

## PERFORMANCE PLAN

### I/M PROGRAM

#### I. INTRODUCTION

Vehicle emissions are responsible for the majority of the Ozone and Carbon Monoxide (CO) air contamination. They also produce Nitrous Oxides which, in the presence of sunlight, react with Hydrocarbons (HC) to produce photochemical smog. Photochemical Smog, containing significant amounts of Ozone, is a powerful oxidant which causes irritation to the lungs, particularly those of young children and the elderly. It also causes deterioration of paint, tires, and other material. In the past, Salt Lake County has exceeded the Environmental Protection Agency (EPA) air quality standards for Ozone and CO; and, beginning in April 1984, was required to implement a Vehicle Emission Inspection/Maintenance (I/M) Program. This program has significantly reduced air pollution levels by requiring annual inspection of in-use motor vehicles and by requiring emission related adjustments/repairs for those vehicles that fail to meet prescribed standards.

In the beginning, the I/M Program was plagued with low fail rates which, to a large extent, were caused by mechanics pretuning, or screening and repairing the vehicles, prior to performing the actual inspection. Beginning in July 1992, the I/M Program required stations to use an automated data collection system (Computer analyzers). This has resulted in the recovery of significant amounts of emission reduction data which was previously lost. This has resulted in a program which is much more acceptable to the EPA.

#### II. MISSION STATEMENT AND GOALS AND OBJECTIVES

The mission of the I/M Program is to attain the EPA ambient air quality standards by reducing the amount of air pollution from motor vehicles.

The goals and objectives of the program are:

a. Identify those vehicles which exceed the emission standards by requiring annual inspection of all motor vehicles registered in Salt Lake County (except those listed as exempt in the I/M Program Regulations).

b. Require emission related repairs, by competent mechanics, of those vehicles which fail to attain the emission standards.

c. Insure fair and accurate emission inspections by routinely auditing each I/M station. Any discrepancies will be resolved with the station manager.

d. Upgrade the I/M Mechanic training program by providing later technology vehicle repair courses subsidized by funds generated through vehicle inspection revenue.

e. Maintain I/M Program integrity through undercover audits and the investigation of customer complaints. Offenders will be subject to penalty according to a schedule contained in the I/M Program Regulations.

f. Monitor I/M Mechanic knowledge and skill levels through annual recertification written and practical examinations. Any deficiencies noted will result in the mandatory retraining of that mechanic through refresher courses.

g. Inform the public through pamphlets, newspapers, television, and radio of all information necessary to gain their support for the I/M Program.

h. Provide a facility which will provide free testing and referee capability for disputes which arise when two I/M Stations provide different test results.

i. Coordinate with other Utah I/M Programs to allow, as much as possible, the standardization of these programs.

j. Continually monitor procedures to identify problems and upgrade techniques.

### III. PRIORITIES FOR THE PROGRAM

a. Establish a computer data base for the I/M Program which can be used to evaluate effectiveness and identify problem areas.

b. Coordinate with the Salt Lake Community College to provide upgrade later technology vehicle repair training to deserving I/M Mechanics; which training will be subsidized by the I/M Program.

c. Obtain computer equipment and train auditors to retrieve data from I/M Station audits. Also, provide training on the evaluation of retrieved data.

d. Complete a "So you failed the emissions test" pamphlet to provide to vehicle owners that do not meet the emission standards.

e. Upgrade the computer programs in the Utah 91 Analyzers to eliminate problems identified since these programs were implemented.

f. Obtain different 1984 and newer undercover vehicles to use in evaluating tampering checks by I/M Mechanics.

g. Complete a computer program to identify people who abuse/misuse the out of state exemption.

h. Incorporate a Diesel I/M Program that will identify diesel vehicles that exceed the standard and thus contribute to the PM10 problem.

#### IV. PROGRAM ORGANIZATION

The Bureau of Air Pollution Control is over the I/M Program. There is a Bureau Director who is responsible for the overall operations. There are two Air Pollution Control Supervisors, one over 5 field auditors (Air Pollution Control Specialists No. 22) and the other over four Air Pollution Control Specialists for training, air quality investigations, undercover audits, and data. The Air Pollution Control Specialist for training is responsible for the 24 hour I/M Mechanic Training Course, and the Air Pollution Control Specialist for the undercover program is responsible for three part time undercover auditors. There are two full time secretaries involved with the I/M Program, one for the Bureau Director and one for the Air Pollution Control Supervisor involved for training, undercover audits, air quality inspections and data.

#### V. PROGRAM FUNCTIONS

##### A. What is done?

1. I/M Program Station Audits: Each month each field auditor visits their assigned I/M Stations and checks to insure that the station is conforming to the I/M Program Regulations. Any discrepancy is noted on the audit report and a suspense is established as to when the problem must be resolved. Certificates are accounted for and a review is made of past performance using the audit menu of the Utah 91 Computer. Auditors visit approximately 340 I/M Station each month. The Air Pollution Control Specialist over the undercover program performs audits on all fleet I/M Stations (approximately 20).

2. Train/Certify I/M Mechanics: Approximately 18 courses are held each year to train mechanics to perform emissions tests. The initial course is taught in the evenings from 6:00 to 10:00 P.M. and lasts for 24 hours. After completion of this course, field auditors visit the station where the mechanic is employed and have him perform a practical test demonstrating proficiency in testing/adjustment procedures. After the I/M Mechanic is certified, he is required to recertify each year through written and practical examinations. This insures that he is still competent to perform fair and accurate inspection; and, that he still understands the basic aspects of the I/M Program Rules and Regulations.

3. Evaluate I/M Station Performance: Each I/M Station maintains a data disc in their computer that periodically is replaced. This disc is given to the Air Pollution Control Supervisor for processing. He evaluates the data and enters it into a data base for review. Any unusual information that indicates the station is not performing according to the

regulations is brought to the attention of the Bureau Director. If applicable, the mechanic(s) and I/M Station Manager is brought it for a hearing to determine if any violations have occurred. If so, penalties are assessed commensurate with violation.

4. Investigate Complaints: Any reported violation to the I/M Program Rules and Regulations is investigated in a timely manner. The field auditor, or supervisor, visits the station and records information regarding the alleged violation. The evidence is then reviewed and a determination made as to what happened and whether or not a violation occurred. If so, the auditor, or supervisor, recommends to the Bureau Director what the findings are and recommended penalty, if appropriate.

5. Train/Retrain I/M Mechanics: The Air Pollution Control Specialist over training schedules applicants who have passed a precourse screening examination for the 24 hour I/M Mechanic Training Course. Each field auditor and their supervisor, assist in teaching laboratories involving emission testing and adjustment/repair procedures which takes approximately 8 hours. The field auditors and their supervisor also teach a 4 hour refresher course covering information contained in the recertification examination. The recertification examination cover questions which cover misunderstandings and deficiencies revealed during routine audits. The annual written examination is used as an evaluation and retraining device as missed questions are reviewed providing that the mechanic did not miss enough to qualify him for refresher training.

6. Issue Certificates of Waiver: The Air Pollution Control Specialist involved with training also is responsible to issue Certificates of Waiver to qualified vehicles. During periods of high demand, he is assisted by field auditors and their supervisor. They review the paperwork to insure that it is in order and then complete the certificate for the vehicle owner. This includes vehicles with engine changes that were allowed to meet standards according to the year of the engine rather than the year of the vehicle.

7. Test Public Vehicles: The Vehicle Emission Technical Center offers free public checks for anyone who desires to know if their vehicle will meet the emission standards. This function is usually performed by the Air Pollution Control Specialist over training; however, he is usually assisted by other field auditors that routinely assist in the afternoons. Also, some vehicles (BMW's, Volvo's, and Peugeot's) require special testing procedures. These must be brought to the Technical Center and tested there by the individuals mentioned above.

8. Public Information: All personnel assigned to the I/M Program spend a significant amount of time answering public inquiries concerning the I/M Program. This includes questions from certified I/M Mechanics and I/M Station owners.

9. Conduct Undercover Audits: Each I/M Station is visited at least once a year with an undercover vehicle set up to check the testing/repair procedures of the I/M Mechanic(s). Suspected problem stations are targeted more frequently if a routine audit or complaint warrants an investigation of improprieties. Recently, the safety inspection has been included with the undercover audit to avoid tipping off the station that an undercover audit is taking place.

B. Requirements/standards.

The Bureau is responsible for enforcing Health Regulation No. 22, governing the I/M Program.

C. Inspection Reports.

Inspection reports are generated by the Utah 91 Computer and completed during each audit. Complaint forms (Form EH051/5-84) are completed by the investigating auditor or supervisor. All reports and records involving the I/M Program are retained for 5 years.

## UTAH 91 STATION SET UP PROCEDURES

### PRIOR TO VISITING THE STATION:

1. Obtain audit report printout.
2. Review station folder and annotate on the audit report Certificates and inspection reports not accounted for.
3. Call station and find out how many old certificates they have left.
4. Obtain the same number of new certificates (to nearest 100) from Connie and record the new certificate numbers after issued in the remarks section of the audit report.
5. Review previous audits to insure that all certificates have been accounted for; or, if there are any outstanding discrepancies that need to be followed up on.
6. Check mechanic's numbers to determine if they are the same as those on the list sent to the safety inspection program. If not, have Connie type up new certificates with new numbers.
7. Check orientation schedule to verify that mechanics have attended this course. If not, they will be locked out of the computer until they have attended.

### AT STATION:

1. Review mechanic certificates and list name and expiration date of each mechanic on audit report.
2. Access audit menu (copy attached) of the analyzer and review items 1, 2, 15, and 16. If there is any information, get a printout to establish a reference for future audits. Access item 5 (gas audit) and introduce audit gas into the probe. When the readings stabilize, print the page and record the emission standard for HC and CO for the audit gas as calculated by multiplying the P. E. F. by the propane value on the calibration gas cylinder. Insure that the readings are within 5% of audit gas.
3. Access item 6 and check and enter (if necessary) the appropriate information.
4. Access item 9 and insure that station lockout is off.
5. Return to main menu and load new certificates. Record the numbers in the analyzer computer. Be sure to have responsible individual present so that you can train them on the loading procedures.
6. Access county inspection menu and insure that the analyzer

will allow the mechanic to proceed with a emission test.

7. Review and pickup any left over inspection forms from the last audit. If station has been using "print screen" use these to account for the certificates issued since the last audit.
8. Check to determine that station has fuel neck restrictor gauge and other required equipment.
9. Verify that station has latest copy of the technical bulletin and annotate this on the inspection form if it has not been documented before.