vehicles may refuse to issue a license to an applicant who fails to provide satisfactory evidence of ability and competence.

4.13 Denial, Revocation of an Inspector's License

4.13.1 The Department of Motor Vehicles may deny the issuance of or revoke an inspector's license upon any of the following grounds:

4.13.1.1 Failure of the applicant to establish by satisfactory evidence to the Department of Motor Vehicles that he is employed by an authorized station.

4.13.1.2 Applicant has knowingly made any false statements or concealed any material fact on his application for a license.

4.13.1.3 Determination by the Department of Motor Vehicles that an applicant or approved inspector is not lawfully entitled thereto.

4.13.1.4 Applicant knowingly submits false, inaccurate, or misleading information on a certificate of compliance or other records submitted.

4.13.1.5 Every approved inspector shall report in writing to the Department of Motor Vehicles every change in his place of employment, or termination of employment within 10 days of the date of making such change.

4.13.2 The Director of the Department of Motor Vehicles is not limited to the above grounds, but may deny the issuance of a license to an applicant revoke a license already issued if the Department of Motor Vehicles is satisfied that the applicant or approved inspector is not entitled thereto.

4.14 Hearing by Director of the Department of Motor Vehicles upon Denial of the Application, Revocation of Approved Inspector:

4.14.1 The applicant or approved inspector may, within thirty (30) days after receipt of the notice of denial or revocation, petition the Director of the Department of Motor Vehicles, in writing, for a hearing which may be conducted by the Director of the Department of Motor Vehicles or his authorized representative.

4.14.2 Upon filing the petition, a date for hearing will be fixed no longer than twenty (20) days after receipt of the request for a hearing, and the applicant or approved inspector shall have the right to be present at a hearing and testify in his own behalf and to have such other persons as he desires to be present and testify at the hearing.

4.14.3 Within ten (10) days after the hearing, the Director of the Department of Motor Vehicles or his authorized representative will make written findings of fact and conclusions of law and will either grant or finally deny the application or revoke the license of the approved inspector.

4.14.4 Notwithstanding the provisions of Article 4.14.1 to 4.14.3, inclusive, the Department of Motor Vehicles may, if the Director of the Department of Motor Vehicles finds that the action is necessary in the public interest upon notice to the approved inspector, temporarily suspend or refuse to renew the license for a period not to exceed thirty (30) days. In any such case, a hearing will be held and a final decision rendered within thirty (30) days after notice of the temporary suspension.

4.15 Application to District Court for Denial, Revocation of Approved Inspector, Judicial Review.

If the application is denied or the license of an approved inspector is revoked, applicant or approved inspector may, within thirty (30) days from the date of denial or revocation, apply to the District Court of Carson City or of the county of his principal place of business by judicial review as outlined in NRS 233B.130.

4.16 Certificate of Compliance

4.16.1 The primary use of the certificate of compliance or evidence of compliance is for a used motor vehicle registration transaction as required by Chapter 445 of NRS, requiring that certificates of compliance or evidence of compliance with these regulations be submitted to the Department of Motor Vehicles upon application for registration by an owner of a used motor vehicle.

4.16.2 If a certificate of compliance is issued and a certificate is not required for registration purposes by Article 3.7.4 the authorized station issuing the certificate shall remit to the bearer the amount of the inspection and certificate fee upon demand.

4.17 Certificates of Compliance; Purchase

4.17.1 Certificates of compliance may be purchased only by an approved station and may be obtained by addressing request to the Department of Motor Vehicles, Registration Division, 555 Wright Way, Carson City, Nevada, 89701, or the Department of Motor Vehicles' branch offices, 2701 East Sahara Avenue, Las Vegas, Nevada, 89101, and after February 1, 1978, at 305 Galletti Way, Reno, Nevada, 89502.

4.17.1.1 The charge for certificates of compliance is \$50. for a book of twenty-five (25) certificates. For each certificate issued to a fleet station the charge is \$2.

4.17.1.2 An authorized station or fleet station shall not purchase or otherwise obtain certificates of compliance from a source other than the Department of Motor Vehicles.

4.18 Responsibility for Completing and Signing Certificates of Compliance.

4.18.1 No person other than an approved inspector employed by an authorized station, or a fleet station, shall complete and sign a certificate of compliance.

4.18.2 Certificate of compliance shall include, but not be limited to, the following: sufficient information to identify the person or vehicle dealer applying for a certificate of compliance, his address, and the year, make, model, identification number of the vehicle to which a certificate is issued, additional test evaluation information as required by Chapter 445 of NRS and these rules and regulations, the name of the authorized station, signature of the approved inspector, and the time and date of inspection.

4.19 Fleet stations

- 4.19.1 An authorized station license may be issued to an owner of a fleet of three or more motor vehicles.
- 4.19.2 Such a station shall meet all the requirements applicable to an authorized station, as set forth by these rules and regulations except:
 - 4.19.2.1 That no sign need be displayed and prices need not be posted; and
 - 4.19.2.2 Manufacturer's specifications and instructions are required to be maintained only for those vehicles used and serviced by the fleet station.
- 4.19.3 A fleet authorized station may inspect and certify only those motor vehicles which constitute such fleet and may issue a certificate of compliance for those fleet motor vehicles which are sold to the public.

4.20 Penalties:

Chapter 445 of NRS provides:

1. A violation of any provision of NRS 445.610 to 445.710, inclusive, relating to motor vehicles, or any rule or regulation promulgated pursuant thereto relating to motor vehicles, is a misdemeanor. The provisions of NRS 445.610 to 445.710, inclusive, or any rule or regulation promulgated pursuant thereto, shall be enforced by any peace officer.
2. Satisfactory evidence that the motor vehicle or its equipment conforms to such provisions, rules or regulations, when supplied by the owner of such motor vehicle to the Department of Motor Vehicles within 10 days after the issuance of a citation pursuant to subsection 1 may be accepted by the court as a complete or partial mitigation of the offense.

These regulations become effective on August 16, 1978

Report on Int. Inspection Basis Adjusted

FORM 1 1970
REPORT DATE 12/10/74

STATE OF NEVADA
DEPARTMENT OF MOTOR VEHICLES
REGISTRATION DIVISION
EMISSION CONTROL SECTION



ALL VEHICLES

EMISSION CONTROL STATISTICS

VEHICLES 1967	***** B E F O R E *****				***** A F T E R *****				AVERAGE REDUCTION							
	**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****					
	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.				
6,476 VEHICLES	429	351	314	281	375	294	280	254	54	13%	57	16%	34	11%	27	10%
	* AVERAGE COST OF INSPECTION \$				13.20				AVERAGE COST OF REPAIRS \$.54			

VEHICLES 1968 - 1969	***** B E F O R E *****				***** A F T E R *****				AVERAGE REDUCTION							
	**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****					
	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.				
4,692 VEHICLES	255	254	188	188	230	226	177	173	25	10%	32	12%	11	6%	15	8%
	* AVERAGE COST OF INSPECTION \$				13.23				AVERAGE COST OF REPAIRS \$.57			

VEHICLES 1970 - 1974	***** B E F O R E *****				***** A F T E R *****				AVERAGE REDUCTION							
	**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****					
	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.				
15,901 VEHICLES	174	190	118	132	159	178	109	122	15	9%	21	11%	9	8%	10	8%
	* AVERAGE COST OF INSPECTION \$				13.65				AVERAGE COST OF REPAIRS \$.54			

VEHICLES 1975 ONWARD	***** B E F O R E *****				***** A F T E R *****				AVERAGE REDUCTION							
	**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****					
	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.				
13,751 VEHICLES	104	92	64	55	99	81	60	50	9	8%	11	12%	4	6%	5	9%
	* AVERAGE COST OF INSPECTION \$				14.54				AVERAGE COST OF REPAIRS \$.21			

VEHICLES ALL YEARS	***** B E F O R E *****				***** A F T E R *****				AVERAGE REDUCTION							
	**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****		**** IDLE ****		**** 2250 ****					
	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.	H.C.	C.O.				
40,820 VEHICLES	201	194	139	136	181	169	127	124	20	10%	25	13%	12	9%	12	9%
	* AVERAGE COST OF INSPECTION \$				13.40				AVERAGE COST OF REPAIRS \$.43			

NOTE: AVERAGE COST OF INSPECTION INCLUDES \$2.00 CERTIFICATE FEE

PROGRAM 1410
REPORT DATE 12/11/70

STATE OF NEW YORK
REGISTRATION DIVISION
VEHICLE CONTROL SECTION

STATE FILE

ALL VEHICLES

EMERGENCY CONTROL STATISTICS

VEHICLES
THRU 1967

***** U E F U I E *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

***** U F T E R *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

A V E R A G E R E D U C T I O N
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

8,451
VEHICLES

55c 153 105 357

800 308 306 275

106 145.52% 97.1% 64.19%

* AVERAGE COST OF INSPECTION \$ 15.23

AVERAGE COST OF REPAIRS \$ 1.00

VEHICLES
1968 - 1969

***** U E F U I E *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

***** U F T E R *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

A V E R A G E R E D U C T I O N
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

7,426
VEHICLES

384 392 200 257

200 240 190 192

139.34% 141.38% 92.33% 61.26%

* AVERAGE COST OF INSPECTION \$ 15.24

AVERAGE COST OF REPAIRS \$ 1.22

VEHICLES
1970 - 1971

***** U E F U I E *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

***** U F T E R *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

A V E R A G E R E D U C T I O N
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

24,627
VEHICLES

205 320 192 191

101 190 125 157

103.21% 132.70% 61.35% 54.30%

* AVERAGE COST OF INSPECTION \$ 15.53

AVERAGE COST OF REPAIRS \$ 1.32

VEHICLES
1975 ONWARD

***** U E F U I E *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

***** U F T E R *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

A V E R A G E R E D U C T I O N
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

17,543
VEHICLES

167 174 90 71

115 90 69 59

54.33% 78.45% 21.78% 31.37%

* AVERAGE COST OF INSPECTION \$ 14.53

AVERAGE COST OF REPAIRS \$.51

VEHICLES
ALL YEARS

***** U E F U I E *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

***** U F T E R *****
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

A V E R A G E R E D U C T I O N
**** I D L E **** **** 2250 ****
H.C. C.O. H.C. C.O.

58,047
VEHICLES

301 308 200 191

202 180 140 141

99.33% 120.1% 62% 52.17%

* AVERAGE COST OF INSPECTION \$ 15.77

AVERAGE COST OF REPAIRS \$ 1.02

NOTE: AVERAGE COST OF INSPECTION INCLUDES \$2.00 STATE FEE

REPORT

1979
INSPECTION/MAINTENANCE PROGRAM FOR
MOTOR VEHICLES IN NEVADAHistory and Purpose

In accordance with Section 18 of Assembly Bill 464 (59th Session - 1977) the State Environmental Commission was required to submit a report to the 60th Session of the Nevada State Legislature. This report details an evaluation of the inspection/maintenance program for the control of motor vehicle emissions in Nevada. The evaluation includes analyses of cost-effectiveness in relation to improved ambient air quality, consumer protection and acceptance, and program effectiveness as compared with similar programs in other states.

In Nevada, parts of Washoe County (Truckee Meadows) and Clark County (Las Vegas Valley) have been classified as non-attainment areas for several of the air pollutants because of continued violation of the State and National Ambient Air Quality Standards (NAAQS). These standards are also referred to as the primary or health related standards. For this report, which is directed to inspection/ maintenance programs for motor vehicles, the pollutants of importance are two, namely carbon monoxide (CO) and hydrocarbons (HC). Hydrocarbons mixed with nitrogen oxide (NO_x) when exposed to sunlight produce components of photo-chemical smog. Carbon monoxide has a direct effect upon health, causing a wide range of cardiac, pulmonary, and central nervous system effects. The major source of these pollutants is the gasoline fueled motor vehicle.

The approved plan (State Implementation Plan-SIP) developed in Nevada called for the creation of an inspection/maintenance program for motor vehicles as a strategy to reduce the emission from automobiles. In 1973, the Nevada

State Legislature authorized the State Environmental Commission and the Department of Motor Vehicles to implement an inspection/maintenance program for Clark County. By early 1974, the early phases of the program included:

- a. A target population of automobiles requiring inspection.
- b. Established standards of compliance for emissions of CO and HC.
- c. Established the administration to regulate inspectors and inspection stations.
- d. Adopted appropriate enforcement rules and regulations to protect the consumer.
- e. Established inspection station license and automobile certificate fees.

At the 1977 biennial legislative session, the two responsible agencies submitted a detailed report on the status of the program. The Legislature approved extension of the program to counties greater than 100,000 population. Additionally, the Legislature asked to have an update report from the State Environmental Commission for the 1979 legislative session. Pursuant to the report the Legislature gave authority to commence annual inspections for all motor vehicles registered in counties greater than 100,000 population.

The program has undergone many regulatory changes with respect to inspection procedures, enforcement, reporting and engineering evaluations. With the availability of new data from the past year's monitoring, the 1979 report will be able to fill in the informational gaps of the previous report. The 1977 report, however, does contain the basic information on various methodologies applicable to inspection and maintenance programs, and the preliminary data developed from the initial Clark County experience.

In this report, the Environmental Commission believes that the 1977 legislative review focused on two major areas of concern. One, does an inspection/maintenance program result in a significant measurable decrease in emissions

from motor vehicles? Two, can the system for performing the inspection assure proper consumer protection? Furthermore, this review includes a comparative analysis of the current Nevada program with four other state programs. Finally, this report concludes with the Environmental Commission's recommendations on the direction and structure of future inspection/maintenance programs.

More detailed information on inspection/maintenance programs in Arizona, California, Chicago, Ohio, New Jersey, Oregon, Rhode Island, and computer printouts from the Nevada Department of Motor Vehicles will be made available upon request.

Status of the Current Program

A. Method of Inspection

The inspection/maintenance programs operating in Clark and Washoe Counties require a certificate of compliance with the emission standard for all used automobiles either changing ownership or being registered for the first time in Nevada. The inspectors examine for the presence of federally mandated emission control equipment. The emissions from the vehicle are measured at both a low and fast idle speed. The engine is then adjusted to the manufacturer's specifications, such as timing and dwell. The emissions are again measured at the two engine speeds. If the measurements after adjustment of the engine for CO and HC are in compliance, the vehicle is issued a certificate of compliance. The inspection with adjustments usually requires 15 to 20 minutes of operator time.

The approved inspection stations are required to have certain test equipment, including an exhaust gas analyzer. The analyzers are periodically checked for accuracy by the Department of Motor Vehicles.

B. Effect of Inspection Upon Emissions

Table I summarizes the average emissions of HC and CO before and after adjustments in a population of vehicles tested in 1978. Several major conclusions can be drawn from these data.

TABLE I
SUMMARY
EFFECT OF THE INSPECTION UPON EMISSIONS

Year	Number	Before	After	Reduction	Standard
1967	8,229				
	CO %	3.96	2.91	1.05	7.5
	HC ppm	478	355	123	1,200
1968-1969	7,204				
	CO %	3.25	2.18	1.07	5.0
	HC ppm	338	223	115	600
1970-1974	23,840				
	CO %	2.61	1.66	0.95	4.0
	HC ppm	237	152	85	400
1975 Onward	16,907				
	CO %	1.3	.76	.55	3.5
	HC ppm	131	91	40	300
All Years	56,180				
	CO %	2.50	1.64	.86	
	HC ppm	253	173	80	

AVERAGE COST OF INSPECTION: \$13.80

AVERAGE REPAIR COST: \$1.02

SOURCE: DMV 12/8/78, program #1410

The average reduction in emissions (for CO and HC combined) is approximately 33%. The current standards for compliance appear too lenient. While averages have bias, the cost of repairs and inspection does not appear excessive. Not obtainable from these data is the overall failure rate after the adjustment and test. The before failure rate averaged 40%, and 3% of adjusted vehicles required repairs in order to comply.

A fallout benefit is that the average adjusted vehicle will have an annual savings of \$10.00 in gasoline costs based on 60 cents per gallon and 11,350 miles driven per year with an efficiency of 14 miles per gallon. For those 3% of vehicles requiring minor repairs the average overall gasoline savings is calculated to be \$24.00 per year. (Source USEPA Publication 400/2-78-001, page 16.)

C. Administration of Inspection Program

The magnitude of the current inspection/maintenance program is reflected in the following information.

In calendar year 1978, some 95,000 vehicles were issued certificates of compliance by 214 authorized stations employing 1,110 certified inspectors. The State enforcement and regulatory staff of 12 conducted 2,900 station inspections and issued red tags on 1,200 of those inspections. The red tag required bringing either the inspection procedures and/or equipment into compliance with the regulations. The staff responded to 389 oral and 107 written complaints. Response to complaints resulted in 626 field investigations and the inspection of 934 vehicles in the Department of Motor Vehicles laboratory. To date, only two complaints have not been satisfactorily resolved. Citations, arrests, fines, and revocation of license have occurred in 30 cases against stations and/or inspectors.

The program revenue was \$200,000 while expenses, including capital expenses, were \$181,000. (Source: DMV Annual Report.)

The Environmental Commission believes that the Department of Motor Vehicles has developed a strong administrative approach to properly managing the inspection/maintenance program. The continued inspection of certified stations, blind checking of vehicles, and rapid response to public concern means better consumer satisfaction and protection.

Relationship of Automobile Emission to Air Quality

The qualitative relationship between emissions and air quality, in casual examination, is intuitively obvious. The quantitative relationship requires application of complex modeling techniques and an emission inventory for the pollutant.

In Clark County such relationships have been determined. A brief analysis for carbon monoxide readily demonstrates the effect of an inspection/maintenance program upon air quality. While the emissions inventory and modeling methods make assumptions, the methodologies have been sufficiently tested and verified to generate reliable and significant data.

The relationship between total emission of CO in tons per year (TPY) versus time is presented in the following graph. While Clark County will not meet the NAAQS requirements by 1987 for CO with only an inspection/maintenance program control strategy, the effect of the inspection/maintenance program is dramatic. Without an inspection/maintenance program the excess CO emissions would mean hardly any improvement in air quality over the next decade. Washoe County is in a similar situation without the inspection/maintenance program.

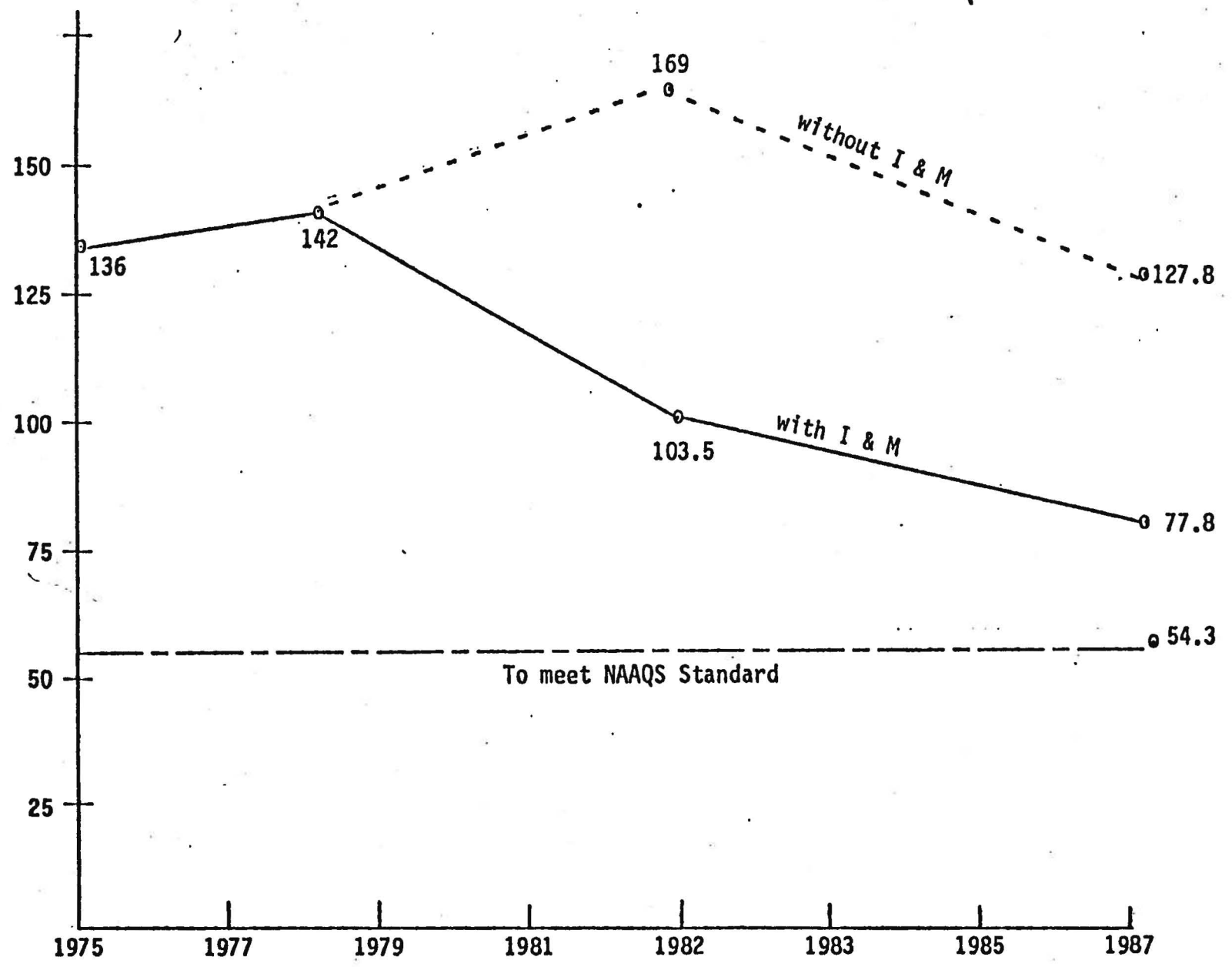
Without presenting details to avoid cluttering this report, HC emission inventory analysis shows similar results. Moreover, with the relaxation of the total oxidant standard by EPA in December 1978, Las Vegas will attain the NAAQS standard for HC by approximately 1982. Again the projection is dependent upon an operational inspection/maintenance program, as now exists in Nevada.

CO EMISSIONS IN LAS VEGAS VALLEY

022

EXHIBIT C

Emissions
Thousands
of Tons
per Year



-7-

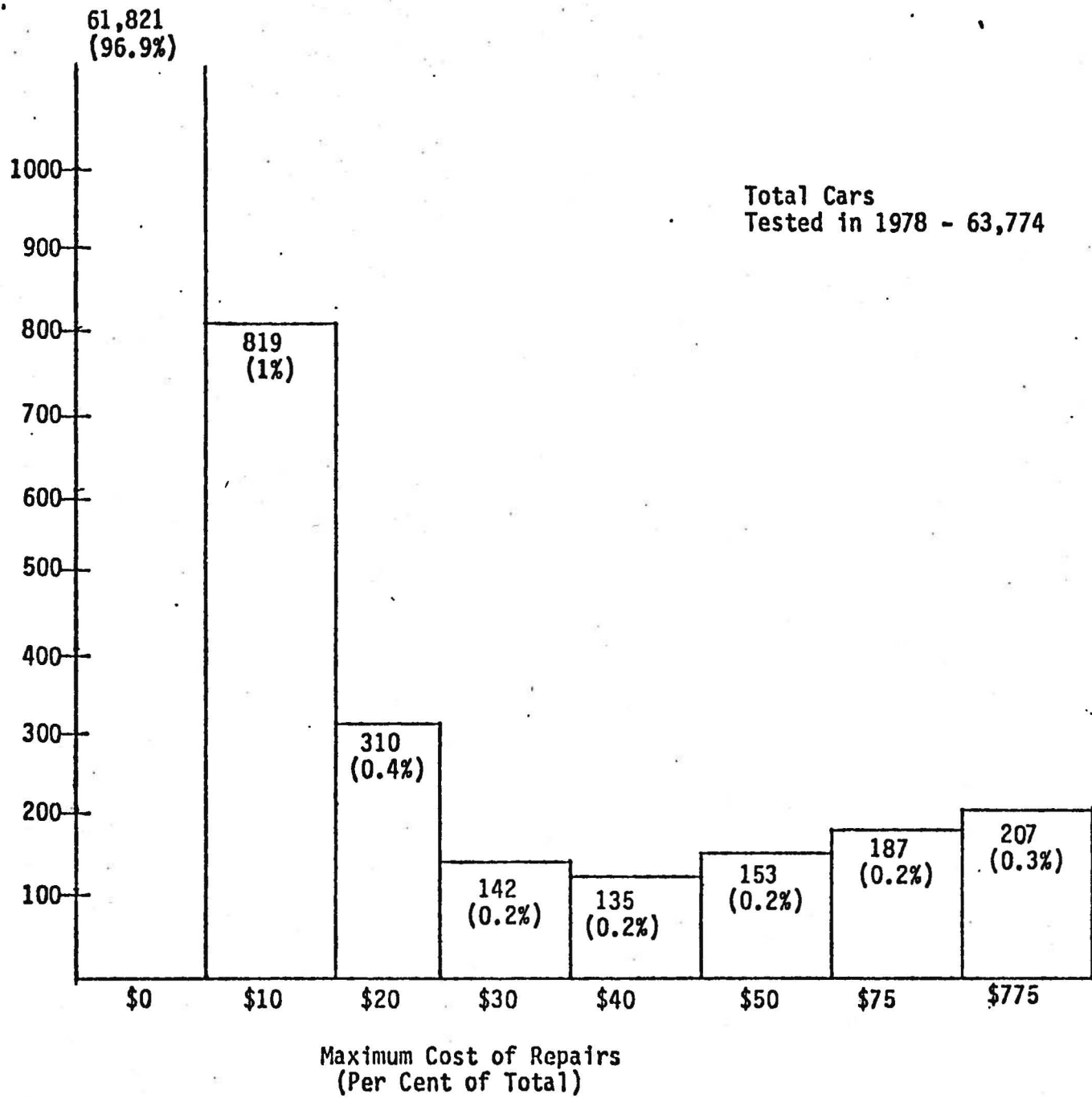
Source: Las Vegas Valley Air Quality Implementation Plan, December 1978

Effects Upon the Consumer

Of major concern is the effect upon the consumer by the mandated inspection/maintenance program. Have the costs appeared reasonable compared to benefits? When repairs are required is the vehicle owner subject to being "ripped off" by an unscrupulous inspection station? For noncompliance vehicles whose owners lack adequate income to make necessary repairs to bring the vehicle into compliance, have the waiver provisions been adequate?

In the section on status of the program, the average cost for each vehicle compared to the amount of emission reduction does not appear unreasonable. Since the average vehicle will have an annual \$10.00 fuel savings, the net average cost per vehicle for the inspection is \$5.00. Additionally, a fuel savings benefit to the consumer gains increasing importance in the face of both rising fuel costs and potential gasoline shortages.

The fear of rip-off has dominated the discussions of this inspection/maintenance program since its inception. The following histogram demonstrates that the fear of excessive charges and unnecessary repairs have little basis in fact. Of the 63,774 cars tested, 61,821 had no repair charges, only the inspection fee which averaged \$13.80. This large sample representing cars from 1961 through 1979 indicates that in the current program 96.9% of tested cars accrued no repair charges. For the remaining 1,746 vehicles, repair charges averaged \$20.45 with 46% of this group paying less than \$10.00. Average maximum charge for any year vehicle model was \$64.80. There were an additional 207 vehicle owners who voluntarily spent more than the \$75.00 waiver requirement to bring their vehicles into compliance. For that group the average charge was \$171.34.



Source: DMV Program 1411, 2/8/79

Certainly occasional overcharges have occurred. But the data indicate that they must be random and rare. The Environmental Commission was gratified to find that, for the most part, inspection stations are doing a good job. The Department of Motor Vehicles regulatory efforts undoubtedly are a strong factor in assuring consumer protection from fraud and abuse.

The waiver provision for vehicles not in compliance with the regulations is important to avoid undue hardship to those owners unable to afford the cost of repair. The current regulations require expenditures up to \$75.00 in repair costs as an attempt to bring the vehicle into compliance. Has the impact of these provisions been overly severe during the 1978 year? The Department of Motor Vehicles granted 515 waivers. Interestingly enough, 247 of those waivers required no repair expense by the owner. Those vehicles had missing pollution control devices; however, they still passed the emission standards. For the 219 vehicles failing to pass the emission standards, the average cost of repair was \$69.60.

Summary of Vehicles Granted Waivers

Total	Missing Device Passed Standards	Failed Standards After Repair
504	247	257

Average cost - \$95.71

Source: DMV Report of Waivers, 1978

An explanation of why some of the average repair costs are over \$75.00 is not clear. The Environmental Commission believes that this appears to be a voluntary effort by the vehicle owner. The number of vehicles coming under the waiver provisions is a relatively small percentage (less than 1%) of tested vehicles. The average repair costs indicate that there has not been undue hardship to the public.

An Evaluation of Other State Programs

An analysis has been made on programs for Oregon, New Jersey, Arizona, and California. All these programs are similar in a few respects, and quite variable in others. It is difficult to say one program is better than another. The data base in Nevada is more complete than in the other states. The state control of inspectors and inspection stations in Nevada is comparatively more intense.

The distinct advantages in Nevada are consumer convenience and the element of a minor tune up as part of the inspection. Cost-wise, these two conveniences are not overly expensive. The average cost in the other states is generally a little higher than in Nevada, but the difference is probably not significant.

The major disadvantage in Nevada has been the fear of "rip-off" by the private garage inspection system. That fear now appears unjustified from the present data base. Although the idle test performed by private garages is not as precise an indicator of emissions as the loaded test, it is sufficiently accurate so that its lower cost of operation and less time involved for the consumer make it the preferred acceptable alternative.

Because the Nevada inspection/maintenance program has had long development time, most administrative, regulatory, and inspection problems have been examined and resolved.

All in all, the Nevada program in terms of goals, costs, and consumer acceptance compares favorably as a practical workable answer toward reducing HC and CO emissions through the inspection/maintenance program for Clark and Washoe Counties. Recommendations

Recommendations

In conclusion, the Environmental Commission has several recommendations. While many of these recommendations can be handled by the regulatory process, the Environmental Commission is anxious that the Legislature be informed of the direction of the inspection/maintenance program.

The major recommendation is that the annual inspection for all light duty gasoline powered motor vehicles commence July 1, 1979, pursuant to NRS 445.635(c).

Other recommendations:

1. Establishment of a maximum fee for the inspection.
2. All inspection stations be required to have appropriate diagnostic equipment; i.e. ignition oscilloscope analyzers.
3. Inclusion of vehicles up to 8,500 pounds commencing with the 1979 model year.
4. The waiver provisions will not apply to used car dealers.
5. The emission standards be made more stringent to assure continued improvement toward reducing emission inventories for CO and HC. This consideration is tied to the EPA "stringency factor" for inspection/maintenance programs.
6. The emission standards for catalytic converter equipped vehicles be established as a separate and more stringent standard.

The Environmental Commission understands that most citizens do not like further intrusions upon their personal lifestyle by government regulation. On the other hand, the majority of citizens in Nevada's metropolitan regions appreciate the problems associated with air pollution. The current inspection/maintenance program which has been under development for some five years has

ARTICLE 1 - DEFINITIONS

- 1.1 Ambient air. That portion of the atmosphere surrounding people, animal, and plant life.
- 1.2 Approved inspector. An individual person who has qualified by passing the written examination as prepared by the Department of Motor Vehicles, and has successfully demonstrated the ability to operate the required diagnostic equipment, and has been issued a license as an approved inspector.
- 1.3 Authorized station, as defined in subsection 1 of Chapter 445 of NRS, means, a station licensed by the Department of Motor Vehicles for inspecting motor vehicles and pollution control devices for compliance with Chapter 445 of NRS or any applicable federal or Commission regulation and for installing, repairing, and adjusting pollution control devices and motor vehicles to meet the Commission's requirements.
- 1.4 Carbon monoxide (CO). A colorless, odorless, highly toxic gas that is a normal byproduct of incomplete fossil fuel combustion.
- 1.5 Certificate of compliance. A certificate, issued by an approved inspector in an authorized station which declares that the motor vehicle identified on the certificate is properly equipped with the pollution control devices indicated on the certificate that such devices conform with the requirements of Chapter 445 of NRS and rules and regulation as adopted by the State Environmental Commission.
- 1.6 Commission. The State Environmental Commission, as defined in Chapter 445 of NRS.
- 1.7 Crankcase emissions. Air contaminants emitted into the atmosphere from any portion of the engine crankcase ventilation or lubrication systems.
- 1.8 Department means the Department of Motor Vehicles.
- 1.9 Diagnostic equipment. Tools used to diagnose engine performance.
- 1.10 Emission. The act of passing into the atmosphere an air contaminant or a gas stream which contains, or may contain, an air contaminant; or the material passed to the atmosphere.
- 1.11 Established place of business. (1) the permanent structure owned either in fee or leased with sufficient space to test, inspect, or adjust, if needed, one or more motor vehicles for which a certificate of compliance or evidence of compliance may be issued; and (2) large enough to accommodate the office or offices of an authorized station to provide a safe place to keep the books, certificates of compliance, and all other records of this authorized station, at which site or location the principal portion of such licensee's business shall be open to inspection during usual business hours by any authorized agent of the Department of Motor Vehicles.

- 1.12 Evidence of compliance, as defined in subsection 3 of Chapter 445.610 of NRS, includes a certificate issued when a motor vehicle has been inspected and (a) has the required equipment; or (b) does not meet the emission control requirements after the repairs have been made and the motor vehicle is exempted by the provisions of Article 3.14.2 or Article 3.14.3.
- 1.13 Exhaust emissions. Air contaminants emitted into the atmosphere from any opening downstream from the exhaust ports of a motor vehicle engine.
- 1.14 Exhaust gas analyzer. A device for sensing the amount of air contaminants in the exhaust emissions of a motor vehicle.
- 1.15 Fleet owner. An owner or lessee of three or more motor vehicles.
- 1.16 Fleet station, as defined in subsection 4 of Chapter 445.610 of NRS, means a facility which is licensed by the Department to conduct inspections of the motor vehicles of qualified owners or lessees.
- 1.17 Gross vehicle weight. The manufacturer's gross weight rating for the individual motor vehicle.
- 1.18 Heavy-duty motor vehicle. A gasoline fueled motor vehicle whose GVW is greater than 2,721 kilograms (6,000 pounds).
- 1.19 Hydrocarbons. A family of compounds containing carbon and hydrogen in various combinations, found especially in fossil fuels.
- 1.20 Inspection/Maintenance. A strategy to reduce emissions from in-use motor vehicles by identifying vehicles that need emissions-related maintenance and requiring that such maintenance be performed.
- 1.21 Light-duty motor vehicle. A passenger car or passenger car derivative capable of seating 12 persons or less and having a GVW rating of 2,721 kilograms (6,000 pounds) or less; or a motor vehicle designed primarily for the transportation of property, or the derivation of such a vehicle, having a GVW rating of 2,721 kilograms (6,000 pounds) or less.
- 1.22 Local air pollution control agency. Any city, county, or district air pollution control agency approved by the Commission.
- 1.23 Model year of vehicle. The production period of new motor vehicles designated by the calendar year in which such period ends. If the manufacturer does not designate a production period, the model year with respect to such vehicles shall mean the 12 month period beginning January of the year in which production begins.
- 1.24 Motor vehicle, as defined in subsection 5 of Chapter 445 of NRS, means every self-propelled vehicle in, upon, or by which any person or property is, or may be, transported or drawn upon a public highway, except devices moved by human or animal power or used exclusively upon stationary rails.

- 1.25 New motor vehicle. A motor vehicle that has never been registered with the Department, and has never been registered with the appropriate agency of authority of any other state, the District of Columbia, any territory or possession of the United States or foreign state, province, or country.
- 1.26 Nitrogen oxides. A gas formed in great part from atmospheric nitrogen and oxygen when combustion takes place under high temperature and high pressure, as in internal combustion engines. All oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.
- 1.27 Opacity. The property of a substance tending to obscure vision and measured in terms of percent obscuration. The relationship between opacity and Ringelmann number is approximately equal to the following in shades of white to gray.

Opacity (Percent)	Ringelmann Number
20.	1
40.	2
60.	3
80.	4
100.	5

- 1.28 Person. The State of Nevada, any individual, group of individuals, partnership, firm, company, corporation, association, trust, estate, political subdivision, administrative agency, public or quasi-public corporation, or other legal entity.
- 1.29 Registered owner. An individual, firm, corporation, or association whose name appears in the files of the motor vehicle registration division of the Department of Motor Vehicles as the person to whom the motor vehicle is registered.
- 1.30 Ringelmann chart. The chart published by the U.S. Bureau of Mines, which illustrates graduated shades of gray to black, for use in estimating the light obscuring capacity of smoke.
- 1.31 Smoke. Small particles consisting predominantly, but not exclusively, of carbon, ash, or other combustible material, resulting from incomplete combustion.
- 1.32 Special mobile equipment. Every motor vehicle not designed or used primarily for the transportation of persons or property and only incidentally operated or moved upon a paved roadway.
- 1.33 Standard. A standard of performance proposed or promulgated under these regulations.
- 1.34 Tampering. Rendering inoperative, or intentional misadjustment of any motor vehicle device or element of design intended to control exhaust emissions.

- 1.35 Water. Visible mist or condensed water vapor.
- 1.36 Used motor vehicle. A motor vehicle that has been registered with the Department, or has been registered with the appropriate agency of authority of any other state, the District of Columbia, or any territory or possession of the United States or foreign state, province, or country.
- 1.37 Waiver. A document which would permit registration of a vehicle that does not meet the emission standard as set forth by the State Environmental Commission, and is issued only by the Department of Motor Vehicles, which shall expire one year from the date of issuance.

1.38 The abbreviations used in these regulations have the following meanings:

- °C - degree celsius (centigrade)
- CO - carbon monoxide
- GVW - gross vehicle weight
- HC - hydrocarbons
- kg - kilogram (s)
- lb - pound (s)
- NO_x - nitrogen oxides
- ppm - parts per million

been accepted as a portion of the solution to resolving air pollution problems. The program is not overly burdened with bureaucracy, yet has sufficient control elements to assure adequate consumer protection. The Environmental Commission believes that the program, when expanded to annual inspection of all light duty vehicles, will be reasonably accepted by the citizens of Nevada.