State Program Review Framework for Virginia Department of Environmental Quality EXECUTIVE SUMMARY

Introduction

The EPA Office of Enforcement and Compliance Assurance (OECA), all ten EPA Regions, the Environmental Council of States (ECOS) Compliance Committee and state representatives have jointly developed a method to assess state performance in the enforcement and compliance assurance program. The purpose of the assessment is to provide a consistent mechanism for EPA Regions, together with their states, to ensure agreed upon minimum performance levels and provide a consistent level of environmental and public health protection across our Nation.

The assessment consists of 13 questions comparing actual state compliance and enforcement practices with U.S. EPA policies and guidance. The 13 evaluation areas posed by this framework are consistent with evaluation areas delineated in the 1986 guidance memorandum signed by Jim Barnes entitled *"Revised Policy Framework for State/EPA Enforcement Agreements."* Additionally, the framework utilizes existing program guidance, including our EPA national enforcement response policies, compliance monitoring policies, and civil penalty policies, or state policies where in use and consistent with national policy to evaluate state performance and to help guide our definitions of a minimum level of performance.

General Program Review

The Virginia Department of Environmental Quality (VADEQ) consists of a Central Office located in Richmond, VA with seven regional offices throughout the state. The regional offices are located in Woodbridge, VA; Glen Allen, VA; Lynchburg, VA; Abingdon, VA; Virginia Beach, VA; Harrisonburg, VA; and Roanoke, VA. Regional activities include permits, remediation, air quality, water quality, and compliance monitoring and enforcement.

Compliance/Enforcement Structure

VADEQ's Division of Enforcement, and the media Program Divisions, located in the Central Office, and the seven regional offices are responsible for carrying out VADEQ's mission in achieving its enforcement goals. The regional offices are responsible for conducting compliance and enforcement actions within their regional boundaries. Regional offices are principal points of contact with the community, issuing permits, performing inspections, and executing administrative orders. The Division of Enforcement, comprised of all attorneys, becomes involved in enforcement actions to assist the Regions and/or to provide expertise and policy guidance. In addition, the Division assists and coordinates successful statewide implementation of VADEQ's enforcement programs by developing appropriate enforcement policies and procedures, providing appropriate training to staff, and reviewing regional implementation.

Process

EPA held the kick-off meeting for the Virginia State Review on February 28, 2007. Richard Weeks, James Golden, Michael Dowd and John Ely from VADEQ and Samantha Beers, Betty Barnes, Patricia Gleason, Ingrid Hopkins and Lisa Lund from EPA were in attendance. VADEQ's seven regional offices are primarily responsible for conducting compliance and enforcement activities. Each of the EPA programs conducting this review chose regional offices to visit and conduct file reviews. The Air Enforcement program chose the Valley and Piedmont regional offices because universe of sources were deemed to be representative of air sources throughout the Commonwealth. The Water Enforcement program also selected the Valley regional office because of the large number of CAFO facilities and the Piedmont regional office because it had a "mid-range" number of inspections in FY2006. The RCRA Enforcement Program visited the Valley, Piedmont and Tidewater regional offices. The RCRA program selected regional office based inspection coverage, compliance and enforcement activity, level of assessing penalties in formal enforcement actions, timely and appropriate enforcement, and identifying SNC. The file reviews took place at separate times. The reviews occurred from March, 2007 through May, 2007. Each program contacted their respective counterparts at VADEQ to provide the data metrics, list of files to be reviewed, schedule visits to the regional offices for the file reviews. After the file reviews and data metrics were evaluated each program wrote their SRF report. EPA's Office of Enforcement, Compliance and Environmental Justice (OECEJ) wrote the executive summary, collated the reports, evaluated the reports to assure all elements of the SRF were evaluated and addressed. OECEJ provided EPA Headquarters OECA and VADEQ with a copy of the report on August 23, 2007. Once VADEQ received draft report, each program then entered into discussion with their counterparts regarding the analyses, findings and recommendations.

Review Teams - EPA

Bernie Turlinski, Associate Director, office of Enforcement and Permits Review (Air) Kurt Elsner Gerallyn Duke Danielle Baltera Louvinia Madison-Glenn

Carol Amend, Chief, RCRA Compliance and Enforcement Branch Stacie Peterson Jeanna Henry

Patricia Gleason, Water Enforcement Ingrid Hopkins

Samantha Phillips Beers Betty Barnes Zelma Maldonado

Review Team Leaders VADEQ:

John Ely, Enforcement Policy Manager William Purcell, Director Office of Water Compliance Leslie Romachick, Director, Office of Hazardous Waste Jerome Brooks, Director, Office of Air Compliance

Major State Priorities and Accomplishments

VADEQ reported the following state priorities, accomplishments and best practices to be highlighted in this State Review Framework report.

Virginia's Constitution recognizes protecting the environment as a priority of the Commonwealth. By statute, VADEQ's overriding policy is "to protect the environment of Virginia in order to promote the health and well-being of the Commonwealth's citizens." The Commonwealth has its own Government Performance and Results Act (GPRA), which requires each agency to develop a strategic plan, including a statement of its mission, goals, strategies, and performance measures. VADEQ's enforcement goal under its state GPRA strategic plan is to "achieve certain, consistent, timely enforcement."

VADEQ established compliance and enforcement priorities for the Air, Water, and Hazardous Waste programs through a Performance Partnership Grant (PPG), Performance Partnership Agreement (PPA), and VADEQ program policies and guidance. For FY-06 VADEQ reported the following compliance and enforcement priorities:

- VADEQ participated in the Energy Related/Climate Change Initiative and the Clean Diesel Initiative (Air, PPG).
- Water inspections were targeted at facilities that posed a high environmental or public health risk, facilities where there were compliance issues, and facilities that were the subject of citizen complaints (Water, PPG).
- VADEQ supported EPA's national priority Combined Sewer Overflows and Sanitary Sewer Overflows. In particular, VADEQ continues to coordinate with EPA on large, multi-party SSO cases.
- VADEQ committed to an effort to continually reduce the number of SNC facilities, with a goal of no watch list facilities discharging into the Chesapeake Bay (Water, PPG).
- The Hazardous Waste Program concentrated inspections on higher priority and higher risk areas, particularly in identifying a significant number episodic generators that were a higher risk category for noncompliance. Also included were the State hospital and healthcare sector initiative as well as the state initiative on mercury reduction and management. VADEQ targeted 20% of their inspections in priority areas. (HW PPG).

Accomplishments

The following are FY-06 accomplishments VADEQ would like to highlight:

- VADEQ entered into more than 100 Consent Orders with over \$900,000 in civil charges or penalties (including SEPs) in the three programs.
- There were 13 orders with SEPs valuing over \$180,000 and results going beyond compliance.

Best Practices

The following are best practices VADEQ implemented in FY-06:

- The Water Point System flags violations at major facilities early so they can be addressed with compliance assistance or informal enforcement prior to becoming SNC. This has resulted in a SNC rate for major facilities that is much lower than the national average.
- The Hazardous Waste Program conducts compliance assistance visits at small businesses that have never been inspected before.
- P2 has been integrated with media programs in significant ways. For example, VEEP facilities have discounted annual permit fees and can apply for alternate compliance methods, such as reduced monitoring and reporting frequency. The alternate methods must provide equal or greater environmental protection.
- In 2005 the General Assembly significantly strengthened DEQ's enforcement authority. VADEQ can now seek administrative penalties of up to \$32,500 per violation (and \$100,000 per order) in formal hearings. The maximum civil charge for violations resolved by consent order was also raised to \$32,500 per violation per day.
- Under the state GPRA strategic plan, VADEQ performed an internal review of the Air, Water, and Hazardous Waste programs using the SRF metrics and FY-05 data to assess the strengths and opportunities for improvement.
- The Air Program developed and is currently using a well-designed, functional, user-friendly computerized inspection reporting system with electronic signature capability.
- Air Program has an excellent Enforcement Manual along with subsequent guidance memorandums, templates and other administrative policies that address how to assess penalties.
- The RCRA review team found excellent consistency across regional offices in the implementation of policies and procedures. All regional office use the same format and procedures for conducting and documenting inspections, issuing enforcement actions and file maintenance.

Significant Cross-Media Findings and Recommendations

Inspection Reports:

Air Recommendations: VADEQ should revise its definition of an FCE to reflect the EPA's recommended definition as it pertains to off-site PCEs from the previous fiscal year.

VADEQ has taken the initiative to draft guidance regarding the completion and definition of a FCE for EPA Region 3 review. Once approved by EPA, this guidance will be incorporated in VADEQ's Standard Operating Procedures.

VADEQ should evaluate why some of the required elements were missing from some of the CMRs reviewed and determine whether this problem occurs in other regions as well.

Determine if the lack of CMR FCE documentation (especially the final FCE) in the files is a state-wide issue.

Water

Upon review of the PCS database, it appears that VADEQ does not conduct compliance evaluation inspections (CEIs). VADEQ conducts "technical inspections" which meet the requirements of a CEI and CSI, however, they do not report these inspections in PCS. VADEQ does provide quarterly Water Compliance Inspection Reports to EPA, in accordance with the 106 grant agreement. This report does account for VADEQs numerous technical inspections which are comparable to the federal CEIs.

Recommendation:

EPA and VADEQ should clarify the 106 Grant Agreement by providing a link between CEI and CSI inspections and the types of inspections referenced in the VADEQ Inspection Strategy and require VADEQ to report inspections into PCS in order to get appropriate credit for inspections conducted.

SNC/HPV

Air

Of the five HPV files selected for review, records show that VADEQ reported three of the five HPVs to EPA within 30 days of discovery. The two facilities that were not reported to EPA as HPVs in a timely manner were both reported to EPA on 11/6/06 were from the same regional office, and the files did not include the HPV documentation.

Recommendations: Determine why two HPVs were reported to EPA late, and if this is an issue in the other regions. Consider developing an ASOP for reporting HPVs to EPA along with supporting documentation (e.g., NOVs). Benchmark processes employed the other regional office reviewed where timely reporting of HPVs is not an issue.

The two potential HPV that were not identified as such should be listed and tracked in AFS as an HPV.

Return to Compliance

Water

100% (6) of the formal enforcement actions reviewed contained a compliance schedule of required actions designed to return the source to compliance. Only 4 of the 11 (36%) informal actions returned the facility to compliance.

Recommendation(s):

VADEQ should review its policy for issuance of Warning Letters and NOVs to Determine its effectiveness. VADEQ should also consider an escalated, swift action via letter of Agreement (LOA) or Consent Order (COA). VADEQ should also determine if this problem exist state-wide.

Timely and Appropriate Enforcement actions

Air Recommendation: VADEQ should investigate why appropriate enforcement action was not taken at two facilities and develop procedures as necessary to correct this across the Commonwealth.

Data Quality:

Air Recommendations:

VADEQ should review facilities that, according to AFS had multiple Title V Annual Certifications reviewed by VADEQ for data accuracy. Update AFS as appropriate.

At a minimum, VADEQ should review all stack tests conducted in FY2007 to ensure that the stack testing event dates are now accurate.

RCRA

VADEQ uses RCRAInfo enforcement action code 210 for "initial 3008(a) order" to indicate the date which a proposed/draft Consent Order was sent to the violating facilities. Enforcement action code 210 is meant to be used for the issuance of a complaint.

Recommendation:

EPA and VADEQ will work together to clarify and resolve issues regarding the entry of proposed/draft Consent Order (or similar enforcement action).

Element #13 – Additional program activities and results

VADEQ did provide an Element 13 submission regarding its significant pollution prevention accomplishments of 2006. VADEQ operates an extensive Pollution Prevention (P2) program through its Office of Pollution Prevention (OPP). VADEQ promoted pollution prevention as the preferred method for achieving environmental goals. (PPA). Of particular note is the successful Virginia Environmental Excellence Program (VEEP). At the end of 2006, there were almost 400 facilities in the VEEP program. These facilities reported more than \$2,500,000 in cost savings and significant reductions in the use of hazardous materials, energy and water in the production of waste. The Mercury Reduction program partners pledged to remove 1,500 mercury switches (the equivalent of nearly five pounds of mercury). VADEQ's P2 Program, Virginia Hospitals for a Health Environment received a "Champion of Change" award from the national Hospital for Health Environmental program for the second year in a row. Other initiatives and outreach activities include Energy Efficiency and Renewable Energy, Hospitality Industry Outreach, Priority Chemical Reduction Outreach, and Business for the Bay. In particular, a review of the VEEP annual performance reports for 2005 indicates that facilities reported more than \$2.5 million in cost savings as a result of voluntary environmental reductions.

VADEQ in coordination with Zelma Maldonado of OECEJ is developing a proposal to be submitted allowing for additional flexibility pursuant to Element 13 for instances not covered by core program policies VADEQ is proposing an inspection strategy based on risk factors to better utilize their limited inspection enforcement resources to accomplish their environmental protection goals. The proposal may be somewhat mis-characterized as "risk based" for all media. Virginia does describe a strategy that will use a qualitative analysis. However, a parallel quantitative analysis providing a "risk value" for each source, prioritizing facilities based on "measured risk", and for example, assigning toxicity weights to different effluent constitutes seems to be absent. However, we recognize that this is still a work in progress, and does seem to have merit as an alternative approach that seeks to promote an environmental benefit. The following risk factors will be used for the inspection selection process : environmental sensitivity, compliance/enforcement history, and DEQ or EPA priority initiatives, VADEQ is proposing to identify high performing facilities for reduced inspection frequency, in order to most effectively use inspection resources to address higher risk sites.

There are other findings and recommendations for each media with the text of the report.

VADEQ Air Program Review

From March 27 to March 29, 2007, a five-person review team from the Environmental Protection Agency (EPA) Region III Office of Enforcement and Permit Review (OEPR) conducted interviews of key regional personnel and reviews of the Virginia Department of Environmental Quality (VADEQ) Air Compliance Monitoring and Enforcement Program files at the Harrisonburg, VA (Valley) regional office. Also, from April 24 to April 26, 2007, the same review team from EPA Region III's OEPR conducted interviews of key regional personnel and reviews of VADEQ's Air Compliance Monitoring and Enforcement Program files at the Glen Allen, VA (Piedmont) regional office. Lastly, on April 23, 2007, EPA's OEPR conducted interviews with VADEQ's Central Office staff in Richmond, VA. Except where otherwise noted, the time frame for this review was the federal Fiscal Year 2006 (FY2006).

The functions of VADEQ's Office of Air Inspections Coordination, under the Air Division, includes, among other things, coordination of the Regional Air Inspection Programs within its seven regional offices, management of the Department's electronic data systems and uploading of data to EPA's AIR Facility System (AFS¹) for VADEQ's Comprehensive Environmental Data System (CEDS). The Office of Air Inspections Coordination does not have direct authority over the regional offices but develops most of the policy and guidance on compliance with rules, regulations and orders of the Department and tracks enforcement actions.

VADEQ's Central Office has a Division of Enforcement with one media-attorney manager for air. This office works in concert with the Office of Air Inspections Coordination. The seven regional offices are primarily responsible for their own enforcement actions. Currently, four of the regional offices have both an Air Compliance and Enforcement Manager while in the other three regional offices the Air Compliance Manager is also responsible for their own enforcement. This is a function of regional autonomy. The review team didn't recognize a significant benefit one over the other. The Central Office plays an oversight, coordination and policy development role. Specifically, the media-attorney manager for air is responsible for reviewing a subset of enforcement actions taken by DEQ regional offices for consistency with the DEQ Enforcement Manual. The Central office does not review minor or informal enforcement actions taken by the regional offices, but does review High Priority Violators (HPVs) and enforcement actions with civil charges. In addition, all Supplemental Environmental Projects (SEPs) are reviewed and approved by the Central office. The Central office also provides enforcement assistance and oversight as necessary to regional office staff. Finally, the Central office serves as liaison with State Attorney General's office.

The Department has a Chief Deputy and a Deputy Director who oversee the Department's media programs, Enforcement Division and seven regional offices. The regional offices are located in Woodbridge (Northern), Piedmont (Glen Allen), Lynchburg (South Central), Abingdon (Southwest), Virginia Beach (Tidewater), Harrisonburg (Valley), and Roanoke (West Central).

¹ AIR Facility System, the national air compliance monitoring and enforcement tracking data system.

The regional offices conduct inspections, initiate enforcement and other compliance monitoring activities for the Air Compliance Programs.

The data metrics presented in the VADEQ Air Program Review were pulled from EPA's On-Line Tracking Information System (OTIS) and downloaded into excel spreadsheets on 3/1/07. The spreadsheets were sent to VADEQ electronically on 3/9/07 for their review and comment. VADEQ did provided comments to the data metrics and their comments are referenced throughout the report. The data metrics represent the air sources and activities that are reported to EPA by VADEQ for all sources in Virginia and from all seven regions.

VADEQ's official compliance monitoring and enforcement files are maintained in the regional offices. Each regional office is responsible for developing and maintaining its own filing system. No VADEQ standard operating procedures (SOP) are in place for the development and maintenance of a filing system across the regions. Each regional office provided copies of all files requested by EPA and/or access to their file rooms.

The Valley Regional Office (VRO) files are maintained in a central File Room. The files are organized chronologically by source registration number. Each program (e.g., Water, Air, Waste, etc.) is allocated its own separate area of the filing room for their files. The Air Permitting, Compliance, and Enforcement program employs one full time person dedicated to the filing system. Once a file is generated, the staff person gives it to the filing clerk who, in turn, electronically scans the file and generates the "official" file for placement in the Central File Room. The Air Permitting & Compliance files are organized by a color coding system. The confidential files are kept separate from the non-confidential files are color coded "red" and are marked either "Confidential" or "Confidential File".

The Piedmont Regional Office (PRO) air files are located in two locations. Stack tests, Relative Accuracy Testing Audits (RATAs), Continuous Emission Monitors (CEMs), and Excess Emission Reports are located in the "Warehouse" Room. All other air files, including inspections, and permits, are located in the "Air Permit" file room. One half of an FTE is dedicated to the air filing system. In November 2006, the PRO finalized an administrative operating policy for file room management. This policy includes procedures for scanning of documents, the organization of the air files, and a records retention and disposition schedule.

Unlike the data metrics presented herein, which address performance at all seven VADEQ regional offices, the file review metrics only cover files reviewed in the Valley and Piedmont regional offices. The files reviewed in each office were selected in accordance with the protocol specified in the "State Review Framework Implementation Guidance – EPA/Environmental Council of States Work Group – Washington, DC 6/29/05".

On 3/9/07, OEPR sent VADEQ a preliminary list of 20 sources that had been selected for the VRO file review. A conference call to discuss the preliminary list of sources was held on 3/19/07 and a final list of sources was sent to VADEQ on 3/22/07. These 20 sources included:

- Two high priority violator (HPV) files at major sources,
- One major source file where the facility was determined to be "In Compliance with Schedule",
- Two synthetic minor (SM) sources where violations were found but the violations were not listed as HPVs,
- Eleven major source files where no violations were found, and
- Four 80% SM sources where no violations were found.

As of June 2007, a total of 38 major and 206 synthetic minor (includes all SM sources) air sources were located in the Valley region.

On 3/22/07, OEPR sent VADEQ a preliminary list of 20 sources that had been selected for the PRO file review. A conference call to discuss the preliminary list of sources was held on of about 4/10/07 and a final list of sources was sent to VADEQ on 4/13/07. These 20 sources included:

- One HPV file at a major source,
- Two major source files where violations were found but the violations were not listed as HPVs,
- Ten major source files where no violations were found,
- Two HPV files at 80% SM sources,
- Two 80% SM sources where no violations were found, and,
- Three 80% SM sources where violations were found but the violation was not listed as an HPV.

As of June 2007, a total of 57 major and 210 synthetic minor (includes all SM sources) air sources were located in the Piedmont region.

Source files within each category had been randomly selected, with the exception of the following:

- 1) For both regional offices, all HPVs whose Day Zeros were during FY2006 were chosen;
- 2) For both regional offices, all FCEs in FY06 where violations were discovered were chosen; and
- 3) For the VRO, all FCEs whose results showed "In Compliance with Schedule" were chosen.

Due to time and travel budget restraints, the Review Team only visited two of the seven regional offices for a file review. The two regional offices picked were deemed to be representative of air sources throughout the Commonwealth of Virginia, and input from the Office of Air Inspections Coordination. Subsequently, the Review Team compiled certain metrics and related indicators by region. These are presented in Appendix 1. Supporting documentation is contained in Appendix

2. Lastly, it should be noted that resources are not discussed in this report. They are discussed in the CMS Review which was conducted in conjunction with the State Review Framework. Finally, VADEQ provided EPA with a list of the policies and guidance for compliance and enforcement actions. *VADEQ's Field Operations Manual* includes eleven Air Standard Operating Procedures (ASOPs) designed to assist inspectors in conducting compliance activities including inspections. Electronic copies of the Field Operations Manual are available on VADEQ's intranet site. The *VADEQ Enforcement Manual* is designed to provide guidance to the staff in enforcing Virginia's environmental statutes and regulations. The procedures in the Manual guide the staff in undertaking timely, appropriate and consistent and fair enforcement actions. The current version of the Enforcement Manual, dated December 1, 1999, contains seven chapters and is currently being revised, chapter by chapter. Several chapters have been revised to date. Copies of the *Field Operations Manual* and the *Enforcement Manual* are referenced throughout this report.

Below is a discussion of the data and file review metrics that comprise this report. All measure types are discussed in this report with the exception of "Information-Only".

Element 1 - Degree to which a State program had completed the universe of planned inspections/compliance evaluations (addressing core requirements and Federal, State, and Regional priorities).

Clean Air Act Source Universe	Number of Sources in VADEQ Universe in FY2006
Universe of Major Sources (Title V)	303 ²
Universe of Synthetic Minor 80% Sources	211 ³
Total Number of Major and 80% Synthetic Minor Sources	514
Number of inspection files for review	40

Data Metrics:

		National Average or Total	VADEQ
Metric 1a1	% of CAA active major sources receiving full compliance evaluation (FCE) by VADEQ in FY2005/2006.	81.9%	95.0%
Metric 1a2	% CMS major sources receiving FCEs by VADEQ in FY2005/2006.	84.8%	95.4%
Metric 1b	% CAA synthetic minor 80% sources (SM-80) FCE coverage in FY2002 through FY2006. State only.	85.2%	96.7%
Metric 1f	% Review of self-certifications completed.	81.4%	100% ⁴
Metric 1g	Number of sources with unknown compliance status ⁵ .	NA	8

²Metric 1a1: AFS operating majors w/air program code = V

⁵As of 3/01/07

³Metric 1b

⁴ Original metric facility was 99.7%. However, VADEQ indicated that review of the Title V certification for two sources were incorrectly entered into AFS resulting in the Title V Cert as "not counted". The revised metric is 289/289 = 100%.

File Review Metric:

	Percent of planned FCEs completed at major and	39 ⁶ FCE files
Metric	SM-80 sources	reviewed
1r		

Findings:

For this State Program Review, the Review Team assessed VADEQ's FY2006 Compliance Monitoring Strategy (CMS) accomplishments. Note that VADEQ's CMS Plan actually covers FY2006 and FY2007, in accordance with the April 2001 *Clean Air Act Stationary Source Compliance Monitoring Strategy (CMS Policy)*.

All VADEQ's FCEs include on-site visits. This frequency well exceeds the minimum frequency that is recommended in the *CMS Policy* of one on-site visit every five years, provided that the State may effectively complete an FCE using self-reported information.

The Review Team noted that the majority of VADEQ's FCEs are completed in the fourth quarter of the fiscal year. VADEQ explained that the reason for this is because they usually wait until the Title V semi-annual report covering the first six months of the calendar year and reports required for the third quarer are received and reviewed. This semi-annual report is due August 1 of each year. Third quarter reporting covers the period from July through September and is due by the end of October. The VADEQ policy defines an FCE as all PCEs that take place in the same fiscal year for a particular facility. The date of the FCE is the last PCE that occurs in the fiscal year. Therefore, unless the on-site PCE is the last PCE that takes place in the fiscal year, the date of the FCE does not match the date on the on-site PCE.

EPA Region III has advised VADEQ that they would prefer the on-site visit/PCE to be the final activity that comprises the FCE even if it means going back into a previous fiscal year for the Title V semi-annual report. For example, an on-site PCE that takes place in April 2006, EPA would recommend that this activity be considered the completion of the FCE for FY 2006. In this scenario, the review of the semi annual deviation report for the first six months of calendar year 2005 (due 8/1/05) should be linked to the April 2006 on-site PCE instead of waiting for the Title V semi-annual report for the first six months of 2006 (due 8/1/06).

Data Metric 1A: FCE coverage well exceeds national averages of 81.9 percent for major Clean Air Act (CAA) active sources and 84.8 percent for major CMS sources. According to AFS, 15 facilities (classed as major) did not receive an FCE during FY2005 or FY2006. VADEQ provided explanations about the fifteen facilities that did not receive an FCE during the last two fiscal years. After considering the explanations, the Review Team believes that at least five of

⁶A total of 40 files were reviewed during the State Review Framework. However, one of the files did not contain a CMR for an FCE.

these facilities should have received an FCE during FY2005 or FY2006. All five of these facilities are now scheduled to receive an FCE during FY2007. VADEQ comments on the remaining 10 facilities are:

- Two facilities began operations in FY2006 and are scheduled to receive an FCE in FY2007;

- One facility was shutdown in FY2006;

- Two facilities did receive an FCE. However, the documentation was not entered into AFS;

- Two facilities have not operated since the 1990s. However, their Title V permit is still open; and

- Three facilities have recently had their classification downsized to either a synthetic or natural minor.

Finally, note that 302 CMS major sources (Data Metric 1A2) and 303 sources are classified as major sources (Data Metric 1A1). According to VADEQ, the difference is explained by New River Energetics being incorrectly identified as a major source with a missing CMS category. This facility has been reclassified as a synthetic minor facility in AFS and should resolve the difference in the two metrics.

Data Metric 1B: FCE coverage well exceeds national averages of 85.2 percent for SM-80 sources. According to AFS, **96.7 percent** of currently active SM-80 CAA VADEQ sources have had an FCE in the last five years. VADEQ provided explanations for the seven SM facilities that were not inspected in FY2002 – FY2006. Specifically:

- One facility should have been inspected in FY2002 FY2006 and is scheduled to have an FCE in FY2007;
- One facility had the incorrect inspection frequency in AFS;
- One facility was incorrectly identified as an SM80; and
- Four facilities either recently (i.e., October 2006) identified as an SM-80, had a permit recently (i.e., July 2005) issued, or recently started up (i.e., May 2005) facilities.

Regardless, VADEQ has well exceeded the national average of 85.2 percent.

Data Metric 1F: VADEQ reviewed **100 percent** of all Title V Annual Certifications received in FY2006, which well exceeds the national average of 81.4 percent. However, as discussed in Data Metric 11, there may be some data errors where multiple Title V Annual Certifications were reviewed for a company.

Data Metric 1G: As of 3/1/07, eight sources are listed in AFS with an "unknown" compliance status. VADEQ reported that only three of the eight facilities should fall into this category. All three of facilities have been scheduled to receive an FCE during FY 2007. VADEQ provided comments on the remaining five facilities. Specifically:

- Two facilities received an FCE during FY2006 but were inadvertently not entered into AFS;
- Two facilities were shutdown during FY2006; and
- One facility was incorrectly classified as a major facility. This facility has subsequently been classified as a true minor.

This low value of sources with "unknown" compliance status is consistent with the high FCE completion rate shown in Data Metrics 1a and 1b.

Citation of information reviewed for this criterion: *CAA Stationary Source Compliance Monitoring Strategy*, April 25, 2001.

Recommendations⁷:

(1) VADEQ should revise its definition of an FCE to reflect the EPA's recommended definition as it pertains to off-site PCEs from the previous fiscal year, e.g., the Title V semi-annual report.

Action: VADEQ has taken the initiative to draft guidance regarding the completion and definition of an FCE for EPA Region III review. Once approved by EPA, this guidance will be incorporated into VADEQ Standard Operating Procedures for inspections.

(2) VADEQ should continually update its CMS Plan to reflect actual schedules.

Element 2 - Degree to which inspection (Compliance Monitoring) reports and compliance reviews document inspection findings, including accurate description of what was observed to sufficiently identify violations.

	Clean Air Act Source Universe Information	Compliance Monitoring (FY2006)
Metric12d2	Full Compliance Evaluations - major and SM sources	683 FCEs
	Number of inspection files for review	39 ⁸ files

File Review Metric:

2a	% of CMRs adequately documented in the files	20/39 files = 51.3%
----	--	---------------------

⁷Recommendations herein apply to VADEQ unless indicated as a "federal recommendation"

Findings:

ASOP-2 of VADEQ's *Field Operations Manual* includes procedures for preparing for and conducting inspections.

The *CMS Policy* requires Compliance Monitoring Reports (CMRs) to contain the following elements: general and facility information, applicable requirements, inventory/description of regulated units, enforcement history, compliance monitoring activities, and findings and recommendations. In general, Reviewers found the quality and level of detail of the CMRs to be quite high. In particular, all but one CMR reviewed included tables showing all applicable requirements for the facility.

VADEQ's strength in producing high quality CMRs may be attributed to a number of factors including:

- a strong training program,
- a functional, user-friendly, and well-designed CEDs, and
- adequate supervisory review of CMRs.

As discussed in the VADEQ CMS Plan Evaluation, VADEQ appears to have a very strong training program for its compliance monitoring personnel. Entry level employees in Air Division have a defined training curriculum and experienced employees are offered more advanced courses. Employees are strongly encouraged to develop a customized Employee Development Plan (EDP) using a template available on-line. The Office of Training Services uses the EDP to notify employees of course schedules and registrations. Information is readily available to compliance monitoring personnel on courses offered internally as well as through Rutgers, APTI,

MARAMA and EPA. The process for obtaining approval for training is relatively simple: Employees discuss their training needs with the ACM, submit a travel form, and send it to the Training Manager for registration. If enough interest is shown for a particular subject, VADEQ's Training Committee, comprised of VADEQ employees from each regional office and each media, will attempt to make that course available to all VADEQ personnel.

Inspectors draft their CMRs on-line, using CEDS. CEDS provides a template for an inspection checklist with information on the facility, input and updated by the inspector. Information on the facility includes (among others) the permit date or basis for each applicable requirement listed, the number of each requirement, and a narrative description of each requirement. This same information may be produced from CEDS for future CMRs without the need to re-enter the data but only the need to enter updated requirements. The checklist provides space for text to be entered on observations relevant to each applicable requirement as well as to make a compliance determination for each applicable requirement. When the inspector completes the CMR, he/she electronically signs the report and electronically forwards the report to the supervisor for electronic signature as well.

Reports are available through CEDs to track, for each inspection report, when it was completed

and when the supervisor concurred on the report. Such automated tracking ensures that reports are completed and approved in a timely manner.

It was evident from the quality and consistency of the CMRs reviewed, that supervisory review of CMRs was substantive. No computer system can replace such attention to detail; the Review Team that quality supervision, such as demonstrated in the two Regions reviewed, is in itself a Best Practice.

All of the 19 CMRs reviewed at the Piedmont Regional office contained all of the required elements listed in the *CMS Policy*. However, while not a metric per se, the Review Team is concerned that a significant number of FCEs had been entered into AFS without a CMR that documents which prior PCEs comprise the FCE.

Thirteen of the 19 "inadequate" CMRs reviewed at the Valley Regional office would have been classified as "adequately documented" if they had included a section on enforcement history. Not counting these 13 CMRs, six CMRs were considered to be inadequate. Specifically⁹:

- Three CMRs reviewed did not include an adequate facility information section;
- One CMR reviewed did not adequately describe the applicable requirements for the facility;
- Two CMRs reviewed did not include a complete inventory and description of regulated units;
- Three CMRs reviewed did not include a section on enforcement history;
- Four CMRs reviewed did not include compliance monitoring activities; and
- One CMR reviewed did not include findings and recommendations.

This is viewed as a vulnerability that should be addressed.

Citation of information reviewed for this criterion:

- The Evaluation Team reviewed CMRs for FCEs performed in FY2006 as well as those FCEs associated with the selected HPVs identified in prior years as appropriate. Additionally, to evaluate timely and appropriate enforcement, FY2007 files were reviewed where FCEs in FY2006 resulted in violations being found but these were not addressed in FY2006.
- VADEQ Air Standard Operating Procedures (ASOPs) in the Field Operations Manual
- April 2001 CMS Policy

* **Best Practices:** The Review Team believes that the following practices employed in VADEQ

⁹Total number of CMRs add up to 14 instead of 6 because many of the six CMRs fell into more than one of the categories. For example, a CMR that did not include enforcement history and compliance monitoring activities would be counted in both categories.

may serve as best practice for other state and local agencies to produce high quality CMRs:

- a strong training program,
- a functional, user-friendly, and well-designed computerized inspection reporting system with electronic signature capability,
- incorporation of completion of CMR in a timely manner into each air inspector's Employee Work Profile, to be used as an evaluation too for work performance at the end of the year, and
- adequate supervisory review of CMRs.

Recommendations:

(1) As set forth in the April 2001 *CMS Policy*, and to aid in a more complete characterization of a facility's compliance status, all CMRs should include the following elements: (1) general and facility information; (2) applicable requirements; (3) inventory/description of regulated units; (4) enforcement history, especially recent enforcement history, to ensure that violations/deficiencies previously discovered are no longer occurring; (5) compliance monitoring activities; and (6) findings and recommendations. In addition, CMRs should list excess emissions reported during the period under review along with all stack tests and results of stack tests. VADEQ should evaluate why some of the required elements were missing from some of the CMRs reviewed and determine whether this problem occurs in other regions as well. Consider benchmarking process employed at the Region with all CMRs considered to be adequate to ensure that all CMRs across the Commonwealth contain all the required elements. Factors to consider include:

- inspector knowledge;
- processes employed in monitoring compliance, and
- processes employed in writing CMRs.

(2) Determine if the lack of CMR FCE documentation (especially the final FCE) in the files is a state-wide issue.

Element 3 - Degree to which compliance monitoring reports are completed in a timely manner, including timely identification of violations.

	Clean Air Act Source Universe Information	Compliance Monitoring in FY2006
Metric12d2	FCEs	683
	Number of inspection files for review	39 ¹⁰ CMR files

File Review Metric:

Metric 3a	% CMRs that are completed in a timely	36/39 CMR files = 92.3%
	manner (i.e., within 60 days) including timely identification of violations	

Findings:

Each region is directly responsible for conducting in a timely manner scheduled FCEs/PCEs, completion of CMRs, identification of violations, and issuance of Notice of Violations (NOVs), Warning Letters, Request for Corrective Action (RCA), etc. for violations. The current ASOPs in the Field Operations Manual and the Enforcement Manual do not specify timeframes for completing CMRs and inputting them into CEDS, nor for the issuance of appropriate enforcement actions (e.g., NOVs and RCAs). Nonetheless, VADEQ has incorporated the timeframes mentioned into each air inspector's Employee Work Profile (EWP) to be utilized as an evaluation tool for work performance at the end of the fiscal year. Completing CMRs, inputting FCEs and PCEs into CEDS, and initiating appropriate enforcement actions are responsibilities of the VADEQ inspectors.

All CMRs reviewed by the Review Team at VRO included CMRs that were completed within 60 days of the actual FCE. At PRO, all but three files reviewed by the Review Team included CMRs that were completed within 60 days of the actual FCE, based on comparing inspection dates and dates of the reports in the files. With the exception of one facility where the inspector stated that he waited for the review of a stack test protocol of an upcoming stack test to complete the CMR, the Review Team did not pursue explanations for the late completion of the CMRs for the other two facilities.

Citation of information reviewed for this criterion:

- The Timely & Appropriate Enforcement Response to HPVs, June 23, 1999
- VADEQ ASOPs in the Field Operations Manual
- *VADEQ Enforcement Manual*, December 1, 1999, along with subsequent updates/revisions (i.e., guidance memorandums)

¹⁰See footnote 6

12 of 33

CMRs for FCEs performed in FY2006 were reviewed as well as FCEs associated with the selected HPVs identified in prior years. Additionally, to evaluate timely and appropriate enforcement, FY2007 files were reviewed where FCEs in FY2006 resulted in violations being found but were not addressed in FY2006.

Recommendations:

(1) Determine the reasons why CMRs at two facilities at one Regional Office were not completed in a timely manner. Consider benchmarking process employed at the other Regional Office reviewed (all of which were completed in a timely manner) to ensure timely completion of CMRs throughout the Commonwealth.

(2) Revise the current ASOPs and Enforcement Manual, as appropriate, to include timeframes for the completion of CMRs, the identification of violations and the issuance of appropriate enforcement actions.

Action: VADEQ informed EPA Region III that the ASOP for inspections will be revised to include the timeframes.

Element 4 - Degree to which significant violations (e.g., significant noncompliance and high priority violations) and supporting information are accurately identified and reported to EPA national databases in a timely manner.

	Clean Air Act Source Universe Information	Number of Sources/Pathways in Universe in FY2006
Metric 12g1	New High Priority Violations in FY2006 - State only	18 VADEQ-lead
Metric 12g2	# of sources in HPV in FY2006 - State-only	17
	Number of inspection files for review	40

Data Metrics:

		National Average	VADEQ
Metric 4a	FY2006 HPV Discovery Rate – per Major FCE Coverage (new major source HPVs/major sources with FCEs) - State only	9.3%	7.4%
	12 of 22 (10)	20/2007)	

Metric 4b	FY2006 HPV Discovery Rate per Major Source Coverage (new major source HPVs/active major universe) - State only	4.4%	3.6%
Metric 4c	No activity indicator- # of new VADEQ- or joint-lead HPVs	NA	18
Metric 4d	Major sources designated as an HPV (VADEQ or joint- lead) in FY2006 or the 3 rd and 4 th quarters of FY2005 that received formal enforcement actions in FY2006/All major sources that received formal enforcement actions in FY2006	77.7%	64.3%

File Review Metrics:

Metric 4e	% HPV determinations that are identified in a timely manner	3/5 identified HPVs reviewed = $60.0%$
Metric 4f	% HPVs determinations that are made accurately	11/13 = 87.50%

Findings:

The regions are responsible for enforcing VADEQ's air regulations, including those that pertain to CEMS, participating in the process with the Central Office and EPA to make final HPV determinations, and inputting NOVs and other relevant enforcement information into CEDS.

The regional offices are responsible for making initial recommendations to identify violations as potential HPVs. When a violation is determined to warrant an NOV, the regional office generates an "Enforcement Routing Slip". Sections 2 and 3 include information necessary for HPV classification (i.e., Discovery Date, Day Zero, Addressing Action, Air Programs Violated, and HPV Criteria). The regional offices consult with VADEQ's Central Office (i.e., Air Compliance and/or Enforcement) and/or EPA as necessary. Once the Enforcement Routing Slip is completed, it is sent to VADEQ's Office of Air Inspections and Coordination along with a copy of the NOV. The Office of Air Inspections and Coordination then reviews the Enforcement Routing Slip for accuracy. A copy of the NOV and the Enforcement Routing Slip are then sent to the Enforcement Division for their review. Once it is confirmed that an HPV does exist, the Office of Air Inspections and Coordination manually links the Day Zero and other required information in AFS. In addition, the HPV is entered into an internal HPV data base maintained in VADEQ's office of Air Inspections and Coordination.

A review of the Enforcement Routing Slip showed the newly expanded HPV matrix criteria and "discretionary" HPV criteria are not included on the current version of the Enforcement Routing Slip.

14 of 33

When an HPV is considered to be addressed (e.g., Consent Order), the regional office generates another Enforcement Routing Slip and sends it along with a copy of the Consent Order to the Office of Air Inspections and Coordination. Personnel in the Office of Air Inspections and Coordination, in turn, link the addressing action in AFS.

Data Metric 4A –VADEQ's HPV discovery rate at major sources (**7.4 percent** of FCEs) in FY2006 was 80% of the national average (i.e., 9.3 percent). This exceeds the national goal of > 50% of the national average,

Data Metric 4B - VADEQ identified HPVs at **3.6 percent** of VADEQ's active major universe in FY2006. This was 82% of the national average (i.e., 4.4 percent) and exceeds the national goal of > 50% of the national average,

File Review Metric 4D – In FY2006, **64.3 percent** of VADEQ's formal enforcement actions executed were at major sources that received a prior HPV listing. This was 83% of the national average (i.e., 77.7 percent). This exceeds the national goal of > 50% of the national average.

File Review Metric 4E – Of the five HPV files selected for review, records show that VADEQ reported three of the five HPVs to EPA within 30 days of discovery. The two facilities that were not reported to EPA as HPVs in a timely manner were both reported to EPA on 11/6/06 were from the same regional office, and the files did not include the HPV documentation.

File Review Metric 4F – Of the 13 "violation" files selected for review, the Review Team believes that two violations identified in files as non HPVs possibly should have been classified as HPVs. Violations were identified at one facility that is classified as an SM source. Some of the violations related to destruction efficiency that could affect the facility's source classification status. Therefore, general criteria (GC) 3 would apply. Violations were identified at another facility for failure to conduct visible emissions (VE) readings. The review team believes that GC7 would apply.

The Review Team concluded that all five files reviewed with violations that were reported as HPVs did indeed rise to the level of an HPV.

Citation of information reviewed for this criterion:

- The Timely & Appropriate Enforcement Response to HPVs, June 23, 1999
- Minutes of FY2006 and FY2007 Timely and Appropriate meetings
- April 2001 CMS Policy.

Recommendations:

(1) Revise Enforcement Routing Slip to include the most up-to-date HPV criteria.

15 of 33

(2) Determine why two HPVs in one Regional Office were reported to EPA late, and if this is an issue in the other regions. Consider developing an ASOP for reporting HPVs to EPA along with supporting documentation (e.g., NOVs). Benchmark processes employed at the other Regional Office reviewed (where all HPVs reported were timely) and other regions where timely reporting of HPVs is not an issue.

(3) Include copies of HPV documentation in all enforcement files.

(4) The two potential HPVs that were not identified as such should be listed and tracked in AFS as HPVs.

Element 5 - The degree to which State enforcement actions include required corrective or complying actions (injunctive relief) that will return sources to compliance in a specified time frame.

Clean Air Act Source Universe Information	Number of Enforcement Actions
State formal enforcement actions	37 ¹¹ total at major and SM sources of which 11 address HPVs. Also, one enforcement action addressed a discretionary HPV at a minor source.
Number of enforcement files for review	Out of 40 files, 3 HPVs and 1 non-HPV with formal enforcement actions executed

File Review Metrics:

Metric 5a	% formal State enforcement actions that contain a compliance schedule or activities designed to return source to compliance	3/4 = 75.0%
Metric 5b	% formal or informal enforcement responses that return sources to compliance	4/8 = 50.0%

Findings:

Metric 5A: Formal state enforcement actions were associated with three HPV and one non-HPV files reviewed. The lone source which had a formal enforcement action that did not include injunctive relief and/or a compliance schedule had returned to physical compliance prior to the

¹¹Original metric 12h1 listed 42, but 4 were at minor sources. The above chart focuses on HPVs, consistent with the T&A Policy. Also, the original metric included two formal enforcement actions which were duplicates. This accounts for the 37 enforcement actions at major and SM sources.

execution of the Consent Agreement. However, where applicable, the formal enforcement actions do cite the actions taken by the source to return to compliance.

Metric 5B: Four of eight files reviewed documented the facilities' return to compliance where violations were found. There were an additional four facilities whose enforcement response had not returned the facility to compliance. Two of these facilities were in the process of completing the required injunctive relief in their respective Consent Agreements at the time of the file review. The third facility was issued an RCA on 9/12/06 for numerous violations identified during a PCE conducted on 8/3/06. As of 5/1/07, the facility has not returned to compliance, and no further enforcement actions had been issued. Page 3 of VADEQ's Guidance Memorandum DE-05-001 (dated 10/26/05) states that "if the responsible official fails to be *promptly* cooperative/receptive to the Informal Correction approach, staff should proceed directly to the issuance of a Warning Letter." Finally, because of the severity of the violations. At the fourth facility, the Review Team believes violations identified during a PCE dated 8/23/06 should have resulted in listing the source as an HPV under General Criteria (GC) 5 and 7. The PCE recommend that an RCA be issued. As of 5/1/07, no RCA or other enforcement had taken place.

Citation of information reviewed for this criterion:

- The Timely & Appropriate Enforcement Response to HPVs, June 23, 1999
- VADEQ Enforcement Manual, dated December 1, 1999 along with subsequent updates/revisions (i.e., guidance memorandums).

The Evaluation Team reviewed 13 files where violations were found.

Recommendations:

(1) VADEQ should investigate why appropriate enforcement action was not taken at two facilities and develop procedures as necessary to correct this across the Commonwealth.

Element 6 - The degree to which a State takes timely and appropriate enforcement actions, in accordance with policy related to specific media.

Clean Air Act Source Universe Information	Number of Enforcement Actions
17 of 33	(10/29/2007)

State formal enforcement actions	37 at major and SM sources of which 11 address HPVs. Also, one enforcement action addressed a discretionary HPV at a minor source
Number of enforcement files for review	13 files, of which 5 are HPVs and 8 are non-HPVs

Data Metrics:

		National Average	VADEQ
Metric 6a	% sources that were HPVs for at least one month in FY2006 and that remained unaddressed >270 days – State and joint-lead	46.30%	12.5% ¹²
Metric 6b	% of State-lead HPV pathways that exceeded the 270-day timeliness threshold in FY2006.	NA ¹³	12.9 ¹⁴
Metric 6c	All State formal actions taken during FY2006 at HPVs	NA	12 ¹⁵ by VADEQ or jointly at HPVs

File Review Metrics:

Metric	% of HPVs addressed or resolved appropriately	7/7 = 100%
6d		

Findings:

The Regional Offices are directly responsible for addressing, in an appropriate manner, all violations identified in their respective Regions. VADEQ addressed 14 HPVs in FY2006 with formal enforcement actions, either as state or joint enforcement. An additional HPV was resolved by returning the source to compliance by the state with no further enforcement action required.

¹²Original metric was 16.7% (i.e., 4/24). One facility was inadvertently included in the numerator. The records show that the three HPVs for this facility were addressed by a Consent Order executed on 4/13/06. The days to address the three HPVs were 265, 209, and 154 days respectively. Therefore, none of the HPVs remained unaddressed for > 270 days in FY2006. The actual metric is 3/24 = 12.5%.

 $^{^{13}}$ Original metric listed NA because data for this national metric was not available at the time of the 3/1/07 data download.

¹⁴Original metric listed NA because data for this metric was not available at the time of the 3/1/07 data download. The 12.9% (4/31 figure is based on HPV data for FY2006 from EPA's Region III's internal HPV tracking system on 6/1/07.

¹⁵Original metric listed 42. That number includes formal enforcement actions at all VADEQ facilities (i.e., both HPV and non-HPV violations). These 12 enforcement actions addressed 14 HPVs and include one formal enforcement action taken for an HPV at a minor source.

Specifically, the source was listed as an HPV for failing to pay a civil penalty in a February 2005 Consent Agreement. The source eventually paid the required civil penalty and associated late penalty. The Review Team believes that this HPV was resolved appropriately. All HPV files reviewed showed that these HPVs were addressed or resolved appropriately. **12.5 percent** of VADEQ's State or joint source HPVs in FY2006 remained unaddressed for more than 270 days (see Metric 6a). This compares favorably to the national average of 46.3 percent. **12.9 percent** of Virginia's HPVs that were State or joint-lead HPVs at any time in FY2006 were not addressed within the 270-day time line specified in the *Timely & Appropriate Enforcement Response to HPVs*, June 23, 1999. Two of the four pathways had the lead changed from a state to EPA in January 2006. Assuming that this occurred on 1/31/06, the total days unaddressed under state lead for the HPV with Day Zero of 4/14/2005 was 292 days, while the HPV with Day Zero of 6/2/2005 was 243 days. Another HPV was addressed 272 days after Day Zero.

The Office of Air Inspections and Coordination employs QA/QC processes to minimize the number of facilities that would be listed on EPA's Watch list because the HPVs were unaddressed for > 270 days. Specifically:

• Once an HPV is identified and linked in AFS, the Office of Air Inspections and Coordination monitors the progress of an HPV. The internal database generates a "Day 270" that is used to monitor unaddressed HPVs for potential inclusion on EPA's Watch List. If an unaddressed HPV comes within 100 days of Day 270, the internal database generates a warning flag. Another warning flag is generated if an unaddressed HPV comes within 50 days of Day 270.

• The Office of Air Inspections and Coordination monitors CEDS for new Consent Orders from facilities that currently have unaddressed HPVs associated with them. If the Office of Air Inspections and Coordination does not have a copy of the Consent Order, a call is placed to the Regional Office to determine if the Consent Order is related to the HPV.

Citation of information reviewed for this criterion:

The Timely & Appropriate Enforcement Response to HPVs, June 23, 1999.

The Evaluation Team reviewed 13 files where violations were found. CMRs for FCEs performed in FY2006 were reviewed as well as FCEs associated with the selected HPVs identified in prior years. To evaluate timely and appropriate enforcement, FY2007 files were also reviewed where FCEs in FY2006 resulted in violations being found but not addressed in FY2006.

Recommendations: None

Element 7 - Degree to which the State includes both gravity and economic benefit calculations for all penalties, appropriately using BEN model or similar State model.

Clean Air Act Source Universe Information	Number of Enforcement Actions
State formal enforcement actions	37 total at major and SM sources of which 11 address HPVs. Also, one enforcement action addressed a discretionary HPV at a minor source
Number of enforcement files with formal enforcement action for review	4 files, of which all are HPVs

File Review Metric:

Metric 7a	Percentage of formal enforcement actions that include calculation	4/4 =100 %
	for gravity and economic benefit.	

Findings:

All four files reviewed with completed formal enforcement included well documented assessed penalties. They all included Enforcement Recommendation Plans (ERPs) containing detailed penalty calculations and timelines detailing the progress of the negotiations with the company until the execution of the formal enforcement action.

The VADEQ's *Enforcement Manual*, dated December 1, 1999 along with subsequent updates/revisions (i.e., guidance memorandums) provides clear guidance and VADEQ's templates and other administrative policies outline clear procedures on how to assess penalties. VADEQ's guidance and policies very clearly state that gravity as well as economic benefit should be assessed as part of the penalty assessment process.

Citation of information reviewed for this criterion:

- EPA Clean Air Act Stationary Source Civil Penalty Policy (1991)
- *VADEQ Enforcement Manual*, dated December 1, 1999 along with subsequent updates/revisions (i.e., guidance memorandums)
- The Timely & Appropriate Enforcement Response to HPVs, June 23, 1999.

The Review Team reviewed four files which included formal enforcement.

*** Best Practices:** The Review Team believes that VADEQ's clear guidance, in the VADEQ *Enforcement Manual*, along with subsequent guidance memorandums, templates and other administrative policies that address how to assess penalties, may serve as a best practice for other state and local agencies.

Recommendations: None

20 of 33

Element 8 - Degree to which penalties in final enforcement actions include economic benefit and gravity in accordance with applicable penalty policies.

Clean Air Act Source Universe Information	Number of Enforcement Actions
State formal enforcement actions	37 total at major and SM sources of which 11 address HPVs. Also, one enforcement action addressed a discretionary HPV at a minor source
Number of enforcement files for review	13 files, of which 5 are HPVs and 8 are non-HPVs

Data Metrics:

		National Average or Total	VADEQ
Metric 8a	No activity indicator – penalties – State	NA	14 ¹⁶ (State-lead HPVs addressed in FY2006)
Metric 8b	Penalties normally included with formal enforcement actions at HPVs in FY2006 – State and joint	76.8%	100%

File Review Metrics:

Metric 8d	Percentage of final formal enforcement actions that appropriately document penalties to be collected	4/4 = 100%
--------------	---	------------

¹⁶Since the T&A Policy focuses on HPVs, formal enforcement actions that addressed state-lead HPVs in FY2006 only are listed in the above chart. This includes the one formal enforcement actions that addressed a discretionary HPV at a minor source. The original metric for 8a was 42 formal enforcement actions, but this includes non-HPVs and a duplicate formal enforcement action.

Metric	Percentage of final enforcement actions resulting in penalties collected	$3/3 = 100\%^{17}$
8e		

Findings:

All four HPVs that were addressed in FY2006 with a formal enforcement action included a penalty to be collected. This well exceeds the national average of 76.8%. Assessed penalties for the 14 State-lead HPVs (from 12 sources) that were addressed in FY2006 with formal enforcement actions totaled \$114,906. Where penalties were assessed and reported to EPA, these ranged in amounts from \$2,100 to \$27,700. The collected amounts reported to EPA at Timely and Appropriate meetings equal the assessed amounts.

As discussed under Program Element 7, the Review Team found documentation of initial penalty calculations to be sufficient in all of the four files reviewed where VADEQ had initiated formal enforcement action. Nonetheless, the initial penalty calculations documented in the files rarely equal the amount reported as "assessed" to EPA in AFS. This is to be expected because EPA has defined the "assessed" penalty, to be reported in AFS, as the amount included in the final order or decree. Thus, reductions in penalties from the initial calculations and before the final enforcement action is completed are often not reported in AFS. It should be noted that several Region III state and local agencies report both penalty assessed and penalty collected into AFS.

Finally, in addition to the penalties collected, three of the 12 enforcement actions that addressed HPVs in FY2006 included SEP dollars as part of the formal enforcement action penalties. The total value of the SEPs was \$79,525, plus environmental benefit was gained. All enforcement actions reviewed by the Review Team involving SEPs were found to conform to VADEQ's SEP guidance found in Chapter 5 of VADEQ's Enforcement Manual.

Citation of information reviewed for this criterion:

- EPA Clean Air Act Stationary Source Civil Penalty Policy (1991)
- *VADEQ Enforcement Manual*, dated December 1, 1999 along with subsequent updates/revisions (i.e., guidance memorandums)
- The Timely & Appropriate Enforcement Response to HPVs, June 23, 1999.

Recommendations: None Element 9 - The degree to which enforcement commitments in the PPA/§ 105 Grant/categorical grants are met and any products or projects are completed.

Clean Air Act Source Universe Information	Number of Agreements
	1

¹⁷ The fourth facility from file review metric 8a that is not included in file review metric 8b has a penalty that was to be collected after the Review team conducted the file review.

Performance Partnership Agreements	NA
Performance Partnership Grants	NA
Categorical Grants (SEAs)	NA
Other applicable agreements (e.g. enforcement agreements)	1 (MOU)
Total number of agreements	1
Number of agreements reviewed	1

Findings:

VADEQ's FY2006 Memorandum of Understanding (MOU) with EPA Region III lists the following compliance monitoring and enforcement commitments:

- Submit by July 1 of each year a revised Compliance Monitoring Plan;
- By 11/1/05, identify in AFS all sources planned to be inspected for FY2006;
- Participate in quarterly Timely & Appropriate conference calls/meetings;
- Identify to EPA all sources subject to the *Timely & Appropriate Policy* within the policy's time-frames and Air Protection Division enforcement guidance;
- Report specified data elements into AFS within 60 days of completion;
- Resolve actions consistent with the *Timely & Appropriate Policy*;
- On an as necessary basis, provide copies of NOVs and other non-compliance determinations for major and synthetic minor sources identified as HPVs during the monthly/quarterly conference calls and/or meetings. Provide copies of follow-up enforcement actions, penalty amounts, and dates paid. Also provide copies of follow-up enforcement actions, penalty amounts and dates paid.
- Operate Compliance and Inspection program consistent with April 2001 CMS Strategy;

VADEQ met all of the above commitments with the exception of the following:

23 of 33

In most cases, VADEQ met the MOU requirement to report to AFS within 60 days. However, the Review Team found some data accuracy and data completeness problems. These are discussed in Data Elements 11 and 12, respectively.

Two of the five HPVs reviewed were identified or reported to EPA more than 60 days after violation discovery (see metric 4E). In addition, the Review Team discovered two violations which the Team believes rose to the level of an HPV but were not reported to EPA as such. This does not conform with the *HPV Policy*.

Citation of information reviewed for this criterion:

- Air Quality Management Title V Operating Permits Program and Air Compliance and Enforcement Program Memorandum of Understanding Between the Virginia Department of Environmental of Air Quality and U.S. EPA Region III Air Protection Division, August 2005
- Timely and Appropriate Meeting minutes
- 2005 Information Collection Rule.

Recommendations:

- (1) See Recommendations under Program Element 11 regarding data accuracy.
- (2) See Recommendations under Program Element 12 regarding data completeness.
- (3) See Recommendations under Program Element 4 regarding late HPV reporting.

Element 10 - Degree to which the Minimum Data Requirements are timely.

Data Metric:

		National Average	VADEQ
Metric 10a	Percent of HPVs that are entered to AFS more than 60 days after the HPV designation - State only	57.6%	16.7%

File Review Metric:

Metric Or	HPVs are identified within 45 days after inspection, review, etc.

FCEs are entered into AFS within 60 days of inspection date	
Final stack test results are entered into AFS within approximately 120 days of conduct of test	

Findings:

Minimum Data Requirements (MDRs) represent the minimum amount of data that EPA and the states believe is necessary to manage the national air stationary source compliance monitoring and enforcement program. HPV pathways stack test results, Title V Annual Certification reviews and compliance status are examples of the 26 MDRs. The FY2006 MOU required that VADEQ enter into AFS within 60 days of completion the following: identified, addressed, and resolved HPVs; Inspection compliance status; penalties assessed and penalties paid; permits issued: Title V, major NSR/PSD, and SM; dates of tests, pollutants tested, and compliance results for stack tests for major sources; and date reviewed and facility compliance status for Title V annual compliance certifications.

As shown in Metric 10a, **16.7 percent** of all state-lead HPVs were entered into AFS more than 60 days after the HPV was identified. This compares favorably to the national average of 56.4 percent. However 40% (2/5) of the HPVs reviewed as part of the regional file reviews were reported to EPA more than 60 days after the HPV was identified. See Data Elements 4e and 9. The Review Team found that in general, FCEs are being entered into AFS within 60 days of inspection date.

VADEQ's FY2006 MOU (effective October 1, 2005) requires stack testing events to be entered into AFS within 60 days. Stack test results must be entered within the next 60 days, so that results are available in AFS within 120 days of each stack test date. See Data Element 11 for discussion of potential data timeliness/accuracy issue.

Title V Annual Certifications - The Review Team found no timeliness problems associated with the entry of Title V Annual Certifications reviews. However, they did find data quality issues with the Title V Annual Certification review data. See Data Element 11.

Compliance Status - See Data Element 11.

Citation of information reviewed for this criterion:

(1) CMRs for FCEs performed in FY2006 were reviewed as well as CMRs associated with the selected HPVs identified in FY2006. Additionally, to evaluate timely and appropriate enforcement, FY2007 files were reviewed where FCEs in FY2006 resulted in violations being found but these were not addressed in FY2006.

(2) Air Quality Management Title V Operating Permits Program and Air Compliance and Enforcement Program Memorandum of Understanding Between the VADEQ and U. S. EPA

25 of 33

Region III Air Protection Division, August 2005

Recommendations: None

Element 11 - Degree to which the Minimum Data Requirements are accurate.

Clean Air Act Source Information	Compliance Monitoring (FY2006)
Full Compliance Evaluations - Major and SM sources	683 FCEs ¹⁸
Partial Compliance Evaluations	7330 PCEs ¹⁹
Total Number of Evaluations	8013
Number of inspection files for review	40

Data Metrics:

		National Average	VADEQ
Metric 11a	# sources with HPVs/ # sources in violation - operating major sources only – combined	97.1%	82.9% ²⁰
Metric 11b1	% of stack tests conducted & reviewed without pass/fail results code entered to AFS - State-only	15.5%	0% ²¹
Metric 11b2	# of Federally-reportable sources with stack test failures - State-only		15

File Review Metric:

Metric 11c	Accuracy of MDRs	12 out of 40 files reviewed (30.05%) and compared to AFS showed at least minor errors in AFS
		in AFS

Findings:

¹⁸Metric 12d2

¹⁹Metric 12d2

²⁰This metric considers sources whose compliance status as "meeting schedule" to be "in compliance" ²¹The original metric of 0.6% included a duplicate stack test record. The final metric is 0/166 = 0%.

The Review Team found most data in AFS to accurately match VADEQ's files. The ratio of major sources in Virginia that are HPVs to total Virginia major sources in violation at anytime during FY2006 (82.9%) compares favorably to the national average of 97.1% (**Data Metric 11a**). **Data metric 11b1** shows that all FY2006 stack test data included a Result Code as of 3/1/07.

The Review Team did find some data accuracy problems. These are discussed below.

Unknown Compliance Status: As of 3/1/07, eight CMS sources are listed in AFS with an "unknown" compliance status. Details of these eight sources are discussed in Element 1 under Data Metric 1g.

Compliance Status of Violating Sources: HPV source compliance status should be listed in AFS as "out of compliance" from the date that the violation was identified to the date that the HPV was resolved. A closer look at the HPVs sources showed that out of the 34 major sources with active HPV pathways during FY2006, ten were "in compliance" during the entire FY2006. Two facilities were EPA-lead HPVs and are EPA's responsibility for ensuring accurate compliance status. The remaining eight facilities were Virginia HPVs for which VADEQ is responsible for maintaining accurate compliance status. The Review Team has not identified the reasons for compliance status errors for all the VADEQ HPVs.

Title V Annual Certifications: Some Title V Annual Certifications reviewed by VADEQ may be inaccurate. According to AFS, 316 Title V Annual Certifications at 288 facilities were reviewed by VADEQ in FY2006. In particular, three facilities had multiple Title V Annual Certifications reviewed on the same date. Theoretically, only one Title V Annual Certification per source should be due during a fiscal year.

Stack Test Data: As shown in **Data Metric 11b2**, 15 stack test results in FY2006 are entered as "failure" in AFS. Three of the fifteen stack test failures were identified by VADEQ as HPVs.

During the file review, the Review Team noticed that the date of the actual stack test was not reported to AFS as the date when VADEQ observes a stack test. Namely, the date of the stack test was entered in AFS as the date of the stack test review. VADEQ told the EPA Review Team that when VADEQ observed a stack test, this action was uploaded to AFS as an "on-site" PCE. This resulted in the date of the stack testing becoming the date of the stack test review. VADEQ informed the Review Team that beginning in FY2007 (i.e., 10/1/06), this problem has been corrected. When VADEQ does not observe a stack test, the date of the stack testing event was found to be accurate in AFS.

Assessed penalties in Administrative Orders associated with SEPs: As discussed in chapter 8, three of the VADEQ's 12 enforcement actions that addressed HPVs in FY2006 included SEPs as part of the formal enforcement action. When Data Metric 8b was run from *OTIS* on 3/1/07, two of the three facility's SEP values were included in the assessed penalties (i.e., "penalty amounts"). The SEP value is not supposed to be included in the assessed penalties that are reported to AFS. Data Metric 8b was rerun on June 11 and the results showed that the assessed

27 of 33

penalties from the two facilities to no longer include the SEP values. See Data Metric 12i for additional discussion on this issue.

Minor Discrepancies - Of the 40 files reviewed for data accuracy, some minor discrepancies were found. Specifically:

- One source that was classified as an SM at the time of the file review was still classified as a major source in the CMS Plan. The class was updated by VADEQ on 5/7/07;
- One source had an Administrative Order with a different date in AFS;
- Two facilities had mailing addresses listed in the files that did not match AFS;

• The result of a Title V Annual Certification for one facility was "in compliance" even though the facility had failed a stack test and an NOV was issued during the Certification period;

• One source had a Title V Annual Certification date that differed in AFS by a few days and;

• For one source, the date of the FCE in the file was different than the date in AFS by a few days.

Citation of information reviewed for this criterion:

- The Timely & Appropriate (T&A) Enforcement Response to High Priority Violations (HPVs), June 23, 1999
- Final Clean Air Act National Stack Testing Guidance dated September 2005
- 2005 Information Collection Rule.

In addition, EPA reviewed the following files that indicated violations:

- 5 HPV files
- 3 major source files not reported as HPV
- 5 SM source files not reported as HPV

For the metric data, EPA reviewed the following in AFS for FY2006:

- HPV data,
- Compliance data
- Title V Annual Certification data
- Stack Test data
- "Classification" data
- NOVs issued.

Recommendations:

(1) VADEQ should develop procedures to ensure that all VADEQ HPVs are listed in AFS as "out of compliance" once a violation is identified and are returned to "compliance" once the HPVs are resolved.

(2) VADEQ should review facilities that, according to AFS had multiple Title V Annual Certifications reviewed by VADEQ for data accuracy. Update AFS as appropriate.

(3) At a minimum, VADEQ should review all stack tests conducted in FY2007 to ensure that the stack testing event dates are accurate.

Element 12 - Degree to which the Minimum Data Requirements are complete, unless otherwise negotiated by the Region and State or prescribed by a national initiative.

Metric 12a1	AFS operating major sources	303
Metric 12a2	AFS operating major sources w/ air program code = V	302
Metric 12b1	Major sources per OTIS	303
Metric 12b2	Synthetic minor sources per OTIS	1422
Metric 12b3	NESHAP minor sources per OIIS	4
Metric 12d1	Sources with FCEs in FY2005 and FY2006 (major and SM operating sources, State-only)	675
Metric 12d2	Total FCEs completed in FY2005 and FY2006 (major and SM operating sources,	683
Metric 12e	# of sources that had violations at any point during FY2006 – combined	147, of which 79 are major or synthetic minor sources
Metric 12f1	# of NOVs issued in FY2006 - State only	71
Metric 12f2	# of sources with NOVs in FY2006 - State- only	64
Metric 12g1	# of new HPVs (pathways) in FY2006 - State-only	18

Data Metrics:

Metric 12g2	# of new source HPVs in FY2006 - State- only	17
Metric 12h1	# of State formal actions issued in FY2006, major and synthetic minor sources	37
Metric 12h2	# of sources with State formal actions in FY2006, major and synthetic minor sources	36 ²²
Metric 12i	Total dollar amount of State-assessed penalties in FY2006	\$311,472 ²³
Metric 12j	# of major sources missing CMS Policy applicability	1 major source w/o CMSC field

Findings:

Based on periodic analysis of the data by EPA Region III, VADEQ's data in AFS appears to be complete with the following exceptions:

Metric 12i: When the original data metrics were run on 3/1/07, some assessed penalties entered by VADEQ appeared to be including portions of civil charges associated with SEPs. VADEQ reviewed all formal enforcement actions executed in FY2006 and corrected the assessed penalties in AFS as of 4/16/07. This data metric was rerun in OTIS on 6/15/07 and the results confirmed VADEQ's revised total assessed penalty of \$311,472.

Metric 12j: AFS, as of 3/1/07, lists one source as a major source with a blank CMS Source Category (CMSC) field. VADEQ informed the Review Team that this is actually a synthetic minor source.

Others:

• During the file review, the Review Team found one Title V Annual Certification review in the files that was not entered into AFS; and

• During the file review, the Review Team found four stack test documents in the files that were not entered into AFS.

Citation of information reviewed for this criterion:

- CAA Stationary Source Compliance Monitoring Strategy, April 25, 2001
- VADEQ's MOU files.

²²Original metric lists 40 sources, but 4 of these were at minor sources.

²³Original metric lists \$375,805, but this included some penalties associated with SEPs, a duplicate record and a missing record. When the corrections are made, the revised amount is \$311,472.

Recommendations:

(1) VADEQ should review all formal enforcement actions executed since FY2004 that included SEPs to make sure that SEP values are not included as part of the assessed penalties.

(2) See Recommendations under Program Element 1 regarding updating the CMS Plan.

Action: Done. The CMSC has been updated to reflect that this is actually a synthetic minor source and is to be inspected at a five-year frequency which is appropriate for synthetic minor sources.

(3) See Recommendations under Program Element 11 regarding entry of compliance status where violations were found.

(4) Enter the one Title V Annual Certification review and four stack tests identified above into AFS.

Virginia Department of Environ			South	South			West	
FY2006	Northern	Piedmont	Central	West	Tidewater	Valley	Central	Average
CMS Source Universe/Inspector	30.27	24.27	28.60	48.33	46.50	48.80	27.33	36.30
CMS Source Universe/Enforcement Staff	25.62	20.54	23.83	41.43	34.88	34.86	23.43	29.23
# of Majors/Inspector	3.55	5.18	6.60	5.33	8.67	7.60	7.00	6.28
# of Majors/Enforcement Staff	3.00	4.38	5.50	4.57	6.50	5.43	6.00	5.05
# of Synthetic Minors/Inspector	26.73	19.09	22.00	43.00	37.83	41.20	20.33	30.03
# of "SMs"/Enforcement Staff	22.62	16.15	18.33	36.86	28.38	29.43	17.43	24.17
HPVs/FCE (Majors & SMs)	0.01	0.04	0.00	0.05	0.02	0.01	0.07	0.03
HPVs/NOV	0.06	0.38	0.00	0.38	0.33	0.33	0.45	0.28
HPVs Identified/Inspector	0.09	0.27	0.00	0.83	0.33	0.40	0.83	0.39
HPVs Identified/Enforcement Staff	0.08	0.23	0.00	0.71	0.25	0.29	0.71	0.32
HPVs on Watch List/Inspector	0.09	0.00	0.00	0.33	0.00	0.20	0.00	0.09
HPVs on Watch List/Enforcement Staff	0.08	0.00	0.00	0.29	0.00	0.14	0.00	0.07
Number of FCEs at "A" Sources/Inspector	1.82	2.36	3.20	3.17	4.00	4.60	4.33	3.35
Number of FCEs at "A" Sources/Enforcement Staff	1.54	2.00	2.67	2.71	3.00	3.29	3.71	2.70
Number of FCEs at "SM" Sources/Inspector	5.64	4.45	11.40	12.83	9.67	33.00	8.33	12.19
Number of FCEs at "SM" Sources/Enforcement Staff	4.77	3.77	9.50	11.00	7.25	23.57	7.14	9.57
Total # of Stack Tests Conducted/Universe	0.16	0.08	0.22	0.01	0.07	0.10	0.09	0.10
# Sources where stack tests were								
conducted/Universe	0.05	0.05	0.10	0.01	0.04	0.04	0.05	0.05
Title V Annual Certs Reviewed/Inspector	2.64	5.27	7.20	5.67	10.67	7.40	8.33	6.74
NOVs Issued/Inspector	1.55	0.73	2.00	2.17	1.00	1.20	1.83	1.50
NOVs Issued/Enforcement Staff	1.31	0.62	1.67	1.86	0.75	0.86	1.57	1.23
Penalties Assessed/ Formal Enf. Action	\$7,067	\$18,050	\$6,333	\$4,139	\$6,700	\$10,598	\$5,064	\$8,279
Penalties Assessed/Inspector	\$4,497	\$6,564	\$5,067	\$4,829	\$4,467	\$10,598	\$9,284	\$6,472
Penalties Assessed/Enforcement Staff	\$3,805	\$5,554	\$4,222	\$4,139	\$3,350	\$7,570	\$7,958	\$5,228

Appendix 1 Virginia Department of Environmental Quality (VADEQ) State Review Framework Regional Office Review

notes: (1) unless otherwise noted, SM numbers include all SM facilities (i.e., both SM-80s and non SM- 80s) Universe includes Major and all SM sources

32 of 33

(10/29/2007)

Appendix 2

Regional Enforcement Statistics

FY2006	Northern	Piedmont	South Central	South West	Tidewater	Valley	West Central	Totals
Source Universe - Majors (*)	39	57	33	32	52	38	42	293
Source Universe SMs (**)	294	210	110	258	227	206	122	1427
Source Universe - Total (**)	333	267	143	290	279	244	164	1720
Number of Inspectors (#)	11	11	5	6	6	5	6	50
Total Number of Enforcement Staff (#)	13.0	13.0	6.0	7.0	8.0	7.0	7.0	61
HPVs Identified - FY2006	1	3	0	5	2	2	5	18
HPVs Addressed (@)	2	2	0	2	1	4	4	15
HPVs on Watch List (\$)	1	0	0	2	0	1	0	4
Number of FCEs at "A" Sources:	20	26	16	19	24	23	26	154
Number of FCEs at "SM" Sources:	62	49	57	77	58	165	50	518
Total Number of FCEs ("A" and "SM" sources)	82	75	73	96	82	188	76	672
Total Stack Tests Conducted	52	22	31	3	19	24	15	166
# Sources where stack tests were conducted	16	13	14	2	10	9	9	73
Title V Annual Certs Reviewed	29	58	36	34	64	37	50	308
NOVs Issued (^)	17	8	10	13	6	6	11	71
Penalties Assessed (∞)	\$49,471	\$72,200	\$25,333	\$28,972	\$26,800	\$52,990	\$55,706	\$311,472
Formal Enforcement Actions (®)	7	4	4	7	4	5	11	42

(*) As of June 2007 per OTIS

(**) As of June 2007, per OTIS; Includes all SMs

(#) As of June 2007, including vacancies

(@) Includes 1 HPV that was addressed/resolved via "2K" (i.e., return to state - no further enforcement taken)

(\$) State Review Framework Data Metric 6a

(^) State Review Framework Data Metric 12f1

(∞) State Review Framework Data Metric 12h1

(®) State Review Framework Data Metric 12i

NPDES Virginia State Review Framework

MAJOR STATE PRIORITIES AND ACCOMPLISHMENTS

- Priorities
- 1. VADEQ's inspection strategy is being revised to reflect a riskbased

approach with an emphasis on environmental results.

- 2. provide compliance assistance
- Accomplishments
- Best Practices

٠

- 1. VADEQ values its data coordinator and compliance auditors.
- 2. Regional Directors have performance standards that hold them accountable for consistency among the Regional Offices.
- 3. The Water Point system flags violations at major facilities early so that they can be addressed with compliance assistance or informal enforcement activities prior to problems continuing to SNC status.
- Other
 - 1. Virginia's Office of Economic Development says, "businesses want to locate in areas that provide good quality of living which attracts high quality employees. Businesses are willing to pay more and stay in compliance with environmental laws as long as the rules are fairly applied, give some certainty, are consistent and complete."
 - 2. Up until the 1990s, all permits were sent to VA DEQ's Central Office for review and concurrence. Now, the Regional Offices are independent but consistent with one another when it comes to NPDES program implementation. The Central Office develops the annual inspection strategy, which is a deliverable under the PPA and 106 grant.

II. MEDIA PROGRAM REVIEWS

Media Program Evaluated: CWA, NPDES-Compliance and Enforcement Regional Contact: Ingrid H. Hopkins, State Coordinator/Enforcement Officer Phone: (215)814-5437 State Contact/Coordinator: John E. Ely, Enforcement Policy Manager Phone: (804)698-4249

A. BACKGROUND INFORMATION

On March 31, 1975, EPA delegated the NPDES Permit and Enforcement Program to the Virginia Department of Environmental Quality (VADEQ). This Memorandum of Agreement (MOA) was subsequently updated in 1982, 1989, and 1991. VADEQ is comprised of a Central Office, seven Regional Offices, one satellite office and two additional, media-specific local offices.

VADEQ Agency Management

David K. Paylor, Director, Virginia Department of Environmental Quality Richard F. Weeks, Chief Deputy, Virginia Department of Environmental Quality James J. Golden, Deputy Director, Virginia Department of Environmental Quality

VADEQ - Central Office (Enforcement)

Michael G. Dowd, Director, Division of Enforcement Kathleen F. O'Connell, Water Enforcement Program Manager

The Division of Enforcement provides a supportive role to the Regional Offices by lending its expertise and providing guidance on policy. The Division assists and coordinates statewide implementation of the agency's enforcement programs by developing appropriate enforcement policies and procedures, providing training to staff, reviewing regional implementation of enforcement policies and procedures and case development. Also, the Division comments on administrative enforcement case documents and litigation positions and strategies in anticipation of referrals to the Attorney General's Office.

VADEQ – Central Office (Compliance)

William E. Purcell, Director, Water Compliance Programs

VPDES facilities are inspected on a regular basis to ensure compliance with permit requirements. VA DEQ compliance inspectors monitor various types of permitted facilities. They advise operators of situations requiring corrective action in order to maintain compliance with state and federal regulations. Non-permitted facilities are also inspected, usually in response to complaints. The regional offices use a pollution response program where complaints are investigated. Appropriate follow-up action is taken and may include letters of non-compliance, Notices of Violation, or referrals to regional enforcement staff for Consent Orders. The types of facilities inspected include laboratories, landfills, sewage treatment plants, industrial, private, military and government sources and more.

Regional Offices

VADEQ's seven regional offices are the primary point of contact for the regulated community and the public for permitting, enforcement and pollution response. Regional activities include: issuing permits, overseeing remediation of petroleum contamination sites, monitoring air and water quality, compliance assessment, and enforcement of statutory, regulatory and permit requirements. The regional staffs are the first to respond to suspicion of non-compliance and are responsible for development and conclusion of enforcement actions.

Northern Virginia Regional Office (NVRO) is located in Woodbridge, VA and serves Arlington, Caroline, Culpeper, Fairfax, Fauquier, King George, Loudoun, Louisa, Madison, Orange, Prince William, Rappahannock, Spotsylvania, and Stafford counties; and the cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, and Manassas Park.

Piedmont Regional Office (PRO) is located in Glen Allen, VA and serves Amelia, Brunswick, Charles City, Chesterfield, Dinwiddie, Essex, Gloucester, Goochland, Greensville, Hanover, Henrico, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Powhatan, Prince George, Richmond, Surry, Sussex and Westmoreland counties; and the cities of Colonial Heights, Emporia, Hopewell, Petersburg and Richmond.

Tidewater Regional Office (TRO) is located in Virginia Beach, VA and serves Accomack, Isle of Wight, James City, Northampton, Southampton and York counties; and the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach and Williamsburg.

Valley Regional Office (VRO) is located in Harrisonburg, VA and serves Albermarle, Augusta, Bath, Clarke, Fluvanna, Frederick, Greene, Highland, Nelson, Rockbridge, Rockingham, Shenandoah, and Warren counties; and the cities of Buena Vista, Charlottesville, Harrisonburg, Lexington, Staunton, Waynesboro and Winchester.

Southwest Regional Office (SWRO) is located in Abingdon, VA and serves Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth,

Tazewell, Washington, Wise and Wythe counties; and the cities of Bristol, Galax and Norton.

West Central Regional Office (WCRO) is located in Roanoke, VA and serves Alleghany, Bedford, Botetourt, Craig, Floyd, Franklin, Giles, Henry, Montgomery, Patrick, Pulaski and Roanoke counties; and the cities of Bedford, Clifton Forge, Covington, Martinsville, Radford, Roanoke and Salem.

South Central Regional Office (SCRO) is located in Lynchburg, VA and serves Amherst, Appomattox, Buckingham, Campbell, Charlotte, Cumberland, Halifax, Lunenburg, Mecklenburg, Nottoway, Pittsylvania and Prince Edward counties; and the cities of Danville and Lynchburg.

To carry out its mission, the Department has established the following goals:

- •take timely, appropriate, fair, consistent, and effective enforcement actions;
- •approach enforcement, whenever possible, in a helpful, cooperative, and non-confrontational manner;
- •stop and correct repeat and /or ongoing violations;
- •bring facilities into compliance;
- •prevent future violations;
- •remove the economic benefit of noncompliance;
- •ensure economic advantage is not obtained through noncompliance;
- •remediate the environmental impact of past violations;
- •assist the regulated community in achieving and maintaining compliance with environmental requirements;
- •send a clear message that compliance is important; and
- •notify appropriate prosecutorial authorities of suspected violators when there is reason to believe criminal activity is involved.

Source Universe

Statewide, VADEQ manages 139 major VPDES permittees, 981 individual minor permittees and over 3,200 general permittees.

The Valley Regional Office has 22 majors and 179 minors and 795 general permittees, while the Piedmont Regional Office oversees 21 VPDES majors, 162 minors and 423 general permits.

Corrections

The review team referenced the final inspection numbers provided via the FY'2006 106 grant quarterly progress reports. The inspections reported cover the timeframe October 1, 2005 through September 30, 2006. During this time, VADEQ conducted 1613 inspections during fiscal year 2006.

The data metrics reflect 28 formal enforcement actions during FY'2006.

According to VADEQ's information, there were

51 formal enforcement actions (Consent Orders) issued statewide with total civil charges of \$434,400 during FY'2006.

For the 28 orders in OTIS, it appears that nine were general permit or unpermitted discharges. There are three that are in PCS but for some reason are not included in OTIS. Two have recently been uploaded into PCS due to PCS uploading problems and were not in OTIS yet. Data entry for nine of the orders require correction in the state database, CEDS. We are in the process of making those corrections. Three have already been completed.

REVIEW PROCESS

Key Dates

- The review period spans Fiscal Year 2006 (10/1/05-9/30/06).
- The inspection data follows the federal inspection year (7/1/05-6/30/06). DEQ feels that this timeframe will not adequately showcase the efforts that the regions have expended for implementation of the compliance and enforcement programs.
- EPA formally notified the state of the pending SRF during a kick-off meeting on February 28, 2007
- EPA's compliance and enforcement program elected to conduct the reviews at the Valley and Piedmont Regional Offices. The file reviews took place on May 7-8, 2007 and May 9, 2007, respectively.
- Data Analysis
- A close-out conference call was held with the Valley Regional Office on May 25, 2007.
- A close-out conference was held at the Piedmont Regional Office on May 9, 2007.

Review Process

There are seven (7) regions in DEQ that manage the compliance and enforcement activities throughout the state. The regions at the focus of the State Review Framework are:

Valley Regional Office		Piedmont Regional Office
4411 Early Road	and	4949 Cox Road
Harrisonburg, VA		Glen Allen, VA

The file review process concluded at both regional offices on May 9, 2007. The EPA review team included Patricia Gleason (Management Designee), Chuck Schadel, Ingrid H. Hopkins, and Ashley Toy. The VADEQ regional office contacts included Donald G. Kain (Valley) and James R. Bell (Piedmont), Regional Water Compliance Managers. The VADEQ Management Designee/Coordinator was John E. Ely of VADEQ's Central Office.

Due to the lack of human resources available to conduct the review, EPA management opted to review only two VADEQ regional offices. The Valley Regional Office was selected for its large number of NPDES CAFO facilities, the number of inspections conducted in FY'2006, as compared to the other regional offices and its various types of NPDES permittees. The Piedmont Regional Office was selected based upon the "mid range" numbers of inspections in FY'2006. Ultimately, there were no files reviewed in the CAFO program sector.

Preparation for the file reviews consisted of numerous communications with the DEQ Central Office, that included regular conference calls and e-mails with management and staff, who are knowledgeable of the program and could readily provide data.

C. FILE SELECTION PROCESS

Universe

In the Valley Regional Office, 10 inspection files and 10 enforcement files were evaluated. The regional universe equates to 287 inspection records, 12 formal and 306 informal enforcement actions.

In the Piedmont Regional Office, 10 inspection files and 8 enforcement files were evaluated from a universe of 235 inspection records, 9 formal and 99 informal enforcement actions.

EPA Region III attempted to incorporate CAFOs into the review; however, the CAFO program is not funded by the 106 federal grant program. This resulted in our inability to establish this category as part of the review.

The City of Richmond is the sole CSO facility that might have been involved in this review. The City of Richmond is located within the Piedmont Region. The City of

Richmond was not considered for review based upon its compliance schedule which is enforceable via a formal enforcement order issued by DEQ on March 17, 2005.

Due to transfer of the MS4 and storm water construction programs from VADEQ to the Department of Conservation and Recreation (DCR) in January 2005, EPA did not consider these programs for review; hence these numbers are not interpreted at 1c and 12a.2.

An inventory of SSO events/incidents for the subject fiscal year has been provided by the Central Office for the Valley and Piedmont regional offices. EPA anticipated reviewing a sampling of these; however, the data, which is not contained in PCS, was not readily attainable. The SSO inventory is maintained region by region, in a state database/spreadsheet. The data was not available during the timeframe the state was receiving file selections from EPA.

File Selection

VADEQ oversees a large spectrum of permit types. The Valley and Piedmont Regional file selection process was random. Few formal enforcement actions were issued; however, a large number of inspections were conducted. The resulting file selection included individual inspections, individual formal actions, and individual informal actions. General permit inspections and general permit informal actions were also included. There were no general permit formal actions to review.

In the initial file selection process and for its representativeness, EPA selected a VPA (Virginia Pollution Abatement) permit file to review in the General Permit Informal Action Category. At the time of review the team was informed by the regional office that the permit is not an NPDES permit. The VPA permit replaces a No Discharge Certificate and is issued under Virginia State law. Facilities receiving a VPA certificate do not generally discharge to waters, their discharge is circumstantial. Upon receipt of this information, EPA promptly eliminated this file for review.

File Maintenance

The central filing systems for both regional offices are maintained onsite. Case files are tabulated by color. The tabulations dictate what type of documentation is contained in each file, such as, permit information, technical information, DMRs, inspections, enforcement and general correspondence.

The filing systems appeared to sufficiently support the needs of the VADEQ regional offices. Records were well organized which allowed the team to expeditiously locate the necessary documents. Seldom did the review team shuffle through additional files for missing records. In limited occurrence, a few records were contained in an inspectors office, in a working file.

1. Degree to which state program has completed the universe of planned inspections/evaluations (covering core requirements and federal, state, and regional priorities).

Data Metrics

	Description	National Goal	VA Total/Avg- PCS
Metric 1a	Inspection coverage: NPDES Majors	100%	77.3%*
Metric 1b	Inspection coverage: NPDES Nonmajors	N/A	35%
Metric 1c	Inspection coverage: other	N/A	

* The inspection data for metric 1a follows the federal NPDES inspection year (7/1/05-6/30/06) as specified in the SRF data metric. DEQ plans and conducts inspections based on the federal fiscal year (October 1-September 30) (metric 1r).

File Metric

	Description	VA SRF Review
Metric 1r	Percent of planned inspections completed	100%

There were 139 majors and 981 minors identified in PCS. The FY'2006 EPA/VADEQ PPA-PPG106 Grant Agreement provides for "902 major and minor NPDES inspections, e.g., Compliance Evaluation Inspections (CEIs) and Compliance Sampling Inspections (CSIs)." The PPG goes on to state that "VADEQ will conduct inspections in accordance with its current inspection strategy" and will report to EPA on "Inspection Type." The 2002 DEQ Inspection Strategy (Guidance Memo No. 02-2006) identifies the types of inspections to include "VPDES Technical Inspections," "VPDES Laboratory Inspections," and "VPDES Sampling Inspections." VADEQ reports to EPA on those inspection types, plus VPDES Reconnaissance Inspections. VADEQ reports that a Tech inspection corresponds to a CEI, a Tech/Lab inspection corresponds to a PAI; and a sampling inspection corresponds to a CSI.

Finding(s):

During FY'2006, 100% NPDES majors were inspected. VADEQ's inspection strategy resulted in 1,613 inspections conducted at major and minor facilities. However, 83 of those inspections are reconnaissance inspections, which are not considered as part of this review. This number is almost twice the commitment documented in the 106 Grant Agreement. VADEQ's "technical" NPDES inspections

are fully comprehensive in nature and exceed the expectations of the CEI and/or CSI inspections, but are these inspections do not get reported in PCS.

- Upon review of the PCS database, it appears that VADEQ does not conduct compliance evaluation inspections (CEIs),
- because the technical inspections they conduct that meet the requirements of a CEI and CSI are not reported in PCS.
- VADEQ does provide quarterly Water Compliance Inspection Reports to EPA, in accordance with the 106 grant
- agreement. This report does account for VADEQs numerous technical inspections which are comparable to the federal

CEIs.

The 106 Grant Agreement or the 1975 Memorandum of Understanding, Paragraph IV.2.b., does not require VADEQ to

enter compliance monitoring and inspection activities into PCS.

Recommendation(s):

EPA and VADEQ should clarify the 106 Grant Agreement by providing a link between CEI and CSI inspections and the types of inspections referenced in the VADEQ Inspection Strategy and require VADEQ to report inspections into PCS in order to get appropriate credit for inspections conducted.

2. Degree to which inspection reports and compliance reviews document inspections findings, including accurate descriptions of what was observed to sufficiently identify violations.

There were twenty (20) inspection case files reviewed. Twelve (12) were individual major and minor permittees. Eight (8) were general permit facilities. VADEQ inspectors completed their inspection findings on the appropriate checklists and any requirements or recommendations identified had been itemized. The review team observed photographs, CDs, supporting documentation and sampling results attached to applicable inspection reports, as needed, to support a finding of noncompliance. Often times, the inspection findings/narrative identified required actions that resulted in the issuance of a Warning Letter for corrective action. VADEQ inspectors also utilize pink referral sheets when a violation having an environmental impact is noted during an inspection. The pink referral sheets are forwarded to a compliance auditor who then generates a 15-day warning letter that requests corrective action. Of the inspection files reviewed, the team observed two (2) pink referral sheets relating to Super Concrete and LexisNexis.

File Metrics

Description	VA SRF
	Review

Metric 2a	Percentage of inspection reports that are adequately	100%
	documented	

Finding(s):

All (100%) of the inspections reports that were reviewed had adequate documentation. VADEQ inspectors completed their inspection findings on the appropriate checklists and any requirements or recommendations identified had been itemized. The review team observed photographs, CDs, supporting documentation and sampling results attached to applicable inspection reports, as needed, to support a finding of noncompliance. As noted, records were well organized, which allowed the team to expeditiously locate the necessary documents. Not all handwritten notes were legible.

Recommendation(s): None.

3. Degree to which inspection reports are completed in a timely manner, including timely identification of violations.

File Metrics

	Description	VA SRF Review
Metric 3a	Percentage of inspection reports which identify potential violations in the file within a given timeframe established by the Region and State	90%

Finding(s):

The EPA review team reviewed 20 inspection files comprised of 6 major, 6 minor and 8 general permits. 90% of the inspection reports were completed in a timely manner, 14 of these documented potential violations. The review identifies two occasions where inspection checklists were late. One report was concluded within 46 days of inspection and another report concluded at 70 days. The Clean Water Act (CWA) Enforcement Management System (EMS) guidance provides for distribution of sampling inspection reports within 45 days of the date of the inspection where as non-sampling inspections should be distributed within 30 days of inspection. Although not documented in either file, VADEQ did inform the team of the possibility that the two (2) inspections reports were not finalized timely due to extenuating circumstances, such as awaiting supporting documentation from the facility, contractor, engineer or other responsible party to circumstantiate some valid point or piece of evidence.

Recommendation(s):

If there are extenuating circumstances where VADEQ anticipates a delay, VADEQ should document the file with an explanation as to why an inspection report may not be completed in a timely manner.

4. Degree to which significant violations (e.g., significant noncompliance and high priority violations) and supporting information are accurately identified and reported to EPA national databases in a timely and accurate manner.

Single Event Violations (SEVs) should be entered into the national legacy system for majors only. Statewide, DEQ has reported 8 SEVS to the national data system; however, the Piedmont and Valley regions are not responsible for any of the reported violations.

	Description	National Average	VA Total/Avg- PCS
Metric 4a	Single Event Violations (SEVs) reported to national system (non-automated violations arising from inspections and compliance monitoring)	N/A	8
Metric 4b	Frequency of SNC	19.4%	12%
Metric 4c	Wet Weather SNC placeholder	N/A	

Data Metrics

File Metric

	Description	VA SRF Review
Metric 4d	Percentage of SNC determinations that are accurately reported	100%

Finding(s):

Our file review consisted of 12 major NPDES permittees in the Piedmont and Valley regions. Based upon the definition/criteria of SNC and facilities reviewed, the EPA review team did not identify evidence that undisclosed SNC determinations existed in these regions.

Recommendation(s): None

5. Degree to which state enforcement actions include required injunctive relief (corrective or complying actions) that will return facilities to compliance in a specific time frame.

At the VRO and PRO regions, the EPA review team completed a review of 6 formal enforcement cases, from a formal enforcement action universe of 17 majors and minors and 4 SSO and CSO actions. Of the files reviewed, 3 were majors and 3 were minors. Administrative Consent Orders that incorporated required complying actions were issued to all six permittees. In addition, DEQ assessed civil penalties against the lot, with the exception of one minor permittee. Further, due to the lack of available documentation in the files, the team had difficulty ascertaining whether the compliance schedule milestones have been met in one file. According to the data metrics, the PRO and VRO regions account for approximately 27% of statewide enforcement actions and associated penalties.

Informal enforcement consists of the issuance of Warning Letters (WLs) and Notices of Alleged Violations (NOAVs) and the issuance of Letters of Agreement (LOAs). The VADEQ Enforcement Manual (1999), speaks to the processes for use of these tools. In October 2005, the 1999 enforcement guidance was superseded by a more pointed NOV and WL guidance. Accordingly, the WL, which is issued without penalty is an adequate response to alleged violations, providing that remedial actions are swift and timely, generally within 20 days. The escalation to an NOV follows a point system in VADEQ Water Program guidance. An NOV signifies that the violation may be significant (acute or chronic) and likely ripe for penalty action. The Respondent has 10 days to contact VADEQ to organize a conference to discuss a penalty action and corrective action plan.

Eleven (11) informal enforcement case files were reviewed from a universe of 405 WLs and NOVs that were issued at 221 facilities. Of the 11 informal enforcement case files reviewed, 36% resulted in timely compliance. The review team noted issuance of numerous WLs and NOVs of which responses had not been received by VADEQ, thus, appearing as if compliance had not been achieved, this accounts for 64% of the informal enforcement case files reviewed.

	Description	VA SRF Review
Metric 5a	Percentage of formal state enforcement actions that contain a compliance schedule of required actions or activities designed to return the source to compliance. This can be in the form of injunctive relief or other complying actions	100%
Metric 5b	Percentage of actions or responses other than formal	36%
	enforcement that return source to compliance	

File Metrics

Finding(s):

Of the six formal state enforcement actions reviewed, each contained a compliance schedule of required actions designed to return the source to compliance.

In the files reviewed, only 4 of 11 (36%) actions other than formal enforcement returned the facility to compliance.

Recommendation(s):

If a Respondent has engaged VADEQ in onsite conferences in lieu of providing a written response to Warning Letters and/or NOAVs, DEQ should document the file.

Multi-media Administrative Consent Orders should be clearly outlined and identify to which media/program the required complying actions are applicable.

Based upon the PCS data and the files reviewed in the two regional offices, there were numerous WLs and NOVs issued to 11 facilities. However, 7 of the facilities receiving the multiple WLs and NOVs did not return to compliance. VADEQ should review its policy for issuance of WLs and NOVs to determine its effectiveness. VADEQ should also consider an escalated, swift action via Letter of Agreement (LOA) or Consent Order (COA). VADEQ should also determine if this problem exist state-wide.

6. Degree to which a state takes timely and appropriate enforcement action, in accordance with policy relating to specific media.

Significant Noncompliance (SNC) identifies the most egregious violations at NPDES majors. The Permits Compliance System (PCS) is a data base tool that identifies SNC through its automatic generation of the Quarterly Noncompliance Report (QNCR). The CWA EMS (1989) suggests that formal enforcement action be taken by the administering agency within 90 days of the first QNCR. The SNC criterion is:

- any monthly average effluent violation that meets the Technical Review Criteria (TRC) for the same parameter at the same outfall, occurring at least two months within a six month period;
- any monthly average effluent violation, for the same parameter at the same outfall, occurring at least four months within a six month period;
- any effluent violation that causes or has the potential to cause a water quality or public health problem;
- any violation of a compliance schedule milestone data by 90 days or more (i.e., start construction, end construction, attain final compliance);
- any specified report late by 30 days or more,

- any specified violation of permit requirements (pretreatment program, narrative conditions); and
- any specified violation of an enforcement order (administrative and judicial).

There were three (3) formal, major enforcement case files reviewed by the review team. The regions issued Consent Orders, some with civil penalties. It appears that the regions' approach to compliance has been in accordance with the guidelines documented in the

T & A policy, and generally within 60 days of the first instance of SNC.

Formal enforcement against one facility did not occur since an enforcement order was issued by VADEQ in February 2004. In 2005, VADEQ referred this case to EPA for escalated enforcement. In 2006, VADEQ filed a judicial action against the facility in state court. VADEQ plans to issue a Consent Decree which will address long term compliance at the facility. To date, the facility remains in SNC.

Data Metrics

	Description	National Goal	VA Total/Avg. PCS
Metric 6a	Major facilities without timely action to address SNC	≥2%	0.7%
Metric 6b	No activity indicator (number of formal actions)	<i>N/A</i>	28

The data metrics reflect 28 formal enforcement actions during FY'2006. According to VADEQ's information, there were

51 formal enforcement actions (Consent Orders) issued statewide with total civil charges of \$434,400 during FY'2006.

For the 28 actions reported in PCS, the state netted a total of \$173,090 in penalties.

File Metric

	Description	VA SRF Review
Metric 6c	Percentage of SNCs addressed appropriately	100%

Finding(s):

Based upon the SNC definition/criteria, the EPA review team did not identify evidence of unaddressed SNC in any data, inspection or enforcement files.

100% (3) of the formal enforcement actions taken at majors were addressed appropriately.

The percentage of major facilities without timely action (0.7%) is lower (i.e., better) than the national goal ($\leq 2\%$) and is about 1/7 the national average (8.9%).

Recommendation(s): None

7. Degree to which a state includes both gravity and economic benefit calculations for all penalties, using the BEN model or similar state model (where in use and consistent with national policy).

File Metric

	Description	VA SRF
		Review
Metric 7a	Percentage of formal enforcement actions that include a calculation for gravity and economic benefit consistent with applicable policies	40%

Finding(s):

VADEQ assesses penalties in accordance with their current policy, Civil Charges and Civil Penalties in Administrative Actions (8/2006) which supersedes the Department's 1999 Enforcement Manual guidance. While some VADEQ staff do not believe they have adequate resources to determine the value of economic benefit, they do utilize EPA's BEN model to the best of their ability. In some capacity, VADEQ considers the gravity factors and the economic benefit of noncompliance when developing penalty calculations. While considered, an assessment for economic benefit is not always collected. The review team noted that "N/A" or "0" was input as the economic benefit calculation in 3 of 5 cases. There were no supporting documents in the ERP/matrix files to conclude there were actual delayed or avoided costs.

VADEQ comments that the "N/A" or "0" was often the result of the economic benefit calculations and that no economic benefit was realized. If there is no economic benefit realized then there is none to collect. Further, in those cases, it's frequently true that there were no costs avoided or deferred, so there are no inputs to run the model to begin with.

Recommendation(s):

At a minimum, penalty calculations should be consistent with applicable VADEQ policy and economic benefit should be collected. VADEQ should disclose the actual

economic benefit calculation as an attachment to the ERP and Water Civil Charge Worksheet. The supporting documentation can be provided in the form of a summary sheet or other written justification.

8. Degree to which final enforcement actions (settlements or judicial results) collect appropriate (i.e., litigation risk, ability to pay, SEPs, injunctive relief) economic benefit and gravity portions of a penalty.

Data Metrics

	Description	National Average	VA Total/Avg- PCS
Metric 8a	No activity indicator (penalties)	N/A	42
Metric 8b	Percent actions with penalties	N/A	82.4%

File Metrics

	Description	VA SRF Review
Metric 8c	Percentage of final enforcement actions that appropriately document penalties to be collected	100%
Metric 8d	Percentage of final enforcement actions resulting in penalties collected	100%

Finding(s):

The VADEQ policy for Civil Charges and Civil Penalties in Administrative Actions (8/2006) states that if economic benefit exceeds \$10,000, then BEN should be used to calculate that portion of the penalty. The economic benefit and gravity components are documented on the enforcement response plan (ERP) in the enforcement case file. In one case review, the economic benefit value was above \$10,000, however VADEQ collected the gravity assessment only. The review team noted that economic benefit is largely not collected. 60% of the civil penalty actions reviewed contains an "N/A" or "0" in field No. 4 of the ERP. Furthermore, VADEQ's current penalty policy cites four exceptions where this may occur: compelling public concerns, inability to pay, inability to recover economic benefit in litigation, and *de minimus* value in comparison to entire the settlement. Due to undocumented reasoning, it is difficult to determine if any of these exceptions are applicable.

In this case, VADEQ reports that a new owner took over an STP that wasn't capable of meeting permit limits and failed to

submit a completed permit application. The owner couldn't afford financial assurance. VADEQ worked with the facility

- for two years to develop an affordable financial assurance plan. The owner didn't save the cost of permit fees, or operation
- of the plant. They were not required to meet permit limits (they didn't have a permit). To say they saved \$10,000 on
- failing to upgrade the facility in order to meet limits they didn't have in hand is a large amount for the two year deferred

cost.

Six (6) formal enforcement cases were examined. Five cases were civil penalty actions and one case was issued without a civil penalty. The ERPs for three of the cases had no values associated with economic benefit.

VADEQ publicizes its formal enforcement actions via its website no later than 30 days after the end of each quarter. In addition, VADEQ tracks its penalty payments via a Daily Trade Receipt Transmittal Log.

Recommendation(s): None

9. Degree to which enforcement commitments in the PPA/PPG/categorical grants (written agreements to deliver a product/project at a specified time) are met and any products or projects are completed.

File Metric

	Description	VA SRF
		Review
Metric 9a	State agreements (PPA/PG/SEA, etc) contain enforcement and compliance commitments that are met	1

Upon analyzing and comparing the compliance commitments, VADEQ has met and exceeded the compliance commitment numbers contained in the PPA/PPG 106 Grant Work Plan. The FY'2006 PPA/PPG 106 Grant states that VADEQ will conduct 902 NPDES Compliance Evaluation Inspections, (CEIs) and Compliance Sampling Inspections (CSIs) at majors and minors. VADEQ completed 1613 inspections at majors and minors within this timeframe.

The PPA/PPG 106 Grant Work Plan requires the State to conduct NPDES inspections based on the federal fiscal year (October 1 through September 30). As such, quarterly reports documenting VADEQ's progress in implementing the inspection strategy are forwarded to EPA, in accordance with the schedule contained in the grant work plan.

The CWA State Review Framework is seeking inspection numbers based upon the NPDES inspection year (July-June). At the time, this window coincided with VADEQ's fiscal year (July-June). The numbers provided here are considerate of the timeframes as per the 106 grant agreement. VADEQ's compliance monitoring program is conducted on a much broader scale than what is expected in the grant work plan. VADEQ incorporates laboratory, technical and reconnaissance inspections into its compliance program. VADEQ conducts inspections that are comprehensive in nature and encompass various technical components of the CEI and CSI inspection types. VADEQ reports that a Tech inspection corresponds to a CEI, a Tech/Lab inspection corresponds to a PAI; and a sampling inspection corresponds to a CSI.

VADEQ's communications with the regional office on enforcement matters remain unfettered. VADEQ consistently participates in the quarterly enforcement conferences and often includes the Water Enforcement Manager, regional managers and staff leads as necessary, to further articulate the status of a civil docket case, complaint, response to SNC facilities and the Watch List. VADEQ maintains an enforcement website where it posts all formal enforcement actions on a quarterly cycle. VADEQ also enters its enforcement actions and penalty data into PCS, as required.

Finding(s):

Upon analyzing and comparing the compliance commitments, VADEQ has met and exceeded the compliance commitment numbers contained in the PPA/PPG 106 Grant Work Plan.

VADEQ's compliance monitoring program is conducted on a much broader scale than what is expected in the grant work plan. VADEQ incorporates laboratory, technical and reconnaissance inspections into its compliance program. VADEQ inspections are comprehensive in nature and encompass various technical components of CEI and CSI inspection types.

Recommendation(s):

See Metric 1. EPA and VADEQ should clarify the PPG by incorporating VADEQ's corresponding inspection references to EPA's CEI and CSI inspections.

10. Degree to which the minimum data requirements are timely.

File Metric

		Description	VA SRF Review
Ν	Aetric 10a	Regions should evaluate what is maintained in	Evaluated

PCS by the state and ensure that all minimum data	
elements are properly tracked and entered	
according to accepted schedules.	

Finding(s):

State data is entered into CEDS, VADEQ's data tracking system. Following the timelines incorporated into the PPA/PPG 106 Grant Agreement, data is subsequently uploaded from CEDS into PCS. Virginia's DMR data entry rate is consistently in the 90th percentile.

Recommendation(s): None

11. Degree to which the minimum data requirements are accurate

Data Metric

	Description	National Goal	VA Total/Avg. PCS
Metric 11a	Actions linked to violations	≥80%	0%*

* Upon initial retrieval, this data metric was not functional in the national database.

File Metric

	Description	VA SRF Review
Metric 11r	Accuracy of WENDB data elements	Evaluated

Finding(s):

Reference Metrics 1r and 9a

Recommendation(s):

EPA and VADEQ should develop and implement a strategy that supports entry of inspection data elements into PCS. This activity would be documented as a 106 grant commitment.

12. Degree to which the minimum data requirements are complete, unless

otherwise negotiated by the region and state or prescribed by a national initiative.

Data Metrics

	Description	National Average	VA Total/Avg- PCS
Metric 12a.1	Active facility universe counts accurate for all NPDES Majors	N/A	139
Metric 12a.2	Active facility universe counts accurate for all NPDES Non- Majors	N/A	981
Metric 12b	Major permit limits and DMR entry complete	92.4%	99.4%
Metric 12c	Non-majors permit limits and DMR entry	N/A	100%
Metric 12d	Inspection counts complete	N/A	1,530
Metric 12e	Percent of violations linked to activity that identified the violation	N/A	0
Metric 12f	Notice of violation counts complete	N/A	277
Metric 12g	Quality of violation data at non- major facilities – (that regularly submit DMRs)	N/A	159
Metric 12h	Formal Actions Counts complete	N/A	28
Metric 12i	Assessed penalties complete (data not currently required from states)	N/A	\$173,090
Metric 12j	Facilities with compliance schedule violations	N/A	3
Metric 12k	Facilities with permit schedules violations	N/A	0

Finding(s):

VADEQ's DMR entry rate exceeds the national average by 7 percentage points.

Recommendation(s): None

Comments:

- Metric 12a.1: There are 139 active majors
- Metric 12a.2: VADEQ reports there are 981 minors and an additional 2000+ general permittees
- Metric 12d: VADEQ conducted 1,613 inspections (83 of those inspections are reconnaissance inspections, which are not considered as part of this review.
- Metric 12i: VADEQ assessed penalties totaling \$173,090

Virginia Compliance and Enforcement Evaluation (Resource Conservation and Recovery Act (RCRA) Program Media)

Background and Program Structure

VADEQ's RCRA Subtitle C program is operated in a decentralized manner, with the Central Office and each of the seven Regional Offices playing roles in carrying out DEQ's mission and in achieving its enforcement goals. In the Central Office, the Division of Enforcement is responsible for all enforcement activities and functions undertaken by the Central Office. The Regional Offices are the primary contacts for the regulated community and the public. For the majority of the cases, the Regional staff is the first to deal with suspected noncompliance situations, and they are responsible for beginning and concluding enforcement actions. In general, the Division of Enforcement serves in a supportive role to the Regional Offices for all of their enforcement activities. The Division of Enforcement becomes involved in enforcement actions to assist the Regions and/or to provide expertise and policy guidance. In addition, the Division of Enforcement assists and coordinates statewide implementation of DEQ's enforcement programs by developing appropriate enforcement policies and procedures, providing appropriate training to staff, and reviews regional implementation. The Division of Enforcement staff provides case-by-case advice to the Regional Offices as needed to include developing administrative enforcement and litigation positions and strategies and preparing referrals to the Attorney General's Office. The Division of Enforcement staff also consults on multi-media cases and serves as liaison to the Attorney General's Office. Within the Waste Division's Office of Hazardous Waste, the Hazardous Waste Technical Advisor and Compliance Coordinator is responsible for statewide compliance policies and documents, and monitors VADEQ's compliance commitments in the PPG.

Review Process/File Selection

Resource constraints did not allow for file reviews in each of the State's seven Regional Offices. Facility files were reviewed in the Valley Regional Office (VRO, located in Harrisonburg), Piedmont Regional Office (PRO, located in Richmond), and the Tidewater Regional Office (TRO, located in Virginia Beach). Data supplied from OTIS covers the State as a whole. The reviewers found a great level of consistency in files, documentation, processes across the three State Regional Offices reviewed, so we expect that findings and recommendations, while based on reviews in the three Regional Offices, could be generally extrapolated to the State program as a whole.

The RCRA portion of this evaluation entailed reviewing 72 inspection/enforcement case files, primarily from federal fiscal year 2006. The Region gathered data directly from RCRAInfo (the RCRA Subtitle C program's national data system) and EPA Headquarters supplied data from OTIS for additional state specific and national average information. The information from the file reviews and data pulls were used to answer specific questions covering 12 topics of element areas regarding State inspection implementation, State enforcement activity, State Grant Work Plan requirements, and data integrity. While some files were selected because of the presence of enforcement action or SNC designation and others were selected because of inspection results, all files were reviewed for all aspects of the program, that is, inspection, violation identification, and enforcement.

The files reviewed were not randomly selected. The files selected for review included the universe of Significant Non-Compliers (SNCs) identified by the State in FY06, facilities in which the State had taken enforcement action, and facilities for which multiple inspections were performed in FY06. After identifying facilities across the State which met these criteria, it became obvious that the bulk of these facilities were in the Valley, Piedmont, and Tidewater Regional Offices, which is how we selected those offices for file review (resources would not allow file reviews in all seven of the State's Regional Offices) After these facilities which had been inspected by the State during FY06 for which violations had been identified by the State. Therefore, a high percentage of the facility files which were selected for the review had a history of violations and would not be considered a "neutral" selection of the universe of Virginia facilities; thus, findings cannot be extrapolated to the State program as a whole.

Element 1 - Degree to which State program has completed the universe of planned inspections (addressing core requirements and federal, state, and regional priorities).

г

Core Program - Inspection coverage for operating TSDF (Treatment, Storage, and Disposal Facilities) - Region/state should inspect all operating TSDFs within two years. Time frame of the data pull is FY05 and FY06.					
Virginia only	National Average (State only)	Virginia and EPA Region 3 combined	National Average (Combined)		
84.2%	90.2%	84.2%	93.7%		
Ū.	Core Program - Annual inspection coverage for LQGs (Large Quantity Generators). National guidance calls for 20% annual coverage. Time frame of the data pull is FY06.				
		National Average (Combined)			
38.8%	16.2%	39.1%	17.7%		
Core Program - Five year inspection coverage for LQGs (Large Quantity Generators). National guidance calls for 100% inspection coverage of LQGs over five years. Time frame of the data pull is FY02 through FY06.					
Virginia only	National Average (State only)	Virginia and EPA Region 3 combined	National Average (Combined)		
86.0%	43.1%	86.6%	46.5%		

Findings:

This element was met to a high degree. The "Virginia only" measure for operating TSDFs inspected core program requirement of 84.2% represents 16 of 19 facilities inspected; however, the State reports that the three facilities not inspected are not really operating TSDFs. Therefore, the Department has met the core program goal of inspecting every operating TSDF within two years. Regarding LQG inspections, the State's inspection coverage is twice the national average or better. Please refer to Element 9 for a discussion of State inspection commitments and accomplishments.

Recommendation:

RCRAInfo should be updated with the current status of the three facilities which are no longer operating TSDFs.

Element 2 - Degree to which inspection reports and compliance reviews document inspection findings, including accurate descriptions of what was observed to sufficiently identify violations.

Seventy one (71) inspection reports were examined across three regional offices as part of the file review. State inspection reports were found to typically consist of a survey and a number of very detailed checklists, which include a narrative written into them related to the violations or concerns observed; while this is not a stand-alone narrative, the narrative in the inspection reports were found to be thorough and supported the conclusions of compliance status. The survey and checklists do not constitute the full report and are not stand-alone documents. The State documents observations and alleged violations through a Notice of Violation or Warning letter, or a cover letter if no violations are alleged. The inspection survey and checklist are enclosures to the letter and are tools used by the inspector to document their observations in a cohesive manner. The following questions were raised as a result of the initial file review, with the State's response incorporated as follows:

Facility 3-6 - There appear to be a number of "processing" rooms, where small containers from the various satellite accumulation areas are consolidated into 55-gallon drums before being sent to the designated 90-day area; waste appears to remain in these processing rooms (lab, recoupment room, stock room, processing room) for two to three days. There was a large volume (greater than 55-gallons) of hazardous waste in these rooms; the inspector appears to have considered these rooms to be satellite accumulation, where reviewers would have considered them to be 90-day areas. The facility did not appear to be managing these areas in accordance with all the 90-day storage requirements. However, the State has a different interpretation of the satellite accumulation requirements, and believed that the facility was in compliance with the regulations as VADEQ has applied them.

Facility 5-1 was issued a Warning Letter in May 2006, addressing violations discovered

during February and March of that year. No inspection report was found in the file, although a 3/6/06 CEI was entered into RCRAInfo. It was not clear during the file review if an inspection was performed at this facility - apparently the Department, during the course of a complaint investigation, observed mismanaged containers of hazardous waste which had been generated at the site. The reviewers found no written documentation in the file of the inspection(s), however it is our understanding that the Department is pursuing an enforcement action against the contractors in connection with these violations. The State confirmed that the Warning Letter was a consequence of a follow up on an inspection at another facility, and the contractor in the case was issued a Notice of Violation.

Facility 5-12 was inspected on 10/13/05, and this inspection was entered into RCRAInfo. Another inspection record was entered into RCRAInfo, a FCI (focused compliance inspection) evaluation dated 5/11/06. The reviewers found no corresponding documentation in the file. The FCI represented observations which were covered in a multimedia report, an approach which was being piloted in this Regional Office at the time, and involved some deviation from the standard formats in use by the State.

Facility 6-12 had three CDIs (Case Development Inspections) performed during the review period (in addition to one CEI). No formal inspection reports seem to have been generated as a result of these CDIs (the reviewers found only field notes in the file); it was difficult at the time of the file review to determine what violations were identified, although there were violations in RCRAInfo linked to these inspections. All these inspections were initiated by the facility's self-reporting of violations, and were documented by letter to the facility. Inspection surveys and checklists are not always completed in cases like this, where the concerns are narrow responses to self-reported violations.

Facility 6-16 had a FUI (Follow Up Inspection, which is defined as a partial on-site inspection conducted to verify the status of violations cited during a previous evaluation). The reviewers found hand-written notes in the file, and a letter from the Department to the facility discussing the findings of the inspection, but no "formal" inspection report. However, there seemed to be some level of detail (related to the inspection findings) in the letter to the Army, and in accordance with the State's practice, this letter is the documentation of the inspection findings.

Findings:

After discussion of the inspection reports listed above, we find that this element was satisfied to a high degree. State inspection reports were found to consist of very detailed checklists, which included narrative in the body of the checklist, along with documentation of alleged violations through uses of Notice of Violation or Warning Letter, as appropriate. The reports and associated documents are thorough and accurately describe observations so as to sufficiently identify violations.

Element 3 - Degree to which inspection reports are completed in a timely manner, including timely identification of violations.

Findings:

This element appears to have been satisfied to a high degree. Dates contained on inspection reports were found to be the date of inspection; the date of the letter (Notice of Violation, Warning Letter, or cover letter) is the date that the inspection report was finalized. We could identify no instances where an inspection report, including identification of violation, was not prepared in a timely manner. See Element 4 for additional discussion of identification and entry of violations into the national data system.

Element 4 - Degree to which significant violations (e.g., significant noncompliance and high priority violators) and supporting information are accurately identified and reported to EPA national database in a timely manner.

Identification of violations in RCRAInfo:

For 59 of 62 facility files reviewed which had inspections conducted during the review period, the violations were accurately reflected in RCRAInfo; however, for 3 facilities this does not appear to be the case.

	VRO	PRO	TRO
Facilities where violations matched data in RCRAInfo	19	19	21
Facilities where violations did not match data in RCRAInfo	3	0	0
Total facility files with inspections reviewed	22	19	21

Facility 3-7 - Inspection report identified fluorescent bulbs and aerosol cans in the regular trash (improper disposal) and missing return signed manifests. Only the bulb violation was captured in RCRAInfo, as a failure to contain lamps in containers or packages.

Facility 3-12 - Inspection (5/5/06) identified two unlabeled drums of hazardous waste; this violations was corrected at the time of inspection. The failure to label violation was not entered into RCRAInfo, although all the other violations from this inspection were in the system. It appears that all the violations identified during the inspection were captured on the data entry form, but did not all get entered successfully into RCRAInfo.

Facility 3-17 - Inspection (8/29/06) identified violations related to storage of universal waste, which were entered into the data system. Two additional violations (40 CFR

264.15 failure to maintain benchmarks and 40 CFR 264.16 failure to maintain annual training) were also entered into RCRAInfo, which the reviewers did not see discussed in the inspection report. It appears that this information was captured on the data entry form, but did not get entered successfully into RCRAInfo.

For the following facilities where the reviewers originally had questions regarding accurate identification and reporting of violations, further discussion with the State clarified the issues to our satisfaction:

Facility 5-7 [Bostwick Laboratories] was inspected on 11/22/05. Two violations were identified (1) the facility did not make arrangements with local and State authorities, which was entered into RCRAInfo, and (2) there was no specific training provided for hazardous waste management; this second violations was not entered into RCRAInfo. This facility is typically a SQG that appears to have exceeded the 1000 kg/month threshold on an episodic basis. However, as this facility is normally considered to be a SQG (and thus not subject to the training requirements of larger generators), the training issue was not considered to be a violation, but rather an area of concern.

Facility 5-10 [Safety-Kleen] was inspected on 11/9/05. Data in RCRAInfo suggested some violations which the reviewers did not see documented in the inspection report (minor cracks in tank secondary containment, emergency contact list not submitted). As these were permit violations (and not generator requirements), they are not covered by the standard generator checklist. In addition, some violations identified in the inspection report did not appear to have been entered into the data system (containers in poor condition, open containers, satellite accumulation problems, absence of "No Smoking" sign near ignitable waste). Further case development did not yield the evidence needed to prove that these were actionable violations - the containers were found to hold solid (not hazardous) waste, and signs (though not in good condition) were found to be present at the time of the inspection.

Facility 5-17 was inspected on 3/8/06. A number of violations were identified and entered into RCRAInfo; one which was identified during the inspection (cracks and deterioration of secondary containment) was not in the data system. Further investigation revealed that this area was a process (not waste storage) area, so the secondary containment issue is not a RCRA violation.

Facility 6-12 was inspected four times during the review period. The inspection performed on 8/14/06 identified two violations (LDRs missing waste codes and weekly inspection records missing for the end of FY05); the LDR violation was entered into RCRAInfo, the inspection record violation was not. The weekly inspection issue was not a violation identified at the time of inspection, but rather through previous self-reporting by the facility. At the time of inspection, the facility was in compliance with the weekly inspection requirement.

It should be noted that the reviewers' experience in case development supports the concept that the potential violations initially identified during the inspection are not always the same violations which are alleged in the follow up enforcement action. Information and records can come to light after the inspection which resolve the suspected violation(s); in addition, suspected violations cannot always be proven based on the evidence which the regulators are able to gather.

Determination and entry of SNC violations:

Significant Non-Compliers (SNCs) are defined in EPA's <u>Hazardous Waste Civil</u> <u>Enforcement Response Policy</u> (December 2003) as "those violations that have caused actual exposure or a substantial likelihood of exposure to hazardous waste or hazardous waste constituents; are chronic or recalcitrant violators; or deviate substantially from the terms of a permit, order, agreement or from RCRA statutory or regulatory requirements."

VADEQ's <u>Enforcement Manual</u> discusses the classification of noncompliance in general and for the hazardous waste program:

Violations are classified based upon the seriousness of the alleged violations (i.e., duration, gravity, magnitude, willfulness) and their impact or threat of impact on human health and the environment. This classification is also used to prioritize enforcement actions. Because most of its programs are based on federal requirements, the Department has adopted EPA's terminology for classifying noncompliance, which varies depending on the media involved.

Because Virginia has been granted EPA authorization, DEQ uses EPA's Hazardous Waste Civil Enforcement Response Policy (Mar. 15, 1996) to classify suspected hazardous waste violations for the purpose of determining a timely and appropriate enforcement response. The March 1996 Policy classifies alleged noncompliers based upon an analysis of the facility's overall compliance with Subtitle C of RCRA - not on an individual violation basis - which includes prior recalcitrant behavior or a history of noncompliance.

SNC Priority Cases are those facilities that:

- have caused actual exposure or a substantial likelihood of exposure to hazardous waste or hazardous waste constituents;

- are chronic or recalcitrant violators;

- have deviated substantially from the terms of a permit, order, agreement or from RCRA statutory or regulatory requirements; or

- for which corrective actions cannot be completed within 90 days of the evaluation date.

The actual or substantial likelihood of exposure should be evaluated using facility specific environmental or exposure information whenever possible. This may include evaluating potential exposure pathways and the mobility and toxicity of

the hazardous waste being managed. It should be noted, however, that environmental impact alone is sufficient to cause a facility to be SNC, particularly with the environmental media affected require special protection (e.g., wetlands or sources of underground drinking water). While facilities should be evaluated on a multi-media basis, a facility may be found to be a chronic or recalcitrant violator based solely on prior RCRA violations and behavior.

Virginia inspected 397 facilities in FY06, with 7 facilities identified in SNC status based on violations discovered during those inspections, for a rate of 1.8% new SNCs per facility inspected. The national rate of SNC identification by States in FY06 was 3.1% new SNCs per facility inspected.

	Virginia	National	VA + EPA combined	National combined
SNCs identified in FY06	7		10	
Facilities inspected in FY06	397		398	
SNC per facility inspected	1.8%	3.1%	2.5%	3.4%

As part of our review, we examine facilities which had been identified in the data system as SNC status not only in FY06 (the review period), but the years immediately before and after (FY05 and FY07 to date of the file reviews). We did this because we find that enforcement actions are often related to inspections from a prior year. So, during our review, we considered SNC status of facilities in FY05, FY06 (the review period), and FY07.

Of the files reviewed, 13 facilities were identified by the State as SNC violators, and this data was entered into RCRAInfo; 1 additional facility was identified by the State is a SNC violator, but the data was not entered into RCRAInfo. However, in the reviewers' opinion, there were 2 additional facilities with violations which might be considered to be SNC. There were 46 facilities which we reviewed which were appropriately designated as not in SNC status.

Regional Office	VRO	PRO	TRO
Number of reviewed files with State identified SNCs (FY05, FY06, FY07 - entered into RCRAInfo)	2	7	4
Number of reviewed files with State identified SNCs, but not entered into RCRAInfo	0	1	0
Number of additional files with violations which might be considered SNCs	2	0	0

Number of files appropriately designated as "not SNC" (this	18	11	17	
includes facilities with non-SNC violations as well as				
facilities where no violations were found)				

Facilities which **the reviewers feel might be considered in Significant Noncompliance** (SNC) but were not identified as such by the State:

Facility 3-4, a Small Quantity Generator, was the subject of a 5/19/06 Special Order of Consent, which included a penalty of \$10,240 addressing violations of the generator standards which were identified during a 11/30/05 inspection. No SNC was identified in the data system; EPA normally considers violations which are serious enough to warrant a penalty action to be violations which should have been considered SNC. The State disagrees with the view that any violations which warrant a penalty should be designated as SNC. The State brings penalty actions against both SNC and Secondary Violations, and feels that violations at this facility fell in the category of secondary violations.

Facility 3-15, a Small Quantity Generator, was the subject of a Consent Order, which included a penalty of \$14,630 addressing violations of the generator standards which were identified during a 7/11/07 inspection. No SNC was identified in the data system; EPA normally considers violations which are serious enough to warrant a penalty action to be violations which should have been considered SNC. The State disagrees with the view that any violations which warrant a penalty should be designated as SNC. The State brings penalty actions against both SNC and Secondary Violations, and feels that violations at this facility fell in the category of secondary violations.

Facility 5-12 is a Large Quantity Generator which was inspected on 10/13/06, at which time a number of violations of the generator standards were identified. The file contains an "Enforcement Recommendation and Plan (ERP)", which indicates that a SNC determination was made, but the SNC designation appears not to have been entered into RCRAInfo. A Consent Order, including a penalty of \$9,600, was finalized on 8/22/06 addressing the violations. EPA normally considers violations which are serious enough to warrant a penalty action to be violations which should have been considered SNC. In this case, it appears that the SNC designation was made appropriately by the State, but the data simply did not get entered into the data system.

Findings:

This element was satisfied to a high degree. The large majority of violations identified by State inspection were accurately reflected in RCRAInfo. The State entered a significant number of SNCs into the system; data entry problems caused one SNC designation to be omitted, and in two other instances, while formal enforcement action was taken, the State is of the opinion that these violations were secondary violations and not SNC.

Recommendation:

The State should review and strengthen its review procedures for data entry/quality assurance to ensure that all information is entered correctly.

Element 5 - The degree to which state enforcement actions include required corrective or complying actions (injunctive relief) that will return facilities to compliance in a specific time frame.

Findings:

This element was satisfied to a high extent. Of the files reviewed, nine facilities were the subject of formal enforcement action by the State. Of these enforcement actions, four contained injunctive relief, along with a schedule to accomplish these compliance actions, as a condition of the enforcement action. For the other five, no injunctive relief was required by the enforcement action, as compliance had been achieved in advance of the settlement.

	VRO	PRO	TRO
Number of enforcement actions requiring injunctive relief	0	4	0
Number of enforcement actions where compliance was achieved in advance of settlement	3	1	1
Total number of formal enforcement actions	3	5	1

Element 6 - The degree to which a state takes timely and appropriate enforcement actions, in accordance with policy relating to specific media.

The following were the formal enforcement actions which were examined as part of the file review:

Facility 3-4, penalty of \$10,240 Facility 3-15, penalty \$14,630 Facility 3-16, penalty \$13,930 Facility 5-10, penalty of \$12,640 Facility 5-12, penalty of \$9,600 Facility 5-15, injunctive relief without penalty Facility 5-18, injunctive relief without penalty Facility 5-21, penalty of \$11,000 Facility 6-20, penalty of \$8,000

Timeliness of enforcement actions:

VADEQ's Enforcement Manual discusses time schedules for addressing violations:

An informal enforcement response typically consists of a Warning Letter containing a recitation of the violations and a schedule for returning the facility to full compliance with all substantive and procedural requirements of applicable regulations, permits, and statutes within 90 days. A facility that fails to return to compliance in accordance with the informal action should be reclassified as a SNC and a new evaluation date established.

A formal enforcement response must mandate compliance and initiate a civil, criminal, or administrative process that results in an enforcement agreement or order. The formal enforcement response should also seek injunctive relief that ensures the non-compliant facility expeditiously returns to full physical compliance.

Resolution of informal and formal enforcement actions must occur within the restraints of the following timeline.

Day 0 - Evaluation Date

The evaluation date is defined as the first day of any inspection or record review during which a violations is identified ... For violations detected through some method other than record reviews of inspection, the evaluation date will be the date upon which the information becomes available (e.g., self-reporting violators) becomes available.

Day 90

Typically, informal enforcement responses are initiated much sooner than 90 days after the Evaluation date. In all cases, however, this determination must be made and the informal response must be issued within 90 days of the evaluation date.

Formal enforcement responses must be initiated by the issuance of a NOV by no later than 90 days after the evaluation date.

Day 180

Informal enforcement responses must result in a return to compliance by day 180. If not, the facility shall be reclassified as a SNC and a second evaluation date established. The second evaluation date will be considered the first day of discovery of noncompliance with the compliance schedule established by the informal enforcement response, but in no case shall the new evaluation date be established later than 180 days following the initial evaluation date. For formal enforcement responses, where appropriate, a Unilateral Order (1186 Order) shall be issued within 180 days of the evaluation date.

Day 210

For cases which are determined appropriate for judicial action, the case must be referred to the Attorney General's Office within 210 days of the evaluation date.

Day 300

For cases deemed appropriate for an administrative enforcement response, a Consent Order (CO), or in cases involving State Facilities, an Executive Compliance Agreement (ECA) must be entered into within 300 days of the evaluation date.

EPA's March 15, 1996 Hazardous Waste Civil Enforcement Response Policy (1996 ERP) provides 300 days from the evaluation date (the first day of an inspection) for a final or consent order to be entered. This guidance was superceded by the December 2003 ERP, which became effective of February 15, 2004. One difference between the two documents is that the 2003 ERP provides 360 days for entry into a final or consent order with a violator. Both policies recognize that circumstances arise where the enforcement response times specified may be insufficient to prepare and initiate the appropriate enforcement response as set forth in the policy. The 2003 ERP specified that when certain circumstances exist, up to 20% of the enforcement cases may exceed the standard response times.

Six formal enforcement actions were finalized within the State's timeframe of 300 days of the date of inspection as defined in the <u>Enforcement Manual</u>:

Facility 3-4 Facility 3-15 Facility 3-16 Facility 5-10 Facility 5-12 Facility 5-18

The State was not able to meet response times with regard to formal enforcement action in the following cases:

Facility 3-18 was identified as SNC in April 2006. A Notice of Violation was issued in August, along with referral to enforcement at that same time. As of the date of the file review (May, 2007), the case not settled, which is somewhat more than a year after the 4/06 inspection which gave rise to the SNC determination.

Facility 5-15 was identified as SNC based on violations discovered during a 3/25/05 inspection. A Consent Order was issued on 4/10/06 to the new facility owner/operator,

which was 12¹/₂ months after identification of the violations. This facility had been abandoned some years ago, and in response, EPA undertook a removal action to address the most urgent contamination. This enforcement action assures that the new owner will complete the clean up needed to address the on-site contamination.

Facility 5-21 settled violations identified during a May, 2005 inspection through a Consent Order with the State in June, 2006, which was 13 months after the date of inspection. As this enforcement action was connected to another ongoing action, a strategic decision was made by the State to delay finalizing this action until the other related matter was resolved.

Facility 6-20 negotiated an Order by Consent with the Department, which was finalized more than 300 days after the date the violations were identified. It appears that the negotiations were complex in part due to the fact that two potential respondents were involved in settlement of the matter.

With regard to Notices of Violation, nine met the State's goal of issuance within 90 days after the date of inspection as set forth in the <u>Enforcement Manual</u>. In addition:

Facility 3-18 was issued a NOV within 113 days of the date of inspection.

Facility 5-18 was issued an NOV after the facility failed to return to compliance within 90 days of the issuance of a Warning Letter. This NOV was issued two and a half months after a reinspection and within three months of the Warning Letter (six and a half months after the original inspection). This process is in accordance with the procedures for escalation of enforcement in the event that informal enforcement responses do not result in compliance.

Facility 5-15 was issued an NOV six months after inspection; however, this NOV was issued to a new facility owner/operator.

Facility 5-22 and Facility 5-23, which are related sites, were issued NOVs about four months after inspection; both of these are very difficult, complex matters.

Appropriateness of enforcement actions:

EPA's Hazardous Waste Civil Enforcement Response Policy (December 2003) states

A SNC should be addressed through formal enforcement. This formal enforcement response should mandate compliance and initiate an administrative or civil action that results in an enforceable agreement or order and imposes sanctions. The formal enforcement response should seek injunctive relief that ensures that the violator resolves its violations and expeditiously returns to compliance. An enforcement response against a SNC by the implementing agency should be considered appropriate when sanctions are incorporated in the formal enforcement response. Penalties incorporated in the formal enforcement response that recover the economic benefit on noncompliance plus some appreciable amount reflecting the gravity of the violation should be considered appropriate. Additionally, if warranted by the circumstances, the implementing agency may include other sanctions against the violator.

VADEQ's <u>Enforcement Manual</u> discusses the circumstances under which the State's various enforcement authorities will be used:

Informal Correction: When a minor violations can be corrected in 30 days of less, and unless otherwise precluded by law or policy, staff may use Informal Correction to secure compliance from a regulated party.

As its name implies, this method is appropriate when a minimal amount of effort is required to secure compliance. Situations that meet all of the following criteria may be appropriate for Informal Correction:

- Deficiencies that can be corrected within 30 days;

- Alleged violations that do not present a threat to human health or the environment;

- Alleged violations that are not substantial deviations from fundamental components of the regulatory program; and

- Facilities/regulated parties that are infrequent violators.

Informal Correction is not appropriate for high-priority violations or significant non-compliance, as defined in the media guidance.

Warning Letter: Warning Letters are the appropriate response following the discovery of the majority of alleged violations. The fundamental premise underlying the Warning Letter is that if the facility's corrective action response to the Warning Letter is both satisfactory and timely, then the case can be disposed of without penalty.

If the situation is not suitable for Informal Correction, then a Warning Letter will likely be appropriate. If the alleged violation falls into one of the NOVappropriate categories detailed in the next section, however, then a Warning Letter should not be used, and a NOV should be issued.

The Warning Letter should require that the regulated party respond within 20 days of the date of the letter, either verifying corrective action, or providing a plan and schedule for corrective action. A meeting may be necessary. Presuming that the regulated party's proposal is acceptable:

- No further action memorializing the plan and schedule need be undertaken if corrective action will take 90 days or less, except for DEQ acknowledgment. - If corrective action will take a year or less, then a Letter of Agreement memorializing the plan and schedule is appropriate, provided the regulated party is cooperative, does not have a history of noncompliance and is not asking for relief from environmental compliance requirements during the course of the corrective action.

- If corrective action will take longer than a year, or if the regulated party is seeking interim relief from environmental compliance requirements during the course of correction action, or if there is some documented reason to not have full confidence in the regulated party's ability/ commitment to fully perform the corrective action schedule in a timely manner, then a consent order should be used to memorialize the plan and schedule.

Notice of Violation: A NOV signals that the alleged noncompliance is chronic or acute or of such significance that a case is appropriate for enforcement action and that a penalty may be warranted. NOVs should be issued for any of the following:

- Chronic noncompliance, including: repeated or continuing alleged violations by the regulated party despite previous compliance activity;

- Acute noncompliance, including: a violation which has substantial potential to or has already impacted human health and/or the environment; a substantial violation of an administrative or judicial order; a violation of an essential program element like failure to report an oil spill or failure to report a statistically significant ground water exceedance in a landfill's monitoring program;

- EPA Priority noncompliance, including: High Priotiry Violations (HPV) in the Air Program; Significant Noncompliers (SNC) in the Hazardous Waste Program; and Significant Noncompliance (SNC) in the Water Program;

- Seasonal Violations that need to be elevated quickly to ensure that corrective action is timely; or

- Other noncompliance as identified in media-specific guidance, or failure to respond appropriately to a Warning Letter.

NOVs instruct the regulated party to contact DEQ within 10 days of the date f the letter in order to set up a meeting to discuss the alleged violations and discuss next steps, including the possibility of a consent order and penalties. A Consent Order ("CO") is an administrative order issued with the consent of the owner or other responsible party, to perform specific actions to come into compliance with the relevant law and regulations. They are usually used with private, federal, or local entities. (For enforcement against state agencies, see §I.F (Executive Compliance Agreements)). The Regional Offices are responsible for developing Consent Orders and generally draft them after one or more meetins with the facility. COs are developed cooperatively and entered into by mutual

agreement, even though the Consent Order is a direct order to the facility to comply. They therefore are issued without an adversarial proceeding. A CO may or may not include a determination that a violation has occurred.

Consent Orders may be used to:

- Establish an enforceable course of action for bringing a facility into compliance expeditiously by, among other things: (i) setting interim emissions and effluent limits; (ii) requiring a facility to get a permit; (iii) providing schedules for upgrades, modifications, startups and shakeouts; (iv) requiring site assessment and remediation; and (v) imposing new control technology testing and implementation.

- Assess and collect civil charges for past violations of environmental statutes and regulations, consistent with appropriate Department guidelines, to include the recovery of economic benefit.

- Explain what types of actions DEQ may take if the facility fails to meet the deadlines in the Consent Order.

- Recoup appropriate costs, including those associated with fish kills.

The following are facilities which were identified by the State as SNC, for which no formal enforcement action had been taken at the time of the file review:

Facility 3-18 was identified as a SNC in 4/06 (at the time of inspection). A NOV was issued in August 2006, with a meeting held between the company and Department later that month. A formal enforcement action had not been concluded as of the date of the file review (May 2007), which is in excess of the time lines identified by the State's <u>Enforcement Manual</u>. Since the time of the file review, the State was able to successfully conclude their enforcement negotiations, and the company has signed an Order to settle the violations.

Facility 5-9 was identified as a SNC based on a 6/28/06 inspection. A NOV was issued on 8/30/06, and the Department was negotiating a Consent Order with the company. As of the date of the review (4/3/07) the Consent Order had not yet been settled, but this was still within the 300 day timeframe established by the Department's <u>Enforcement Manual</u>. The file indicated that a penalty amount had been proposed to the company by the Department, and current discussions were related to the company's "ability to pay" claim. The State is working toward finalizing a formal enforcement action in response to the violations.

Facilities 5-22 and 5-23 were identified as SNC on 1/8/07, based on 9/6/06 inspections at the facilities. As of the date of the file review (4/3/07), which was seven months (210 days) after the inspection, no formal action had yet been taken. The Department has referred this case for enforcement, issued a Notice of Violation (1/8/07), met with the company and prepared a draft Consent Order (with penalties), which has not been signed by the company. They are still within the time frames suggested for finalizing a formal

enforcement action. There is a long enforcement history with this respondent, involving both EPA and the Department, civil and criminal, as well as local agencies (including sewer authority, fire marshal, and county government).

Facility 6-8 was identified as a SNC on 2/1/07, based on violations identified during the 12/19/06 inspection. A NOV was issued on 2/1/07, and since that time, the State reports that an Enforcement Recommendation and Plan has been drafted and is under review. This facility remains in SNC status through the date of file review (4/07); the State is within the enforcement time lines identified by their <u>Enforcement Manual</u>. The State is working toward finalizing a formal enforcement action in response to the violations.

Facility 6-24 was identified as a SNC in 7/05 and remains in SNC status through the date of file review (4/07). In 2006, in response to the violations and ongoing environmental threats on-site, CERCLA performed a time-critical removal action. Further formal enforcement action is on hold, pending the completion of cost recovery activities; at that time, the Department will make a decision on how to proceed with formal enforcement action in response to the violations identified prior to that time. It appears that the State will not be able to develop the evidence needed to prove where the waste is issue came from, and will not be able to move forward with enforcement. The site may be evaluated for inclusion on the CERCLA NPL.

Findings:

We found that this element was satisfied to a high degree. The State appears to run an effective enforcement program, including injunctive relief to assure return to compliance, taking penalty actions to address significant violations, and generally meeting the ambitious timeframes identified by their <u>Enforcement Manual</u>.

Element 7/8 - Degree to which the state includes both gravity and economic benefit calculations for all penalties, appropriately using the BEN model or consistent state policy/ Degree to which penalties in final enforcement actions include economic benefit and gravity in accordance with applicable penalty policies.

VADEQ's <u>Enforcement Manual</u> sets out specific criteria used by the Department to calculate appropriate civil charges and civil penalties:

The staff documents its justifications for the proposed enforcement resolution in an Enforcement Recommendation and Plan ("ERP"). ERPs should be brief and concise and need not be longer than two pages. In most cases, the ERP is completed before beginning negotiations with the facility unless a meeting is needed to gather information from the facility to complete the ERP. The ERP must:

- Discuss the alleged violations.
- Assess the strength and weaknesses of the case.
- Discuss various available enforcement tools and strategies.

- Make a recommendation for enforcement action.
- If appropriate, suggest either a civil charge or a negotiation range.

If a civil charge is suggested, the civil charge analysis must be attached to the ERP. The ERP is signed by appropriate DEQ management and is kept in the case file to show that the recommended action has the approval of management. The authority to determine the appropriateness of settlement actions recommended by their staff has been delegated by the Director to the Regional Directors.

Where authorized by statute, the Department may by consent impose civil charges in a Consent Order pursuant to media-specific criteria. Civil charges are used to address:

- An amount reflecting the degree of environmental damage.

- The amount necessary to deter future noncompliance by the same or another party.

- The history of noncompliance.

- The economic benefits accruing to a party from delayed or avoided compliance.

The Virginia Code sets out five factors as the basis for calculating appropriate civil charges and civil penalties in most cases:

- the severity of the violations;
- the extent of any potential or actual environmental harm;
- the compliance history of the facility or person;
- any economic benefit realized from the noncompliance; and
- the ability of the person to pay the penalty.

Unless the alleged violation is so severe as to warrant an enhanced civil charge as described in the Introduction, the Department calculated civil charges for all waste programs using the <u>Waste Civil Charge/Civil Penalty Worksheet</u> ("Worksheet"), which is found at the end of the Waste Program section. In calculating a civil charge, staff first identify the appropriate "Potential for Harm" classification and then work through the various categories on the Worksheet to calculate a Total Civil Charge/Civil Penalty. The Worksheet Total Civil Charge/Civil Penalty may also be adjusted, for other appropriate and documented reasons, as demonstrated in the Enforcement Recommendation and Plan ("ERP") (See Section <u>III E</u>).

Using best professional judgement, staff place violations into one of three "Potential for Harm" classifications - "Serious," "Moderate," or "Marginal" - that are listed near the top of each Worksheet. Staff classify the violations based on: (1) the extent of risk of exposure to humans or the environment; and/or (2) the effect on the regulatory program.

The "extent of deviation" from the Waste Program requirements relates to the degree to which the alleged violation departs from the requirement. In determining the extent of deviation, the following categories should be used:

MAJOR: Deviations from requirements of the statute, regulation, order, or permit to such an extent that most (or important aspects) of the requirements are not met, resulting in substantial noncompliance.
MODERATE: Discernable deviations from the requirements of the statute, regulation, order, or permit, but some of the requirements are implemented as intended.

- MINOR: Deviations to a lesser extent from the statute, regulation, order, or permit, but most (or all important aspects) of the requirements are met.

A multi-day factor for continuing violations may be applied by multiplying the number of days of continuing violations by the factor in the appropriate Worksheet column based on the Potential for Harm classification and the Extent of Deviation designation. Where separate charges are not assessed for daily, documented violations, the Department uses the Mulit-Day Component Category for days 2 through 180 for continuing violations in appropriate cases. This factor is generally applied when there is solid evidence to support continuing, discrete violations over an extended period.

Category 3 addresses the degree of culpability of the facility in committing the violation. ... A graduated culpability factor is associated with the degree of culpability. An upward adjustment is not appropriate in all cases.

Staff uses the Compliance History Category to increase the civil charge for repeat violations of the same or substantially related requirements within the previous 36 months of the violation.

Category 5 addresses the economic benefit component of the civil charge. This factor is included in a civil charge to ensure the charge acts as a deterrent to noncompliance. At a minimum, a civil charge or a civil penalty should remove any significant economic benefit of noncompliance in addition to a "gravity component." By developing a civil charge assessment structure that incorporates this deterrent effect, an enforcement action removes any economic gain that a source or facility accrues by avoiding or delaying costs necessary to achieve compliance, or from illegal competitive advantage ("ICA").

Ability to pay is one of the five statutory factors. In general, the Department will reduce penalty assessments that are clearly beyond the means of the party. At the same time, it is important that the regulated community not perceive the violation of environmental requirements as cost savings for financially-troubled businesses, and the Department will, in appropriate circumstances, continue to seek penalties where a business has failed to allocate environmental compliance costs into their

business operations.

The Department may adjust a civil charge downward in the ERP at several points in its calculation: (1) staff may adjust the gravity component of the civil charge before economic benefit is added; and (2) staff may also reduce the total civil charge for specific litigation and strategic considerations.

Findings:

This element was satisfied to a high degree. In all seven cases for which penalties were assessed, all had penalty calculations in the file using the State's worksheet and in accordance with the State's penalty policy, and addressing all appropriate factors, including economic benefit.

Element 9 - Degree to which enforcement commitments in the PPA/PPG/categorical grants (written agreements to deliver a product/project at a specified time) are met and any products or projects are completed.

The following inspections were accomplished by VADEQ in FY06, in accordance with their grant work plan:

Facility Type	Commitment	Accomplishment
Federal TSDs	14	17
State and Local TSDs	4	3
Private TSDs not inspected during FY05	15	23
Financial Assurance Evaluations	50	49
Land Disposal Facilities not inspected in last three fiscal years	10	9
LQGs	70	89
SQG	220	190
Priority Areas	80	81
SNCs	all	6
BIFs	2	3
Incinerators	2	2

Hazardous Waste Transporters	9	13
------------------------------	---	----

Findings:

The State met the commitments they had proposed as part of their FY06 grant work plan. In the State's end of year report, it was noted that "due to identification of a number of new unpermitted TSDFs, including new SNCs that resulted in enforcement actions, identification of a significant number of episodic Generators, and focus on our Priority area, including our state initiative Hospitals sector, we found it necessary to decrease the number of SQG inspections by an equivalent workload. We believe the additional efforts in these higher priority and higher risk areas to have been beneficial, particularly in the case of the episodic generators that were a higher risk category for non-compliance." The commitments for Federal and private TSDs, large quantity generators, BIFs and transporters were exceeded by the State. Upon further discussion with the State, it was determined that all 49 FRRs available to it were reviewed, and this element of the commitment was completed. In addition, the State also reviewed the number of LDF inspections completed and have demonstrated that the grant commitments for this category were met. Although nine LDF inspections were reported, ten were actually performed.

Elements 10/11/12 - Degree to which the Minimum Data Requirements (Nationally Required Data Elements for the RCRA program) are timely/accurate/complete.

The following data quality issues were identified during the course of the file reviews:

The State consistently uses RCRAInfo enforcement action code 210 for "initial 3008(a) order" to indicate the date which a proposed/draft Consent Order was sent to the violating facilities. RCRAInfo defines code 210 as:

Initial formal administrative enforcement action used by the implementing agency asserting the agency's position that violations have occurred. The respondent/defendant is afforded the opportunity to appeal the agency's determination of violations to a trier of fact. These orders often impose penalties or proposed penalties.

Enforcement action code 210 is really meant to be used for the issuance of a complaint, which could be appealed.

VA uses RCRAInfo enforcement action code 110 "verbal informal", but normally the action associated with this code appears to be a written informal action. This may be a function of translation of data during conversion between RCRAInfo version 2 and version 3.

Facility 5-2 has a CEI dated 6/5/06 in RCRAInfo; the inspection was actually performed on 5/17/06. 6/5/06 was the date of the Warning Letter, which is when the inspection report was sent to the facility.

Facility 5-10 was inspected on 11/9/05 and 11/1/06. The 11/09/05 inspection was entered into RCRAInfo, but the 11/1/06 inspection was not (note: this second inspection was performed in FY07, outside the formal review period).

Facility 5-12 had a SNC determination documented in the file, but this data was not entered into RCRAInfo.

Facility 5-12 had a Consent Order (310) entered into RCRAInfo, but final penalty amount (\$9,600) was not entered into the enforcement action record.

Facility 5-17 was issued a Warning Letter on 5/19/06; this enforcement action record was not entered into RCRAInfo.

Facility 5-19 was inspected on 11/18/05. RCRAInfo contains three violations associated with this inspection, including tank inspection record keeping; the reviewers did not see this item addressed in the inspection report. A closer look at the data reveals that the regulatory citation in RCRAInfo is correct, and the comment associated with this record appears to be a typo (carried over from another violation record).

Findings:

VADEQ uses RCRAInfo enforcement action code 210 for "initial 3008(a) order" to indicate the date which a proposed/draft Consent Order was sent to the violating facilities. Enforcement action code 210 is really meant to be used for the issuance of a complaint, which could be appealed.

The State's Tidewater Regional Office seems to use NRR to capture a number of activities, including site visits, meetings on-site with facilities, and focused inspections. In the Valley and Piedmont Regional Offices, this NRR codes seems to be used more exclusively as defined by RCRAInfo (NRR is a Non-Financial Review, which is an evaluation conducted in the Agency office involving a detailed review of non-financial records).

Recommendation: EPA and the State will work together to clarify and resolve the issues regarding entry of proposed/draft Consent Orders and use of the NRR code. EPA and the State will determine what additional training will be provided to inspectors and data entry staff.