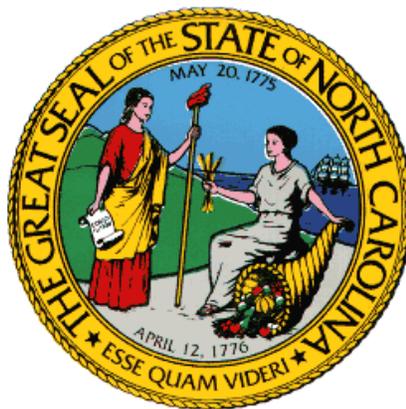


**FINAL 2005 NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES AND
FORSYTH COUNTY ENVIRONMENTAL
AFFAIRS DEPARTMENT
STATE REVIEW FRAMEWORK REPORT**



I. Executive Summary

Introduction

The Environmental Protection Agency's (EPA's) Office of Enforcement and Compliance Assurance (OECA), all ten EPA Regions, the Environmental Council of States (ECOS) Compliance Committee and other state representatives have jointly developed a method to assess state performance in the enforcement and compliance assurance program. This report reflects the FY2004 review by Region 4 of the North Carolina Department of Environment and Natural Resources (NCDENR) compliance and enforcement program and the Forsyth County Environmental Affairs Department (Forsyth County) Air compliance and enforcement program utilizing the State Review Framework (SRF). This review has been a collaborative effort between the Region, State and Forsyth County and captures both successes of the State and Forsyth County programs as well as any identified areas that need improvement. As this is the first review of this type for NCDENR and Forsyth County, this report will serve as a baseline review. Future reviews will look at performance as a comparison to the level documented in this review.

The purpose of the SRF assessment is to provide consistency in the level of core enforcement activity and performance thus in environmental protection across the country. It provides a consistent tool for EPA Regions to use in overseeing state enforcement program performance as well as to provide the basis for a consistent mechanism for EPA Regions to provide flexibility to states which can demonstrate an adequate core enforcement program.

The review consists of 12 critical elements which compare actual compliance and enforcement practices in the Clean Air Act (CAA) Stationary Sources Program, the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) program, and the Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous waste program with EPA policies and guidance. The 12 evaluation areas posed by this Framework are consistent with evaluation areas delineated in the 1986 EPA guidance memorandum signed by Jim Barnes entitled "*Revised Policy Framework for State /EPA Enforcement Agreements.*" Additionally the Framework utilizes existing program guidance, such as national enforcement response policies, compliance monitoring policies, and civil penalty policies or similar state policies (where in use and consistent with national policy) to evaluate state performance and to help guide definitions of an acceptable level of performance. There is also an optional 13th element for which NCDENR and chose to provide information. EPA and ECOS encourage the use of the 13th element to ensure the review takes a measure of the full range of program activities and results. These components can add meaningful input into a state's overall performance and program. Examples of topics could include program areas such as compliance assistance, pollution prevention, innovation, incentive or self-disclosure programs, outcome measures or environmental indicators that go beyond the core program activities covered in Elements 1 through 12.

NCDENR's Air program is implemented by the State as well as three local Air agencies:

- Mecklenburg County Air Quality (Mecklenburg County), Charlotte, NC,
- Forsyth County Environmental Affairs Department (Forsyth County), Winston-Salem, NC, and,
- The Western North Carolina Regional Air Quality Agency (Ashville), Asheville, NC, enforcing Air Quality regulations in Buncombe County and the City of Asheville.

Regional resources were sufficient to conduct a review of the State's enforcement and compliance program and one local Air agency. A review of the Region's enforcement oversight efforts in NC demonstrated a full review of the Mecklenburg County Air Quality program had been previously conducted. That review determined that Mecklenburg County was conducting an acceptable enforcement and compliance program and did not identify any significant issues. Forsyth County Environmental Affairs Department regulates a greater number of air sources than the Western North Carolina Regional Air Quality Agency and therefore was chosen for review. The Western North Carolina Regional Air Quality Agency will be reviewed in the next review cycle.

OECA provided a NC Regional Data Quality Review Check List for each of the media programs being reviewed. NCDENR and Forsyth County requested that, for the purpose of this review, the Forsyth County Air program would be evaluated using the same process and criteria as the State Air program review. Therefore, Forsyth County underwent a review that was independent and parallel to the State review effort. For the Air program, Regional staff performed a separate data analysis for Forsyth County, adjusting the statewide data as appropriate. A separate file selection and review process was also conducted for Forsyth County.

Process Followed in the Review

Region 4's evaluations of the NCDENR's core enforcement programs and Forsyth County's Air program were conducted by staff from the Region's Office of Environmental Accountability (OEA) and the Air, RCRA and Water enforcement programs using the Framework described above. Each media technical authority (TA) from OEA and staff from the program worked with their counterparts at the State to determine the number of files to be reviewed. The number of files to be reviewed was determined based on the protocol in the Implementation Guide, and was based on the number of facilities in the universe, the number of inspections performed and the level of enforcement activity in each program at a statewide level. The review was not directed at assessing the capabilities of the individual North Carolina District offices, rather to assess the State compliance and enforcement program as a whole. NCDENR collected and made available all selected files at their central office. In addition, files from Forsyth County were reviewed at the Winston-Salem office. For each program, files were selected at random within a representation of types or program areas within each program. The scope of review generally evaluated the State against FY2004 agreements and outputs. For those instances where two years of data was required, FY2003 and FY2004 information was used. The report contains findings

of the review for each program, and areas of concern with a full explanation of these concerns along with recommendations for resolution.

Information Considered From Other Reviews and Other Sources

For each of the NC compliance and enforcement programs, Region 4's OEA staff obtained those documents that identified negotiated compliance and enforcement commitments with NCDENR and Forsyth County. These documents were reviewed for consistency with national and regional policy and guidelines as well as commitments that may differ from OECA expectations. The following are the information sources utilized in the NC SRF review:

CAA Stationary Source Enforcement Program - State

Air SRF Metrics Data Pull by EPA Headquarters, State inspection and enforcement files, State's enforcement response guideline document entitled "Enforcement Guidelines and Penalty Trees", Compliance Monitoring Strategy (CMS) policy, Air Facilities Subsystem (AFS), EPA's High Priority Violator (HPV) policy, EPA CAA Stationary Source Penalty policy, and the FY2004 §105 Grant Air Planning Agreement.

CAA Stationary Source Enforcement Program - Forsyth County

Region 4's Air County Review Framework Metrics Data Pull, County inspection and enforcement files, Forsyth County's penalty policy, AFS, EPA's HPV policy, and the EPA CAA Stationary Source Penalty policy.

NPDES

CWA SRF Metrics Data Pull by EPA Headquarters, State inspection and enforcement files, NC Permitting for Environmental Results Report, NCDENR Environmental Regulatory Compliance Activity in calendar year 2004, EPA/NC CWA §106 Program Grant Workplan, Permit Compliance System (PCS) data pull for IY2004, PCS data pull for FY2004, NC Enforcement Management System, FY2004 EPA/NC midyear report, Division of Water Quality (DWQ) enforcement policy 7/1/98, and the NC General Statute 143B-282.1(b).

RCRA

RCRA SRF Metrics data pull by EPA Headquarters, State inspection and enforcement files, The Solid Waste Disposal Act/RCRA, OECA FY2004 MOA update, NCDENR FY2004 Grant Workplan, RCRAInfo data, Hazardous Waste Civil Enforcement Response policy (December 2003), NCDENR RCRA 2004 annual evaluation, and North Carolina's Hazardous Waste Section's Compliance and Enforcement Strategy (Draft, 2005).

Overall Summary

This report documents the findings and recommendations of EPA's review of the NCDENR compliance and enforcement program, and the Forsyth County Air compliance and enforcement program. The report examines 12 elements covering inspection implementation, enforcement activity, commitments in annual agreements and data integrity. The report also includes a detailed write-up for optional Element 13, provided by the NCDENR and Forsyth County. The

items in Element 13 demonstrate both North Carolina's and Forsyth County's innovative approaches to compliance and enforcement and are meant to supplement the output metrics examined in the State review.

The State and Forsyth County, as a whole, have effective compliance and enforcement programs. In most instances, the State exceeded national averages identified in the North Carolina State Review Framework Metrics, across all media programs. These data metrics compared NC data to national figures such as inspection coverage, identifying and addressing significant violators in a timely way, etc. NC's high level of inspection coverage and activity is indicative of an active field presence for their compliance and enforcement program.

The report includes recommendations for improvement in several areas. The two overarching issues most significant for NCDENR are maintaining supporting documentation and rationale in files as to how penalties and economic benefit were calculated and the degree to which minimum data requirements are timely. Meeting timely minimum data requirements is also a significant issue for Forsyth County.

Program Successes and Major Cases

The State's compliance and enforcement program has concluded many successful cases in the past year. The following are summaries of some of the more high profile cases:

CWA Case(s): A Special Order By Consent (SOC) issued to the City of Greensboro in 2004 (S04-012) was the first SOC to include stipulated penalties for every sanitary sewer overflow within the municipal sewer collection system.

CAA Case(s): A major case in FY2005 for Division of Air Quality (DAQ) was Hexion Specialty Chemicals, Inc., formerly Borden Chemical, Inc. The company operates a chemical manufacturing facility in North Carolina. This facility produces formaldehyde, urea-formaldehyde concentrate, urea-formaldehyde resin, phenol-formaldehyde resin, and hexamethylenetetramine. On September 30, 2003, the company notified the DAQ that they may have exceeded 10 tons per year (TPY) of emissions for certain individual hazardous air pollutants (HAPs) and may have exceeded 25 TPY for the combination of all HAPs during certain prior years. Thus, the emissions of HAPs may have triggered the applicability of Title V, the Hazardous Organic NESHAP (HON) and the Amino/Phenolic Resins NESHAP (Resins MACT) in prior years. Based on a file and records review completed by the company in January 2005, the company discovered that they had become subject to Title V Air Permit requirements in 1997. As a result, the facility was out of compliance with the HON MACT for approximately eight years and the Resins MACT for approximately three years.

On February 23, 2005, the DAQ issued a Notice of Violation / Notice of Recommendation for Enforcement (NOV/NRE) to the facility, citing that a completed Title V Air Permit application was required to be submitted to be in compliance with 15A NCAC 2Q .0501, "Purpose of Section and Requirement for a Permit." The NOV/NRE also cited non-compliance with the HON and the Resins MACT for multiple years.

On September 25, 2005, the DAQ entered into a SOC with the company. As part of the SOC, it was required to conduct performance testing of a catalytic oxidizer; construct a loading rack vent system; install, operate, and test a scrubber on its resin production operations; conduct facility-wide air modeling; and to perform other activities. The company also agreed to pay a fine of \$205,000 for the violations. This penalty amount included a gravity portion as well as an economic benefit portion for not installing a scrubber to control emissions by the due date of the Resins MACT.

RCRA Case(s): Meridian Automotive NCR000136788 B Salisbury, NC

On February 24, 2004, an inspection indicated that Meridian Automotive had violated numerous RCRA Subtitle C requirements. Violations included improper manifests of waste shipments, spillage of hazardous waste in satellite accumulation areas, open containers, failure to conduct weekly inspections of storage areas, failure to properly label and date containers of hazardous waste, improper aisle space, inadequate contingency plan, failure to submit exception reports for missing manifests, and the discovery of an area of stressed vegetation behind the hazardous waste storage area. This area was approximately 30 feet by 15 feet and the company could not identify the source or constituents associated with the contamination.

Per North Carolina's Enforcement Response Strategy, these violations determined that Meridian Automotive was in significant noncompliance (SNC) which warranted a unilateral formal enforcement action. On August 27, 2004, the Hazardous Waste Section issued a Compliance Order with an Administrative Penalty of \$87,950.00. In addition to correcting the operational violations, Meridian Automotive had to conduct sampling and analysis of the area of contamination behind the hazardous waste storage area. Within the guidelines of our Generator Closure Guidance, Meridian Automotive determined the contamination as being styrene and chromium. Working through the NCDENR Compliance Branch, the site cleanup was initiated and completed, with a "no further action" determination made on February 1, 2005.

The Section met with Meridian Automotive representatives on September 22, 2004 to informally discuss the enforcement action, root-cause analysis of why the violations occurred, expectations for compliance and to ensure future compliance. On February 5, 2005, the Section and Meridian Automotive settled the enforcement case for \$85,000 in payment terms over three years. On February 9, 2005, the State conducted a compliance schedule evaluation (CSE) follow up inspection and determined Meridian Automotive to be in substantive compliance.

Inspection Implementation

CAA -Inspection Activities - The level of inspection activity undertaken by the State is well above the national average, including inspections at majors, and Synthetic Minors (SM80s). Inspection reports for both the State and Forsyth County appeared to be thorough, and with few exceptions contained all required elements.

Region 4 performed AFS date queries to identify Full Compliance Evaluations (FCEs) performed at the sources whose files were reviewed for the State and Forsyth County. The

queries identified a number State and Forsyth County FCE date discrepancies. The data bases have since been updated and currently there are no discrepancies identified. In all instances, FCE documentation existed in the source files, but there were no FCE dates in AFS. EPA recommends that NCDENR and Forsyth County investigate the cause of the date discrepancies and inform Region 4 of the findings of the investigations and corrective actions taken.

NPDES - North Carolina conducts inspections in accordance with the negotiated Water Grant Commitment Workplan. The workplan allows trade-offs for inspections between major and minor facilities, i.e., stormwater, Concentrated Animal Feeding Operations (CAFOs), NPDES minor facilities. The inspection ratio agreed to is 60% major facilities and 40% minor facilities. North Carolina significantly exceeded the national average for inspections of Major and Minor sources. North Carolina's high level of inspections indicates a significant field presence in their compliance and enforcement program. This conclusion is supported by information in both PCS and Basinwide Information Management System (BIMS).

The sample of NPDES inspection reports reviewed were generally thorough addressing permits, records, site reviews, effluent/receiving streams, flow measurements, self monitoring programs, laboratory, operation and maintenance, sludge utilization, pretreatment, etc.

The sample of CAFO inspection reports reviewed during the file review were complete, documenting observations with photographs, detailed narrative descriptions of the inspected areas and provided recommendations for areas of improvement. In addition, the CAFO inspections initiated the pursuit of formal enforcement actions when violations were determined.

The stormwater Inspection Form, a checklist, is used for on-site inspections. These forms contained sections for general information, facility information, key permit requirements, and comments. The stormwater inspection forms reviewed did not adequately document observations, identify records reviewed, weather conditions, best management practices, receiving waters, good housekeeping etc. The stormwater inspection form should be updated to incorporate more detail for the on-site inspection.

For all files reviewed by EPA, the inspection reports were completed within the required 30 days after the date of inspection except for one. North Carolina has done a good job of completing inspection reports and identifying violations in a timely manner.

RCRA - The State Review Framework Metrics indicates that NCDENR inspected 100% of the Treatment, Storage, and Disposal Facilities (TSDs) in their State in FY2003-FY2004, as required by statute. In addition to traditional TSD inspections, NCDENR has a Resident Inspector Program for monitoring compliance at the State's twelve commercial hazardous waste facilities. The resident inspector program is a multimedia program comprised of three inspectors who collectively conduct more than 500 inspections each year at each of the 12 commercial facilities.

Federal TSD facilities must be inspected every year to determine compliance with the hazardous waste regulations. In FY2004 all federal TSD received an inspection, however, one inspection was not entered into RCRAInfo. North Carolina has since entered the inspection into

RCRAInfo.

The SRF Metrics indicate that NCDENR has annually inspected an average of 57% of the Large Quantity Generator (LQG) universe in their State. This is significantly above the OECA core program requirement of 20%, as well the national average of 28.8%. The data metrics also shows that from FY2000-FY2004, NCDENR inspected 94% of the LQG universe. Variations in generator and facility status can attribute to the level averaging below 100%.

Although the FY2004 OECA MOA Update does not specify further inspection coverage requirements, it does recommended that the regions and states determine appropriate levels of inspection coverage for Small Quantity Generators (SQGs). North Carolina has over 2,300 SQGs, and according to the SRF Metrics, NCDENR inspected over a five-year average 95% of all SQGs.

North Carolina maintains inspection coverage of the regulated universe, far above the national average. The inspection reports were thorough and well-documented, appropriate to the complexity of the facility. Violations were clearly identified in the report, and documented where appropriate, with photographs. In addition, the SRF Metrics indicate that NC has an inspection SNC identification rate of 7%, more than twice the national average of 3.2%

There seems to be a delay in the inspection data entry into RCRAInfo. After an inspector completes an inspection, a data entry sheet is filled out for the inspection information to be entered into RCRAInfo. From reviewing the files, there appears to be several instances where there was a delay of weeks, or even months, before the information was entered into RCRAInfo. There were also observed delays in data entry of enforcement information as well. Region 4 recommends that NCDENR review the procedures for entering inspection and enforcement information into RCRAInfo.

Enforcement Activity

CAA - The HPV discovery rate for the State and Forsyth County, based upon active major sources, is above the national average. All files reviewed documented the facilities' return to compliance where violations were found, as well as the discovery date for each violation. In FY2004, the State had 12.2% of their HPVs not addressed within the 270-day timeline prescribed in the HPV policy. At the time of this review, 100% of these HPVs are reported as addressed, significantly better than the national average (41.4%). Forsyth County had one major and one synthetic minor HPV during FY2004, which were addressed within the 270-day timeline of the HPV policy.

While reviewing the State's enforcement response guideline document entitled "Enforcement Guidelines and Penalty Trees", Region 4 noted one section that appears to contradict the HPV policy. In the section which addresses violations of initial source tests the State policy does not recommend additional enforcement or penalty assessment for facilities with a good compliance history, provided the facility corrects the excess emissions within 90 days from discovery and there are no other compliance problems noted. EPA's HPV policy states that all stack test

failures for a pollutant for which the facility is major should be identified as an HPV, and that a penalty should be assessed for such a violation. Region 4 recommends that the State revise its enforcement response guideline document to include the assessment of a penalty for all stack test failures regardless of compliance history.

Region 4 reviewed 24 separate enforcement actions in 16 State files. The penalty worksheets for 19 of the enforcement actions closely followed the State's penalty policy; however, the gravity portion of the penalty assessment was not included. Five State enforcement actions were reviewed that had no penalty documentation. Two of the five were for violations where injunctive relief was needed to return the source to compliance. However, no documentation of gravity or economic benefit components was found in either file. Moreover, there was no documentation in the file of the cost associated with the injunctive relief. EPA recommends that the State document the penalty calculations for all HPVs. For cases where economic benefit is derived through noncompliance, the State should document the cost incurred by a facility to return to compliance and then document the results of EPA's BEN model.

Of the three Forsyth County enforcement actions reviewed where penalties were collected, documentation of penalty calculations was found in the files. The penalty worksheets in the files closely followed the county's penalty policy, which addresses only the gravity portion of the penalty assessment. It is recommended that for future cases when circumstances warrant, Forsyth County document and collect the cost incurred by a facility to return to compliance as well as the results of EPA's BEN model.

In FY2004, 100% of the State and Forsyth County enforcement actions against HPVs included the assessment and collection of a penalty, exceeding the national average (84.4%). As discussed in the Metric 7, most documentation of penalty calculations was found for 19 of the 24 enforcement actions and the documentation closely followed the State's own penalty policy.

NPDES – EPA's data metrics indicate that the percentage of major facilities in SNC in North Carolina is well below the national average for FY2004. North Carolina enters all effluent data in a timely manner. PCS automatically flags SNC based upon the Discharge Monitoring Reports and other reports.

The State NPDES compliance program is a self monitoring program. As a result, most of the enforcement actions were in response to self monitoring/reporting effluent violations through discharge monitoring reports (DMRs). A facilities return to compliance was not always documented where violations were found during the on-site inspection. Common violations (i.e. effluent violations) that are easily supportable and not requiring legal counsel in drafting the findings and decision documents are addressed using the Fast-Track process. In instances when chronic monthly effluent violations are reported by facilities, Region 4 recommends that a return to compliance date should be specified in the order as part of the enforcement escalation process.

The number of active majors without timely action should not exceed 2% throughout the fiscal year, however, for FY2004 North Carolina was reported to be at 3.2%, just slightly higher than the national average. The State elects to issue SOCs instead of unilateral orders, and the process

for issuing a SOC typically requires much more time than 30 days. It is recommended that North Carolina begin consistently reporting single-event violations arising from major facility compliance monitoring. North Carolina should periodically perform quality assurance checks to ensure accurate and timely data entry.

The Fast-Track cases are calculated and assessed in the regional offices and the assessments are copied to the central files. Penalty assessment calculation worksheets were not always available for review in the State files. It is not clear in the penalty assessment worksheets what portions of the penalties addressed economic benefit and/or gravity of the violations. Because of the number of assessments made in North Carolina, specific calculations for Fast-Track cases may be made implicitly by the regional office supervisor.

The State's penalty policy and its strategy for taking formal enforcement for repeat violators are not clear. Penalties associated with effluent violations follow the Fast-Track Penalty guidance and subsequent policy updates. Although the State considers both gravity and economic benefit when assessing civil penalties, the State should document the economic benefit and gravity contributions for all penalties assessed. Not all of the enforcement files reviewed had the penalty worksheet included. It is recommended that the penalty rationale be kept in the enforcement file and available for review at all times. If North Carolina determines that an action does not warrant a penalty, documentation of the decision and rationale for the decision should be included in the case file.

North Carolina usually uses penalty only orders to address facilities in non-compliance and is more than double the national average for enforcement actions that carry a penalty. However, the files reviewed in most cases did not reflect or give a written basis for the final penalty. Region 4 recommends that these decisions be documented as described above.

RCRA -All enforcement files reviewed included required actions for the facility to return to compliance. Although the enforcement actions, follow-up inspections, and return to compliance data are reflected in RCRAInfo, the actual documentation recording activities subsequent to enforcement were often missing from the files. Region 4 recommends that the State ensure records of enforcement proceedings and return to compliance are maintained in the appropriate files.

In FY2004, NCDENR RCRA program identified 34 SNC facilities. The average timeframe for resolving formal enforcement was 106 days, well below the 360 days required by the RCRA

Enforcement Response Policy (ERP). NCDENR maintains a response time for addressing SNCs averaging under a third of the time allowed to address the violations through formal enforcement.

In the enforcement files reviewed, penalty calculations were assessed as part of the formal enforcement actions, including penalty worksheets. The “North Carolina - Hazardous Waste Section’s Compliance and Enforcement Strategy” outlines penalty computation procedures that include both a gravity-based component and economic benefit calculations. However, the penalty computation sheets in the files did not document that economic benefit had been considered in the penalty calculations. Region 4 recommends that NCDENR revise the penalty calculation worksheets to document that economic benefit has been considered in assessing the penalty.

EPA did not find any documentation of final penalty calculations with the enforcement actions. The final penalties were reflected in RCRAInfo, but not formally documented in the files. Discussion with NCDENR managers indicated that it is not the practice of the Department to maintain these calculations in the files since North Carolina has an “open records” law. Region 4 recommends that NCDENR consider options to maintain final penalty documentation, including economic benefit and gravity-based calculations.

Commitments in Annual Agreements

CAA - NCDENR and Forsyth County have consistently met or exceeded all of the enforcement requirements of their §105 Grant for FY2004.

NPDES - NCDENR has consistently met or exceeded all the enforcement requirements of their §106 Grant, Work Plan and Enforcement Management System (EMS) for FY2004.

RCRA - NCDENR has met or exceeded all requirements of the FY2004 RCRA Grant workplan with regard to compliance and enforcement activities reviewed as part of the SRF for FY2004.

Data Integrity

CAA - Data discrepancies in FCE dates were noted for the State and Forsyth County. The AFS query indicated that more than 80% of HPVs were reported by the State to EPA later than 60 days following the date of discovery. This high percentage of late reported HPVs is explained by EPA’s method of identifying potential HPVs in conjunction with the frequency of enforcement conference calls between EPA and the State. An increase in the number of conference calls between NCDENR and Region 4 has addressed this problem. No HPVs were reported by Forsyth County to EPA later than 60 days following the date of discovery. This is significantly better than the national average.

A few data quality issues were noted in the AFS data and during the file reviews for both agencies. Minimum data requirements are not always reported by the State and Forsyth County

to AFS in a timely and accurate manner. The source population data in AFS should be maintained to reflect the State's and County's databases.

NPDES - North Carolina does not use the PCS to manage its NPDES program. The State relies on its own system, BIMS, which updates PCS through an automated interface. The file review conducted noted numerous missing data in PCS for Notice of Violations and Penalty Assessments and CWA Penalty Orders. Most commonly noted were penalty orders found in the facility files but not entered into PCS. Correction of the interface difficulties has been a continual work in progress and the State has resolved many of the problems to date. North Carolina should continue to utilize current standard operating procedures, or update them as necessary, for entering all required data into PCS in both a timely and accurate manner.

North Carolina is recognized for their efforts to achieve national goal criteria to meet the entry standard for majors. The SOC upload problem is currently being worked on and expected to be corrected in the near future, but in the interim, the major SOC's will be manually uploaded.

RCRA - An essential part of quality RCRA enforcement program is assuring that all information is promptly and correctly entered into RCRAInfo. Although the violation determinations are being made in accordance with the RCRA ERP, this is not always reflected by timely data entry. EPA recommends that NCDENR review the procedures for entering inspection and enforcement information into RCRAInfo.

Summary

EPA Region 4's review of the North Carolina and Forsyth County enforcement programs has determined that both the State and Forsyth County have a thorough understanding of their enforcement programs and are implementing the delegated enforcement programs.

The Region will continue to work closely with the State of North Carolina and Forsyth County to implement the recommendations made in this report.

II. Media Program Element Reviews

Program: CAA Stationary Source Enforcement Program

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

Findings:

Inspections at major sources - Under the Compliance Monitoring Strategy Plans covering Fiscal Years 2003 and 2004, the State of North Carolina agreed to conduct FCEs at all Title V facilities, including mega-sites, every year. The universe of major sources includes those with an EPA or state classification code in AFS for major sources. According to AFS, in FY 2003-2004, the State of North Carolina completed FCEs at 97.7% (387/396) of its major facilities. The State surpasses the national average of 75.7%. Of the three local programs within the State, only Forsyth County, which AFS indicates performed FCEs at 28.6% (4/14) of its major sources, does not exceed the national average.

Based upon information contained in their database, the State of North Carolina completed FCEs at 88.5% (332/375) of the identified major sources during FY2003 and 90.7% (340/375) during FY2004.¹ The State would like to emphasize that it goes above and beyond the requirements of the CMS. If expressed in terms of CMS requirements, the State reported that its FCE completion rate would be 195% as demonstrated by the data in AFS.

Based upon information provided by the Forsyth County local program, FCEs were performed at 54.5% (6/11) of its operating major facilities during FY2003 and 27.2% (3/11) of its operating major facilities during FY2004. This totals to 81.8% (9/11) of all major sources within the two year period, which exceeds the national average. When comparing the AFS major source population with that in the Forsyth County database, it appears that the discrepancy in the values is related to the operational status of three

¹ The universe of sources identified in the State database is smaller than the universe of major sources identified in AFS. This is likely related to the fact that the State data retrieval is based on the 2005 population, which does not correspond with EPA's FY2003-2004 data pull.

major sources. With regard to the discrepancy in the two databases for the number of FCEs performed, i.e., 4/14 vs. 3/11, Forsyth County has documentation in its files that mirrors its own database, therefore, it is concluded that it is an AFS maintenance issue.

Inspections at synthetic minor sources (80 percent of major source level - SM80s):

The universe of SM-80s includes those sources with an EPA or State classification code in AFS for synthetic minors with a CMS source code for SM-80s. While the CMS requires that FCEs must be performed at each SM-80 once every five years, the State of North Carolina has committed to perform the evaluations every calendar year. According to AFS, the FCE rate for FY2003-2004 was 94.5% (598/633). The State well exceeds the national average of 69.2%. While it exceeds the national average, the State does not distinguish between SM-80 sources and other synthetic minor sources.

According to the State database, 639 SM-80s are currently operating. Again, this data reflects the source population in 2005. The difference in timeframe explains the slight discrepancy in the population. The State database also indicates that 496 FCEs (77.6%) were performed in FY2003 and 508 FCEs (79.5%) were performed in FY2004. Combining this number of FCEs along with those performed at major sources, the State performed a total of more than 900 FCEs during FY2004. A review of the files chosen for this evaluation indicated the State performed complete and accurate FCEs.

The State's inspection reports and other file documents were examined to determine the quality of its compliance evaluations. For the files reviewed, all relevant inspection reports, with very few exceptions, contained all CMR elements. Additionally, almost all inspection reports contained references to the review of records and reports required by the source's permits. The files were noted to contain other documentation that supported the performance of complete FCEs: the presence of stack test observation reports, Notices of Violation and formal enforcement actions for record keeping and reporting deficiencies, and inspection follow-up correspondence with the source. Given this level of documentation, EPA is satisfied with the quality of the State's compliance evaluations.

For Forsyth County, AFS indicates that FCEs were performed at 20% (6/30) of SM-80s. This is below the national average of 69.6%. However, according to the Forsyth County database, FCEs were performed at a total of 19 of the 31 (61.3%) SM-80s in FY2003-2004. While this number is below the national average, it is on track to complete FCEs at all SM-80s within the five year period required in the CMS policy.

Title V Annual Compliance Certifications received and reviewed: According to AFS, 318 Title V annual compliance certifications were due for review by the State in FY2004. All 318 (100%) were entered into AFS as reviewed. This meets the goal and exceeds the national average of 73.5%.

AFS does not reflect any reviews of Title V certifications by Forsyth County. While Forsyth County has hard copies of these reports and indicates that they have been

reviewed, their reviews were not entered into AFS.

Sources with Unknown Compliance Status Designations: All eight sources with an unknown compliance status were located in Forsyth County, and are likely the result of the data not being entered into AFS. The compliance status for seven of these eight sources can be explained since AFS generates an unknown compliance status code for CMS sources when an FCE is not entered into the database for two consecutive calendar years. Forsyth County supplied Region 4 with the proper compliance status code and requested that the status be changed and the Region has made the appropriate changes in AFS.

Recommendation(s): It is recommended that the discrepancies in the universe of sources between the EPA, State and Forsyth County databases be reconciled to ensure the accuracy of data in AFS. Also, two additional discrepancies between AFS and Forsyth County's database need to be reconciled: the number of FCEs performed during FY2003 and FY2004, and the review of annual Title V compliance certifications during this time period. To ensure the completeness and accuracy of AFS data, Forsyth County should report all minimum data requirements (MDRs) for the period between FY2003 through the present, including FCEs and Title V compliance certification reviews, at a mutually agreeable date to be established with Region 4.

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

Findings: Inspection reports for both the State of North Carolina and Forsyth County appeared to be thorough, and with few exceptions contained all required elements of a CMR. Of these exceptions in the State of North Carolina, five files were noted with missing enforcement histories, two files were discovered without a definitive findings section, and one file was found with no discussion of compliance monitoring activities. For Forsyth County, only one file was noted with a missing enforcement history. Of the violations discovered during the FCEs, the State resolved all such violations through its administrative enforcement process.

This metric is a comparison of the number of HPVs added in FY2004 and the number of FCEs completed during FY2004. The data in *AFS*, without locals, indicates that the State discovered HPVs during 7.6% (27/357) of its FCEs. This is below the national average of 10.6%. The FY2004 data in *AFS* indicates that Forsyth County discovered HPVs during 7.1% (1/11+3 not in *AFS*) of its FCEs at major sources. This is below the national average of 10.6%.

The Table One below summarizes the findings of the *file reviews*. For the State of North Carolina, the compliance and enforcement files were maintained separately, but Forsyth County combined these files. No files reviewed contained confidential business

information.

Table One

	State of North Carolina	Forsyth County
Major sources with HPVs	15	1
Major sources with non-HPV violations	2	1
Major sources with no violations	4	5
Synthetic minor sources with HPVs	2	1
Synthetic minor sources with non-HPV violations	1	1
Synthetic minor sources with no violations	6	1

Recommendation(s): The State should ensure that all inspection reports are complete and contain all the required documentation necessary to verify the compliance status of the source.

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

Files were selected per guidance from the SRF file selection protocol.² EPA shared the proposed list of selected source files for review with NC and Forsyth County, giving them an opportunity to comment and concur with selection.

The State reviewed all Title V compliance certifications received in FY2004. The AFS query lists 318 Title V compliance certifications received and 318 certifications reviewed in FY2004. Results of the certification review appear to be entered properly into AFS. The data pull from AFS revealed no Title V compliance certification reviews for Forsyth County during FY2004. A review of selected files showed that certifications were

2	For FY2004 State of North Carolina:	
	Full Compliance Evaluations	410 major + 633 SM-80s = 1,043 FCEs
	Partial Compliance Evaluations	N/A
	Total Number of Evaluations	1,043
	Number of files for review	25 + 5 additional major sources = 30
	For FY2004 Forsyth County:	
	Full Compliance Evaluations	4 major + 6 SM-80s = 10 FCEs
	Partial Compliance Evaluations	N/A
	Total Number of Evaluations	10
	Number of files for review	10

located within the files, and the missing data within AFS was likely due to Forsyth County's failure to report it instead of their failure to review the certifications.

For 26 of the 30 State files reviewed by Region 4, the FCE reports were completed within 30 days after the actual inspection. Of the remaining files, three inspection reports were completed within 45 days after the actual inspection and the other report was completed about 180 days after the inspection³. Region 4 did not note any deficiencies in the timely identification of violations. For the ten Forsyth County files reviewed, seven of the FCE reports were completed within 30 days following the actual inspection. The remaining three reports were completed within 90 days after the inspection date. Region 4 did not note any deficiencies in the timely identification of violations.

As a follow-up to the discovery of FCE date discrepancies identified in the initial AFS query, Region 4 performed another query of AFS to identify all FY2003-2004 FCEs performed at the sources whose files were reviewed. The second query reduced the number of State FCE date discrepancies from 14 to two: one case in which the date listed in the file does not match the date in AFS⁴, and one instance in which there is a date in AFS but no documentation in the file⁵. The discrepancy in the latter instance may be explained by the fact that the source files were shipped from Regional offices to Raleigh for our review.

The second AFS query did not resolve the FCE date discrepancies in Forsyth. Date errors remain for seven of the ten files reviewed. In all instances, FCE documentation existed in the source files, but there were no FCE dates in AFS.

AFS data indicated that not all stack tests had a pass/fail result. According to MDR requirements, all stack test results should be reported to AFS. If any of these tests had indicated a failure, it is possible that the State failed to identify the violation of a HPV in a timely manner. This scenario seems unlikely as Region 4 has found the State to issue Notices of Violation (NOVs) within the timelines prescribed in the HPV policy and their timely reporting to AFS. It is therefore concluded that it is a data management concern.

Citation of information reviewed for this criterion:

- CMS policy
- HPV policy
- AFS
- Enforcement files

Recommendation(s): It is recommended that the State and Forsyth County correct the FCE date inconsistencies described above and that they investigate the cause(s) behind the date errors and take corrective actions. Region 4 wants an agreement with the State

3 Weyerhaeuser (Plymouth) FCEs conducted 9/11/2003 and 7/21/2004; Stericycle FCE conducted 3/14/2006; RSI Home Products FCE conducted 12/19/2003; Drexel Heritage Plant #2 FCE conducted 8/14/2003

4 Braxton Culler located in Sophia, NC FCEs conducted 10/15/2002 and 9/14/2004

5 Talecris Biotherapeutics located in Clayton, NC FCE date in AFS: 9/17/2004

and Forsyth County that results in the verification that these inconsistencies have been resolved by mutually agreeable dates to be established. Also, the State and Forsyth County are encouraged to complete all inspection reports within 30 days of completing the inspection and ensure that the FCE is reported to AFS in a timely manner.

4. Degree to which HPVs are reported to EPA in a timely and accurate manner.

Findings: According to the AFS database query, the HPV discovery rate in the State of North Carolina is 7.6%, based on FCEs completed in FY2004. This is below the national average of 10.6%. For Forsyth County, the HPV discovery rate based on FCEs completed in FY2004 is 7.1%. This is also below the national average.

The State failed to report more than 80% of its HPVs to EPA within 60 days of discovery. This is significantly higher than the national average. This high percentage of late reported HPVs is explained by EPA's method of identifying potential HPVs in conjunction with the frequency of enforcement conference calls between EPA and the State. While Region 4 continues to identify potential HPVs using NOV's reported in AFS, the increased frequency of conference calls with the State beginning in FY2006 has significantly increased the percent of HPVs reported within 60 days of discovery. This percentage will remain high as long as the State timely reports NOV's to AFS. Region 4 will continue to monitor the timely reporting of HPVs by NCDENR. Timely reporting of HPVs from Forsyth County to EPA has not been a problem as EPA uses a different methodology to identify potential HPVs.

Citation of information reviewed for this criterion:

- CMS policy
- HPV policy
- AFS
- Enforcement files

Recommendation(s): None

5. Degree to which enforcement actions require complying action that will return facilities to compliance in a specific time frame.

Findings:

All reviewed files documented the date of violation discovery and the facility's return to compliance.⁶ Two formal enforcement actions by the State included a compliance

6 **State of North Carolina:**
State formal enforcement actions

24 which addressed HPVs in FY2004

schedule, for which the State issued SOCs. Both compliance schedules called for two sources to install control equipment to meet emission standards.

For the 19 State enforcement files reviewed, six were strictly for record keeping and/or reporting violations. No future references of recurring violations were noted in the files and the sources returned to compliance by resuming these activities. Six of the files noted emission violations of synthetic minor permits. Of these, five submitted Title V permit applications and eventually received a Title V permit. However, one source returned to compliance by reformulating its products to remove a single hazardous air pollutant that made it a major facility. Two of the enforcement files documented stack test violations. In one case, the file contained documentation that the source retested in compliance with the emission limit. For the other case, documents in the file stated that the emission sources were shut down and not returned to operation. For the two enforcement files that contained a SOC, the orders called for the installation of control equipment to meet emission limits. Documentation in the files confirmed that the sources installed the control devices by the deadlines contained within the orders. Of the three remaining enforcement files, two violations involved compliance monitoring and the other was a MACT work practice violation. In all three instances, there was no mention of recurring violations in the files and the sources returned to compliance by resuming these activities.

For the four enforcement files reviewed in Forsyth County, two of the violations were for late reporting and one was for failure to maintain records. No future reporting or recordkeeping violations were noted in the files, and the sources returned to compliance by resuming these activities. The last enforcement file reviewed involved a source that failed to capture a minimal amount of NO_x data in accordance within NSPS Subpart Db. The file documented the return to compliance as the source corrected its monitoring difficulties, and no future violations of the standard were noted.

Citation of information reviewed for this criterion:

- HPV policy
- Enforcement files

Recommendation(s): None

6. Degree to which the state takes enforcement actions, in accordance with national

State informal enforcement actions	10 which addressed non-HPVs
Total number of enforcement actions	34 total, 24 of which addressed HPVs
State Framework facilities with EAs	19
Forsyth County:	
County formal enforcement actions	3, 2 of which addressed HPVs
County informal enforcement actions	3
Total number of enforcement actions	6, 2 of which addressed HPVs
Number of enforcement files for review	4

enforcement response policies relating to specific media, in a timely and appropriate manner.

Findings: Metric a: According to the AFS data query, the State of North Carolina had five of 41 HPVs (12.2%) that were not addressed within the 270-day timeline prescribed in the HPV policy. All of these HPVs have since been reported as addressed, and none remain on the Watch List. While this is significantly below the national average of 41.4%, the State of North Carolina and EPA agree that due to data errors in AFS the accurate number of HPVs not addressed within 270 days is one (2.4%). These data errors consisted of five incorrect date entries that were corrected by Region 4. Forsyth County had only one HPV during FY2004 and one HPV during FY2003, both of which were addressed with the 270-day timeline of the HPV policy.

Metric b: Of the 20 files reviewed that contained enforcement actions, the State of North Carolina addressed the violations within 270-day timeframe prescribed in the HPV policy. It should be noted that one of the facility files reviewed was listed in the AFS query for this metric. Upon examination of the source file and notes taken during HPV conference calls with the State, it appears that the date listed as the addressed date for this case plus four other facilities was actually the resolved date. When the correct addressed date is used, all five of these sources were shown to be addressed in a timely manner.⁷ This further examination identified only two of the sources listed in the AFS query that was not addressed within the 270-day timeline.⁸ Recalculating the metric value yields a value of 4% (2/50).

Metric c: The 27 State facilities contained in the AFS query for this metric either did not rise to the level of an HPV or were not addressed and/or resolved until FY2005. During HPV conference calls, the EPA Regional office and the State discuss each NOV issued since the previous call and based on that discussion, determined if the violation is an HPV. Using this method, it is unlikely that, as long as NOVs are issued to all HPVs, an HPV will go unidentified. Forsyth County had no facilities listed for metric.

While reviewing the State's enforcement response guideline document entitled "Enforcement Guidelines and Penalty Trees", Region 4 noted one section that appears to contradict the HPV policy. In the section which addresses violations of initial source tests (i.e., the first stack test conducted to determine compliance), the State policy does not recommend additional enforcement or penalty assessment for facilities with a good compliance history, provided the facility corrects the excess emissions within 90 days from discovery and there are no other compliance problems noted. EPA's HPV policy states that all stack test failures for a pollutant for which the facility is major should be identified as an HPV, and that a penalty should be assessed for such a violation. To the knowledge of Region 4, this use of enforcement discretion by the State has not impeded the Region's efforts to accurately identify HPVs as the State's enforcement response

7 Synthetics Finishing, Custom Finishers, Weyerhaeuser, Kobewieland Copper, and Charlotte Pipe & Foundry
8 Interflex Group and Custom Finishers

guideline document calls for the issuance of a NOV.

Citation of information reviewed for this criterion:

- Enforcement files
- AFS query
- EPA's HPV policy
- State's enforcement response guideline document entitled "Enforcement Guidelines and Penalty Trees"

Recommendation(s): It is critical that the State issue NOVs and report them to AFS within 60 days of discovery if the current method of identifying HPVs is to comply with the Information Collection Request (ICR) deadlines. If this current method does not allow Region 4 to timely enter and manage HPV data, then it is recommended that the method of identifying HPVs be changed.

The proper "addressed" dates should be entered for the facilities identified in Metric 6b.

To conform to the HPV policy, the State needs to revise its enforcement response guideline document to include penalty assessment for all stack test failures regardless of compliance history. Region 4 and the State need to discuss this further, including a date by which the revision will be completed.

7. Degree to which the state includes both gravity and economic benefit calculations for all penalties.

Findings: For the State

In FY2004, the Online Targeting Information System (OTIS) for Government Agencies indicated that the State of North Carolina assessed over \$327,000 in penalties. The majority of the penalties were assessed for either recordkeeping or reporting violations and ranged from \$1,000 to \$3,000 for first time violators. An escalation of the assessed penalty was noted for repeat violators.

Four noteworthy penalties were assessed during FY2004. Two PSD violations which required injunctive relief resulted in penalty assessments of \$31,500 and \$46,000. A violation that involved operation without controls plus failure to maintain records resulted in the assessment of a \$31,000 penalty. The most significant penalty levied by the State, \$73,600, was the result of a source operating without its control device for a significant period of time. The failure of this control device was the direct result of poor operation and maintenance.

Region 4 reviewed 16 files containing a total of 24 separate enforcement actions where a penalty was assessed by the State. Of the 24 actions, documentation of penalty calculations was found for 19 enforcement actions (79.2%). All 19 of these enforcement actions were for violations where no injunctive relief was needed. The penalty

worksheets in the files, which address only the gravity portion of the penalty, closely followed the State's penalty policy.

Of the five enforcement actions where no penalty documentation could be found, only two were for violations where injunctive relief was needed to return the source to compliance. In both cases, injunctive relief required the installation of control equipment, and clearly should have an economic benefit component to the penalty calculation. However, no documentation of gravity or economic benefit components was found in either file. Moreover, there was no documentation in the file of the cost associated with the injunctive relief. Therefore, Region 4 could not determine if the State had assessed an adequate penalty. When questioned about the lack of documentation for penalties involving a SOC, which is the State's administrative legal mechanism for placing a source in violation on a compliance schedule and is most frequently used to address cases requiring injunctive relief, the State admitted that this was common practice for such cases.

The State's penalty policy compares favorably with EPA's considering that the State's statutory maximum penalty is \$10,000 per day per violation. As a point of comparison, both Region 4 and the State consistently assess a \$2,000 penalty for inaccurate annual Title V compliance certifications.

Citation of information reviewed for this criterion:

- Enforcement files
- EPA's HPV policy
- EPA CAA Stationary Source Penalty Policy
- State's enforcement response guideline document entitled "Enforcement Guidelines and Penalty Trees"

Recommendation(s): Missing penalty documentation is a problem. The State should document the penalty calculations for all HPVs, especially for the actions where a SOC is issued. For cases where economic benefit is derived through noncompliance, the State should document the cost incurred by a facility to return to compliance and then document the results of EPA's BEN model. Region 4 and the State need to discuss this further, including a date by which the State will include complete penalty documentation (gravity and economic benefit) in all its enforcement files.

Findings: For Forsyth County

Region 4 reviewed three enforcement actions where penalties were collected. Documentation of all three penalty calculations was found in the files. The penalty worksheets in the files closely followed the county's penalty policy. None of the three enforcement actions appeared to require injunctive relief to return the facilities to compliance.

Citation of information reviewed for this criterion:

- Enforcement files
- EPA’s HPV policy
- EPA CAA Stationary Source Penalty Policy
- County’s penalty policy

Recommendation(s): In future cases when circumstances warrant, Forsyth County is encouraged to document the cost incurred by a facility to return to compliance as well as the results of EPA’s BEN model.

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

Findings: For the State

All 24 of the State’s enforcement actions against HPVs in FY2004 included the assessment and collection of a penalty, which exceeds the national average of 84.4%. As discussed in the Metric 7, documentation of penalty calculations was found for 19 of the 24 enforcement actions and the documentation closely followed the State’s own penalty policy. As discussed in Metric 7, no documentation of gravity or economic benefit components of the assessed penalty was found in either of the two files where a SOC was issued. Additionally, as there was no documentation in the file of the cost associated with the injunctive relief, Region 4 could not determine if the State had assessed an adequate penalty.

Citation of information reviewed for this criterion:

- Enforcement files
- EPA’s HPV policy
- EPA CAA Stationary Source Penalty Policy
- State’s enforcement response guideline document entitled “Enforcement Guidelines and Penalty Trees”

Recommendation(s): The State should document the penalty calculations for all HPVs, especially for the actions where a SOC is issued. For cases where economic benefit is derived as the result of noncompliance, the State should document the cost incurred by a facility to return to compliance and then document the results of EPA’s BEN model.

Findings: For Forsyth County

Both of the County’s enforcement actions against HPVs in FY2003-FY2004 included the assessment and collection of a penalty, which exceeds the national average of 84.4%. In both cases, the initial penalty calculations were documented in the files and the documentation closely followed the County’s own penalty policy.

Citation of information reviewed for this criterion:

- Enforcement files
- EPA's HPV policy
- EPA CAA Stationary Source Penalty Policy
- County's penalty policy

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), if they exist, are met and any products or projects are completed.

Findings: As neither the State of North Carolina nor Forsyth County had a PPA with EPA Region 4 in the time frame of this review, the only agreement in place that is specific to CAA enforcement is the §105 Grant. It should be noted that these commitments apply only to non-major sources, and have no impact on the universe of Title V sources. The conditions in the agreement affecting the compliance and enforcement programs, which are identical for both agencies, are:

- Assure that AFS contains accurate and timely data on the minimum data elements for synthetic minor sources by direct entry and comply with the direct access procedures or through batch updating process,
- Resolve violations of any rule for which EPA has delegated authority to the state or local agency for non-major MACT sources and synthetic minor sources
- Utilize the pollution prevention database, Environ\$en\$e, on the EPA web page. Use this database to enhance pollution prevention outreach activities during compliance inspections,
- Recommend (where appropriate) cases and provide support to the EPA Criminal Enforcement Program,
- Submit a narrative summary of compliance assistance activities for non-major sources,
- Encourage self-disclosure of violations by non-major sources, and
- Utilize compliance incentives for non-major sources as appropriate.

Of the §105 Grant commitments, only two require reporting to EPA: AFS updating and the narrative summary of compliance assistance activities. All grant commitments were met by both the State and Forsyth County.

Citation of Information Reviewed for this Criterion:

- FY2004 §105 Grant Air Planning Agreement

Recommendation(s): None.

10. Degree to which Minimum Date Requirements are timely.

Findings: MDRs represent the minimum amount of data that EPA believes is necessary to manage the national stationary source compliance monitoring and enforcement program. FCEs, stack test results, compliance status, and results of Title V annual compliance certification reviews are some examples of the 26 elements that comprise the MDR. As discussed in Metric 3, data discrepancies in FCE dates were noted for two of the 30 State files reviewed. Therefore, it is unknown if these dates were entered in a timely manner. However, for the remaining 28 source files, the date of the FCE was entered within 45 days of completion.

As discussed in Metric 3, data discrepancies in FCE dates were noted for seven of the ten Forsyth County files reviewed. Since no date can be found in AFS, it cannot be argued that the data was entered in a timely manner. For the remaining three files reviewed, two sources appeared to have FCE dates entered within 60 days of completion. Also of note, as briefly mentioned in Metric 1, no data was found in AFS reflecting the county's review of Title V annual compliance certifications.

The AFS query indicated that 83.3% (15/18) of HPVs were reported by the State to EPA later than 60 days following the date of discovery. This is significantly higher than the national average of 56%. This high percentage of late reported HPVs can be explained by EPA's method of identifying potential HPVs in conjunction with the frequency of enforcement conference calls between EPA and the State.

The ASF query indicated that no HPVs were reported by Forsyth County to EPA later than 60 days following the date of discovery. This is significantly better than the national average of 56%.

Recommendation(s): Both agencies are to be reminded of the deadlines in the ICR to submit all minimum data requirements within the 60 day deadline. To meet the deadline for the reporting of HPVs, the State and EPA have agreed to increase the frequency of enforcement conference calls beginning in FY2006. The Region will continue to enter all HPV data for the State as per our agreement.

It is recommended that both the State and Forsyth County evaluate their reporting processes and provide Region 4 with the results at a mutually agreeable date. Furthermore, the revisions identified to improve the process should be implemented for all future MDRs reporting.

11. Degree to which Minimum Date Requirements are accurate.

Findings: For the State, the query for Metric 11 indicated there were two data discrepancies regarding FCE dates. The AFS data pulled for Metric 11b indicated that four stack test failures were not reported.⁹ This data was entered, but well after the end

⁹ PCS Phosphates on 10/28/2003 and 11/19/2003; Bernhardt Manufacturing (Mt. Airy) on 10/29/2003; Transcontinental Gas Pipeline (Mooreville) on 10/5/2003

of the fiscal year.

For Forsyth County, the most significant issue identified during the file review was the incorrect compliance status of eight facilities. As discussed in Metric 1, the Region has corrected these values at the request of Forsyth County. All other data issues appear to be related to timeliness.

Recommendation(s): Given the problems identified with data timeliness and completeness of MDR reporting, an evaluation should be conducted to assess the problems with the current reporting process. The current process used by both the State and Forsyth County need to be revised in order to ensure accurate and timely reporting of MDRs to AFS. It is also recommended that an evaluation of the accuracy of the large number of FCEs reported by the State. Region 4 needs to discuss these recommendations further with both the State and Forsyth County. During these discussions, milestones will be established.

12. Degree to which the minimum data requirements are complete, unless otherwise negotiated by the region and state or prescribed by a national initiative.

Findings: As previously discussed, minimum data requirements are not always reported by the State and Forsyth County to AFS in a timely and accurate manner. This was documented by comparing the data in AFS with the data discovered in file review and in State's and Forsyth County's databases.

The following information compares the data from the AFS query verses what is contained in the State's database:

Title V universe: According to AFS, there were 374 major sources in the State, 351 of which have a Title V air program code. The State database indicates that there are 375 major sources, 352 of which a Title V air program code. While these numbers do not match exactly, it should be noted again that the State database reflected the universe as of September 2005 while the AFS data pull contained the FY2004 universe.

State agrees with facility count: The AFS query for FY2004 showed a total of 1,011 major, synthetic minor and minor NESHAP facilities. The State database indicated a total of 1,030. While the number of major and minor NESHAP facilities varied by only one each, the number of synthetic minor facilities in the two databases varied by 19. Again, it should be noted that the State database reflected the universe as of September 2005.

Subprogram universe: This section is marked as "informational only" prior to FY2006. However, Region 4 believes that this data has been reported to AFS in FY2006.

Compliance monitoring counts complete: The AFS query for FY2004 indicated a total of 929 FCEs performed at major and synthetic minor sources. The State database totaled 947 FCEs during this time period. The number of facilities with FCEs during FY2004 is 880 according to AFS, while the State database showed 945. These discrepancies are most likely due to source classification changes over time.

Historic non-compliance counts complete: According to AFS, 543 violations were identified during FY2004. The State's data indicate 823 violations during this time period.

Notice of violation counts complete: Both AFS and the State's database indicate that 628 NOV's were issued in FY2004. The two databases also agree that the NOV's were received by 530 unique facilities.

HPV counts complete: Both EPA and the State agree that the correct number of HPV's was 31 for FY2004.

Formal action counts complete: Data in AFS shows that 31 HPV enforcement actions at 28 unique sources occurred during FY2004. The State database also reflects these numbers.

Assessed penalties completed: According to AFS, a total of \$223,263 in penalties was assessed for HPV enforcement actions during FY2004. A query of the State database indicates this value to be \$224,496 for the same time period. One HPV assessed a penalty during FY2004 did not show up in the AFS data, accounting for the minor discrepancy. The State has voiced displeasure over EPA's timing of penalty data entry. Beginning FY2006, Region 4 will not only enter the penalty data when the case is resolved, but will also enter the value of penalties assessed by the State.

Number of major sources missing CMS policy applicability: Both AFS and the State database agree that all facilities have been identified with CMS applicability.

The following information compares the data from the AFS query verses what is contained in Forsyth County's database:

Title V universe: According to AFS, there are 14 major sources in the State, none of which have a Title V air program code. The county's database indicates that there are 14 major sources, one of which is still under construction. All of Forsyth County's major sources have been issued Title V permits.

Agency agrees with facility count: The facility count varies by one between AFS and the county's data, with AFS containing 44 facilities and the county's database showing 45. A close examination of the two databases revealed that, based on the facility number alone, AFS contained 3 SM-80 facilities not located in the county's database, and the county's database contained 4 sources not listed in AFS.

Subprogram universe: This section is marked as informational only prior to FY2006. However, Region 4 believes that this data has been reported to AFS in FY2006.

Compliance monitoring counts complete: The AFS query for FY2003 indicated that no FCEs were performed at major and synthetic minor sources. The county database totaled four FCEs performed at major sources and seven FCEs at SM-80s during this time period.

Historic non-compliance counts complete: According to AFS, two violations were identified during FY2004. The county's data indicates 19 violations during this time period.

Notice of violation counts complete: The AFS query indicated that one NOV was issued by the county during FY2004. Forsyth County's records indicated that 19 NOV's were issued in FY2004.

HPV counts complete: Both AFS and county's database show one HPV for FY2004.

Formal action counts complete: Data in AFS showed that no enforcement actions occurred during FY2004. The State's records indicate that five enforcement actions were completed during this time period.

Assessed penalties completed: According to AFS, no penalties were assessed during FY2004. However, the county's records indicate that it assessed \$3,050 in penalties.

Number of major sources missing CMS policy applicability: AFS and the county's databases agree that all facilities have been identified with CMS applicability.

Recommendation(s): The source population data in AFS should be maintained to reflect the State's and county's databases. Efforts should be made to reconcile the source population data, especially for Forsyth County. Priority should be given to reconciling the universe of SM-80 facilities in the county. Region 4 plans to follow-up with both agencies in early FY2007 to ensure the accuracy of the source population data. Once this task is complete, the other MDR elements should be reconciled. As previously recommended in Metric 3, Forsyth County should investigate the cause(s) behind the date errors and take corrective actions.

The difference of 280 facilities in violation discrepancy in the Historic Noncompliance Counts section is a potentially serious problem. While Region 4 thinks this significant difference between AFS and the State's database could be related solely to non-federally reportable and State-only violations, a sample of this data needs to be examined jointly by Region 4 and the State to determine if a significant data quality issue exists.

With regard to the tracking of HPVs, Region 4 acknowledges its role in maintaining the HPV data for the State and its contribution to the data errors discovered during this review.

The North Carolina State Review Framework Metrics data was provided to the Region and State by OECA. However, the following table (next page) identifies the State Review Framework Metrics data generated by Region 4 for the Forsyth County.

Modified Data Metrics for Forsyth County

CAA Modified - NC

Metric (State Only)	State	37-021				Numerators				Denominators			
		Buncombe	Forsyth	Forsyth	Mecklenburg	State-wide	Buncombe	Forsyth	Mecklenburg	State-wide	Buncombe	Forsyth	Mecklenburg
1a1	95.20%	100.00%	100.00%		93.33%	412	7	14	14	432	7	14	15
1a2	94.93%	100.00%	100.00%		100.00%	391	7	14	14	410	7	14	14
1b	92.73%	84.62%	60.00%		78.87%	672	11	18	56	747	13	30	71
1c1	93.48%	84.62%	60.00%		82.41%	792	11	18	89	872	13	30	108
1c2	92.58%	84.62%	60.00%		81.58%	677	11	18	62	752	13	30	76
1d	1.57%	33.33%	81.82%		18.41%	98	1	9	51	2642	3	11	277
1e	0	0	0		0								
1f	100.00%	50.00%	100.00%		90.00%	330	3	11	9	334	6	11	10
1g	0	0	3		0								
4a	7.28%	14.29%	25.00%		21.43%	31	1	1	3	382	7	4	14
4b	6.95%	14.29%	7.14%		20.00%	31	1	1	3	410	7	14	15
4c	28	1	1		3								
4d	4.17%				0.00%	1	0	0	0	26	0	0	2
6a	12.20%	0.00%	0.00%		0.00%	5	0	0	0	46	1	1	3
6b	14.00%	0.00%	0.00%		60.00%	10	0	0	3	57	1	1	5
6c	27	0	0		4								
8a	\$223,263.00	\$0.00	\$0.00		\$57,290.00								
8b	100.00%				66.67%	23	0	0	2	24	0	0	3
10a	18	0	1		0								
11a	47.42%	100.00%	100.00%		75.00%	51	1	1	3	103	1	1	4
11b1	11.19%		0.00%		3.45%	17	0	0	1	186	0	14	29
11b2	3	0	0		0								
12a1	374	7	14		15								
12a2	351	7	11		13								
12b1	374	7	14		15								
12b2	628	12	30		102								
12b3	9	0	0		9								
12c1	427	8	23		39								
12c2	31	0	1		16								
12c3	192	1	4		4								
12d1	880	16	12		85								
12d2	930	17	12		88								
12d3	88	0	0		4								
12e	543	1	2		47								
12f1	628	0	1		4								
12f2	530	0	1		3								
12g1	31	1	3		3								
12g2	29	1	1		3								
12h1	27	0	0		4								
12h2	25	0	0		3								
12i	\$223,263.00	\$0.00	\$0.00		\$57,290.00								
12j	0	0	0		1								

1f, Forsyth County contends that there are 14 Title V sources with self certification. Region 4 is still working to resolve the difference between our numbers and the County's.
 1g, There are still three facility remaining with unknow compliance status, but the correcting data has been entered into AFS which will change the status during its next update.
 8a, Forsyth County has one penalty for \$650, but it is not reflected in the data because the penalty is not mapped to a formal enforcement action.
 12d1 & 12d2, Contrary to Metric No. 1, this count of FCEs is only for one year, FY2004. Forsyth County has different number because they incorrectly summed the number from Metric No. 1 which is based on a two year timeframe.

Program: Clean Water Act - NPDES

Introduction:

The North Carolina Department of Environment and Natural Resources (DENR), Division of Water Quality (DWQ), Surface Water Protection Section, administers the NPDES program in North Carolina. The NPDES program encompasses conventional, stormwater and CAFO facilities. North Carolina identifies and addresses all violations using EPA criteria outlined in program delegation documents and the memorandum of agreement.

The State Review Framework file selection protocol dictates twenty-five (25) to forty (40) files to be reviewed for greater than 700 files in the universe. Compliance and enforcement files are maintained in the central office in Raleigh. The files were readily available and well organized. Twenty-five (25) facilities were randomly selected with sixty-one (61) individual compliance and/or enforcement actions reviewed. The files routinely contained correspondence including inspection reports, Notice of Violations (NOVs), communications from the facility, and recommendations for penalties, penalty only orders, penalty payment acknowledgments and current permit status.

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

Findings: North Carolina conducts NPDES conventional, storm water and CAFO inspections in accordance with the Water Grant Commitment Workplan pursuant to the Clean Water Act Section 106. The workplan incorporates the Major/Minor/Stormwater Strategy, which allows trade-offs for inspections between major and minor conventional facilities. Region 4 and the State have agreed on a 60% major and 40% minor facility inspection ratio as an acceptable mix to address a representative sample of facilities.

For calendar year 2004, North Carolina's NPDES program reported that it conducted a total of 1,216 inspections at conventional facilities out of a regulated major /minor universe of 1,307. The total number of penalties assessed were 612 with the total dollar amount assessed being \$681,667, of which \$483,992 was collected. The compliance rate for the inspected facilities was determined to be 77%. Approximately 27% of 2003 violators were also violators in 2004. The most common violation noted was effluent limit exceedance.

Inspections at NPDES Major Facilities: North Carolina inspected 80.5% of its NPDES major facilities in Inspection Year (IY) 2004, July 1, 2003 to June 30, 2004, which exceeded the national average of 64.2%. Seven (7) major facilities were selected for review with eleven (11) inspection files reviewed. Types of major facility inspection reports were reviewed including Compliance Evaluation Inspections (CEI), Compliance Biomonitoring Inspections (CBI) and Pretreatment Compliance Inspections (PCI). The file review conducted noted that on three (3) occasions inspection reports were found to

be in the facility files but were not entered into PCS. PCS reports only eight Compliance Sampling Inspections (CSIs) at major facilities were conducted out of a universe of 227 majors¹⁰. This represents approximately 3.5% of majors had CSIs conducted by the State, nationally, 19.7% of majors had CSIs performed for IY 2004. The State indicated that the low number of CSIs was due to resource demands and efficiency rather than lack of expertise. CSI typically take longer to conduct as compared to CEIs. North Carolina has elected to conduct CEIs as their preferred method for compliance inspections based on resource availability and environmental return. The overall high inspection coverage and presence compensates for the low CSI numbers. The Region is comfortable with the current level of CSIs because of the merit behind ensuring proper sampling methods are utilized.

Inspections at NPDES Non-Major Facilities: Various types of non-major facilities were reviewed including storm water and CAFO facilities. Types of non-major facility inspection reports reviewed varied including Pretreatment Audit Inspections (PAI), Pretreatment Compliance Inspections (PCI), and CEI. Eighteen (18) non-major facilities were selected for files review with twenty-one (21) inspection files reviewed. During IY 2004, North Carolina inspected 33.2% of its NPDES conventional non-majors, which exceeds the national average of 22.9%.

Citation of information reviewed for this criterion:

- CWA State Review Framework Metrics Data Pull by EPA Headquarters
- NC Permitting for Environmental Results Report
- NCDENR Environmental Regulatory Compliance Activity in Calendar Year 2004
- EPA/NC CWA §106 Program Workplan
- PCS Data Pull for IY2004

North Carolina's overall high level of inspection activity at both the major and non-major facilities indicates an effective field presence in their compliance and enforcement program. This conclusion is supported by information in both PCS and BIMS.

Recommendation(s): None

2. Degree to which inspection reports and compliance reviews document inspection

¹⁰ The inspection number is from IY 2004, July 1, 2003 to June 30, 2004, but the number of majors used is current Fiscal Year (FY) 2006 numbers. The majors list in PCS is dynamic- there is no way to determine the number of majors at anytime but the present.

findings, including accurate description of what was observed to sufficiently identify violations.

Findings:

Inspections at NPDES Major Facilities: The sample of inspection reports reviewed were generally thorough, addressing permit requirements, records, site review, effluent/receiving stream, flow measurements, self monitoring program, laboratory, operation and maintenance, sludge utilization, pretreatment, etc. The inspections generally did not generate a formal enforcement action, rather, identified deficiencies. These deficiencies were adequately addressed through requiring the facility to respond to the inspection report concerns with corrective action taken or when necessary, issuing a Notice of Violation. The findings in the inspection reports and the conclusions the State arrived at as a result of the inspection reports were appropriate.

Inspections at NPDES Non-Major Facilities:

CAFO - The sample of CAFO inspection reports reviewed during the file review were complete, documenting observations with photographs, detailed narrative descriptions of the inspected areas and provided recommendations for areas of improvement. The CAFO inspections initiated the pursuit of formal enforcement actions when violations were determined.

NPDES Stormwater - North Carolina uses a checklist, the stormwater Inspection Form, for on-site stormwater inspections. This form consisted of sections for general information, facility information, key permit requirements, and comments. The “key permit requirements” section of the form only addressed implementation of a Stormwater Pollution Prevention Plan (SWPPP), secondary containment, analytical monitoring and qualitative monitoring. The stormwater inspection forms reviewed did not adequately document observations, identify records reviewed, weather conditions, best management practices, receiving waters, good housekeeping etc. Overall facility/site condition is not well documented; facility compliance status could not be determined by reviewing the inspection form.

Citation of information reviewed for this criterion:

- On-site file review

Recommendation(s):

NPDES Stormwater - The stormwater inspection form should be updated to incorporate more detail for the on-site inspection. Observations should be documented so that inspection finding, and ultimately, violation identification can be clearly concluded. The Region is available to provide assistance to the State to improve the quality of inspection reports/checklists.

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

Files were selected randomly from the databases consistent with the guidance from the SRF file selection protocol representing conventional facilities, stormwater and CAFO facilities statewide. EPA shared the proposed list of selected facility files for review with North Carolina, giving the State an opportunity to comment on the representativeness of the selection.¹¹

Findings:

North Carolina has appropriate standard operating procedures in place. The North Carolina Enforcement Management System for NPDES Permits states that compliance and Operation and Maintenance (O&M) inspection reports are transmitted to the permittee within thirty (30) days of the inspection and any reports noted with deficiencies will require a written response from the permittee addressing corrective actions. For all files reviewed by EPA, the inspection reports were completed within 30 days after the date of inspection except for one which was issued three months after the inspection was conducted.

Citation of information reviewed for this criterion:

- PCS data pull for IY 2004
- On-site file review
- NC Enforcement Management System

North Carolina has done a good job of completing inspection reports and identifying violations in a timely manner. The State is encouraged to maintain these efforts.

Recommendation(s): None

4. Degree to which significant violations are reported to EPA in a timely and accurate manner.

11 **File Selection Protocol**

Majors: 319 inspections

Minors: 533 inspections

Per the file selection protocol, 25 to 40 files recommended for review. The Region selected 32 total inspections, 11 majors and 21 minors.

For purposes of determining universe of inspection files, all inspections were counted except reconnaissance inspections.

Findings: North Carolina's enforcement program is decentralized, managed at the regional offices. Most of the compliance monitoring and enforcement is performed at the regional offices with central office being largely responsible for collection of penalties, addressing late DMR submittals, issuing SOCs and addressing complex enforcement actions.

EPA's data metrics indicate that the percentage of NPDES major facilities in SNC in North Carolina is 10%, below the national average of 17.9% for FY2004. North Carolina usually issues penalty only-orders to address facilities in SNC, compliance is assumed to be immediate from the receipt of this penalty assessment. If compliance is not achieved, the first reported noncompliance counts toward recorded periods of non-compliance and toward the enforcement action and penalty. Occasionally, when facilities need to undergo construction expansion or upgrades, North Carolina negotiates SOCs for injunctive relief and penalties. Chronic violators are placed under a SOC if the problem is not related to operation and maintenance. A SOC is typically issued when construction of additional treatment will result in compliance or some kind of investigation of pollutant sources is necessary. At present, North Carolina does not issue unilateral administrative orders for injunctive relief.

North Carolina should consistently be entering violations arising from major compliance monitoring. This includes single event violations (SEV) at majors. This is to assess whether violations determined by means other than automated discharge to limits comparisons are being reported and tracked in PCS. Single event violations are currently required data entry for majors (per PCS Policy Statement), and plans are underway to also make SEV required for non-majors in ICIS-NPDES. North Carolina reported two (2) single-event violations in PCS compared to the national average of 280 for FY2004. North Carolina's low percent of major facilities in SNC maybe artificially low due to the number of SEV data entered.

North Carolina enters all effluent data in a timely manner. PCS automatically flags SNC based upon the Discharge Monitoring Reports and other reports.

Citation of information reviewed for this criterion:

- CWA State Review Framework Metrics Data Pull by EPA Headquarters
- EPA/NC CWA §106 Program Workplan
- PCS/QNCR

Recommendation(s): It is recommended that North Carolina begin consistently reporting single-event violations arising from major facility compliance monitoring. North Carolina should periodically perform quality assurance checks to ensure accurate and timely data entry. EPA will begin pulling SEV data from PCS starting in FY2007 to ensure that data has begun to flow into the national system of record.

5. Degree to which state enforcement actions require complying action that will return

facilities to compliance in a specific time frame.

Findings: Per the file selection protocol,¹² 20 to 35 files were recommended to be selected for review. Of the seven major facilities selected for file review, there were potentially 31 enforcement actions for review per PCS. Most of the enforcement actions were in response to self monitoring/reporting effluent violations through DMRs. DMRs are to be submitted no later than 28 days after the reporting period. The regional office reviews the DMRs and determines permit limit or monitoring conformance. Twenty-nine formal and/or informal enforcement actions were reviewed. During the file review, two penalty only orders for NPDES major facilities were not in found in the files (both missing penalty orders were for NC0021075 Town of Madison). Two additional NOVs for NPDES conventional minor facilities were not found in the files (both NOVs were for NC0026565 Ramseur WWTP). Twenty-six actions were penalty only orders associated with effluent violations. Eight formal and/or informal enforcement responses reviewed during the on-site file review were directly as a result of an inspection.

The State of North Carolina uses orders for injunctive relief. These orders are typically issued as SOC's. In each of the SOC's, the violator is required to complete specified milestones by specified deadlines and is made subject to stipulated penalties for failure to meet the SOC requirements. SOC's are issued as bilateral agreements between the State (typically, the Environmental Management Commission) and the violator. State law allows for the issuance of unilateral orders with injunctive relief. The North Carolina Division of Water Quality has established the practice of issuing bilateral orders, except in cases of violators who will not discuss and resolve the violations.

A facility's return to compliance was not always documented where violations were found during the on-site inspection. Common violations (i.e. effluent violations) that are easily supportable and documentable are addressed using the Fast-Track process. For

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File Selection Protocol

Majors: 69 Enforcement Actions

Minors: 266 Enforcement Actions

69 Majors Enforcement Actions + 266 minor Enforcement Actions =335 Total

effluent violations, immediate compliance is assumed using the Fast-Track penalty only orders. The immediate compliance assumption can be verified by review of the following month's DMRs effluent measurements. Immediate compliance is not presumed by the State in instances when chronic monthly effluent violations are reported by facilities. The file review revealed circumstances where the Fast-Track process may not have been effective in returning the facility back to compliance. In such cases, multiple penalty only orders were issued under the Fast-Track process for the same violation(s). No further enforcement escalation documentation or rationale was available in the file(s) for review.

The EMS document for North Carolina is dated May 1995. The EMS addresses seven basic elements of the enforcement program - 1) source inventory; 2) information control; 3) pre-enforcement evaluation; 4) enforcement evaluation; 5) formal legal action/follow up; 6) compliance inspections; and 7) internal management control. The State supplemented the EMS with a March 13, 2001 document entitled "North Carolina Stormwater Compliance and Enforcement Strategy", in conjunction with the delegation of the stormwater program to North Carolina. EPA Region 4 believes the EMS serves as an effective guidance document for the enforcement program.

EPA's penalty policy is stated to have four goals: penalties should deter noncompliance and future violations; penalties should help ensure a level playing field by ensuring that violators do not obtain an economic advantage over their competitors; penalties should be generally consistent across the country; and settlement penalties should be based on a logical calculation methodology. Region 4 has reviewed the North Carolina penalty policy and believes that, in general, it satisfies the goals of EPA policy. The State penalty policy is intended to deter future violations/noncompliance and to reduce economic advantage of a violator over its competitors; the policy is consistent across the State; and the policy is based on a very specific calculation methodology.

Specifically, North Carolina General Statutes at 143B-282.1 state that penalties may be based on any one or combination of the following factors: degree and extent of harm to the natural resources of the State, to public health, or to private property resulting from the violation; the duration and gravity of the violation; the effect on ground or surface water quantity or quality or on air quality; the cost of rectifying the damage; the amount of money saved by noncompliance; whether the violation was committed willfully or intentionally; the prior record of the violator in complying or failing to comply with programmatic requirements; and the cost to the State of the enforcement procedures.

Citation of information reviewed for this criterion:

- PCS data pull for FY2004
- On-site file review
- NC Enforcement Management System
- FY2004 EPA/NC Midyear Report

Recommendation(s): EPA recommends for NPDES conventional facilities that in cases where a facility exhibits chronic effluent violations, a return to compliance date should be specified in the order as part of the enforcement escalation process. SOCs may be an appropriate course of action when a facility is unable to consistently comply with the terms, conditions or limitations or their permit due to tangible problems (i.e., plant design or infrastructure).

6. Degree to which the state takes enforcement actions, in accordance with national enforcement response policies relating to specific media, in a timely and appropriate manner.

Findings:

NPDES Major Facilities - Based on the QNCR Guidance Manual, the number of facilities without timely action should not exceed 2% of the active major universe throughout the fiscal year. For FY2004, the national average percentage for the active majors' universe was at 3%, above the guidance. North Carolina was reported to be at 3.2%. North Carolina should be executing formal enforcement action(s) within the 30 days of generation of the QNCR for several of the sites listed on both the active exceptions list and the Watch List. The State elects to issue SOCs instead of unilateral orders, and the process for issuing the SOC typically requires much more time than thirty (30) days. Another contributor to the higher percentage could be due to North Carolina not uploading the information in a timely manner.

NPDES Stormwater - North Carolina has not updated the Storm Water Compliance Strategy dated March 13, 2001, as required by the Section 106 Workplan. NCDENR has not finalized nor updated the Major/Minor/ Storm Water Compliance and Enforcement Strategy which EPA provided comments on January 25, 2002, explaining the expected baseline for the strategy. Region 4 received comments from NCDENR, but the matter appears unresolved. The current §106 workplan requires the finalization of the Major/Minor/Storm Water Compliance and Enforcement Strategy.

Citation of information reviewed for this criterion:

- CWA SRF Metrics Data Pull by EPA Headquarters
- NC Enforcement Management System
- FY2004 EPA/NC Midyear Report

Recommendation(s):

General - The North Carolina Division of Water Quality has experienced data entry issues due to problems with the BIMS/PCS interface. Efforts to address and correct interface issues should continue and be discussed on a regular basis during the quarterly Pacesetter calls.

NPDES Major facilities - Currently, EPA Region 4 and North Carolina have been using the Watch List as an effective tool in identifying facilities with recurring effluent limit violations. Region 4 states are currently reporting all Watch List water criteria, including four pilot criteria. North Carolina would like EPA to finalize the pilot criteria and

recommends that some of the pilot criteria (2d1 - 200% exceedance and 2d2 - pH extremes) be removed since they do not generally warrant a state action based on one time events. North Carolina is encouraged to continue to utilize the Watch List as an enforcement tool and to address violations with timely and appropriate actions.

7. Degree to which the state includes both gravity and economic benefit calculations for all penalties.

Findings:

NPDES Conventional Facilities - In making decisions regarding the amount of an assessment of civil penalties, North Carolina has eight assessment factors that need to be considered, which are:

- (1) The degree and extent of harm to the natural resources of the State, to the public health, or to private property resulting from the violation;
- (2) The duration and gravity of the violations;
- (3) The effect on ground and surface water quantity or quality or on air quality;
- (4) The cost of rectifying the damage;
- (5) The amount of money saved by noncompliance;
- (6) Whether the violation was committed willfully or intentionally;
- (7) The prior record of the violator in complying or failing to comply with programs over which the Environmental Management Commission has regulatory authority;
- (8) The cost to the State of the enforcement procedures.

The Fast-Track cases are calculated and assessed in the regional offices and the assessments are copied to the central files. Penalty assessment calculation worksheets were not always available for review in the State files. It is not clear in the penalty assessment worksheets what portions of the penalties addressed economic benefit and/or gravity of the violations. Assessment criteria #8, the cost to the State of the enforcement procedures, is well documented and identified as investigative cost in the Fast-Track penalty orders.

NCDENR is to be complimented for the overall number of enforcement actions taken under Fast Track as noted, being the highest in the country during 2004.

DWQ developed additional guidance (NPDES and Non-Discharge “Fast Track” Civil Penalty Assessment Delegations, May 11, 2004) which provides penalty guidance ranges when assessing civil penalties for limit and/or monitoring violations. This guidance is used by Regional Supervisors to determine penalty assessments with consideration given to the eight assessment factors. Under the current state guidance, it is not required that the Regional Supervisors provide written comments for each assessment factor, but rather, that they consider them in total using their experience.

Citation of information reviewed for this criterion:

- On-site file review

- DWQ Enforcement Policy 05/11/04
- NC General Statute 143B-282.1(b)

Recommendation(s):

NPDES Conventional Facilities - The State's penalty policy and its strategy for taking formal enforcement for repeat violators are not clear. State guidance of penalty ranges for various violations should continue to be relied upon and documented in the central files. Although both gravity and economic benefit are components of the eight assessment factors and are taken into consideration when assessing civil penalties, North Carolina should document the economic benefit and gravity contributions for all penalties assessed.

General – The penalty worksheet is an appropriate and adequate mechanism to document the contribution of gravity and economic benefit, however, not all of the enforcement files reviewed had the penalty worksheet included. It is recommended that the penalty rationale be kept in the enforcement file and available for review at all times. If North Carolina determines that an action does not warrant a penalty, documentation of the decision and rationale for the decision should be included in the case file. Furthermore, it is recommended that NCDENR develop a check list to be included in the files, especially for the FastTrack cases, so that case managers and reviewers can assure that all elements that should be in the enforcement case file are present.

8. Degree to which final enforcement actions (settlements or judicial results) take appropriate action to collect economic benefit and gravity portions of a penalty, in accordance with penalty policy considerations.

Findings: North Carolina usually uses penalty only orders to address facilities in non-compliance. North Carolina significantly exceeds the national average of 44.3% of enforcement actions that carry any penalty, being at 99.2% for FY2004. This metric does not, however, measure appropriateness of penalties, but does flag when additional reviews are necessary.

The files reviewed in most cases did not reflect or give a written basis for the final penalty. After a civil penalty has been assessed, the permittee has the opportunity to request that the penalty amount be reduced. The remission request for a civil penalty assessment is received in the program area from where the penalty was assessed. Central office staff then reviews the remission request, along with any recommendations received by the initiating regional office. North Carolina uses a regularly scheduled bi-weekly group review meeting to discuss these requests among each of the seven regional office compliance contacts and the program supervisors in the central office. The purpose of these regular meetings is to ensure timely response to the remission requests and to serve as a check for statewide consistency. The Director makes the final decision on penalties, this decision making process is not necessarily documented in writing. The file reviews revealed that penalties are mitigated without a documented rationale by either the Division Director or, if appealed, the Environmental Management Commission.

Data in PCS indicate that 653 civil penalty actions were taken against facilities in FY 2004, resulting in a total of \$678,211 assessed and \$559,847 collected in penalties.

Citation of information reviewed for this criterion:

- On-site file review
- CWA State Review Framework Metrics Data Pull by EPA Headquarters
- DWQ Enforcement Policy 7/1/98
- NC General Statute 143B-282.1(b)

Recommendation(s): The State's penalty policy and its strategy for taking formal enforcement for repeat violators are not clear. Penalties associated with effluent violations follow the Fast-Track Penalty guidance and subsequent policy updates. Although both gravity and economic benefit are components of the eight assessment factors and should be taken into consideration when assessing civil penalties this information was not available in the documentation. North Carolina should document the economic benefit and gravity contributions for all penalties assessed and collected. The files reviewed did not have a written basis for the final penalty. NCDENR should develop criteria and a work sheet to document the penalties and reductions.

It is recommended that the penalty rationale be kept in the enforcement file and available for review at all times. If North Carolina determines that an action does not warrant a penalty, documentation of the decision and rationale for the decision should be included in the case file.

9. Enforcement commitments in the Performance Partnership Agreement (PPA)/Performance Partnership Grant (PPG)/categorical grants (written agreements to deliver product/project at a specified time), if they exist, are met and any products or projects are complete.

Findings: EPA did not have a PPA/PPG with North Carolina during the time frame utilized for this review (FY2004). However, North Carolina has met or exceeded all the enforcement requirements of their §106 grant workplan.

The FY2004 §106 Workplan for the North Carolina NPDES Enforcement Program included the following targeted commitments:

- Inspection of at least 10% of all major facilities with WET requirements
- Inspection of at least 80% of active, fully-approved pretreatment programs

The State accomplishments for FY2004 included the following:

- Number of State Inspections
 - 481 of CAFO facilities
 - 184 of conventional NPDES facilities
 - 20 of facilities with WET requirements

- 83 of approved pretreatment programs
- Number of Administrative Orders
 - 20 issued to CAFO facilities
 - 3 issued to conventional NPDES facilities
- Number of Informal Enforcement Actions - 1

Citation of Information Reviewed for this Criterion:

- NC Enforcement Management System
- EPA/NC CWA §106 Program Workplan

Recommendation(s): Based on the findings detailed in the metrics above, it is recommended that a requirement be entered into the EPA/NC CWA §106 Program Workplan to enter missing data on NOVs, penalty assessments, and penalty orders into PCS. Furthermore, it is recommended that the Majors/Minors Storm Water Compliance Enforcement Strategy is put into final form, or that the State has a current schedule and action plan if the document has not been completed.

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

Findings: North Carolina does not use the PCS to manage its NPDES program. The State relies on its own system, BIMS. BIMS updates PCS through an automated interface, PCSReporter, which formats the data for a batch upload to PCS. Quality assurance is performed on the data in BIMS, but the process has not been formalized. The file review conducted noted numerous missing data in PCS for Notice of Violations, Penalty Assessments, and CWA Penalty Orders. Most commonly noted were penalty orders found in the facility files but not entered into PCS.

For FY2004, PCS data displays nine formal enforcement actions that are linked to violations. For FY2005, PCS data also shows nine formal enforcement actions associated with major facilities that are linked to violations. North Carolina has the largest number of major facilities (221) in the Region, however, the relatively low number of formal enforcement actions at that are linked to violations at major facilities, is balanced by the large number (653) civil penalty actions. There remain issues with the entry of formal enforcement actions into BIMS/PCS.

Citation of Information Reviewed for this Criterion:

- On-site file review
- NC Permitting for Environmental Results Report
- EPA/NC CWA ' 106 Program Workplan

Recommendation(s): North Carolina has experienced interface problems with the State database, BIMS, and PCS. North Carolina is aware of this ongoing issue. Correction of the interface difficulties has been a continual work in progress and the State has resolved many of the problems to date. North Carolina should continue to utilize current standard operating procedures, or update them as necessary, for entering all required data into PCS

in both a timely and accurate manner as outlined in the program's §106 workplan. North Carolina should increase the frequency of QA/QC data checks until the problem has been resolved. EPA PCS data staff is available to assist NC, as needed, to help correct the database interface issues.

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

Findings: The file review conducted noted numerous missing data in PCS for Notice of Violations, Penalty Assessments, and CWA Penalty Orders. Most commonly noted were NOV's and penalty orders found in the facility files but not entered into PCS. All data entered into PCS verified during the file review were accurate with the exception of one case where the penalty amount entered in PCS was entered incorrectly, e.g., NC0024112, Thomasville Hamby Creek WWTP- PCS reports \$2,587, file documents penalty amount of \$12,587. The State reviewed the data metrics provided by the national data systems and had no disputes with the data.

As mentioned under Metric 10, North Carolina has the largest number of major facilities (221) in the Region, however, the relatively low number of formal enforcement actions at that are linked to violations at major facilities, is balanced by the large number (653) civil penalty actions. There remain issues with the entry of formal enforcement actions into BIMs/PCS.

A review of NC's Standard Operating Procedure (SOP) indicated that the protocol is adequate to ensure quality and timely data entry.

Citation of Information Reviewed for this Criterion:

- On-site file review
- CWA State Review Framework Metrics Data Pull by EPA Headquarters
- EPA/NC CWA §106 Program Workplan
- PCS Data Pull for FY2004

Recommendation(s): North Carolina should review their process for entering all data to ensure consistency with their SOP. North Carolina should utilize the current standard operating procedure, or update it as necessary, for entering all required data into PCS both timely and accurately. North Carolina should immediately input missing data into PCS.

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

Findings: The national goal for entry standard for majors is 95%. Although, North Carolina is below the goal, their percentage of 89.5% is still above the national average of 85.7% for FY2004. The DMR entry rate for majors has a national goal of 95%; North Carolina is above the national goal at 97.3% and above the national average of 93.4%. The rate of manual override of SNC to a compliant status is unusually high for North

Carolina noted at 51.4%, with the national average at only 18.2%. The high rate of manual override was due to NC switching from CMS to a State database (BIMS) to upload data into PCS and the resultant interface problems. Looking at the FY2005 rate of manual override showed a marked improvement, rate of manual override had been reduced to 20%. It is not unusual that startup problems from a switch over among systems as complex as BIMS and PCS to span more than one year. The first three quarters of FY2006 demonstrated that the rate of manual override was at 2.4%, now well below the national average.

The EPA data metrics reports that North Carolina has two (2) facilities in PCS that has compliance schedule violations. During the EPA on-site file review, it was determined that an SOC upload problem existed.

PCS data for FY2004-2005 shows that the enforcement actions associated with major facilities linked to violations is unusually low. However, the low number of enforcement actions linked to violations at major facilities, suggest a possible error in the data transfer from the state database, BIMs, and PCS. The State is actively working to resolve all of the data transfer issues.

According to PCS, North Carolina does not appear to have many permit/compliance schedule violations. However, given that PCS does not have accurate data reflecting all of the enforcement actions taken and that permit/compliance schedule violations are generated from enforcement actions, the a low rate of permit/compliance schedule violations cannot be confirmed.

Citation of information reviewed for this criterion:

- On-site file review
- CWA State Review Framework Metrics Data Pull by EPA Headquarters

North Carolina is recognized for their efforts to achieve national goal criteria to meet the entry standard for majors. The SOC upload problem is currently being worked on and expected to be corrected in the near future, but in the interim, the major SOC's will be manually uploaded.

Recommendation(s): North Carolina is should continue with their efforts to enter all required data into PCS in both a timely and accurate manner. North Carolina should increase the frequency of QA/QC data checks to ensure that they are meeting the national goal for the entry standard for majors.

Program: RCRA Hazardous Waste Enforcement Program

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

Findings:

Inspections at TSDs: The Solid Waste Disposal Act §3007(e) requires that every TSD be inspected once every two years. The State Review Framework Metrics indicate that NCDENR inspected 100% of the TSDs in their State in FY2003-2004, as required by statute. In FY2003 and FY2004, the State inspected 88% and 94% of the TSD universe each year, respectively. In addition to traditional TSD inspections, NCDENR has a Resident Inspector Program for monitoring compliance at the State's twelve commercial hazardous waste facilities. These are facilities which accept hazardous waste generated from offsite locations. Most of the North Carolina commercial TSDs function as brokers who collect waste and ship bulk loads to out-of-state facilities. The Resident Inspector Program is a multimedia program comprised of three inspectors who conduct between 2 to 6 inspections a month at each commercial TSD facility, depending upon the complexity of facility operations. Collectively, more than 500 inspections are conducted each year by the Resident Inspector Program.

Inspections at Federal Facility TSDs: The Solid Waste Disposal Act §3007(c) requires that every TSD facility owned or operated by the federal government must be inspected every year to determine compliance with the hazardous waste regulations. There are five federal TSDs located in North Carolina. In FY2004 four federal TSD received an inspection. RCRAInfo indicates that the U.S. Coast Guard Support Center in Elizabeth City did not receive the required inspection in FY2004. Subsequent conversations with North Carolina clarified that the inspection had indeed been conducted in August 2004, but was not entered into RCRAInfo. North Carolina has since entered the missing inspection data into RCRAInfo.

Inspections at State & Local TSDs: The Solid Waste Disposal Act §3007(d) requires that every TSD facility owned or operated by a state or local government must be inspected every year to determine compliance with the hazardous waste regulations. There are five State or local TSDs located in North Carolina. In FY2004, all five facilities were inspected as required by federal statute.

Inspections at Land Disposal Facilities: The OECA FY2004 Memorandum of Agreement (MOA) Update specifies that every LDF should receive an inspection of their groundwater monitoring system once every three years. This could be a CME for new or newly regulated LDFs, or an OAM inspection at LDFs where the groundwater monitoring system has been adequately designed and installed (as determined by EPA and/or the State).

In North Carolina, there are 61 LDFs subject to RCRA Subpart F groundwater

monitoring requirements (the RCRAInfo post-closure universe). In FY2004, there were 65 CEIs and 4 CMEs conducted. Following the OECA FY2004 core program guidance, there should be approximately 20 CME/OAMs conducted during the fiscal year (one-third of the LDF universe). For the three year period from FY2001-FY2004, only 15 CME/OAMs were conducted at facilities in the State. Per the OECA guidance, all 61 facilities should have received a CME/OAM during that three-year time frame.

Historically, NCDENR had a groundwater office that conducted these CME/OAM evaluations. That office no longer exists, and the staff has been absorbed within the program. The Hazardous Waste Section now splits the duties of evaluating the LDF groundwater monitoring systems between the Compliance Branch, which conducts the field inspections of the facilities, and the Facilities Management Branch, which reviews the groundwater monitoring reports. If the LDFs are also under RCRA corrective action, the groundwater monitoring system(s) for the regulated unit(s) are evaluated in conjunction with the solid waste management units in the permit. It appears that the adequacies of the LDF groundwater monitoring systems are being continually evaluated by NCDENR, but just not recorded into RCRAInfo.

Since FY1999 the EPA-approved grant workplan has contained a reduced number of CMEs and OAMs based on the following language in the workplan: “The continuing reduction in projections of CMEs and OAMs is supported by the following factors: (i) the value of CME’s and OAMs has declined over the years as many facilities (especially permitted facilities) have been in the system long enough to develop and implement appropriate ground-water monitoring programs; and (ii) personnel resources are better focused on the development and implementation of the corrective action audit program described below.” Since that point in time NCDENR has reduced the number of CMEs and OAMs in the negotiated and agreed-upon work plan and set out a schedule that has been in the work plan since FY2002.

Inspections at LQGs: The OECA FY2004 MOA Update specifies that 20% of the LQG universe should be inspected every year, with a goal of achieving 100% inspection coverage every five years. The State Framework Metrics indicate that NCDENR has annually inspected, on average, 57% of the LQG universe in their State. This is well above the OECA core program requirement of 20%, as well the national average of 28.8%. The data metrics also shows that from FY2000-FY2004, NCDENR inspected 94% of the LQG universe. Variations in generator and facility status can attribute to the level averaging below 100%.

Other Inspections: Although the FY2004 OECA MOA Update does not specify further inspection coverage requirements, it does recommended that the regions and states determine appropriate levels of inspection coverage for SQGs. North Carolina has over 2,300 SQGs, and according to the State Framework Metrics, NCDENR inspected over a five-year average 95% of all SQGs.

Citation of information reviewed for this criterion:

- The Solid Waste Disposal Act
- OECA FY2004 MOA Update
- NCDENR FY2004 Grant Workplan
- OECA RCRA State Review Framework Metrics, and
- RCRAInfo data.

North Carolina maintains good inspection coverage of the regulated universe, far above the national average.

Recommendation(s): Although the FY2004 OECA guidance requires a CME or OAM once every three years, the guidance has been revised for FY2006 to state that physical LDF inspections can be replaced by record reviews of sampling data and groundwater monitoring reports if the unit no longer receives hazardous waste. However, CME/OAMs should still be conducted at new LDFs until an adequate system is in place; situations involving complex compliance or corrective action requirements; inadequate or modified groundwater monitoring systems; or where problems have developed. In North Carolina, it appears that the adequacies of the LDF groundwater monitoring systems are being continually evaluated by NCDENR through onsite inspections and reviews of the groundwater monitoring reports. With the exception of those facilities still requiring CMEs/OAMs as described in OECA Guidance, it is recommended that NCDENR record the evaluation of the groundwater monitoring reports into RCRAInfo. Although OECA does not provide specific guidance on this, it is recommended that the groundwater monitoring reports be entered as “non-financial record reviews” (RCRAInfo evaluation code NRR) on an annual basis, at a minimum. Region 4 will seek further clarification on this topic in the revision of the upcoming guidance for FY2007, and will notify NCDENR of any modifications.

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

Findings: The State Framework file selection protocol indicates that the number of files to be reviewed should be based upon the selected universe of files. For the RCRA State Framework Review, the universe of files is the number of facilities that received an inspection during the fiscal year subject State Framework Review, and/or were subject to formal enforcement during that time frame. According to the OECA State Review Framework Metrics, North Carolina inspected 558 facilities in FY2004. In the protocol, this translated to 20 to 35 files that should be reviewed. A total of 28 files were selected to review at NCDENR’s central office in Raleigh, 50% were enforcement files and 50% were inspection files as recommended by the State Framework file selection protocol. The inspection reports appeared to be thorough and well-documented, appropriate to the complexity of the facility. Potential violations were clearly identified in the report, and documented where appropriate, with photographs. In addition, the State Review Framework Metrics indicate that North Carolina has an inspection SNC identification rate of 7%, more than twice the national average of 3.2%

During the file review several inspections were missing from the files. In some cases, these files were retrieved from NCDENR's electronic records. In other instances, although the inspection report was missing from the inspection file, a copy of it was maintained in the enforcement file. The original inspection reports are maintained in the Department's field offices with copies maintained in the central Raleigh office.

Citation of information reviewed for this criterion:

- NCDENR files
- State Review Framework Metrics

Recommendation(s): NCDENR should review the record management practices for enforcement and compliance files to ensure records are properly maintained.

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

Findings: North Carolina RCRA inspectors typically complete the written inspection report the same day as the inspection. If additional information must be gathered to finalize the report, the report completion may be delayed by a few days, but seldom more than one week from the date of the inspection. All reports clearly documented the violations discovered at the time of the inspection.

Citation of information reviewed for this criterion:

- NCDENR RCRA inspection files

Recommendation(s): None.

4. Degree to which significant violations are reported to EPA in a timely and accurate manner.

Findings: During the file review, RCRAInfo data pulls were compared with information in the file to determine if the violation data was reported timely and accurately. As mentioned previously, the North Carolina RCRA inspectors typically complete the inspection reports on the same day of the inspection, if not soon thereafter. Information in the reports is accurately reported into RCRAInfo. However, there seems to be a delay in the inspection data entry into RCRAInfo. After an inspector completes an inspection, a data entry sheet is filled out for the inspection information to be entered into RCRAInfo. From reviewing the files, there were several instances where there was a delay of weeks, or even months, before the information was entered into RCRAInfo. There were also observed delays in data entry of enforcement information as well.

Citation of information reviewed for this criterion:

- NCDENR inspection files
- RCRAInfo data

Recommendation(s): An essential part of quality RCRA enforcement program is assuring that all information is promptly and correctly entered into RCRAInfo. Although the violation determinations are being made in accordance with the RCRA ERP, this is not always reflected by timely data entry. EPA recommends that NCDENR review the procedures for entering inspection and enforcement information into RCRAInfo.

5. Degree to which state enforcement actions require complying action that will return facilities to compliance in a specific time frame.

Findings: NCDENR has an established enforcement protocol in the North Carolina - Hazardous Waste Section's Compliance and Enforcement Strategy (Draft, 2005). The enforcement response for RCRA significant violators may be in one of four formats:

- Standard Order - describes the violations and compliance schedules, outlines the rights to appeal and assesses penalties up to \$25,000 per day per violation.
- Short Form Order - is similar to a Standard Order, but is utilized for those facilities where the violations have not involved actual or likely exposure to hazardous waste. Penalties are calculated on a penalty matrix with a maximum of \$5,500 per violation. Examples of situations where a Short Form Order may be used include inadequate personnel training or contingency planning, or a large number of secondary type violations.
- Administrative Order on Consent - involves the resolution of a Short Form Order, or can result from a voluntary disclosure by facility. An Administrative Order on Consent may have a stipulated penalty.
- Immediate Action NOV - are similar to the federal RCRA §7003 Order, and is issued to address imminent and substantial endangerment situations involving solid and/or hazardous waste. This order establishes a formal compliance schedule of activities, and may be followed by a stipulated penalty using one of the previously described enforcement responses.

All enforcement files reviewed included required actions for the facility to return to compliance. Following the issuance of an enforcement action, NCDENR typically conducts an onsite follow-up inspection within 30 days to monitor compliance with the enforcement order. Although the enforcement actions, follow-up inspections, and return to compliance data are reflected in RCRAInfo, the actual documentation recording activities subsequent to enforcement were often missing from the files.

Citation of information reviewed for this criterion:

- "State of North Carolina, Hazardous Waste Section's Compliance and Enforcement Strategy" (Draft, 2005)
- Hazardous Waste Civil Enforcement Response policy (December 2003)
- NCDENR enforcement files

North Carolina has a well-established, efficient enforcement protocol for response to all

violations, including imminent and substantial endangerment. All enforcement actions are followed up by the Hazardous Waste Section to document a return to compliance by the facility.

Recommendation(s): It is recommended that the State ensures that records of enforcement proceedings and return to compliance are maintained in the files.

6. Degree to which the state takes enforcement actions, in accordance with national enforcement response policies relating to specific media, in a timely and appropriate manner.

Findings: The RCRA ERP designates the following time lines for responding to SNCs:

- Day 150 - by this number of days after the first day of inspection, the state (implementing agency) should determine if formal enforcement action is required (identifying the violating facility as a SNC);
- Day 240 - by this number of days, the state should issue its unilateral or initial order, if appropriate;
- Day 360 - by this number of days, the state should enter into a final order with the violator, or make a referral to the State's attorney General office.

The ERP recognizes circumstances that may dictate an exceedance of the standard response times, such as multimedia cases, national enforcement initiatives, additional sampling or information needs, etc. A ceiling of 20% of cases per year may exceed the above time lines.

In FY2004, NCDENR RCRA program identified 34 SNC facilities. The average timeframe for resolving formal enforcement was 106 days, well below the 360 days required by the ERP. There were two facilities on the OECA Watch List that exceeded the ERP time frames, both of which have been referred to the Office of North Carolina Attorney General's for enforcement.

Citation of information reviewed for this criterion:

- Hazardous Waste Civil Enforcement Response Policy (December 2003)
- NCDENR FY2004 RCRA Annual Evaluation
- RCRAInfo data

NCDENR maintains a rapid response time for addressing SNCs averaging under a third of the time allowed to address the violations through formal enforcement.

Recommendation(s): None

7. Degree to which the state includes both gravity and economic benefit calculations for all penalties.

Findings: In the enforcement files reviewed, penalty calculations were assessed as part of the formal enforcement actions, including penalty worksheets. The “North Carolina - Hazardous Waste Section’s Compliance and Enforcement Strategy” outlines penalty computation procedures that include both a gravity-based component and economic benefit calculations. However, the penalty computation sheets in the files did not document that economic benefit had been considered in the penalty calculations. Discussions with NCDENR enforcement managers indicated that this was an oversight, and economic benefit is considered in every enforcement case, at least verbally. It had inadvertently been omitted from the penalty calculation worksheets.

Citation of information reviewed for this criterion:

- “North Carolina - Hazardous Waste Section’s Compliance and Enforcement Strategy” (Draft, 2005)
- RCRAInfo data
- NCDENR RCRA Enforcement files.

Recommendation(s): EPA recommends that NCDENR revise the penalty calculation worksheets to document that economic benefit has been considered in assessing the penalty.

8. Degree to which final enforcement actions (settlements or judicial results) take appropriate action to collect economic benefit and gravity portions of a penalty, in accordance with penalty policy considerations.

Findings: In reviewing the RCRA enforcement files, EPA did not find any documentation of final penalty calculations with the enforcement actions. The final penalties were reflected in RCRAInfo, but not formally documented in the files. Discussion with NCDENR managers indicated that it is not the practice of the Department to maintain these calculations in the files. Maintaining final penalty calculations in the files could hinder settlement if violating facilities leveraged past penalty calculations during negotiations.

Citation of information reviewed for this criterion:

- NCDENR enforcement files
- RCRAInfo data

Recommendation(s): In order to maintain consistency in enforcement proceedings and penalty calculations, NCDENR should consider options to maintain final penalty documentation, including economic benefit and gravity-based calculations.

9. Enforcement commitments in the PPA/PPG/categorical grants (written agreements to deliver product/project at a specified time), if they exist, are met and any products or projects are complete.

Findings: Each fiscal year, NCDENR submits a grant application and workplan for the

implementation of the RCRA program, which includes specific detail on the number of compliance assurance and enforcement activities to be completed. EPA Region 4 then conducts an annual review of the RCRA program, as required by 40 CFR §35.115, to assess progress toward meeting the workplan commitments and discuss any potential obstacles to meeting the workplan commitments. Following the review, a report to document the findings is developed. In the FY2004 RCRA Annual Evaluation, the reported found that NCDENR met and exceeded all grant requirements for TSD and non-TSD inspections in FY2004.

Citation of Information Reviewed for this Criterion:

- NCDENR FY2004 RCRA Annual Evaluation

Recommendation(s): None.

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

Findings: The RCRA Enforcement Response Policy states that data should be entered when compliance determinations are made, but no later than 150 days from day zero, or the first day of the inspection. This is so a SNC entry is not withheld until enforcement is completed. RCRAInfo does not currently have a “date stamp” that marks the date that information is entered into the system (RCRAInfo V3 will have this capability). The lag time from SNC determination and data entry can only be determine from file review, if there is a record of data entry in the files.

As previously mentioned under Section 4, the data entry forms for NCDENR RCRA files indicated that there was often a lag time between the determination date and the date that the information was entered into RCRAInfo.

Citation of Information Reviewed for this Criterion:

- RCRA State Review Framework Metrics
- NCDENR File Review

An essential part of quality RCRA enforcement program is assuring that all information is promptly and correctly entered into RCRAInfo. Although the violation determinations are being made in accordance with the RCRA ERP, this is not always reflected by timely data entry.

Recommendation(s): EPA recommends that NCDENR review the procedures for entering inspection and enforcement information into RCRAInfo modifying them as needed to ensure timely data entry.

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

Findings: The following discussion addresses the findings of the RCRA State Review Framework Metrics for data accuracy.

Metric 11(a)(1) - This metric measures the “closeness” between SNC determination and formal enforcement actions. The ERP states that the data should be entered when the determination is made, and SNC entry should not be withheld until the action is completed. The measure shows that there were seven facilities where the SNC determination was on the same day as formal action. Closer review of RCRAInfo shows that these were state-specific orders issued for non-payment of fees by Small Quantity Generators. They are Short Form Orders, and are issued the same day that the non-payment determination is made. In these conditions, the enforcement response by NCDENR was appropriate and does not reflect an effort to circumvent the ERP.

Metric 11(a)(2) - This metric also measures the “closeness” between SNC determination and formal enforcement actions. It shows that there were 3 facilities with NSC determinations made within one week of formal enforcement actions. Closer review of RCRAInfo shows that all three facilities were issued Immediate Action Notices of Violation, North Carolina’s enforcement response for imminent and substantial endangerment situations involving solid and/or hazardous waste. In these conditions, the enforcement response by NCDENR was appropriate and does not reflect an effort to circumvent the ERP.

Metric 11(b) - This metric measures the longstanding secondary violations that are not “returned to compliance” or redesignated as SNC. According to the data metric, in North Carolina, there was one facility that was in violation for greater than 3 years. Review of RCRAInfo indicates that this may be a data error. The facility was determined to be in violation in 9/2000, and was issued an order and returned to compliance in February 2002, when the State entered SNN into RCRAInfo. There was never a corresponding SNY entered into RCRAInfo, which was the reason this facility was probably flagged by the data metric.

Citation of Information Reviewed for this Criterion:

- RCRA State Review Framework Metrics
- RCRAInfo information.

Recommendation(s): None.

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

Findings: NCDENR is the "implementer of record" for data into RCRAInfo since it is an authorized State. This means that the State has the lead for the completeness and accuracy of data, including compliance and enforcement information, into RCRAInfo (except for EPA inspections and enforcement). The State Review Framework Metrics were provided to NCDENR, and there is no disagreement from North Carolina with the data provided in the report.

Citation of information reviewed for this criterion:

- RCRA State Review Framework Metrics

Recommendation(s): None

Element 13: Compliance Assistance and Innovative Projects
North Carolina Department of Environment and Natural Resources
Enforcement and Compliance Review - Fall 2005

Element 13 is an optional program evaluation element that North Carolina has chosen to include in the 2005 EPA Enforcement and Compliance Review. This element includes compliance assistance activities, as well as some innovative projects, unique to North Carolina's air, water, waste and pollution prevention programs. Although the pollution prevention program was not specifically targeted in this Enforcement and Compliance Review, that agency has many compliance assistance and innovative projects that include and depend on the air, water, and waste agency personnel and regulated universe.

The sections below highlight each activity, as much as possible, in terms of 1) Issue Addressed, 2) Project Period, 3) Target Audience, 4) Activity Approach, 5) Measurement Tool, 6) Project Results, 7) Project Partners, 8) Funding/Resources, and in some cases, 9) Future Activities.

I. Division of Air Quality

A. Open Burning Outreach Team (OBOT)

1) Issue Addressed: The OBOT addresses illegal open burning in North Carolina, which is one of the most frequently occurring types of violations investigated by the DAQ. For many years, approximately two-thirds of DAQ complaints and half of DAQ penalty assessments are associated with open burning incidents. In March of 2003, the DAQ established the OBOT to develop and implement strategies aimed at raising public awareness of the open burning rules and the health effects associated with open burning. The goal of this program is to reduce the illegal open burning that occurs in North Carolina and thereby reduce the resulting complaints, investigations, reports, violation letters, civil penalties, and court proceedings.

2) Project Period: The OBOT began in 2003 and will continue indefinitely.

3) Target Audience: Although every citizen in North Carolina is a potential violator of the open burning rules, the OBOT has prioritized its audience and has focused its initial activities on education through outreach. Presently, there are four (4) audiences that OBOT is focusing on. They include: (1) the media and general public; (2) schools; (3) contractors; and (4) other state and local agencies, including fire departments.

4) Activity Approach: Education and knowledge are the primary compliance assistance activities associated with the OBOT. The approach is to educate as many people as possible about the open burning regulations in two ways. First, the State is making a "broad-brush" effort to disseminate the information to the general population in North Carolina. This effort involves activities such as acquiring billboard space for the "Breathe...Don't Burn" message and creating an education program for students regarding the health effects of open burning. Secondly, the State is targeting specific audiences

who are more likely to violate the regulations. For instance, the OBOT has identified the construction industry as one sector that is historically involved in illegal open burnings. In February 2005, the State mailed out educational material to over 3300 construction companies in the State. In a similar vein, the State recognized that the public and businesses often looked to the local fire departments as the authority on open burning. The fire departments often provide incorrect or misleading information about the air quality regulations related to open burning. The State has undertaken a train-the-trainer program with local fire departments, where DAQ staff has conducted presentations to fire departments on the open burning regulations.

5) Measurement Tool: The metrics for this program are still being developed. It is expected that as the knowledge of illegal open burning increases among the general population, the number of complaints will also increase. The DAQ will need to account for this anomaly in our metrics.

6) Project Results: The OBOT project was initiated in 2003 and much of calendar years 2003 and 2004 were devoted to identifying the target audience and developing short-term and long-term strategies for reducing illegal open burning in the State. The first substantial OBOT activities were initiated in calendar year 2005. Thus, the State has no measurable results to report at this time. In future years, it is expected that there will be a significant decrease in the number of complaints, notices of violations, and civil penalties involving illegal open burning.

7) Project Partners: The OBOT plans to partner with other State agencies and is in the process of signing Memoranda of Agreement (MOA) with the Division of Forestry and the Department of Agriculture.

8) Funding/Resources: The DAQ is committed to decreasing the incidents of illegal open burning in North Carolina. The State has shown this commitment by funding a full-time position to coordinate the OBOT. In addition to the coordinator, the OBOT is comprised of seven regional and central office staff overseen by the DAQ Deputy Director. In addition to the staffing resources, the DAQ has spent approximately \$23K in FY 2005 (10/01/04 to 09/30/05) on brochures, billboards, magnets, and other educational items. The funding for the OBOT coordinator position and outreach items has come from receipts and primarily gas tax funding respectively.

B. Minor Source Compliance and Enforcement Activities, Including Inspection of Minor Sources

1) Issue Addressed: The DAQ performs additional compliance monitoring activities beyond those addressed in EPA's Compliance Monitoring Strategy policy. One of these activities is compliance and enforcement of true minor (small) sources. Although these facilities may contribute little to regional and national air quality, these facilities often have significant local impacts - such as unpleasant odors, emissions of dust and other particulates, and emissions of toxic air pollutants. Thus, small facilities in

noncompliance with air quality regulations can degrade the quality of life for their neighbors, and the importance of compliance and enforcement of these facilities cannot be underestimated.

2) Project Period: This activity is ongoing.

3) Target Audience: The audience is all facilities holding a true minor (small) permit in North Carolina.

4) Activity Approach: Conducting inspections is a compliance assistance activity in itself. Contact with the facility on a regular basis allows facility personnel to ask questions regarding compliance and, ideally, potential problems can be addressed before they become non-compliance situations.

5) Measurement Tool: Compliance and enforcement activities for small sources can be tracked in a variety of ways, such as the number of facilities inspected and the number of NOV's and civil penalty assessments (CPAs) issued.

6) Project Results: The DAQ has an internal goal to inspect each minor source every two years, and the DAQ must spend much of its time and resources at minor facilities to meet this goal. Approximately 60% of inspections performed by DAQ were conducted at minor facilities during the past three years. The State expects to maintain this level of effort at minor sources in the future. Since FY2003, approximately 55% of NOV's and 50% of the CPAs that were issued to permitted facilities were issued to minor facilities.

7) Project Partners: Not Applicable.

8) Funding/Resources: Funding for compliance and enforcement comes from non-Title V permit fees and other revenue sources.

C. Dry Cleaner Compliance Initiative

1) Issue Addressed: The DAQ is undertaking an initiative to improve compliance at dry cleaning facilities. Historically, the DAQ has found a high rate of non-compliance and recidivism at dry cleaners. As the dry cleaner initiative has evolved since its first inception, the DAQ has realized that turning over compliance and enforcement activities to the North Carolina's Division of Waste Management (DWM) will be advantageous to both the dry cleaning industry and to the DAQ.

2) Project Period: This project time frame covers the inception of the initiative in early calendar year 2004 until the program is taken over by the DWM.

3) Target Audience: The audience is dry cleaning facilities using both perchloroethylene and petroleum based solvent in all North Carolina counties, except Mecklenburg, Forsyth or Buncombe counties. Dry cleaners in these counties are regulated by the local air

quality programs.

4) Activity Approach: The initiative was undertaken to better identify dry cleaners and to improve their compliance rate with air quality regulations. The State recognized that the list of dry cleaning facilities in the DAQ database was outdated, and therefore conducted a survey of 700 dry cleaners. Written responses were received from about 30% of the dry cleaners, and another 30% were called to verify their status. The remaining 40% need to be called or visited to verify the type of dry cleaner operation on-site. The Small Business Assistance Program has been sending the Air and Waste Compliance Calendar to dry cleaners identified in the survey.

From this initiative, the DAQ has decided to turn over the dry cleaner program to the Dry-Cleaning Solvent Cleanup Act (DSCA) Program, a program of the Division of Waste Management. DAQ has drafted a MOA with DWM that should be finalized in October 2005. Once finalized, DWM will conduct both air quality and RCRA inspections at all dry cleaner facilities and will carry out enforcement actions, as necessary. DWM will have staff dedicated solely to conducting inspections at dry cleaners, which will result in more frequent contact between the regulators and dry cleaners. Contact with the facility on a more regular basis allows facility personnel to ask questions regarding compliance and, ideally, potential problems can be addressed before they become non-compliance situations.

5) Measurement Tool: The number of dry cleaner inspections and their compliance rate of dry cleaners are tools that can be used to track the effectiveness of this initiative. The DAQ had committed to inspecting 10% of its dry cleaners each year. Since FY2003, the DAQ has inspected 280 dry cleaners and issued 79 NOVs. The compliance rate of dry cleaners is 72% over these three years. It is expected that more dry cleaners will be inspected by DSCA, and the compliance rate should also improve as the rate of inspection increases.

6) Project Partners: DWM is partnering with DAQ to assume the responsibility of inspections and enforcement of dry cleaners.

7) Project Results: The DAQ anticipates a higher compliance rate for dry cleaners and more efficient regulatory inspections under the DWM.

8) Funding/Resources: The DSCA program is funded through the dry cleaner solvent purchases tax.

II. Division of Waste Management - Hazardous Waste Section

The North Carolina Hazardous Waste Section uses a holistic approach to compliance and enforcement through a proactive compliance and monitoring program that focuses on priority inspections within the OECA National Program Manager's Guidance, EPA Region 4 strategies, and compliance assistance goals noted in OSWER's National Guidance. The Section's annual work plan reflects these commitments, as well as activities such as the National Partnership for

Environmental Priorities (NPEP) and its own State Priority Sectors, including initiatives for Compliance Assistance Activities for Core Compliance Monitoring. It is the Section's belief that a proactive compliance assistance program compliments its compliance monitoring and enforcement program. Therefore, the Section continues to make every effort to integrate compliance assistance efforts within its authorized program and strives to keep North Carolina's resources and public safe from the effects of the mismanagement of hazardous waste.

A. Large Generator Workshops

- 1) Issue Addressed: Keep the regulated universe of RCRA Subtitle C hazardous waste generators abreast of all current rules and regulations applicable to their operations.
- 2) Project Period: Annually in May of each year.
- 3) Target Audience: All Large Quantity Generators (some of which may be TSDFs) are invited to four (4) workshops held in various cities across the state.
- 4) Activity Approach: Compliance Branch staff taught workshops that provide up to date regulatory information, new initiatives, Section/Branch policies and proposed legislation/rules.
- 5) Measurement Tool: Potential improvement or maintain excellent compliance rates within the LQG universe. All attendees were also required to submit workshop evaluations for certificates.
- 6) Project Results: Excellent attendance (~100 attendees per workshop), with an estimated 94% compliance rate.
- 7) Project Partners: Manufacturers and Chemical Industry Council of North Carolina (MCIC).
- 8) Funding/Resources: MCIC facilitates and funds the workshop locations, lunch and copying of materials. Compliance Branch staff update manuals and provide all course instruction.

B. Compliance Assistance

- 1) Issue Addressed: Providing updated and timely assistance to all entities seeking compliance information.
- 2) Project Period: Daily
- 3) Target Audience: All RCRA Subtitle C universe (LQG, SQG, CESQG, Transporter, and TSDFs) and any commercial/industrial setting seeking information.

- 4) Activity Approach: On-site assistance or phone inquiries provide timely, competent information. Commercial Facility forums are specific to the State's Resident Inspector Program and focuses on compliance trends, business operations and issues.
- 5) Measurement Tool: Potential avoidance of non-compliance by being preventive in nature.
- 6) Project Results: Potential improvements in public health and prevention of environmental damages.
- 7) Project Partners: Not Applicable; but note that all Section staff may be involved in one manner or another.
- 8) Funding/Resources: Line item within the State's annual work plan and part of the grant commitments.

C. Small Quantity Generator Self-Certification

- 1) Issue Addressed: Providing regulatory information and support to SQGs that generally are not inspected. Due to the large number of SQG, regular inspections are not practical.
- 2) Project Period: 2002 and 2003, and currently being evaluated as a formal compliance tool.
- 3) Target Audience: Approximately 3,000 Small Quantity Generators.
- 4) Activity Assistance Approach: SQG self-certification form that mirrors the regulatory requirements were mailed to all SQGs in N.C. The form required a self evaluation of their hazardous waste management activities, and a signature by a company official certifying its authenticity.
- 5) Measurement Tool: Continual and improved compliance by SQGs.
- 6) Project Results: Approximately 50% of all forms were returned completed. Compliance staff reviewed submittals and flagged sites that noted specific issues or on-site problems.
- 7) Project Partners: Not Applicable.
- 8) Funding/Resources: Completed within grant resources.

D. Precompliance Audits

- 1) Issue Addressed: Eliminate the possibility of non-compliance by allowing generators of hazardous waste to operate after notifying without the benefit of any guidance or

support.

- 2) Project Period: On-going.
- 3) Target Audience: All new Large Quantity Generators that notify of their hazardous waste activities.
- 4) Activity Approach: On-site visits by compliance staff to provide guidance and instructions specific to their operations regarding HW policy and compliance expectations.
- 5) Measurement Tool: Prevention of violations, public health and environmental damage.
- 6) Project Results: Prevention program with limited ability to determine compliance rates without specifically inspecting sites at a later date. Good compliance assistance for targeting measures.
- 7) Project Partners: Not Applicable.
- 8) Funding/Resources: Continued within grant resources.

III. Division of Water Quality

A. Clean Water Act Compliance Assistance

1) Issue Addressed: The North Carolina General Assembly established the Water Pollution Control System Operators Certification Commission in 1969. The Certification Commission helps protect the public's investment in water pollution control facilities through the training and certification of operators of water pollution control systems.

As the treatment and disposal of wastewater evolved, the General Assembly expanded the duties of the Certification Commission, in 1993, to include the training and certification of operators of wastewater collection systems, spray irrigation systems, subsurface treatment and disposal systems, and land application of residuals. In 1996, the General Assembly added the training and certification of operators of water pollution control systems for CAFOs to the duties of the Certification Commission and added two new members. The Certification Commission consists of 11 members

- 2) Project Period: Compliance assistance began in 1969 and will continue indefinitely.
- 3) Target Audience: This program aims to assist owners and operators of wastewater collection and treatment facilities, as well as CAFOs and land application systems.

4) Activity Approach: The Division of Water Quality, as the State authority to ensure enforcement and compliance of the Clean Water Act in North Carolina, uses the Technical Assistance and Certification Unit (TACU) as the administrative arm of North Carolina's Water Pollution Control System Operators Certification Commission. There are 8 full-time staff members in the central office and 6 treatment plant consultants throughout the State.

The goal of these staff members is to administer the operator certification process and educate treatment system operators to assist them in improved operation and maintenance of their system. A three-pronged strategy includes the coordination of an extensive certification program for operators of a variety of waste systems; managing educational opportunities; and technical assistance site visits. The TACU also provides technical support to the commission.

This activity approach employs a number of different methods outside “core program elements” to assist with the overall effectiveness of the program.

5) Measurement Tool: The metrics for this program include the number and types of certifications awarded; educational efforts; and extent/success of technical assistance site visits. Pollutant load reductions are listed in paragraph three of the Project Results. It should be noted that a comprehensive estimate of environmental outcomes is difficult since this program is preventative in nature.

6) Project Results:

Operator Certification: The TACU certifies operators in one or more of 7 possible areas, including Animal Waste systems (2 grades), biological wastewater treatment facilities (4 grades), collection systems (4 grades), physical/chemical treatment, surface irrigation, subsurface disposal, and land application of residuals. Thousands of operators hold a total of nearly 10,000 certifications statewide as granted by the Commission and administered by TACU. Examinations for operators are held four times per year with requirements to secure continuing education credits and to maintain a minimum standard of performance.

Education: The TACU publishes 2 newsletters for operators to keep them abreast of new and helpful information. They have published 5 educational manuals that are updated on an annual basis to assist operators with their responsibilities. In addition, continuing education courses are approved, audited, and sometimes taught by TACU. During 2005, for example, classes include over 75 training courses for the operators of animal waste systems and approximately 560 courses in wastewater treatment, collection, and disposal.

Technical Assistance Site Visits: Regional offices house 6 wastewater treatment plant consultants throughout the State. The regional staff conduct over 50 technical assistance site visits per year to various wastewater treatment systems B

mostly, NPDES wastewater facilities. Since 2000, the Division helped reduce more than 800 tons of pollutants to the environment as a result of these technical assistance visits. In addition, the Natural Resources Conservation Service provides annual technical assistance inspections at the approximately 2,500 animal operations across North Carolina. These site visits have improved operation and maintenance at these systems and minimized the number of enforcement actions that must be taken across the State.

7) Project Partners: Community colleges and the regulated community constitute the primary project partners. Community colleges provide venues and logistical support across North Carolina. Many students of these programs become instructors and mentors to newer recruits. This perpetuates a learning atmosphere and lessens the level of resources necessary from the Division.

8) Funding/Resources: The Division pays for the majority of this program through operator training and certification fees. This source is supplemented by federal funds.

IV. Division of Pollution Prevention

A. Environmental Stewardship Initiative

1) Issue Addressed: Regulatory approaches do not address all environmental impacts and are media specific, frequently causing pollution to be moved from one media to another. The Environmental Stewardship Initiative (ESI) is a voluntary program to promote and encourage superior multi-media environmental performance by the regulated community using pollution prevention and innovative approaches to meet and go beyond regulatory requirements.

2) Project Period: 2002 to present

3) Target Audience: NC regulated organizations

4) Activity Approach: Criteria for acceptance into each of the three levels of the program include a commitment to compliance. Assigned “coaches” provide assistance with compliance issues, EMS development, achieving goals and coordinate with the appropriate DENR agency on regulatory issues. Participation at the Partner level is allowed even if the organization has compliance problems. Access to a coach, the development of an EMS, workshops and networking meetings are the primary tools used in the ESI to help participants achieve, maintain, and eventually exceed compliance.

5) Measurement Tool: Participants report annually on progress toward environmental performance goals, reductions in environmental emissions or discharges of releases, solid and hazardous waste disposal, use of energy and water, and any reportable non-compliance events.

6) Project Results: There are currently 45 total participants in the ESI; 5 Stewards, 8 Rising Stewards, and 32 Partners with 6 new pending applications. For calendar year 2004, 29 organizations that were accepted into the program prior to 2004 reported the following:

1. reduced air emissions by 734.6 tons
2. reduced water use by 35,494,801 gallons
3. reduced solid waste disposal by 1,030 tons
4. reduced hazardous waste by 12.3 tons
5. reduced energy use by 2,404,893 kWh
6. reduced propane use by 79.2 tons
7. reduced material consumption by 298.2 tons
8. increased recycling volume by 10,277 tons/yr.

7) Project Partners: ESI participants include industry, small businesses, state agencies, and municipalities. The Advisory Workgroup includes representatives from industries, industry trade groups, environmental and citizen non-governmental organizations, small businesses, local government, and academia.

8) Funding/Resources: EPA Pollution Prevention Grant (\$60,000/yr.) and state appropriations.

9) Future Activities: Future focus will be on providing training to Partners in developing an EMS and assisting all participants in improving their environmental performance to “move up” the ESI levels.

B. Pork Environmental Management Systems Pilot Project

1) Issue Addressed: Pork producers frequently have problems managing the environmental impacts of their operations. This project is evaluating the value of using EMS to prevent or reduce compliance issues at hog operations.

2) Project Period: October 2003 through September 2006.

3) Target Audience: North Carolina pork producers who owned their own farms of various size and type.

4) Activity Approach: Using on-site technical assistance in EMS development and implementation to improve compliance.

5) Measurement Tools: (1) Workshop evaluations; (2) Worker questionnaires; (3) Inspection records; (4) Compliance tracking database including root cause and corrective action (4) Farm owner survey and (5) Farm inspector survey.

6) Project Results: Farm managers have identified improvements and anecdotal information, other data will not be available until the project ends in September, 2006.

- 7) Project Partners: North Carolina State University and the NC Division of Soil and Water (DSW).
- 8) Funding/Resources: EPA-OECA grant
- 9) Future Activities: Completion of project with a final report to EPA.

C. On-Site Pollution Prevention Assistance

- 1) Issue Addressed: On-site pollution prevention assessments can help facilities reduce air, water, and solid and hazardous waste generation and improve overall environmental performance.
- 2) Project Period: Ongoing activity since 1985
- 3) Target Audience: NC regulated organizations
- 4) Activity Approach: An on-site technical evaluation of a facility's operations can identify waste sources, quantities, and costs. Reports are provided to the facilities outlining the technical options and best management strategies that improve process efficiency, reduce waste volumes, cut waste management costs and improve environmental compliance. On-site assistance is frequently requested following a violation and can assist the facility with identifying root causes and problem solving.
- 5) Measurement Tool: The NC Division of Pollution Prevention and Environmental Assistance conducts follow-up surveys to evaluate the effectiveness of on-site pollution prevention assessments.
- 6) Project Results: In FY 2004, 33 waste assessments were conducted. Survey data is not collected until at least a year after the visits to allow time for the facilities to implement changes. Survey data for 2004 is currently being collected.
- 7) Project Partners: State and federal regulatory agencies, universities, recycling businesses and local municipalities.
- 8) Funding/Resources: State appropriations
- 9) Future Activities: Continued on-site technical assistance, updating and improving follow-up survey, developing additional case studies.

D. Fats, Oil and Grease (FOG) Program

- 1) Issue Addressed: Sanitary sewer overflows (SSOs) from oil and grease accumulation result in large quantities of untreated wastewater being released into the environment.
- 2) Project Period: 2000 to present

- 3) Target Audience: Local and state regulatory authorities and FOG generators (commercial and residential sources)
- 4) Activity Approach: Outreach to target audience based upon pollution prevention, best management practices (BMPs) and adequate control devices engineered into facility operations. Outreach materials include fact sheets, posters (English, Spanish, Mandarin Chinese, Russian and Bosnian), PowerPoint presentations, Web links and guidance manuals that provide direction on proper FOG management. A FOG mascot, the Grease Goblin, was created to facilitate recognition of its character to “Keep the Grease Goblin Out of Your Drains” and “Keep Your Drains Fat-Free.” The Grease Goblin does not have a copyright and is free to users.
- 5) Measurement Tool: Number of NC municipalities/organizations adopting program materials/resources, number of sanitary sewer overflows and number of users visiting web site.
- 6) Project Results: For FY 2004-2005, the web site received over 2600 visits. DPPEA has coordinated with 12 municipalities and one military installation to sponsor workshops for foodservice establishments. Over 20 municipalities in NC have adopted components of the FOG education materials. Numerous towns outside of NC have also used these resources to initiate their own local FOG control programs. The guidance materials are being used as reference material in EPA’s evaluation of categorical wastewater limits foodservice operations. The number of SSO events decreased from 673 in 2002 to 587 in 2004.
- 7) Project Partners: NC Pretreatment Coordinators Consortium, NC League of Municipalities, NC Restaurant Association
- 8) Funding/Resources: State appropriations.
- 9) Future Activities: Outreach materials will be updated and DPPEA will continue to assist with workshops as requested.

Element 13 - Compliance Assistance and Innovative Projects Forsyth County Enforcement and Compliance Review

Permitting and Compliance Activities

The FCEAD believes that a proactive permitting and compliance program is the most effective way to keep regulated entities aware of their environmental obligations and ensure the highest compliance rates. In addition to permitting major facilities, synthetic minor facilities, and facilities subject to federal emission standards, the FCEAD implements permitting programs for small industrial facilities (emitting 5 or more tons per year of a regulated pollutant), perchloroethylene dry cleaning facilities, and vapor recovery facilities (gasoline service stations). These permitting programs require the affected facilities to obtain operating permits from FCEAD and ensure that each facility has a clear understanding of the applicable air quality requirements and facilitate FCEAD's oversight and enforcement activities. The FCEAD also believes that its consistent implementation of these programs provides a 'level playing field' for the regulated community to help ensure noncompliant facilities do not obtain a competitive advantage by neglecting their air quality obligations.

In addition to the benefits of its enhanced permitting program, FCEAD believes that applying a rigorous approach to evaluating a facility's compliance status to all permitted facilities is necessary hold regulated accountable for their air quality obligations and provides assurance to the public that the facilities in their communities are complying with their regulatory obligations. For these reasons, FCEAD has implanted the federal *CAA Stationary Source CMS*, issued April 25, 2001 for all permitted facilities. By conducting FCEs at all permitted facilities, the permitted facilities and FCEAD staff have developed more complete understandings of all air quality and permitting requirements and are more capable of communicating regulatory obligations and compliance status to the public.

Asbestos NESHAP

The FCEAD has delegation from EPA Region 4 for implementation of the Asbestos NESHAP (40 CFR Part 61, Subpart M) in Forsyth County. The notification requirements under this standard are implemented using a permitting program for applicable demolition and renovation projects. Permits are required for renovation projects where asbestos has been identified, and for all demolition projects, in Forsyth County required to provide notification under Subpart M. During FY 2003, FCEAD issued 71 permits for demolition and asbestos renovation projects and 43 permits for intentional burns and inspected 100% of these projects. In addition to the permitting program, the FCEAD works closely with other city/county agencies to identify renovation projects to ensure assessments to determine the presence of asbestos are performed. The Department believes that this proactive approach to implementation of the Asbestos NESHAP has resulted in a high compliance rate under this requirement which provides significant health protections to the citizens of Forsyth County.

Compliance Assistance Activities

The FCEAD implements a permitted facility e-mail notification system, *AiReview Bulletin*, to advise all facilities (and any other interested parties) of new rules, procedures, or policies. This information is also sent via fax to anyone without an e-mail address or to those who simply prefer the fax format. Past *AiReview Bulletins* are maintained on the Departments web page at <http://www.co.forsyth.nc.us/EnvAffairs/permits/bulletin.htm>. During FY 2003 FCEAD the following *AiReview Bulletins* were issued during the FY 2003:

- 9/5/2003 How Can We e-Serve You Better?
- 5/20/2003 Lat/Long's, Aerial Photos, and Topographic Maps Available On-Line
- 1/14/2003 Emission Inventory Reporting Frequency Reduced
- 12/23/2002 Fee Changes
- 11/21/2002 Enforcement & Compliance History Online

The FCEAD also implements a permitted facility e-mail notification system to advise Title V facilities of new rules, procedures, or policies. During FY 2003 this system was used to inform Title V facilities of proposed MACT standards, MACT Hammer requirements, NSR revisions, and changes to Annual Compliance Certification requirements.

The FCEAD maintains a website which includes a permit page, <http://www.co.forsyth.nc.us/EnvAffairs/permits>), which is updated frequently. Links to state and EPA websites provide facilities with easy access to additional regulatory information. All proposed county regulations are also posted on the website as is the current Air Quality Technical Code.

Small Business Technical Assistance Program (SBTAP)

Due to limited resources and environmental expertise of small businesses, the 1990 CAA Amendments required states to establish programs to help small businesses comply with air quality requirements. The State of North Carolina administers a Small Business Assistance Program as a non-regulatory program that is independent from the Division of Air Quality. More information about the NC Small Business Assistance Program can be found on the internet at <http://www.envhelp.org/html/sba.html>.

FCEAD's role in providing technical assistance to small businesses is part of the Department's overall compliance assistance program. FCEAD continues to assist small businesses with technical and environmental compliance assistance in addition to making referrals to the North Carolina Small Business Assistance Program. The Department has also maintains links on its web site to NC Small Business Assistance Program and the NC Division of Pollution Prevention and Environmental Assistance web sites.

Compliance Incentives

While the FCEAD fully understands its role to enforce air quality and permitting requirements, and act as a technical resource to assist regulated facilities achieve and maintain compliance, Department staff assist the Forsyth County Environmental Affairs advisory board (EAB) in recognizing the efforts of permitted facilities in their compliance efforts. The EAB confers Air Quality Awards to permitted facilities each year they operate without receiving a Notice of Violation. During FY 2003 the EAB issued 130 Air Quality Awards to permitted facilities in Forsyth County. In addition to these awards, the EAB also solicits applications from permitted facilities for Special Air Quality and Special Environmental Awards. The Special Air Quality Award is presented to those companies/agencies that have reduced their air pollution beyond regulatory requirements and the Special Environmental Award reflects efforts made by companies/agencies to control pollution in any environmental media. During FY 2003 the EAB issued Special Air Quality Awards to Highland Industries and Microfibres, Inc. and a special Environmental Award RJR Packaging.