

# APPENDIX L

## **Registration Denial System Requirements Definition**

**April 30, 1997**

Prepared by: Barry W. Pugh and  
Edited by: Cheryl Roe - DMV

Version 1.1

## Section I , Management Summary

### Goals and Objectives

#### **Improved Customer Service, Convenience and Control:**

1. Implement Bar Coding interface to the Title and Registration function.
2. Design an interface between Registration Renewal and Titles to the Registration Denial system that will enable the State of Delaware to obtain an improved rating though Cleaner Air.
3. Design a Temporary tag tracking system.
4. Design an automated Waiver/Override system.
5. Design a Repair Facility and Repair Technician tracking system.
6. Design improved data inquiry capabilities and distribute to necessary customers.

#### **Improved Personnel Training and System On-Line Help:**

7. On-Line Help Training within each of the applications.
8. On-Line Training through specialized system testing.
9. Improved Operating Procedures.

#### **Improved System Security and Flexibility:**

1. System Security
  - Override system parameter changes based on functionality.
  - Override system parameter changes based on specific fields.
  - Improved tracking of transactions, personnel and dates.
  - Improved reporting to DMV management.
2. Provide additional facilities for trouble shooting and problem investigation capabilities.

#### **Flexibility and Responsiveness to External Requirements:**

1. Ability to create and maintain the registration denial tables.
2. Maintain tracking history information for the following functions:
  - Temporary and Window Sticker inventory
  - Temporary Tag history
  - Window Sticker history
  - Vehicle Inspection history
  - Lane Inspector history
  - Waiver history
  - Override history

- Repair Facility and Repair Technical history
- Registration Notices
- External Agency history
- Audit request history

### **Improved Business Control Over the System:**

#### 1. Operators:

- Tighter control over the issuance of registration notices, vehicle inspections, registration renewal, title and registration denial, temporary tags and waivers.
- Improved controls over the issuance of window stickers.
- Better customer service through the offering of inspection overrides and the tracking of external agency vehicle inspections.
- Provide for the tracking of Certification of all Lane Inspectors and the Re-Certification.

#### 1. Transactions:

- Add on-line Waiver, Override, Vehicle Inspections, Temporary tags and Window Stickers.

#### 2. Auditing:

- Reduction of the number of vehicles being renewed without an inspection.
- Reduction of the number of multiple temporary tags being issued to the same vehicle owners.
- Identification of missing temporary tags and window stickers from DMV inventory.
- Decrease the number of false inspection readings.
- Decrease the number of external agency vehicles traveling the Delaware highways without receiving vehicle inspections.
- Increase inspection accountability through more accurate vehicle inspection testing.
- Increase reporting accuracy to the Environmental Protection Agency.

### **Improved System Functionality:**

#### 1. Title and Registration Denial:

- Improved editing on title and registration application.
- Design interface between vehicle inspections, temporary tags and waivers.

#### 2. Linkage to mainframe MVALS database:

- Information transfer from vehicle inspection database.
- Information transfer from temporary tags, window stickers and the title and registration database.

- Information transfer of registration denial data to DNREC and EPA.
  - Control the issuance of temporary tags through lot range controls.
  - Control the temporary tag inventory through the delivery and distribution of temporary tags.
1. Bar Code interface on title and registration cards.
  2. Automation and change to reports:
    - Provide on-line tracking of inspectors by location, date and time.
    - Provide an inventory control system enabling the Division to review temporary tags and window stickers.
    - Provide Title and Registration clerks the ability to review active and historical inspection results on-line.
    - Provide an interface to the Title and Registration application to effectively associate a vehicle inspection with a specific registration and deny access until the vehicle has been successfully approved.
    - Provide inspector information of a specific registration in association with a vehicle inspection.
    - Provide on-line reporting activity by specific testing, location, time and inspector on a weekly, monthly and fiscal basis.
    - Provide the ability to track vehicle repairs and associate them with the proper vehicle registration.
    - Track overrides that are associated with a vehicle inspection.
    - Provide on-line access to inspection results data to the Department of Natural Resources and Environmental Control.
    - Provide the ability to select specific inspection information and print specific analysis reports.
    - Provide the ability to create on-line reports to EPA on a weekly, monthly and fiscal basis.
    - Provide customers with notification of inspection 90 days prior to the expiration date.
  1. External Agency Vehicle Identification
    - Provide the ability to identify/track external agency vehicles being operated in Delaware.
    - Provide the ability to ensure the external agency vehicles have complied with the Federal standards.
    - Provide the ability to automatically send and receive vehicle inspection information.
    - Provide the ability to report inspection result to the Environmental Protection Agency.

## Project Scope

This document does not include portions of the project already in progress or

being addressed by other selected DMV vendors such as Environmental Systems Products, Inc. (ESP). It centers on the mainframe application development and maintenance that must be completed to support the requirements of the project. It assumes the vehicle inspection information to be correct and residing in the databases already established for the Registration Denial project and that ESP has provided OIS with complete and detailed technical documentation of the database content, data manipulation, calculations and report specifications. The State Implementation Plan (SIP) for the Enhanced Inspection and Maintenance Program prepared by the Delaware Department of Natural Resources and Environmental Control (DNREC) is the basis of this scope. The SIP is scheduled to be submitted to the Federal Environmental Protection Agency (EPA) in January 1997 for review and approval. *This scope most certainly will be subject to change based upon the EPA review and their findings.*

### **Background:**

Motor vehicle inspection and maintenance programs are an integral part of the effort to reduce mobile source air pollution. Of all highway vehicles it appears that, passenger cars and light trucks emit most of the vehicle-related pollutants. Although progress has been made in the reduction of these pollutants, the continuous increase in vehicle miles traveled on the highways has offset much of the technological progress thus far. Under the Clear Air Act, the Federal Environmental Protection Agency is attempting to achieve major emission reductions from these transportation sources. Until the development and commercialization of cleaner burning engines and fuels are successful, the main source of air pollution reduction will come from the proper maintenance of the vehicles during customer use.

To put the inspection program in perspective, it is important to understand that today's motor vehicles are totally dependent upon properly functioning emission controls to keep pollution levels low. Minor malfunctions in the emission control system can increase emissions significantly. Since these emissions may not be noticeable and the subsequent malfunctions do not necessarily affect vehicle drive ability, it is difficult to detect which vehicles fall into this category. The new inspection equipment and programming provided by Environmental System Products (ESP) will capture that important data and record it on the mainframe for access by the registration renewal and vehicle titling programs. Those systems will verify the results and permit vehicles passing the inspection tests to proceed through the DMV system without change. Failing vehicles will require repair and re-testing until they pass or receive a vehicle waiver from DMV management.

### **Project Scope:**

DMV has suggested that the project be designed and implemented in phases. Phasing the project installation makes a great deal of sense since many of the components of the entire project are still not totally defined. DMV's recommendation is:

#### **Phase I:**

- Create database images to store the ESP information.

- Test ESP system and database content.
- Analyze database content and verify accuracy.
- Install Phase I into production and begin accumulating EPA information.

**Phase II:**

- Design, code and test Registration Renewal Denial.
- Design, code and test a new (summary) Vehicle Waiver system.
- Design, code and test a new Inspection Results Override system.
- Design, code and test new rules for Registration and Title Denial.
- Design, code and test a new temporary tag extension tracking system.
- Design, code and test preliminary DMV management reports.
- Test on-line access to MVALS by DNREC personnel at their site locations.
- Add bar coding to the registration card print.
- Implement Phase II into production.

**Phase III:**

- Design, code and test Title Denial.
- Design, code and test inspection results database “time remaining” routines for:
  - Registration Renewal Denial.
  - Registration Renewal Notices.
  - Title Denial.
- Add bar coding to the Title form.
- Implement Phase III into production.

**Phase IV:**

- Design, code and test reporting for DNREC and EPA auditing.
- Test on-line access to MVALS reports by DNREC personnel at their site locations.
- Design, code and test a new inventory control system for window stickers.
- Implement Phase IV into production.

**Phase V:**

- Design, code and test DAFB vehicle tracking system.
- Design, code and test Federal vehicle tracking system. (PV, PO, etc.)
- Implement Phase V into production.

**Phase VI:**

- Design, code and test a new Certified Repair Technicians system.
- Design, code and test a new Certified Lane Technicians system.
- Design, code and test a new (detail) Waiver system.
- Create special files and/or downloads and reports to assist the DAFB in their conversion efforts.
- Design, code and test the identification and reporting of covert vehicles.

**Phase I:**

The Registration Denial project centers around an automated vehicle inspection system (installed by ESP) and subsequent customer permission to title or renew a registration in the State of Delaware. The new ESP system will replace the need to issue inspection cards and the associated manual inspection card tracking systems currently in place. Instead, the new system will record the information results and data of a physical vehicle inspection in databases locally on the lane PC server and remotely at OIS on the IBM mainframe. The mainframe databases will be the final residence of the data and those databases will be used for all system decisions and reporting. That database information will be used by the MVALS programs to determine if the vehicle is in compliance with Federal and Delaware codes and laws governing legal vehicle registration. If the vehicle passes all of the inspection tests, it becomes eligible to legally travel Delaware roadways. Inspection results are related to the vehicle and applicable for 2 years.

The inspection results database and supporting databases must be mapped back to the reporting requirements of DMV management, DNREC and EPA in this phase to be absolutely positive all of the informational contents are present. Inconsistencies in the mapping may require modifications to the ESP data capture.

**Phase II:**

The vehicle will be rejected by MVALS if it does not pass all the inspection criteria. In this case, a temporary (60 day) tag may be issued to give the customer time to correct the detected problems with the vehicle. The design will incorporate tracking and reporting on the temporary tags after the time of issuance. When a vehicle is rejected, the customer may elect to repair the deficiency and attempt to pass the inspection again. Vehicle repairs may be made by a Certified Technician or by the customer. If the vehicle continues to fail the inspection but does not decrease measured emissions by set percentage guidelines, DMV may elect to issue an inspection waiver based upon established rules, limitations and customer expenditure amounts. A vehicle summary of waiver expenditure information for this inspection period must be recorded and tracked in a new database by vehicle. This new database must be read during the registration renewal process, for all failing vehicles, to be sure a current record exists prior to allowing the vehicle to be legally registered. A vehicle waiver overrides the most recent inspection result. It is related to a vehicle and effective for 2 years. The waiver and inspection results databases must be accessible to DNREC personnel for inquires using MVALS.

At times DMV management may elect to override the results of an inspection and permit the vehicle legal registration without further inspections by the lane technicians. The system must permit management to override the vehicle inspection result record with a passing grade. When an override is granted, the system must record the new (overridden) information and track who, when and why the override was given. The new record will be stored in the inspection results database along with information about the operator, date and time. An override reason must be supplied before the record is written to the database. Override capability and permissible override categories must be

controlled by an external means to permit DMV management to modify who can override inspection results and what can be modified.

Upon a successful inspection or if the results were overridden or a waiver is issued, a registration renewal card containing a PDF417 bar code and a new window sticker will be issued (when implemented) upon payment of fees by the customer.

**Phase III:**

When a vehicle is titled in the State of Delaware, it must also comply with safety and emission tests prior to becoming registered. The titling system must be modified to access the new inspection results database to make the appropriate decisions. Vehicle titling must be modified to parallel the upgrades installed into the registration renewal system. It must apply all of the same rules, waiver conditions and override capabilities. A title containing a PDF417 bar code and a new window sticker will be issued (when implemented) upon payment of fees by the customer.

After a vehicle has been renewed or titled and successfully passed inspection, or granted a waiver, the customer has the option to choose a renewal period of 6 months, 1 year or 2 years. Since inspection results and waivers are valid for 2 years, the system must determine the amount of time remaining on the inspection based upon the renewal period chosen by the customer. This algorithm must be incorporated in the registration renewal, registration renewal notification and title systems.

**Phase IV:**

DMV management, DNREC and the Federal EPA require reports to be generated from the data captured on the inspection results database. DMV management requires specific counts of vehicles, the types of tests that are performed and the results and percentages of the testing. They will also require management reports and online inquiries to monitor the inspection system performance, database contents and results. DNREC and the Federal EPA reporting requirements are normally completed on an annual arrangement and require reports concerning; the numbers and types of tests, vehicle breakdowns by make and year, first test and re-test results, information about the testing facilities and the results of both covert and overt audits.

DNREC must be permitted access to the inspection results and waiver databases through an on-line function that will be created within the MVALS application. This function will allow DNREC to review the inspection results and (summary) waiver information on all vehicles. To insure DMV is in compliance with the Federal regulations, DNREC will be given the capability to order printed reports on-line from MVALS concerning the inspection results and waiver information.

Tracking and re-calling certified lane technicians is definitely going to be another new responsibility of the Division. DMV must track all State inspectors requiring testing and re-certification in order to comply with the new Federal EPA regulations. Reports on this activity must be submitted to the Federal EPA on an annual basis.

**Phase V:**

In addition to the normal vehicle registration activity occurring for Delaware citizens, with the new EPA requirements, DMV must inspect approximately 10,000 additional vehicles owned by; the (non-military) Federal Government, the military and military personnel from the Dover Air Force base (DAFB). The majority of these vehicle inspections will be on personally owned vehicles (POV) from the DAFB. The DAFB presents a unique opportunity to DMV because POV's are normally not registered in Delaware. Delaware does not require out of state vehicles to be inspected. However, with the new federal regulations, DMV is required to ensure that vehicles residing within the jurisdiction are in compliance with the state-regulated inspection program. This now includes all non-military Federally owned vehicles and vehicles stationed at federal military sites throughout the state even if they are not registered in Delaware. Notifying, tracking and re-calling (test failures) POV's will require cooperation and coordination with DAFB motor pool and security personnel. Additional software and databases may be required to assist in a successful implementation.

#### **Phase VI:**

As stated previously, the State Implementation Plan (SIP) for the Enhanced Inspection and Maintenance Program prepared by the Delaware Department of Natural Resources and Environmental Control (DNREC) is the basis of this scope. The SIP is scheduled to be submitted to the Federal EPA in January 1997 for review and approval. This phase is subject to change based upon the EPA review and their findings. The following tasks are not definite requirements but may become so after the EPA has made their final decision.

Certified repair technician information is currently being gathered and retained by the Delaware Technical Community College. DMV would like access to the information to enable them to incorporate the data into the motor vehicle inspection reports that will be produced on failed inspections. Tracking reports will include the number of vehicles passing and failing by Certified Technician and the repairs performed by the technician on each vehicle. DMV may require the information to be downloaded from DTCC or if that is not possible, they may have need to maintain the information in duplicity.

When a vehicle is titled or renewed in the State of Delaware, the Division must comply with the security requirements established by the EPA. It requires the Division to track and report all stickers issued to vehicles that have passed the inspection program. It will be necessary to track a history of these documents when being issued, re-issued and/or replaced.

In Phase II, summary waiver information is going to be stored in a new database to assist in tracking vehicle waivers that are issued. It is planned that DNREC will retain the detail backup paperwork and copies necessary to comply with the Federal regulations. If DNREC requires DMV to record the details of a waiver, the system must be modified to comply. Waiver details would include recording the place of purchase, the line items purchased for repair and the individual amounts of each.

If additional programming or design support is required to assist the DAFB or

other Federal agencies in meeting their schedules and requirements, DMV may supply resources to assist in the effort. The agencies requiring assistance may require reports, file downloads and programming expertise to expeditiously complete their commitment.

DNREC is currently handling all assignments and identification of covert vehicles. If they require assistance in this effort or require DMV to specially track them in the MVALS system, additional design and programming will be required. Reports on the activity of the covert vehicles would also be required.

**Exclusions:**

Not included in the scope of this project are:

- Data capture, recording, tracking and reporting of repair facilities.
- Special demarcation of Kent and Sussex county boundaries.
- Design or software programming to handle identification of covert and overt vehicles.
- Purchase of software for bar code printing.
- Covert vehicle identification and reporting issues.
- Vehicle manufacture notification requirements.

I accept this Project Scope as written and agree on the contents within.

Approved by: \_\_\_\_\_  
**Michael Shahan**  
**Director of Motor Vehicles**

Approved by: \_\_\_\_\_  
**Jack Eanes**  
**DMV Chief of Vehicle Service**

Approved by: \_\_\_\_\_  
**Cheryal Roe**  
**DMV Systems Administrator**

Approved by: \_\_\_\_\_  
**John J. Nold**  
**Executive Director, OIS**

Prepared by: \_\_\_\_\_  
**Barry W. Pugh**  
**OIS Consultant, MicroTek Software**

## Management Overview

### Background

Motor vehicle inspection and maintenance programs are an integral part of the effort to reduce mobile-source air pollution. Of all highway vehicles, it appears that passenger cars and light trucks emit most of the vehicle-related pollutants. Although progress has been made in the reduction of these pollutants, the continuous increase in vehicle miles traveled on the highways has offset much of the technological progress thus far. Under the Clear Air Act, the Federal Environmental Protection Agency (EPA) is attempting to achieve major emission reductions from these transportation sources. Until the automotive manufacturers develop and commercialize cleaner-burning engines and fuels, the main source of air pollution reduction will derive from the proper maintenance of the vehicles during customer use. *The contents of this System Requirement Definition are subject to change based upon EPA review of the Delaware State Implementation Plan (SIP) and their findings.*

To put the inspection program in perspective, it is important to understand that today's motor vehicles are totally dependent upon properly functioning emission controls to keep pollution levels low. Minor malfunctions in the emission control system can increase emissions significantly. Since these emissions may not be noticeable and the subsequent malfunctions do not necessarily affect vehicle performance, it is difficult to detect which vehicles fall into this category. The new inspection equipment and programming provided by Environmental System Products (ESP) will capture that important inspection data and record it on the mainframe for access by the registration renewal and vehicle titling programs. Those systems will verify the results and permit vehicles passing the inspection tests to proceed through the DMV titling and registration systems without change. Failing vehicles will require repair and re-testing until they pass inspection or receive a vehicle waiver from DMV management. All subsequent action, beginning with the initial inspection test – such as re-test inspection results, waivers, and overrides – will be recorded by the system.

The Project Scope document refers to six implementation phases within the development process of this project. Those six phases translate into six high-level requirement specifications categories. It is important to understand that the six requirement categories do not all directly relate to the six installation phases. Part or all of each requirement category will be implemented to establish the six-phase approach for implementation. The categories defined in the System Requirements Definition document are:

- 1. System Control** - This section of the requirements document encompasses system rule file maintenance, new temporary tag and window sticker inventory file maintenance, and certified lane technician maintenance. All of the functions within this design category must be implemented before the system can become operational.

2. **Vehicle Inspection** - This corresponds to Phase I of the Project Scope and must be implemented in its entirety before other components may be installed that depend on the Inspection Result data produced. The requirements document refers to, but does not detail, the client/server system developed by ESP. Since this document was developed after the ESP design, it only addresses utilization of the data produced. Additional information regarding the design of the system can be located in the ESP design document.
3. **Vehicle Registration** - The requirements described under this section cover registration renewal, vehicle titling, temporary tag distribution, window sticker distribution, inspection result verification/handling, and vehicle repair tracking. All of the components in this section must be implemented before the system can go online. Registration renewal will be the first section to be implemented, with the title section to follow. To support either section, temporary tag distribution, window sticker distribution, and inspection result overrides and waivers must be installed. The certified repair facility and technician tracking components may be installed after the system becomes operational.
4. **External Agency** - External agencies are vehicles that are not registered with the State of Delaware. Examples of these are: Dover Air Force Base motor pools and civilian vehicles; Postal Service vehicles; Reserved Armed Forces vehicles; etc. Identification of these vehicles will not be as straightforward as the vehicles registered in Delaware because DMV does not keep records for them today. The Clean Air Act requires those vehicles to comply with the EPA emission standards as long as they continue to operate in Delaware. This section addresses the requirements and how to accomplish them. As each agency is introduced to the system, new program components may be required. Each agency may be processed differently than the previous, based upon their technical capabilities. DMV will strive to develop a standardized approach and demand adherence from all external agencies. The components described in this section are required before introducing the first external agency to the system.
5. **Audit Reporting** - Requirements for three auditing techniques have been identified: standard auditing reports and functions; special auditing functions; and auditing as required by DNREC. Auditing the system on a periodic basis – daily, weekly, etc. – is considered a standard procedure. Reports and screens will be programmed to run automatically for all of the standard auditing procedures. Special audits and DNREC (overt and covert) audits will be discussed and will permit flexibility in selection and formatting of the information. Registration Denial data transfer to local PCs will also be an option.
6. **Information Inquiry** - The components in this section represent additional inquiry functions required to view the new information. Three separate areas have been defined as requiring access to the information: DMV, the State Police, and DNREC. Each will share many of the same inquiry components with “information blocks” applied when information is required by one agency and not the other. System rules will be developed to control the information selection and screen displays. Portions of this section will be required as the initial system is installed. Advanced inquiry facilities will be identified and included as the detail system specifications are developed.

The following paragraphs supply additional detail in reference to the above system requirement categories. If more detail is required, please refer to Section II - Data Requirements and Section III - Process Requirements located later in this document.

## **System Control**

The requirements described in this section are designed to keep the inventory files and system rules updated and in control of the system. Currently there are five separate processes defined:

1. The Registration Denial Rule Maintenance process will permit DMV management to maintain all of the associated rules concerning the Registration Denial system. Rules pertain to system variables that actually “drive” the system decision-making process. Externalizing the rules permits more flexibility and better overall control of the system by DMV.
2. A Temporary Tag Inventory maintenance system will be developed to control the acquisition and distribution of all temporary tags. The maintenance system will allow control of and accounting for each temporary tag distributed by DMV. Control begins when new inventory is received. It will be tracked until the vehicle to which the tag was assigned is purged from the DMV files. The inventory and temporary tag history files will be closely related.
3. A Window Sticker inventory control system will permit similar control (as in the case of temporary tags) over the window stickers issued by DMV. The maintenance system will allow control of and accounting for each window sticker distributed by DMV. A vehicle window sticker history file will be incorporated with the present DMV title file.
4. The Certified Lane Technician maintenance system will allow DMV to track and record information about their lane technician employees. Information such as certification test results, re-certification results, and demographic data will be retained and reported.
5. The last new maintenance system planned will track Certified Repair Facilities and associated Certified Repair Technicians. The system will permit maintenance and reporting of repair facilities employing certified repair technicians and their certification test results.

## **Vehicle Inspection**

This section describes the physical vehicle inspection that normally occurs for every registered vehicle in Delaware. The process is completed prior to a vehicle being titled, and then (normally) every 2 years after for registration renewals. The entire process occurs at the inspection lane(s) and is conducted at various checkpoints within. The ESP system controls the events that occur during the inspection process

and helps ensure that each station checkpoint records the appropriate results. The results of each checkpoint test will be recorded and stored in the ESP station manager computer and then transmitted to the OIS mainframe in Dover, Delaware, for permanent storage and retention. ESP handles all pass and fail parameters, anti-tampering verification and recording, permissible limits of the test, and calculating the 10% reduction in emission gases from the initial inspection for waiver processing. ESP also issues the final pass or fail grade for the vehicle.

## **Vehicle Registration**

The normal DMV administrative “life cycle” of a vehicle is described in this section. It begins when the vehicle is purchased and titled in the State of Delaware. Under normal circumstances, a vehicle will undergo an inspection to initiate this process. However, most new vehicles purchased in the state are exempt from an initial inspection. During the vehicle “life cycle,” it may be issued a temporary tag, window sticker, or a waiver for emissions; or the inspection test results may be overridden by DMV management. As the next vehicle-registration renewal period nears, a registration renewal notice is printed and sent to the customer. That notice prompts the owner to bring the vehicle to DMV for an inspection and registration renewal. The process (Notice, Inspection, Renewal) continues as long as the vehicle ownership does not change and the vehicle remains in Delaware. The major new portions of the Vehicle Registration component for Registration Denial are:

### **Temporary Tags -**

Once a vehicle is issued a temporary tag, the paperwork flows into DMV for recordkeeping. A clerk will enter the temporary tag information into the computer using a new temporary tag data-entry program. The program will complete a stolen vehicle check as is currently done while adding a title. A record will be added to the Temporary Tag History file for that (X) tag number. That record will then be available for inquiry by DMV and law enforcement. It can be found by entering the VIN or the (X) temporary tag number. The record will remain linked to the vehicle by VIN until the vehicle is purged from the DMV files. As the record is being recorded in the Temporary Tag History file, the temporary tag number will be consumed from the Temporary Tag Inventory file. Temporary tags are not tracked by today’s system and will be valuable new information for DMV and law enforcement agencies. The introduction of this system will be completely new to DMV.

### **Window Stickers -**

After a vehicle is titled or renewed, it will be assigned a new window sticker. The current processes will be modified to assign the next available window sticker to the vehicle from the clerk’s inventory. As a safety precaution the clerk must enter the window sticker number, and the program will verify the number against the available window stickers in the clerk’s inventory. If the number is not found, a window sticker override will be permitted. A reason for the override must be supplied by the clerk. The program will consume the window sticker from the clerk’s inventory and add the information to the Window Sticker History file. The Window Sticker History will remain on the DMV files for a minimum of one inspection cycle. Replacement window sticker issuance and fee collection will be made available on the Cash Collection miscellaneous menu. Window sticker inventories, distribution, and

tracking are new processes to DMV.

### **Title Vehicle -**

Vehicle titling is required by law, and all vehicles owned by Delaware residents traveling the highways must be titled. The title function encompasses several functions today, such as adding, correcting, and transferring titles. All of the functions used by the title section will be affected by the changes being made for the Registration Denial project. Titling can only occur after the vehicle has passed all of the inspection tests required of the particular vehicle class. There are a few exceptions, such as the fact that a vehicle may be permitted an override (and pass) of a failed test by DMV management. Or, a vehicle may receive a waiver if it meets the vehicle repair expense limits and obtains a ten percent emission reduction measured from the initial test. A window sticker must also be issued to the vehicle.

The Correct Title function permits the title clerk to correct information on the Title file that may have been entered incorrectly during the title add function. New features must be included in the program to calculate the remaining time left on an inspection and restrict expiration date modification to the last day of that inspection. Additionally, extensions beyond that inspection date will not be permitted by the program without another inspection. The program will require the capability to assign a new window sticker without regard to inspection dates, although the Correct Title function for a tag change will not issue a new window sticker. The window sticker stays with the vehicle in all cases.

The Transfer Title function permits the title clerk to transfer vehicle title and associated information from one owner to another. Transfers occur anytime vehicle ownership changes for any reason. Expiration dates cannot be transferred to another vehicle. In all cases, a vehicle expiration date remains with the vehicle, not the tag.

The introduction of inspection result verification and handling, window sticker inventories and distribution, waivers, and overrides are new concepts that will be introduced to DMV with the installation of this system.

### **Waiver Process -**

This process allows a clerk, or DMV management, to store vehicle waiver repair information into the system for a specific vehicle. The system will record the waiver information and retain links to the Inspection Results, Title, and Certified Technician files. Those linked files will be used for tracking and reporting the effectiveness of repair technicians and the waiver information permitted by DMV. The waiver information will be validated by the Title and Registration Renewal systems. When present and within the confines of the rules set by DMV, the vehicle will be permitted to proceed through the system without a passing inspection record. Waivers may be entered directly from the Titles and Registration Renewal screens or through an administrative function. The repair facility and repair technician information completing the vehicle repairs must be present in their respective files before a waiver can be entered. The repair facility and technician information may only be modified by DMV supervisors and above. Recording and verifying this information via computer

is a completely new function to DMV.

#### **Override Function -**

This function will be used by DMV management (and selected supervisors) and permit them to perform four major functions against the Inspection Result file. It will allow:

1. Adding an Inspection Result record to the file. This will only be permitted when the ESP system is down and vehicle inspections revert back to the Bar 84 technique. This function will be extremely secure and verified each time a new entry is attempted.
2. Modification of the Inspection Result content. This is the function normally known as an override. The function will be restricted to particular DMV personnel, and even those permitted will have data-level restrictions. Overrides will be permitted on a case-by-case level and normally restricted to only safety item failures.
3. Transferring Inspection Results from one registration to another. This option will be used when the lane technician makes a mistake while entering the vehicle identification information. When a mistake has been made, the inspection results will be logged under the wrong registration. The customer will not be permitted to continue through the process unless the mistake is rectified. The system will track the transfer (from and to) information and create another record for the proper vehicle. The original inspection record will not be included in any statistical reporting.
4. Deleting individual Inspection Result records from the file. This is a very rarely used, but required, function to delete an inspection result record from the file. This option will be used when an inspection result record was created (Option #1 above) under the wrong registration. The record will be marked for deletion, but it will not be physically deleted from the file until the proper authorization is given by DMV management. This function will be highly secured and available only to those that absolutely require the function.

Daily auditing reports will be produced by the system and distributed to DMV management for all of the above functions. All of the functions listed above are completely new to DMV.

#### **Renewal Notice -**

This process will be modified to produce additional customer notices for one-year renewal and State Police inspection requests. It will examine the Titles and Inspection Results files to identify the vehicles whose registrations are about to expire. It will determine if the vehicle requires an inspection or just a registration renewal. It will also find vehicles that have been requested to report to DMV for a special inspection by the State Police. While processing the selected records, it will determine if a vehicle must receive an inspection or if the current inspection is valid for the vehicle registration renewal. Vehicles that have been inspected within the last year may renew their registration for one additional year without another inspection. All the requirements of the owner to obtain a registration renewal will be printed on the renewal notice. The two-year inspection rule applies in all cases and will

be printed on the notice. The reporting changes are modifications to the current process. Adding a maintenance program to update vehicles stopped by the State Police is a new requirement of DMV.

### **Registration Renewal -**

The registration renewal process will be modified to verify the inspection results file before permitting a renewal. As in the title process, a renewal will only occur after the vehicle has passed all of the inspection tests required for a particular vehicle class, or it was permitted an override (and pass) of a failed inspection, or a waiver was issued. A waiver requires proof of repair expenses and a ten percent emission reduction from the initial inspection before a renewal may be issued. The renewal process updates the current title record in the Title file. Once the title record is updated, the system prints a 2-D bar code on the updated registration card and issues the next available window sticker from the clerk's inventory. If the vehicle does not pass the inspection, a temporary tag will be issued, without a window sticker, by the registration clerk. Temporary tag issuance will be accessible through the renewal screen. As with the title functions, inspection result verification and handling, window sticker and temporary tag inventories, waivers, and overrides are new concepts to the registration clerks.

### **External Agency (Unregistered Vehicles)**

This process is designed to permit DMV to identify and test vehicles stationed in Delaware that are owned by external agencies and not registered in Delaware (such as those owned by the DAFB, the postal service, and other federal motor pools). Those vehicles must be identified and tested to be sure they are in compliance with the federal emission standards. It is the responsibility of the individual agency to perform the follow-up to ensure that all vehicles are, and remain, in compliance. The system design for this function will incorporate:

- automatically receiving and loading the vehicle and owner information into a database that will be used by ESP;
- using the information to inspect and test the vehicle (ESP);
- recording the test results and subsequent re-test results;
- providing the Inspection Results data to the external agency in either a report or an online inquiry so that notices may be forwarded by the agency;
- and reporting vehicles inspected and statistical information.

The introduction of this system will be completely new to DMV.

### **Audit Reporting**

This process will match the Title, Inspection Result, and at times the Vehicle Audit Information files and create reports about the information. Specific calculations and formats will be determined as the design process continues. External rules will be used to control the processing. All of the following components are new to DMV:

**Standard Audit Reports** - The reports will be standard reports that will run unattended periodically and produce the necessary reporting and audit information. The reports will be designed in conjunction with DMV management to support the information required by DNREC and the EPA. Some of the reports will be written as part of the Phase II installation since EPA will require reports before the system will be fully installed.

**Specialized Audit Reports** - The reports will be specialized (by data selection, not report format or content) processes that will run to produce the necessary reporting and audit information. Special reports may be produced from the Inspection Result, Repair Facility, Technician, Waiver, and inventory files. All reports will be designed with DMV management to support any special requirements of DNREC and the EPA.

**Covert Audit Reports** - These reports, like the specialized reports, will be specific processes (by data selection, not report format or content) that will run to produce the necessary reporting and audit information. An automated process will be created to allow DNREC the ability to access and report the contents of the Title and Inspection Result files. The audit function is a direct responsibility of DNREC. Additional functionality will be created as DNREC defines the requirements. All reports will be designed with DNREC management in support of the information they require.

## **Information Inquiry**

There will be a great deal of new information created by the Registration Denial system. That new information will be accessible by DMV, the State Police, and DNREC, and they will require new systems to permit online inquiries into the data. Modifications will also be required to current systems to provide access to the data without writing new inquiry systems. Access to allow specific personnel permission to view the information will be granted based on security levels and new rules set up in the system. Changes include modification to the current Delaware State Police (CICS) processes to permit inquiry and viewing of the new data captured by DMV. The current DMV inquiry systems will be modified to access the new data and display the information for the requester.