Introduction
Pursuant to RSMo. 643.337.2, the Missouri Department of Natural Resources and the Missouri State Highway Patrol are issuing a joint annual report to the General Assembly on the status of the oversight measures implemented for the decentralized Inspection/Maintenance program – the Gateway Vehicle Inspection Program (GVIP). This report summarizes GVIP compliance and incidents of fraud discovered during the 2010 Fiscal Year (July 1, 2009-June 30, 2010). This report also provides our joint recommendations for oversight improvements to the GVIP.

Background
The GVIP is a federally required air pollution control strategy in the St. Louis ozone nonattainment area comprised of Franklin, Jefferson, St. Charles, and St. Louis counties and the City of St. Louis.

Since the 1980s, the Department has overseen an Inspection/Maintenance program for vehicles located in the St. Louis area. The program has progressed from a centralized program in the mid-1990s to decentralized program we have today.

The Missouri Air Conservation Commission promulgated 10 CSR 10-5.381, “On-Board Diagnostics Motor Vehicle Emissions Inspections,” effective August 30, 2007. This rule established state regulations that the Department and Highway Patrol currently use to oversee and enforce the GVIP inspection requirements with assistance from the state’s contractor, SysTech International. The Department is the lead agency with respect to emissions inspections and the Highway Patrol is the lead agency with respect to safety inspections. The GVIP began collecting vehicle emissions and safety inspection data on October 1, 2007.

Station Licensing
As of June 30, 2010, there were 778 public and 25 private or government licensed GVIP stations. There were also approximately 5,800 licensed inspector/mechanics. A current list of licensed GVIP stations is on our website at www.dnr.mo.gov/gatewayvip/repair/index.html.

St. Louis 8-hour Ozone Design Values

Thanks to efforts like GVIP in the St. Louis area, ozone values have shown an overall decline in recent years. Mobile sources of air pollution, like cars and trucks are a significant source of ground-level ozone causing pollutants. Making sure the vehicles on St. Louis area roads are properly maintained benefits public health by preventing harmful emissions from polluting the environment.
Vehicle Inspection Data
Each licensed GVIP station performs vehicle inspections using a Missouri Decentralized Analyzer System. This system sends real-time inspection information from the inspection stations directly to the GVIP Vehicle Inspection Database. The Department, Highway Patrol, Department of Revenue (DOR) and contract license offices all have access to the database through secure, dedicated Internet connections.

During FY2010, GVIP stations conducted 695,433 initial emissions inspections and 865,583 safety inspections. GVIP data indicates a 99 percent compliance rate of emission tested vehicles in the St. Louis area.

Emissions waivers and Exemptions
10 CSR 10-5.381 (3)(K) enables the Department to issue waivers and exemptions from GVIP requirements. Just like inspection results, waivers and exemptions issued by the Department are available for real time verification by DOR, contract license offices and online registration via the Vehicle Inspection Database.

· Cost-Based waivers – granted by the Department if a motorist spends a specified amount on emissions-related repairs after failing an initial emissions inspection and is still not able to pass the emission test. During FY2010, the Department issued 644 Cost-Based waivers.

· Out-of-Area waivers – granted by the Department for vehicles that are taxed within the ozone nonattainment area but not driven in the area during the registration period. For FY2010, the Department issued 482 Out-of-Area waivers.

· Reciprocity waivers – granted by the Department for vehicles that are taxed within the ozone nonattainment area but are located in another state and have passed an equivalent emission inspection in that state. For FY2010, the Department issued 174 Reciprocity waivers.

· Mileage Based exemptions – granted by the Department for vehicles with documented odometer readings to meet various mileage waiver criteria. For FY2010, the Department issued 1,509 Mileage-Based exemptions.

Data Oversight Methods
Real Time Inspection Data/Paperless Inspection Verification
Each analyzer unit connects to the Vehicle Inspection Database using a dedicated Internet connection. Upon completion of a vehicle inspection, the system’s software uploads the inspection data to the database, where it becomes immediately available to the Department, the Highway Patrol, SysTech, DOR, contract license offices and the online registration system for inspection verification. This allows license offices to quickly identify fraudulent vehicle inspection reports, deny vehicle registrations and report the issue so an immediate investigation may begin. This investigation includes determining the source of the fraudulent inspection reports, requiring legitimate inspections for the vehicles, and possible criminal prosecution.
**Bulletin Messaging and Documents Menu**

Each analyzer unit includes a messaging system that allows the Department, the Highway Patrol and SysTech to contact GVIP stations, individually or collectively, to inform inspector/mechanics about inspection procedures, billing reminders and software updates. Each unit is also equipped with a documents menu, which stores and prints GVIP regulations and fact sheets, as well as comment, waiver and exemption forms. This simplifies the distribution of public information to inspection stations and to vehicle owners.

**Consumer Protection Technical Service Centers**

Cost-Based waivers allow a vehicle to register and operate in a failing condition for up to two years. Therefore, the Department strives to ensure repairs made to vehicles receiving a Cost-Based waiver are appropriate and beneficial. Through negotiated contracts, the Department retains the services of approximately 10 vehicle repair facilities to serve as Technical Service Centers. These Technical Service Centers employ Missouri Recognized Repair Technicians who are certified by the National Institute for Automotive Service Excellence in specific areas, specializing in diagnosing the cause of a failing emissions test. These centers serve to:

- Diagnose readiness issues with specific makes and models. This helps identify vehicles requiring special testing circumstances and allow for ease of future testing.
- Diagnose vehicles that received repairs but show no signs of improvement.
- Review vehicles and prepare receipts to ensure repairs performed were necessary for the emissions failure and performed as billed.
- Provide motorists with accurate diagnostic information on how best to repair their vehicle to pass an emissions test.

The Department is able to deny Cost-Based waiver requests if reviews show repairs were not appropriate to correct the emissions failure. Many times, the Department works with the shops that performed the initial repairs to reimburse the motorist or provide additional free repairs. The use of Technical Service Centers reduces the number of Cost-Based waivers, thereby minimizing the emissions from waived vehicles while also maximizing the number of fully repaired vehicles.

For FY2010, the Department authorized the review of 53 vehicles by one of these centers.

**Equipment Oversight Methods**

**Laptop Audit Computers with Wireless Internet Access**

Department and Highway Patrol auditors receive laptop computers containing both analyzer software and customized auditing software. These laptops allow auditors to securely access the Vehicle Inspection Database and conduct audits with or without Internet access. Department and Highway Patrol auditors are able to review inspection records for all stations and inspector/mechanics while in the field. Once an audit is complete, Department and Highway Patrol staff managers can immediately review audit results and generate summary audit reports from the inspection database. This automatic upload allows for a quicker response when identifying fraudulent inspections and procedures.
Digital Cameras
Each analyzer unit includes a detachable digital camera. The analyzer’s software requires licensed inspector/mechanics to photograph the rear license plate, vehicle identification number plate, and the odometer. The inspector/mechanic attaches these photographs to the vehicle inspection reports on the inspection database where it is available for review and comparison to the inspection report to ensure the vehicle reported matches the vehicle inspected. The Department and Highway Patrol are then able to identify inspector/mechanics taking improper or no photos prior to the inspection.

Fingerprint Readers
Each analyzer unit also includes a digital fingerprint reader. The software requires the licensed inspector/mechanics to scan one finger prior to beginning each inspection. This fingerprint scan must match the scan stored in the system for that individual in order to proceed with the inspection. Fingerprint readers in combination with the trigger reports described below have dramatically improved enforcement efficiency by documenting and pinpointing inspector/mechanics conducting improper inspections.

Enforcement
Station Audits
The Department and Highway Patrol conduct overt and covert audits of GVIP stations. During covert audits, the Department uses a fleet of six vehicles altered to fail in order to assess the test effectiveness and to prevent test station fraud. The Highway Patrol also has a fleet of five vehicles with varying defects to evaluate the station’s safety inspections. During FY2010, Department staff conducted 1,473 overt audits and 146 covert audits of GVIP stations and Highway Patrol staff conducted 5,205 overt audits and 111 covert audits.

Trigger Reports
Once uploaded to the inspection database, the inspection data becomes available to the Department, Highway Patrol, DOR and SysTech via an Internet-based Reporting Suite. The Reporting Suite contains general informational reports along with “trigger reports” designed to identify emissions or safety inspection patterns inconsistent with state regulations. As soon as improper inspections occur, the trigger report compiles the evidence into a report used to initiate an investigation. For example, the OBD VIN Mismatch Report and the Protocol Mismatch Report reveal “clean scanning” violations. Clean scanning is the illegal act of connecting the analyzer cable to a different vehicle than the one identified on the inspection report with the intent of bypassing the required test procedure. The OBD VIN Mismatch Report compares the vehicle identification number entered by the inspector/mechanic with the number the vehicle reported through the system. In addition, vehicle manufacturers program every make and model with a certain protocol that the vehicle uses to communicate. The Protocol Mismatch Report identifies inspections where the protocol used by the on-board diagnostic is different than the known protocol for the vehicle reported. These two reports are extremely effective in identifying instances of fraudulent inspections.

Fraudulent inspection activities such as clean scanning are a violation of the Clean Air Act and prosecutable by the U.S. Attorney’s Office. The Department and Highway Patrol collaborate with the U.S. Environmental Protection Agency’s (EPA) Criminal Investigation Division and the
U.S. Attorney’s Office on investigations of vehicle inspection fraud and inspection document falsification.

In October 2009, the Department began a joint investigation with the Highway Patrol and EPA against Clark Tire Wholesale in Imperial, MO, for conducting fraudulent emissions inspections via clean scanning. The investigation led to the federal indictment of three licensed inspector/mechanics employed by Clark Tire. Two of the inspector/mechanics plead guilty to one felony count each for violation of the Clean Air Act. The federal case against the third is still ongoing.

*Equipment Lockouts and License Suspensions/Revocations*

The Department and Highway Patrol have the ability to apply an electronic “lockout” which prevents an individual inspector/mechanic or an entire GVIP station from using their analyzer unit(s). For FY2010, the Highway Patrol initiated 87 lockouts for various reasons including no or poor quality photographs and/or inspection violations. The removal of a lockout occurs upon the completion of the license suspension or the correction of the violation.

In addition to having their analyzers locked out, inspection stations conducting improper inspection activities may have their inspection licenses suspended for up to one year or revoked entirely. To date, the Highway Patrol suspended 30 inspector/mechanic licenses for clean scanning violations. During FY2010, the Highway Patrol suspended or revoked the following station licenses for clean scanning violations:

- **The Shop** (190 Spencer Court, Pacific)
- **Airport Automotive** (315 Taylor Rd, Hazelwood)
- **IK Motors, Inc.** (2320 Gravois, High Ridge)
- **Emmendorfers Service** (8750 St. Charles Rock Rd, St. John)
- **Norm’s Auto** (1116 N. Florissant Rd., Ferguson)

The Department and Highway Patrol are currently investigating additional GVIP stations and inspector/mechanics for improper inspection activities.

*Oversight Results*

The GVIP prevents registration fraud by investigating and identifying individuals producing fraudulent inspection reports. The GVIP implemented an improved auditing system streamlining the Department and Highway Patrol oversight of vehicle emissions and safety inspections. The result of the integrated oversight methods described above is that the Department and Highway Patrol can cost-effectively audit, detect, enforce and further prevent emissions and safety inspection fraud.
Recommendations for the Future
The Department and Highway Patrol continually strive to improve our ability to detect fraud and ensure data integrity. We continue to move forward by identifying areas of improvement to the GVIP, including:

- Increase efforts to seek out and prevent fraudulent inspection procedures in addition to clean scanning violations. With ongoing improvements to the reporting system, we can more efficiently identify improper inspections.

- Continue working with DOR to identify and prevent invalid registration due to counterfeit inspection reports.

- Develop measures along with the Missouri Attorney General’s Office Consumer Protection Division and DOR to bring enforcement action against used car dealers who fail to meet the requirements of the statute. RSMo. 643.315.4 requires a dealer to obtain a passing emissions test before sale or clearly state in the sales contract that the purchaser may return the vehicle to the dealer for retest and repair within ten days of sale should the vehicle fail an emissions test.

- Develop a more stringent and comprehensive schedule of covert audits to identify and prevent fraudulent emissions inspection activity.

Conclusion
The oversight measures described in this report are escalating the Gateway Vehicle Inspection Program to among the best in the country. Thanks to efforts like GVIP in the St. Louis area, ozone levels have shown a continued decline in recent years. As the program matures, we will have an even greater potential for compliance and enforcement capabilities. The Department and Highway Patrol will continue working with SysTech to enhance the oversight tools needed to identify violations and improve enforcement capabilities. Both agencies will continue to ensure compliance with state statutes and rules, remove violators from the program, and work for the public health and safety by overseeing an inspection program with proven value and integrity.