

**2006 COMMONWEALTH OF KENTUCKY  
DEPARTMENT FOR ENVIRONMENTAL  
PROTECTION  
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 fiscal year (FY) 2005 review by Region 4 of the Commonwealth of Kentucky Department for Environmental Protection (KYDEP) compliance and enforcement program, utilizing the State Review Framework (SRF). This review has been a collaborative effort between the Region and the Commonwealth, and captures both successes as well as any identified areas that need improvement. As this is the first review of this type for KYDEP, 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 13<sup>th</sup> element. EPA and ECOS encourage the use of the 13<sup>th</sup> 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 1-12.

KYDEP's Air program is implemented by the State with the exception of Jefferson County, which is administered by the Louisville Metropolitan Air Pollution Control District (LMAPCD). The LMAPCD Air program underwent a review that was parallel to the state review effort with Regional staff performing a separate data analysis and onsite

file review.

### **Process Followed in the Review**

Region 4's evaluations of the KYDEP's core enforcement programs were conducted by staff from the Region's Office of Environmental Accountability (OEA) and the Air and Water enforcement programs, using Elements 1-12 of the SRF, described above. Each media technical authority (TA) from OEA and staff from the enforcement 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 SRF Implementation Guide, and 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. KYDEP collected and made available all selected files at their central 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 FY2005 agreements and outputs. For those instances where two years of data was required, FY2004 and FY2005 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. The State chose to submit information for the optional Element 13.

### **Information Considered From Other Reviews and Other Sources**

For each of the compliance and enforcement programs, Region 4's OEA staff obtained those documents that identified negotiated compliance and enforcement commitments with KYDEP. These documents were reviewed for consistency with national and regional policy and guidelines as well as commitments that may differ from OECA expectations.

KYDEP operates under Chapter 13A of the *Kentucky Revised Statutes*, which prohibits it from modifying, expanding upon, or limiting a statute or regulation by use of an internal policy, memorandum, or other form of action.

### **Inspection Implementation**

CAA - KYDEP's CMS Plan committed to 100% FCE inspections (247/247), of their major sources. KYDEP accomplished a 91% FCE performance rate (225/247) with the national average being 84%.

Fifty eight FCEs were performed out of 108 (54%) SM sources. The national average is 77%. KYDEP needs to complete a number of FCEs at SM sources in order to meet their CMS Plan to perform FCEs at all SM sources over five years.

KYDEP records indicate that at least one FCE was completed at all but 22 of their 397 major and SM sources (247 Title V and 150 SM). This is a 94.5% FCE completion rate over the two year period. In addition, KY queried AFS on the number of unique FCEs at

synthetic minor sources in FY 2002-2005 (unique meaning only one FCE counted even if more than one had been performed in this timeframe). This AFS report showed 119 of 150 FCEs completed (79%). Upon examination of this report by KY, they discovered 27 FCEs completed but not recorded in AFS. They subsequently have been recorded and thus KY says 146 of 150 FCEs (97%) have been completed at SM sources.

According to the data metrics for KYDEP, 100% of 201 Title V annual compliance certifications were received and reviewed in FY2005. The national average is 79%. KYDEP is commended for this effort.

**NPDES** - Kentucky inspected 76.3% of all its major facilities during IY2005 which is above the national average of 65.7%, and exceeded their CWA §106 workplan commitment to conduct inspections at a minimum of 70% of its majors.

None of the inspections reviewed generated formal enforcement actions; rather noncompliance/deficiencies were addressed via NOV or cover letter requiring the facility to respond to the inspection report findings identifying corrective actions taken.

Ninety five percent (35 out of 37) of inspection reports reviewed were completed and delivered/forwarded to the permittee in a timely manner, within thirty days from the date of the inspection. Violations appeared to be identified and responded to in a timely manner. Kentucky should continue the positive trend in responding to violations discovered during an inspection in a timely manner.

**RCRA** - The State Review Framework Metrics indicate that KYDEP inspected 94% of the Treatment, Storage, and Disposal Facilities (TSDs) in their state in the two-year time period of FY2004-FY2005, which is below the statutory requirement of 100% inspection coverage. One TSD, a permitted non-operating hazardous waste storage facility, did not receive a required compliance inspection for more than eight years (from January 1998 to November 2006).

The majority of the inspection reports included adequate information to document violations. However, approximately a third of the reports had a very limited or missing description of the hazardous waste management activities, including the description of facility processes. EPA Region 4 is concerned with the limited information in the TSD and Large Quantity Generator (LQG) inspections reports reviewed. KYDEP issues very timely RCRA inspection reports. The rapid completion times for inspection reports may result in limited facility and/or process descriptions.

### **Enforcement Activity**

**CAA** - According to the data metrics, KYDEP's HPV discovery rate was 4.7%, the national average is 10.3%, based on *major FCEs coverage* in FY2005. In addition, the HPV discovery rate based on *operating major sources* in the same fiscal year was 1.8%, the national average is 4.9%. Recognizing the statistics are from FY2005, KYDEP says the data indicates this is no longer an issue and HPVs are currently getting referred to

enforcement in a timely manner.

According to the data metrics, in FY2005 82% of KYDEP's HPVs remained unaddressed passed 270 days. In addition, 45% of the source files identified as being a HPV did not have their HPV addressed within 270 days. Since that time KYDEP has completed a reorganization that created an Enforcement Division. In addition, there was a significant delay time between the identification of an HPV(s) by the FOB and reporting HPVs to the Division of Enforcement. Currently, FOB has now minimized the delay period and HPVs and the majority of backlogged HPVs have now been addressed.

None of the case resolution proposals reviewed clearly denoted consideration of gravity or economic benefit penalty components. KYDEP says that they do include such components in the case resolution proposals; however, this information does not stand out. Subsequent to this finding, KYDEP now clearly denotes in the case resolution proposals consideration of these penalty components.

**NPDES** – In FY2005, KYDEP operated under an Enforcement Management System (EMS) dated October 1988, that describes how and when Kentucky will take action on violations. The State's EMS had not been revised since 1988 and did not address changes in the rules/regulations such as those dealing with storm water, MS4, and concentrated animal feeding operation, and changes in significant noncompliance (SNC) definitions. KYDEP is working with Region 4 to formalize a schedule for this update in the FY2007 106 Workplan.

KYDEP provides violators (majors and minors) numerous opportunities to achieve compliance by sending out multiple violations notices to the same systems. While this practice may eventually achieve compliance, it allows systems to remain out of compliance for long periods of time and leads to insufficient enforcement. In some cases where the initial NOV proved to be inadequate in returning the facility back into compliance, the KYDEP chose to repeatedly issue additional NOVs instead of escalating enforcement by pursuing appropriate administrative actions such as a Consent order (CO) or a Unilateral Order (UO) or pursuing a civil judicial action.

Kentucky has statutory provisions that prohibit an administrative body from using a policy, memorandum, or other form of action to modify or expand statute or administrative regulation, or to expand or limit a right by the U.S. Constitution, the Kentucky Constitution, a statute, or administrative regulation. Because of this, the KYDEP has no written penalty policies. KYDEP bases its penalties on Chapter 224.99 of the Kentucky Revised Statutes (which sets a maximum statutory penalty for violations of the CAA, CWA, and RCRA at \$25,000 per day per violation), and the penalty factors laid out in "NREPC vs. Wendell Maggard". Penalty worksheets are not included in the compliance and enforcement files nor are they formally maintained elsewhere, due to the statutory prohibition. Although included as one of several factors consideration of economic benefit as a component of the penalty assessment was not clear and could not be determined.

**RCRA** - In FY2005, KYDEP RCRA SNC rate was 1.0%, compared the national average of 3.3%. When SNCs were identified, the SNY evaluation was found to be reported into RCRAInfo. However, the date stamp on the RCRAInfo logs indicated that in several instances the SNY was entered between four to eight months after day one (first date of inspection), with an average greater than 180 days. This exceeds the 150 day timeframe for timely determination and entry of SNC data into RCRAInfo.

Eleven KYDEP enforcement files were reviewed as part of the KY State Review Framework. Each of the facilities reviewed received a formal enforcement action in FY2005. The average time to reach a final RCRA enforcement order action was greater than 700 days. Only one of the cases met the ERP criteria for timely enforcement response. KYDEP has stated that subsequent to FY2005, the average time frame has significantly improved by reaching a final RCRA enforcement order action for most cases within the regulatory time frame.

KYDEP does not utilize the RCRA Civil Penalty Policy because of a statutory prohibition against the use of guidance or policies in setting penalties. KYDEP considers the factors of gravity and economic benefit, among other factors, in determining the penalties in the enforcement cases. However, no penalty documentation of these considerations or penalty calculations is permanently maintained in the files; when the case is fully resolved, the penalty documentation of consideration is not mentioned.

### **Commitments in Annual Agreements**

**CAA** - KYDEP has consistently met or exceeded all of the enforcement requirements in their 105 Grant funded Annual Planning Agreement (APA).

**NPDES** - The KYDEP met or exceeded most requirements of their NPDES compliance and enforcement FY2005 CWA §106 workplan.

**RCRA** - KYDEP has met or exceeded all requirements of the FY2005 RCRA Grant workplan with regard to compliance and enforcement activities reviewed as part of the SRF for FY2005.

### **Data Integrity**

**CAA** - HPVs should be shown in AFS as in non-compliance. The data metrics show that 100% of KYDEP's FY2005 HPVs are depicted in AFS as in non-compliance.

With respect to stack test data, the data metrics show 100% of stack tests performed in FY2005 not having their pass/fail results coded into AFS. KYDEP has now updated AFS with all backlogged stack test results.

**NPDES** - The KYDEP generally enters the minimum data requirements into PCS in a timely manner. DOW has a dedicated PCS coordinator responsible for entering all required data into PCS. Major facilities' effluent data entry into PCS is excellent.

The KYDEP enters major facilities' effluent data into PCS in a timely manner. The KYDEP is to be commended for their data entry effort. For FY2005, the KYDEP data entry rate was an impressive 100% that exceeded the national average of 95.5%.

SRF metrics data reports that Kentucky's Discharge Monitoring Report (DMR) entry for non-majors is 87.4%. KYDEP is one of only a few state agencies that actively electronically tracks NPDES permit limits and conditions contained in minor NPDES permits, similar to what it does for major NPDES permits. KYDEP is to be commended for this effort.

**RCRA** - The RCRA Enforcement Response Policy states that SNC 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. The file review of concluded enforcement cases indicated in a number of cases that the SNY designation were entered into RCRAInfo greater than 180 days (on average) after first date of inspection.

Subsequent to FY2005, the KYDEP has implemented a procedure of reviewing the information in AFS and RCRA-INFO for accuracy on a monthly basis. The KYDEP reviews information in PCS for accuracy on a quarterly basis, in conjunction with the QNCR reviews.

### **Summary**

The Region will continue to work closely with the Commonwealth of Kentucky to implement the recommendations made in this report. The Region will incorporate the recommendations in this report into the National SRF Tracker System along with agreed upon timelines, milestones, and any tracking agreements, such as an MOA, PPA, or PPG, as well as provide timely updates as to the progress made in the implementation of the recommendations.

## **II. Media Program Element Reviews**

### **Program: CAA Stationary Source Enforcement Program - Commonwealth of Kentucky**

**Introduction:** The CAA portion of this report entailed a 2 1/2 day review of files and an analysis of data in KYDEP air enforcement program. The period of time for this review was FY2004-FY2005, the most recent period of complete data when the review began. The file selection protocol from the SRF was used to select 38 files to review. The selected list of files was submitted to KYDEP for concurrence as to being representative of the air enforcement program. A few comments were received which resulted in 35 files being reviewed: 31 major sources and four synthetic minor sources. Twenty-one of the 35 files reviewed were carried in the AFS as HPV sources at some point during FY2004-FY2005.

The data analysis consisted of reviewing information generated by the SRF data metrics. The data metrics consists of a standard retrieval of data (for air its source of information is AFS) and it analyzes over 40 bits of data. The data metrics pull was done on December 20, 2006, and it covered FY2004-FY2005.

The findings and recommendations that follow reflect the 12 elements of the SRF that were reviewed. These 12 elements encompass four review areas: inspections, enforcement activity, annual state/EPA agreements and database integrity. Also, encompassed in this report are the results of the CMS evaluation that was done in conjunction with the SRF. The CMS evaluation appears first followed by the SRF results.

### **Commonwealth of Kentucky FY2006 CAA CMS Evaluation**

#### ***Organizational Structure***

The KYDEP is one of four departments within Environmental and Public Protection Cabinet. The KYDEP is organized into six divisions. Three of the six divisions play significant roles in the area of compliance monitoring, enforcement and/or compliance assistance for stationary air sources. The structure of these divisions is described as follows:

**Division for Air Quality (DAQ):** The DAQ is divided into four branches with the Field Operations Branch retaining primary responsibility for compliance monitoring & the initiation of enforcement activities, including inspections. The manager of this branch is stationed at the main KYDEP office in Frankfort, with the majority of staff being located in eight field offices throughout the Commonwealth. The Field Operations Branch consists of about 60 employees in the eight regions including 26 source inspectors, seven asbestos inspectors, 12 air monitoring specialists, eight supervisors, seven administrative staff and one stack test observer. Resources from other DAQ branches are also called upon to support compliance assurance or enforcement activities including the Technical Services Branch (oversee stack tests) and the Permit Review Branch (may be consulted for input regarding determinations of compliance).

**Division of Enforcement (DENF):** This division has responsibility for enforcement



activities, including the resolution of NOV's, which are deferred to the Division of Enforcement from DAQ, and various legal actions. It was created in 2004 through consolidation of resources from previous enforcement programs that were separated by media. There are three staff members within this division dedicated to work on air cases, although individuals have the ability to work in different areas (waste, air, water) as needed. The Division of Enforcement obtains legal support as needed from the Office of Legal services. Four staff attorneys and a manager are available to support air cases as well as cases involving other media.

**Division of Compliance Assistance:** Compliance assistance objectives of this division are to help regulated entities understand and comply with the environmental KYDEP programs covering all media.

### ***Compliance and Enforcement Strategy***

Compliance assurance activities originate within the Field Operations Branch of the DAQ. Each of the eight field offices within this branch is responsible for the stationary air sources within their respective regions. Primary activities include field inspections, stack test oversight, review of reports submitted by stationary air sources as required, and investigation of any citizen complaints. A standard inspection report format has been developed. Field inspectors are instructed to "construct" a specific inspection report framework for each source which incorporates the relevant permit requirements, and to update that framework as new requirements (such as MACT standards) become effective. Field inspectors are tasked to complete inspection reports within ten days of completing an on-site inspection and receiving all necessary information. Both regional office managers as well as senior field inspectors can enter the FCE date into DAQ's TEMPO system for each facility. They are expected to understand all the aspects and components of an FCE and be able to document the completion of each FCE component.

DAQ inspectors routinely perform compliance assistance activities during inspections and provide verbal input as appropriate concerning potential areas of non-compliance. A Letter of Warning (LOW) can be issued to the operators of a facility where a facility may potentially be out of compliance, but in relation to relatively minor and/or non-recurrent issues (never for HPVs). Notices of Violation are issued when significant non-compliance is documented. The manager of each field office is responsible for approving NOV's in their respective regions. Most instances where violations are identified, including when NOV's are issued, are corrected within the Field Operations Branch. In such cases, a Letter of Sufficiency is issued to document the resolution of violations for each facility. The TEMPO system is set up to prompt each regional manager to send such letters within 90 days of when DAQ determines that the non-compliance issues have been addressed. About ten to 20 percent of NOV's cannot be resolved within the Field Operations Branch and are referred to the Division of Enforcement. The types of violations that must be referred to the Enforcement Branch include HPVs and major emissions violations. Repeat violators usually result in referrals, as do instances where violations cannot otherwise be resolved with the facility. Potential HPVs are flagged in the TEMPO system and must be approved by the Field Operations Branch manager. The goal of the Field Operations Branch is to determine what to do with any identified non-compliance issue within 90 days of discovery.

The Field Operations Branch uses several Standard Operating Procedure (SOP) type documents to achieve consistency across the Commonwealth for compliance assurance and enforcement activities. Included are Inspection Process Business Rules, compliance testing guidelines, an Annual Compliance Certification Review SOP, as well as various guidance documents on the preparation of enforcement referrals and the use of the TEMPO system. An SOP is being currently being developed to standardize inspection procedures over the eight district offices.

Regulated facilities have the opportunity to voluntarily disclose violations in KY regulations (KRS 224.01-040). Penalties can be waived for violations discovered through voluntary audits if the appropriate criteria are met. The Field Operations Branch uses a standard checklist to evaluate voluntary disclosures and presents their conclusions to the Office of the Commissioner. A response to the facility is prepared and signed by the Deputy Commissioner.

Areas of non-compliance that cannot be resolved in the Field Operations Branch are referred to the Division of Enforcement and are assigned to a case manager who works, in conjunction with the Office of Legal Services to pursue legal action. In cases where injunctive relief is sought, the case must be resolved judicially. Judicial enforcement takes place primarily within the Office of Administrative Hearings. Legal settlements are documented in Agreed Orders that outline injunctive relief, penalties and any other negotiated measures such as supplemental environmental projects (SEPs). Administrative hearings are held when settlement cannot be reached. If there is a public health threat the case can go directly to circuit court. There is not a specific policy for SEPs, but rather KYDEP uses EPA's SEP policy as an informal guidance.

#### ***Data and Reporting Requirements***

AFS is updated at least on a monthly basis. KYDEP regularly consults with EPA to resolve issues about correct AFS data entry procedures. One issue uncovered by EPA is the lack of stack test results being reported into AFS. It is understood that KYDEP has gone back to January 2005 and entered all stack test results data and will continue to do so on a real time basis.

TEMPO is an electronic system that is capable of tracking all aspects of a source's compliance and enforcement history, including HPV information. Although the system is not currently set up to summarize all the components of an FCE, documentation of each component is contained within the system. It is the responsibility of the supervisor of each regional office to ensure that all the FCE components have been completed.

#### ***Compliance Assistance Activities***

Compliance Assistance is provided by both the Division for Air Quality and the Division of Compliance Assistance. Several areas were identified in which the Field Operations Branch conducts compliance assistance activities including:

- Routine compliance assistance offered to regulated facilities during inspections

- Outreach to small business through formal training activities
- A system set up through the University of Louisville to conduct confidential environmental audits
- SEPs, such as one that required a local university to put on training for all Kentucky universities covering air regulations

The Compliance Assistance Division activities cover all media and focus on small businesses and communities that often do not have the financial resources necessary to hire full-time environmental employees. Program services include:

- Maintaining a toll free compliance assistance hotline (800) 926-8111 that allows any entity regulated by the department to seek compliance assistance
- Responding to general information requests
- Serving as an advocate for the compliance needs of regulated entities, particularly for small businesses and communities
- Conducting on-site compliance assistance evaluations to identify compliance problems and suggest methods to improve environmental performance

If violations are identified by through the activities of the Compliance Assistance Division and such violations are being addressed then, in general, the Field Operations Branch will not pursue an enforcement action for these violations. This policy, however, does not apply to violations that the Field Operations Branch considers to be HPVs. The Compliance Assistance Division documents measures taken to resolve any identified non-compliance through a “Letter of Agreement” to the facility.

### ***Compliance/Enforcement issues identified***

The following two issues were identified that impact the ability for KYDEP to meet compliance and enforcement objectives:

- One of the district offices of the Field Operations Branch has recently been understaffed because of retirements. Additional staff members have been hired and efforts are in place to bring this office back up to speed.
- Keeping up with staff training needs is an ongoing challenge, particularly in the area of HPVs and Maximum Available Control Technology standards. Currently an effort has begun to provide additional training for each Field Operations Branch office on how to identify and report HPVs. Requests for training assistance have been made to EPA Region 4.

### **SRF Report**

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

#### **Findings:**

**FCEs at Title V major sources:** Under KYDEP’s December 29, 2003, FY2004-

FY2005 CAA CMS Plan, KYDEP planned to exceed the prescribed EPA frequencies of FCEs i.e., once every two years for Title V majors and once every five years for SM sources. The CMS Plan committed to 339 FCEs at 247 Title V sources in FY2004-FY2005 (i.e., 92 additional FCEs were planned in both years). According to the data metrics, 225 FCEs were performed at Title V major sources in FY2004-FY2005 (the data metrics only credits one FCE for every 2 year period). This translates to a 91% FCE performance rate (225/247) in KY. KY's commitment was 100%. The national average is 84%.

**FCEs at SM sources:** With respect to the same analysis for SM sources, the data metrics show that from FY2002-FY2005 (the data metrics was only able to generate a four year vs. five year period), 58 FCEs were performed out of 108 (54%) SM sources. The national average is 77%. Thus it appears that KYDEP needs to complete a number of FCEs at SM sources in order to meet their CMS Plan to perform FCEs at all SM sources over five years.

Because KY did not meet their CMS plan, they were asked about their FCE completion rate. Their records indicate that at least one FCE was completed at all but 22 of their 397 major and SM sources (247 Title V and 150 SM). This is a 94.5% FCE completion rate over the two year period. In addition, KY queried AFS on the number of unique FCEs at synthetic minor sources in FY 2002-2005 (unique meaning only one FCE counted even if more than one had been performed in this timeframe). This AFS report showed 119 of 150 FCEs completed (79%). Upon examination of this report by KY, they discovered 27 FCEs at SM sources completed but not recorded in AFS. They subsequently have been recorded and thus KY says 146 of 150 FCEs (97%) have been completed at SM sources. Personnel shortages and turnover at two of KYDEP's regional offices is the contributing factor to not all FCEs getting done and/or recorded in AFS.

**Title V Annual Compliance Certifications received and reviewed:** According to the data metrics for KYDEP, 100% of 201 Title V annual compliance certifications were received and reviewed in FY2005. The national average is 79%.

**Sources with "Unknown" Compliance Status Designations:** The data metrics show 17 sources with an "unknown" compliance status. An "unknown" compliance status is usually associated with a source going longer than two succeeding years without a FCE being recorded in AFS. Given the earlier stats about meeting the FCE commitment in their CMS Plan, this number of "unknowns" is expected. KY reports that as of June 2007, AFS shows no facilities with an unknown compliance status.

*Citation of information used for this element*

- KYDEP's FY2004-FY2005 CMS Plan
- Data metrics (source of data is AFS)

**Recommendations:** KYDEP should analyze why the data system does not credit all the FCEs at their Title V and propose measures that will ensure the implementation

and fulfillment of its CMS Plan.

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

**Findings:** Thirty-five source files were reviewed to see how KYDEP documents a completed FCE. Thirty-one of these source files were major sources. All elements of a FCE and compliance monitoring report (CMR) were examined: general and facility information about the source; a description or listing of all applicable requirements for the source; an inventory and description of regulated units and processes; information on previous enforcement actions; compliance monitoring activities; reviews of all required reports such as Continuous Emission Monitoring System (CEMS) reports, malfunction reports, the annual compliance certification and semi-annual monitoring reports; assessments of control device and process operating conditions, process parameters and control equipment performance parameters; reviews of facility records, operating logs and visible emissions observations; reviews of stack test reports and findings/recommendations relayed to the source during the compliance evaluation (see EPA's April 25, 2001, CMS guidance for a description of these terms).

States/locals may document these elements as they deem appropriate. KYDEP does this through their TEMPO system. TEMPO is an electronic system that is capable of tracking all aspects of a source's compliance and enforcement history, including HPV information. With respect to the FCE and CMR elements, TEMPO contains facility information (facility name, location, contact), applicable requirements, description of regulated emission units, enforcement history (NOVs, state orders, agreed orders) and receipt and staff review of the following documents: source submitted reports, records, operating logs, Title V self certifications, Title V semi-annual monitoring reports, performance tests results and visible emission observations. Inspection reports are created via inspectors loading the necessary requirements into a TEMPO database and adding necessary comments. Compliance ratings are recorded for each requirement. The TEMPO database then produces a WORD document inspection report that the inspector can either sign with an electronic signature (no printing necessary) or print the document, sign it manually, and have it scanned back into the database. The signed (final) inspection reports and any associated NOVs, Letter of Warnings, etc. are considered the official documents. KY legislatures passed a law several years ago that allows an electronic copy to be a legally binding version of a document.

Numerous management reports can be generated from TEMPO that include: number & type of inspections completed within a given time frame; number and type of enforcement actions (NOVs, agreed orders); violations report that allows the tracking of HPVs; and current status of permitting, compliance, or enforcement activities. TEMPO is used by all FOB staff and enforcement personnel/managers and it is an excellent tool for tracking and analyzing compliance and enforcement history for all

sources.

With respect to compliance assistance, the inspectors are tasked with this during every on-site inspection. Monthly the eight district offices submit to KYDEP the results of their compliance assistance. In many cases this results in non-compliance issues being immediately addressed.

Our review of the 35 source files showed complete documentation of all FCE/CMR elements.

*Citation of information used for this element*

- KYDEP's source files/TEMPO
- EPA's 4/25/01 CMS guidance

**Recommendation:** None

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

**Findings:** Based on the 35 State inspection reports found in TEMPO, all but one was written within 150 days of the inspection. This later inspection report took almost 14 months and it was part of a national enforcement effort for which EPA had the lead. The timeliness of completing written inspection reports is commendable and ensures that HPVs that might be a result of an inspection get identified and addressed in a timely manner.

*Citation of information used for this element*

- KYDEP's source files

**Recommendation:** None

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

**Findings:** According to the data metrics, KYDEP's HPV discovery rate was 4.7% (national average 10.3%) based on *FCE coverage* in FY2005. Discovery rate means HPVs identified by the state in the fiscal year divided by the number of major sources with a state FCE performed in that fiscal year. In addition, the HPV discovery rate based on *operating major sources* in the same fiscal year was 1.8% (national average 4.9%). Discovery rate in this case means HPVs identified by the state in the fiscal year divided by the number of operating major sources. EPA has in past years provided HPV training and there is periodic communication with KYDEP to oversee the identification, reporting into AFS and resolution of HPVs.

DEP shared two possibilities for their low HPV discovery rate. First, recognizing the stats are from FY2005, the Field Operations Branch said that two plus years ago they experienced organizational inefficiencies in the inspection program and in reviewing

and forwarding potential HPVs to the enforcement program. Today, KYDEP says this is no longer a barrier and HPVs are being referred to enforcement in a timely manner. Second, inspection staff turnover and training gaps contributed violations not being identified as HPVs. KYDEP has given all regional managers copies of the June 1999 OECA HPV Handbook and directed them to read and implement the plan. KYDEP also plans to host HPV training over the coming months. Region 4 is available to assist in HPV training.

*Citation of information used for this element*

- Data metrics
- Period HPV calls
- Power point presentation on HPV policy

**Recommendation:** KYDEP needs to implement their plan to do HPV training.

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

**Findings:** Of the 35 KYDEP sources files reviewed, 19 contained state enforcement actions (e.g., demand letters or agreed orders). One additional order is in the signature chain and two others are being negotiated. These state enforcement actions, all being identified as HPVs, resulted in 17 of the sources being returned to compliance. One additional source has been returned to compliance but the recent flood in the state office building prevented file verification.

*Citation of information used for this element*

- KYDEP's source files

**Recommendation:** None

**6. Degree to which a state takes timely and appropriate enforcement actions, in accordance with policy related to specific media.**

**Findings:** According to the data metrics, in FY2005 14 of KYDEP's 17 HPVs (82 %) remained in unaddressed status for greater than 270 days. The file review supported this statistic. Of 22 files reviewed that were identified as being a HPV, 10 HPVs (45%) remained in unaddressed status for greater than 270 days. EPA's policy is that all HPVs be addressed within 270 days. The national average is 56 %.

KYDEP concurred with the rates given the time period reviewed. In 2005, KYDEP was implementing a reorganization that created a Division of Enforcement. Attention was immediately given to the resolution of HPVs and, according to KYDEP most of these backlogged HPVs have now been addressed via hiring of additional staff. In addition, with additional staff and focus, KYDEP now believes new HPVs are getting addressed in a timely manner.

Region 4 checked more recent information in AFS on resolution of HPVs to verify the above. Specifically, an AFS report entitled “HPV Summary” was pulled on May 21, 2007, covering FY 2006 to date. This report shows 17 state lead HPVs with a day zero during this time period. Of these 17 state lead HPVs, two are unaddressed and greater than 270 days have passed, five were addressed after 270 days passed, one was addressed within 270 days and nine are unaddressed and less than 270 days have passed. These statistics indicate that KYDEP has improved upon their HPV resolution timeframes.

*Citation of information used for this element*

- Data metrics
- Source files

**Recommendation:** KYDEP should continue to make resolution of their HPVs a high priority and reexamine ways this could be improved so the goal of all HPVs being addressed in 270 days is met. Specifically, it is recommended that KYDEP do their own analysis on their HPV resolution rate and submit a findings report, including recommendations, to EPA.

**7. Degree to which the State has a penalty policy that includes both gravity and economic benefit calculations.**

**Findings:** KYDEP does not have a penalty policy due to the state legislature saying that the state cannot regulate with policy. KYDEP uses as a guide the maximum daily penalty amounts shown in the KY Revised Statutes (\$25,000 per day, per violation). KYDEP does have factors they consider when determining a penalty amount. They are found in a March 29, 1994, Commonwealth of Kentucky Hearing Officer's Report and Recommendation. These factors do contain a gravity component (designed to reflect the seriousness of the violation) and economic benefit component (designed to calculate the economic advantage of noncompliance).

*Citation of information used for this element*

- Source files
- March 29, 1994, Commonwealth of Kentucky Hearing Officer's Report and Recommendation

**Recommendation:** None.

**8. Degree to which state documents both gravity and economic benefit in accordance with any applicable penalty policy.**

**Findings:** Of the 19 state enforcement actions found in the files reviewed, 16 contained penalties (in addition, the one order in the signature chain contains a penalty). KYDEP does a narrative documentation of their penalty calculation in an internal document they call a “case resolution proposal”. This is a confidential



document that is usually destroyed after the case is completely resolved and closed. KYDEP keeps all of the documentation that the penalty was paid and the resolution document, which is usually an agreed order, that sets forth the agreement including the penalty amount and violations cited. The case resolution proposal includes confidential information that the case specialist believes the Director may want to consider in deciding on the penalty. One of the reasons the contents of a case resolution proposal are so important and useful is that staff, knowing the contents will not be released to anyone, are comfortable writing whatever is relevant to the case.

None of the case resolution proposals reviewed clearly denoted consideration of gravity or economic benefit penalty components. KYDEP says that they do include such components in the case resolution proposals; however, this information does not stand out. Subsequent to this finding, KYDEP now clearly denotes in the case resolution proposals consideration of these penalty components.

*Citation of information used for this element*

- Source files
- Case resolution proposals

**Recommendation:** KYDEP should continue use of clearly denoting consideration of the gravity and economic benefit components in their penalty documentation and retain this documentation for a period of time to be determined by KYDEP.

**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:** KYDEP has an annual APA with Region 4. It principally applies to non-major sources and asbestos demolition/renovation projects and is funded through CAA Section 105 grant dollars. Activities related to Title V sources are not part of the APA and are funded through industry fees. With respect to the FY2005 APA enforcement component, KYDEP committed to the following:

- Ensure 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 (computer uploading).
- Resolve violations of any rule for which EPA has delegated authority to the state for non-major MACT sources and synthetic minor sources.
- Utilize the pollution prevention database to enhance PP outreach activities during compliance inspections.
- Inspect 25% of all NESHAP asbestos demolition/renovation projects.
- Observe asbestos work practices in progress whenever possible to assess compliance.
- Utilize ACTS/NARS. Report to EPA at least 45 days after each quarter.
- Maintain a state health and safety plan for asbestos demolition/renovation

inspectors.

- Recommend cases and provide support to the EPA Criminal Enforcement program.
- Implement the CAA section 112 (r) Program. Develop a work plan including risk management program audits and facility inspections.

KYDEP has met these deliverables based upon the overview the region does on a semi-annual basis using the regions grant tracking system.

*Citation of information used for this element*

- KYDEP's FY2005 APA
- Regional APA tracking form

**Recommendation:** None

**10. Degree to which Minimum Data Requirements (MDRs) are timely (focus on integrity of HPV data)**

**Findings:** MDRs represent the minimum amount of data that EPA believes nationally is necessary to oversee the national stationary source compliance monitoring and enforcement program. Examples of the 26 elements that comprise the MDRs are recording of FCEs, HPVs, stack test results, compliance status and Title V annual compliance certification reviews. In examining the MDRs for the 35 KYDEP files, no significant data deficiencies were noted.

One specific item that the SRF requests to be analyzed is the HPV MDRs. These MDRs require timely entry of HPV data into AFS. The data metrics report on the percent HPVs entered greater than 60 days after designation. KYDEP's data show one of nine (11%) HPVs are entered more than 60 days following the date of discovery (national average is 56.4%). KYDEP does a good job in the timely entry of HPV data into AFS.

*Citation of information used for this element*

- EPA's minimum data requirements
- Data metrics

**Recommendation:** None

**11. Degree to which MDRs are accurate (focus on plant compliance status)**

**Findings:** This metric analyzes sources carried as HPVs compared to their AFS plant compliance status. HPVs should be shown in AFS as in non-compliance. The data metrics show that all 29 of KYDEP's FY2005 HPVs being carried in AFS as in non-compliance. This represents almost 60% (29 of 49) of all non-compliant sources in KYDEP.

With respect to stack test data, the data metrics show 100% of stack tests performed in FY2005 not having their pass/fail results coded into AFS.

*Citation of information used for this element*

- Data metrics

**Recommendation:** It is understood that KYDEP has now updated AFS with all backlogged stack test results. KYDEP needs to develop and implement a plan that will ensure that stack tests results get recoded in AFS in real time.

**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 goal of this metric is to ensure agreement between the states/locals and the region on the completeness of the MDRs being reported into AFS and, where discrepancies exist, to develop an action plan for making appropriate corrections. Specific MDR elements examined included: Title V universe; source count of major, synthetic minor and NESHAP minor sources; universe of new source performance standard (NSPS), NESHAP and MACT sources; completeness of FCEs and partial compliance evaluations (PCEs) being reported; historical non-compliance counts; completeness of sources receiving NOVs; completeness of HPV reporting; completeness of enforcement actions being reported and completeness of penalty dollars assessed by the state. As noted in element 1, there is a data issue of appropriately identifying KY's CMS Plan sources.

*Citation of information used for this element*

- AFS
- KY's CMS Plan

**Recommendation:** KYDEP should examine the sources coded in AFS with the CMS identifier and develop a plan to ensure accuracy of this MDR.

## **Program: CWA NPDES**

**Introduction:** The Kentucky Pollutant Discharge Elimination System (KPDES) program is administered within the Kentucky Environmental and Public Protection Cabinets' (EPPC) KYDEP. The KYDEP Division of Water (DOW) manages the KPDES program which encompasses conventional, storm water and Confined Animal Feeding Operation (CAFO) facilities. KPDES permitting responsibility is handled by the KPDES Branch, which has three sections: Municipal & Commercial, Industrial, and Inventory & Data Management. KPDES enforcement issues are handled by the Division of Enforcement (DENF), which has two branches: Management Services and Case Resolution. The Management Services Branch is responsible for DMR reviews, Quarterly Non-Compliance Report (QNCR), Watch List, issuing informal enforcement actions and general compliance tracking. The Case Resolution Branch is responsible for the enforcement functions which include negotiations, issuing formal enforcement actions and penalty assessment. In addition to the central office located in Frankfort, the DOW has ten regional offices, which assist the central office. These offices are located in Bowling Green, Columbia, Florence, Frankfort, Hazard, London, Louisville, Madisonville, Morehead, and Paducah. The regional offices are managed by the Field Operations Branch (FOB) of DOW. The regional offices are the main compliance monitor for storm water, conventional, CAFO and drinking water facilities. In addition to performing compliance reviews, the FOB also issues informal enforcement actions.

At the time of the Kentucky state review, the KYDEP and the Kentucky Division for Mine Reclamation and Enforcement (DMRE) were operating under a Memorandum of Understanding (MOU) which specifically addressed the KPDES compliance and enforcement responsibilities related to surface coal mining and reclamation activities. The MOU consisted of Phase I, which was effective until the issuance of the KPDES general permit for surface coal mining and reclamation operations on March 1, 1984, and Phase II, which became effective on March 1, 1984. KYDEP and DMRE have since been operating under the Phase II MOU.

Kentucky identifies and addresses violations using EPA criteria outlined in program delegation documents, the Memorandum of Agreement (MOA), and/or Kentucky EMS. Kentucky's implementation of the compliance program meets the required standard pursuant to the Clean Water Act (CWA) and its implementing regulation at 40 CFR §123.26. Various types of inspections are conducted to independently assess the compliance status of a given facility with or without a KPDES permit, such as compliance evaluation inspections (CEI), compliance sampling inspections (CSI), reconnaissance inspections (RI) and Incident Investigations. DMRs submitted by permittees are reviewed to assess compliance status, and such information is entered by Kentucky in PCS in accordance with the Water National Enforcement Database protocol and the CWA annual section 106 workplan. Kentucky generally addresses complaints received directly from the public or through other sources including EPA in a timely and appropriate manner. Kentucky uses enforcement actions to address environmental problems and to bring businesses, individuals and government entities into compliance with environmental laws and regulations. The most common enforcement tools used are Letters of Warning (LOW)/ Notice of Violation (NOV), an informal enforcement action and Agreed Orders, a formal enforcement action. Kentucky's EMS

describes and contains the protocol for enforcement response to noncompliance determined independently either through inspections or complaints or through the analysis of self reported noncompliance such as DMR submittal, noncompliance notice requirement of a NPDES permit, or under self disclosure/self audit policy.

A component of the SRF audit involves the review of compliance and enforcement program files. The on-site file review was conducted on February 5-9, 2007. EPA utilized the SRF File Selection Protocol when selecting the files for review. The review period for the Kentucky State Review Framework audit is designated to cover fiscal year 2005 (October 1, 2004 to September 30, 2005) and inspection year 2005 (July 1, 2004 to June 30, 2005). The file selection protocol dictates selecting twenty-five (25) to forty (40) facilities for file review due to the universe of NPDES facilities in Kentucky exceeds 700. The protocol also requires diversification where possible, recommending approximately half of the files reviewed include some form of enforcement activity. Preliminary file selection was performed utilizing the SRF data metrics and PCS data of inspections performed in IY2005 and cases concluded in FY2005. Thirty-seven facility files were randomly selected representing all ten district offices, with Kentucky's consent, and reviewed. Eight majors, eight conventional minors, seven storm water, five CAFOs and seven coal and two non-coal mining files were selected for review insuring the majority of the selected facilities had either inspection coverage during IY2005 and/or enforcement action issued during FY2005.

EPA specifically selected seven files in the coal mining industry for review due to the unique permitting, oversight, and reporting circumstances of this sector. Coal mining facilities are permitted through the DOW, however, compliance and enforcement duties are within the DMRE. PCS data entry responsibilities (for DMRs, inspections, enforcement response, etc.) remain with DOW. The file review focused particularly on PCS data entry quality and the level of DOW oversight for the KPDES compliance and enforcement responsibilities of DMRE.

The file list was submitted to the KYDEP in advance of the EPA on-site visit. Kentucky had the files available for EPA review both electronically and in hard copy format. The files were well organized and typically contained inspection reports, NOV(s), DMRs, communications from the facility, and enforcement actions. Files were reviewed at the DMRE for the coal facilities selected. In addition to the files reviewed, SRF data metrics, TEMPO data, as well as discussions with KYDEP management were utilized to assist in the comprehensive review of the compliance and enforcement program. EPA and KYDEP agreed to utilize data pulled from the SRF website on December 12, 2006, for the review.

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

**Findings:** Kentucky conducts inspections in accordance with the Water Grant Commitment Workplan pursuant to the Clean Water Act Section 106. The workplan incorporates an annual inspection plan that offers Kentucky the opportunity to negotiate priorities in order to better use the resources of the State. Inspection

priorities are based on past compliance, potential environmental damage, existing water quality and available resources.

Eight major facilities were selected with 13 inspection files reviewed. Types of major facility inspection reports reviewed included Compliance Evaluation Inspections (CEI), Compliance Sampling Inspections (CSI), storm water, and Sanitary Sewer Overflow (SSO, non - sampling). Twenty-nine non-major facilities were selected for file review with 24 inspection files reviewed. Types of non-major facility inspection reports reviewed varied including CEI, CAFO, and storm water inspections.

Kentucky inspected 76.3% of all its major facilities during IY2005 which is above the national average of 65.7%, and exceeded their CWA §106 workplan commitment to conduct inspections at a minimum of 70% of its majors (universe of 139 major facilities). In addition to the inspected majors, the state performed inspections at 39.2% of its non-major facilities. The number of compliance monitoring inspections reported in PCS for FY2005 was 2,178 for 1,779 facilities inspected.

For coal mining facilities covered under the general permit (KPDES permits beginning with KYG04), routine inspections of coal mines for the purpose of determining compliance with KPDES requirements are conducted primarily by the DMRE inspectors as a part of DMRE activities. DOW field offices respond to citizen complaints and source self reported violations. DOW and DMRE visit mining sites jointly as a part of the resolution negotiation process over cited violations.

The MOU between KYDEP and DMRE addresses the KPDES compliance and enforcement responsibilities related to surface coal mining and reclamation activities. DMRE is responsible for enforcing violations of KPDES requirements in Title 405 permits-Phase I, with KYDEP providing assistance, upon request. The Phase I MOU between KYDEP and DMRE terminated upon the issuance of the KPDES general permit for surface coal mining and reclamation operations on March 1, 1984, whereupon the Phase II MOU became effective, providing for the continuation of compliance and enforcement responsibilities to remain with DMRE for general permitted sites. The 1983 MOU between the Division of Water (DOW) and the Kentucky Department for Surface Mining Reclamation and Enforcement (DSMRE) has been updated and revised to reflect current organizational structure and practices. The new MOU between the Departments for Natural Resources and Environmental Protection (DEP) took effect March 8, 2007.

Routine, regular inspections of coal mines in regard to KPDES requirements are the responsibility of DMRE. DOW field offices respond to citizen and source self-reported instances of releases. DOW and DNR conduct joint visits to mining sites as part of resolution negotiation process over cited violations. Some mines, due to instances such as discharge to higher quality waters, particular treatment processes or the presence of threatened species, are required to have individual permits, whereupon DOW may take a the lead in compliance and enforcement activities.

Under the current MOU, DMRE is responsible for compliance and enforcement activities related to general and individual KPDES permits. DMRE inspectors will review submitted DMRs and conduct all site inspections. Instances in which a permittee has reported three DMR exceedances on a single facility within twelve consecutive calendar months will be referred to DENF for formal enforcement. DNR and DEP coordinate their response in the event of any substandard mining-related water discharge report or complaint according to the “Substandard Discharge Communication Plan.”

KYDEP and DMRE have continued to operate under the terms of this MOU to date. Subsequent information provided by Kentucky indicated that a new MOU between KYDEP and the Department for Natural Resources (formerly between KYDEP and KY DMRE) was signed by the EPPC Secretary on March 8, 2007<sup>1</sup>. There are currently 2123 active coverages under the coal general permit.

As part of KYDEP’s CWA §106 workplan commitment, Kentucky is to develop an inspection plan annually that covers inspections at conventional, storm water, and CAFO facilities. The inspection plan is consistent with EPA guidance while considering the state’s major/minor/storm water compliance and enforcement strategy. Kentucky’s inspection activity suggests strong presence in the field implementing one of the key elements of the compliance program.

*Citation of information reviewed for this criterion:*

- CWA State Review Framework Metrics Data
- EPA/KY CWA§106 Program Workplan
- PCS Data Pull for IY2005
- KYDEP/DMRE MOU
- Discussion with KYDEP and DMRE Senior Management

**Recommendation(s):** None

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

**Findings:** KYDEP has an electronic database, TEMPO, which contains a wide variety of information relating to NPDES permittees. Since the implementation of TEMPO, DOW uses a regulation based system for conducting inspections. The CEI and CSI reports reviewed were comprehensive in addressing permit requirements. Kentucky’s uses a TEMPO compatible checklist form for inspections/evaluations that covers permit requirements only. The completed checklist accompanied by a cover letter, is considered the inspection report. The quality of inspection reports reviewed in the TEMPO database and hard copy files varied from being very detailed with

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<sup>1</sup> All references related to the MOU, terms of the MOU, and parties involved with the MOU refer to the operating MOU applicable to the review period of IY 2005 and FY 2005 between KYDEP and KY DMRE, unless specifically noted otherwise.

narratives and supporting photographic evidence, to brief with little to no description. The on-site file review of inspections conducted noted inconsistencies in documented level of review between different inspectors conducting similar types of inspections. Areas observed, condition of the facility, specific records reviewed, etc., could not clearly be determined if not accompanied with photos and/or a detailed narrative citing such information. No EPA oversight inspections were performed during the review period for the facilities selected; therefore, the quality of the state inspections could not be assessed. An additional five inspections were reviewed that were found to be in the facility file, yet not identified in PCS.

None of the inspections reviewed generated formal enforcement actions; rather noncompliance/deficiencies were addressed via NOV or cover letter requiring the facility to respond to the inspection report findings identifying corrective actions taken.

The DMRE “complete inspection” checklist/ mine inspection report includes a box to identify if the KPDES requirement for effluent limitations per, 401 KAR 5:065 was evaluated. The complete inspection checklist also includes an opportunity for the inspector to select if “All structures with KPDES sampled and in compliance.” The checklist form contains additional space devoted for inspector comments and observations. The sample of inspection reports reviewed did not describe what was observed to sufficiently support compliance determinations.

Although the checklists form currently in use by KYDEP ensures that all permit requirements are reviewed for compliance, it does not alone provide a sufficient level of detail to support the compliance determination made by the inspector. KYDEP’s previous inspection form (retained in the DOW FOB manual of SOP) provided for this type of detail. During the KYDEP initial application of TEMPO, the FOB provided this checklist language to the KPDES Branch to be incorporated into the permits, hence included in the TEMPO compatible inspection checklist, in order to make the generated checklist site specific (the intent of TEMPO). KPDES did not implement this process due to insufficient startup resources. Therefore, FOB was instructed to develop the checklist form currently in use. Checklists are a useful tool to provide for a level of consistency in areas reviewed and helps assure thorough inspections are performed. EPA Region 4 can provide KYDEP with examples of inspection checklists used regionally.

DOW FOB has an ongoing program to improve detail and consistency. Positions are being requested statewide to primarily focus on inspector training, program consistency, and as a resource individual. Revision to the FOB SOP is underway with particular attention to documentation. An Annual Training Meeting was established in November 2006 to provide another avenue for refresher training and improve consistency. Annual inspector training for field inspectors should continue to be conducted to refresh and/or update inspectors on new and existing rules/regulations.



*Citation of information reviewed for this criterion:*

- On-site file review
- KY EMS
- PCS inspection information for IY2005
- NPDES Inspection Manual
- Comments provided by KYDEP Management

**Recommendation(s):** KYDEP should make it a practice to supplement or enhance the current inspection checklist used to specify areas evaluated during the inspection such as site specific records reviewed (permit, DMRs, lab sheets, SWPPP, etc.) and physical areas evaluated (i.e. outfalls, effluent/receiving stream, lab, pretreatment, and sludge). KYDEP should also update its Enforcement Guidance Manual with inspection documentation guidance. Annual inspector training for field inspectors should be conducted to refresh and/or update inspectors on new and existing rules/regulations.

The DMRE checklist/mine inspection form should be revised to include the regulatory citations in addition to applicable KPDES requirement language. The DMRE inspection checklist should be sent to KYDEP for DOW and DENF review and comment to ensure all KPDES areas are reviewed thoroughly during the on-site inspection. DOW should periodically perform joint and or oversight inspections with DMRE to ensure thorough review of the facility is performed per KPDES requirements.

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

**Findings:** 95% (35 out of 37) of inspections reports reviewed were completed and delivered/forwarded to the permittee in a timely manner, within thirty days from the date of the inspection. The state EMS/Enforcement Response Guide does not establish a deadline for these reports. The two occasions where reports were issued beyond 30 days from the date of the inspection were atypical, specific cause of the delay could not be determined. Majority of files reviewed contained a copy of inspection report(s), correspondence related to the inspections, DMRs, and violation notice(s) generated as a result of inspection or from the review of DMRs. The violations appeared to be identified and responded to in a timely manner. Kentucky should continue the positive trend in responding to violations discovered during an inspection in a timely manner.

*Citation of information reviewed for this criterion:*

- PCS data pull for IY2005/FY2005
- On-site file review
- KY EMS/ERG

**Recommendation(s):** An internal inspection tracking process should be developed and implemented to ensure that all inspection findings are timely sent to the facility.

Kentucky FOB has been incorporating elements in its compliance data QA/QC process which would support such a tracking system. Current procedures appear adequate for tracking of inspections. This internal process utilizes TEMPO reports for tracking purposes and is a part of the business rules associated with the inspection procedures.

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

**Findings:** Kentucky identifies and generally addresses violations using the EPA criteria outlined in program delegation documents and the Memorandum of Agreement (MOA). Kentucky operates under a current EMS dated October 1988, that describes how and when Kentucky will take action on violations. The State's EMS has not been revised since 1988.

The EMS serves to establish enforcement responses that are appropriate, assures relatively uniform application of enforcement responses to comparable levels and types of violations statewide, and it represents a standard against which an enforcement program can be evaluated. Kentucky's EMS does not address changes in the rules/regulations such as those dealing with storm water, MS4, and concentrated animal feeding operation, and changes in SNC definitions.

The KYDEP enters major facilities' effluent data into PCS in a timely manner (see Element 10). The KYDEP is required to maintain a DMR and parameter data entry rate for majors at or above 95% by the PCS policy statement and the annual CWA section 106 workplan commitment. For FY2005, the KYDEP data entry rate averaged an impressive 100% and exceeded the national average of 95.5%. 100% data entry helps ensure accurate SNC identification and accurate ECHO reports.

PCS automatically identifies and designates SNC based upon compliance schedules contained either in permits or enforcement actions, effluent violations contained in DMRs, and other violations such as single event violations (SEV). SEV are discretionary for the state with respect to their designations as significant. PCS automatically identifies SNC based upon the DMRs and other means. The percent of Kentucky's majors in SNC for fiscal year 2005 was 12.8%, below the national average of 17.4%. In all instances reviewed, violations at major facilities that resulted in formal enforcement response were self reported.

EPA has recently clarified its expectations for reporting SEV, and future reviews of this element will include assessment of the states' performance against the revised expectations.

*Citation of information reviewed for this criterion:*

- EPA/KY MOA
- CWA State Review Framework Data Metrics
- OTIS Management Report

- EPA/KY CWA§106 Program Workplan
- KY EMS, 1988
- On-site file review
- DENF Standard Operating Procedures, 2005

**Recommendations:** The state should be more systematic with enforcement follow-up; responding to repeat violations by escalating enforcement in accordance with the EMS, and the DENF standard operating procedure (SOP). Since DOW refers violations to the DENF, the DENF has developed a SOP, adopted in March 2005, which addresses compliance and enforcement referrals, criminal violations, interagency coordination, etc. It is recommended the SOP be reviewed for consistency with the EMS.

Kentucky should review and update its EMS and submit the EMS to EPA in accordance with the CWA §106 workplan. KYDEP should consider allowing for the option to address non-major facilities that would become SNC or are in SNC to be fast tracked to a formal enforcement action when revising/updating the EMS. This option would be in addition to the current process where a formal enforcement action must be preceded by a LOW/NOV.

It is recommended that Kentucky, on a monthly basis, review the QNCR and the Watchlist that the Region provides to ensure that all SNC's are addressed in a timely and appropriate manner. Kentucky should utilize the Watchlist as a tool to gauge progress in addressing timely and appropriately those facilities that are in SNC two or more quarters and to target facilities that may not be in SNC but meet the Watchlist criteria 2c.<sup>2</sup>

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

**Findings:** KYDEP addresses noncompliance through two basic levels of enforcement responses namely LOW/NOV and Agreed Orders/Administrative Consent Order (CO). The NOV is an informal enforcement action and the CO is a formal enforcement action which generally contains injunctive relief (corrective measures to be taken), milestones schedules, date certain return to compliance, and may include administrative penalty assessment and/or stipulated penalties.

The majority of enforcement actions taken by KYDEP are NOV's. KYDEP provides violators numerous opportunities to achieve compliance by sending out multiple violations notices to the same systems. While this practice may eventually achieve

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<sup>2</sup> It is noted that during the review period of FY 2005, KYDEP was required to report major facilities that meet Watchlist criteria 2c (24 effluent violations in a 2 year period), 2d1 (single violation in excess of 200% of the KPDES permit limit) and 2d2 (single pH violation where pH is less than 4 or greater than 11). However, as of FY 2007, Kentucky is only required to report major facilities that meet Watchlist criteria 2c.

compliance, it allows systems to remain out of compliance for some period of time. In some cases where the initial NOV proved to be inadequate in returning the facility back into compliance, the KYDEP chose to repeatedly issue additional NOV's for the same violation(s) instead of escalating enforcement appropriately by pursuing formal administrative actions such as a CO or a UO or pursuing a civil judicial action.

One minor facility file reviewed discovered four NOV's (that were not identified in PCS) were issued for unsatisfactory results from an inspection and/or effluent violations during FY2005. Prior to FY2005, from 11/03 to 7/04, there were an additional five NOV's. An Agreed Order was issued in 6/05, with an assessed penalty of \$10,000, to address the violations noted in the many NOV's.

One non-major facility file reviewed demonstrated that DOW was not timely in issuing a formal enforcement response to a facility's self reported violations. The incident involved a coal slurry spill that caused a fish kill. The black-water incident was responded to by a joint investigation by KYDEP and KYDNR. The incident occurred on May 2004. On the same day the KYDNR issued an "Imminent Danger Cessation Order". The KYDEP issued a NOV on May 20, 2004. An Agreed Order between the KYDNR and the company was executed on June 6, 2005. KYDEP records show that an agreement-in-principle was reached between KYDEP and the company on September 12, 2005, and that the company signed the Agreed Order on November 22, 2005. The KYDEP Agreed Order was executed on February 13, 2006, 21 months from NOV to AO. KYDEP stated that the extensive period of time between the NOV and AO was due to addressing the punitive aspects of the case. Further, the facility and violation were not identified by DOW to be considered as a significant noncompliance (SNC) SEV although the violation's magnitude and severity may have warranted such designation. Per the KY EMS, any unauthorized discharge considered significant by the KPDES Program Director (or designee) can be reported as SNC.

*Citation of information reviewed for this criterion:*

- PCS data pull for FY2005
- CWA State Review Framework Metrics Data
- On-site file review
- KY EMS, 1988

**Recommendation(s):** The State should be more systematic in enforcement follow-up; responding to repeat violations, escalating enforcement in accordance with the EMS, and case referral. Since the DOW refers violations to the DENF, the State should develop a referral procedure protocol consistent with the EMS, which specifically addressed FOB referrals. This is currently being revised and updated.

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:** KYDEP strives to identify and address violations using the EPA criteria outlined in program authorization documents and the MOA. The most recent KYDOW/EPA MOA for the NPDES Program is dated September 30, 1983. An updated EPA/DOW MOA for the NPDES program has been developed and currently is being negotiated and finalized. In addition to the MOA, the State maintains a current EMS (dated 1988), which describes how and when the State will take action on violations. The EMS states that an enforcement “case list” is reviewed bimonthly to better assure timely and appropriate enforcement response. The state is above the 2% threshold for SNC facilities that are beyond required enforcement timeliness milestones reported at 6.4%, but below the national average of 7.7%.

The EMS states that determining the most appropriate response or set of responses to non - compliance requires consideration of:

- The severity of the violation in terms of the degree of variance from the permit condition;
- Impact on the environment, and the integrity of the KPDES program;
- Enforcement history of the discharger in terms of past violations and good faith;
- Impact on other dischargers;
- Availability of resources within the Division, the prosecutorial Office of the Cabinet and the judiciary;
- Importance of the violation in comparison with other violations that must be dealt with by limited resources; and
- Consideration of fairness and equity.

One penalty order (PO) for a major facility identified in PCS was not found in the TEMPO database or the facility hard copy file, therefore could not be reviewed. Additionally, the file review noted two occasions where the state’s enforcement response was not issued timely to address violations at a major facility. In one specific case, violations were identified on 8/5/02, NOV was sent on 10/25/02, and formal enforcement action was issued on 11/29/04. Formal action issued was an Agreed Order, which typically requires additional time due to the negotiating process.

*Citation of information reviewed for this criterion:*

- CWA State Review Framework Metrics Data
- On-site file review
- KY EMS, 1988
- EPA/KY MOA
- PCS data pull for FY2005``

**Recommendation(s):** Formal enforcement action should be pursued when an informal enforcement action has not been successful in returning a facility back to compliance and/or when a formal enforcement action is more appropriate. If an informal enforcement action does not achieve compliance, more appropriate escalated enforcement action(s) should be pursued for timely issuance and execution.

Likewise, further escalation of formal enforcement should be considered in a timely manner when existing formal enforcement action does not assure expeditious compliance. Kentucky should evaluate its enforcement response policies to determine ways to ensure that the state enforcement action response is timely, striving to maintain the less than two percent national goal for major facilities without timely action.

KYDEP's EMS requires revision. The enforcement escalation requirement should be focus allow for facilities that would become SNC or are in SNC would be fast tracked to a formal enforcement action. This approach would establish that formal enforcement action is initiated and/or executed within 60 days from the violation(s) being reported or becoming known whether through on-site inspection, DMR submittal or other sources such as complaints received and/or follow up. If the facility is in SNC, the escalation to a formal enforcement action with or without prior NOV actions should be considered as the enforcement response. The EMS revision should also incorporate a process to refer cases or situations for criminal investigation/enforcement consistent the criminal referral procedures found in the DENF SOP. The DENF SOP and EMS should be consistent in enforcement approaches and timeframes.

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

**Findings:** Kentucky has statutory provisions that prohibit an administrative body from using a policy, memorandum, or other form of action to modify or expand statute or administrative regulation, or to expand or limit a right by the U.S. Constitution, the Kentucky Constitution, a statute, or administrative regulation. Because of this, the KYDEP has no written penalty policies. KYDEP generally attempts to follow EPA's penalty guidelines by following the "Maggard factors" discussed below, however, penalty worksheets are not included in the compliance and enforcement files nor are they formally maintained elsewhere, due to the statutory prohibition. Individual penalty calculations and/or rationale may be retained by the individual enforcement specialist. Despite these limitations, Kentucky attempts to apply fair and appropriate penalties based on the significance of the violation and the degree of environmental impact by utilizing the hearing officer's report and recommendations with respect to *Natural Resources and Environmental Protection Cabinet vs. Wendall Maggard*. The hearing officer's report and recommendations as it relates to penalty assessment are referred to as the "Maggard factors." The Maggard factors entail consideration of the following:

- The seriousness of the violation, taking into account the complete context of the violation;
- Economic benefit (if any) resulting from the violation;
- Economic impact of the penalty on the violator, including the cost of remediation;

- History of other violations on the site by this violator;
- Culpability of the violator;
- Good faith actions of the violator to remedy the violation, comply with the law or obey an order of the Cabinet;
- Such other matters as imposition of a just penalty would require, and
- The number of days the Cabinet shows the violator to have violated the law.

The enforcement specialist recommends a penalty range based on similar past case history and experience. Penalty rationale is documented by the enforcement specialist in a Case Resolution Proposal, Case Resolution Approval Sheet, Case Status Summary, or an Enforcement Executive Summary, but not consistently retained. Upon request, DENF provided seven examples of such documentation for review. The level of detail of the monetary breakout of the penalty varied widely from line item figures for each violation to a recommended total penalty amount with description of violations. The final decision on the penalty amount assessed from KYDEP is approved by the director of the DENF, with the ultimate authority belonging to the Secretary of the Kentucky Environmental and Public Protection Cabinet. Although included as one of the Maggard factors, of the seven penalty related documents reviewed, consideration of economic benefit as a component of the penalty assessment was not clear and could not be determined.

*Citation of information reviewed for this criterion:*

- KY EMS, 1988
- On-site file review
- *Natural Resources and Environmental Protection Cabinet vs. Wendall Maggard*
- Kentucky Revised Statutes, Chapter 13A.130
- Interim CWA Settlement Penalty Policy, March 1, 1995
- EPA/KY CWA§106 Program Workplan
- Discussion with KY DENF Management
- DENF Standard Operating Procedures, 2005
- BEN Model

**Recommendation(s):** An independent assessment of economic benefit or potential economic benefit derived should always be performed. Every reasonable effort must be made to calculate and recover economic benefit and gravity. If such assessment is not feasible or is not applicable, a notation in the file should be made with an explanation. If exceptions to the calculated penalties are made, then a detailed explanation should follow documenting the cause for such deviations (e.g. waiving penalties, inability to pay evaluation, etc.).

In light of the current statutory provision prohibiting development and use of a penalty policy, all supporting documentation demonstrating penalty derivation, specifically addressing gravity and economic benefit, should be retained in an alternate central location and made available for review by EPA. Kentucky should adopt a singular form/format for documenting penalty rationale. This would promote

consistency in penalty assessments performed and alleviate potential confusion in requesting and referencing penalty documents in future reviews. Additionally, Kentucky should utilize EPA's BEN model or other similar methodology as a useful tool in calculating economic benefit.

**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:** The State Review Framework Metrics Data indicates that during the FY2005, 90.6% of formal enforcement actions had a penalty associated. Data reported to EPA by Kentucky indicated that Kentucky took 51 formal enforcement (agreed orders and demand letters) actions against facilities in FY2005, with a total of \$298,535 in collected penalties. This was a decrease from 72 formal enforcement actions taken in FY2004, with a total of \$510,714 collected penalties. The decline in the enforcement numbers was mainly attributed to the decline in resources and disruption caused by the 2004 reorganization of KYDEP with the formation of the Division of Enforcement.

It was observed that after a penalty was assessed, Kentucky oftentimes probated a significant portion of the penalty. DENF management explained that the probated amount applied only if the facility implemented specific remedial measures to return to compliance. During the file review, it was noted that Kentucky probated up to 83% of a facility's assessed penalty (\$12,500 probated on an assessed amount of \$15,000; \$2,500 collected). DENF management explained that because of inability to pay issues with small municipalities, the KYDEP probates penalties in situations where the entity is unable to pay a civil penalty and make repairs or upgrades to its wastewater system. Kentucky has found that this approach for small municipality inability to pay cases effective in achieving compliance. However, during the on-site file review, civil assessed penalty amounts were observed to be probated for minor non-municipal and storm water cases in addition to minor municipal cases. Further, there was no documentation of any financial analyses performed to substantiate an inability to pay claim by a facility.

Of the formal enforcement actions reviewed that had associated penalties, payment acknowledgement documentation (i.e. closure letter, copy of check/payment) was not consistently found in the files reviewed, nor was documentation provided by KYDEP that supported that such information was maintained elsewhere. Additionally, KYDEP has/does not enter penalty collected information into PCS (see Elements 9, 10 and 12).

*Citation of information reviewed for this criterion:*

- On-site file review
- CWA State Review Framework Metrics Data
- EPA/KY CWA §106 Program Workplan
- EPA SEP Policy, March 22, 2002



- EPA Penalty Policy
- Comments provided by KYDEP
- PCS data pull for FY2005

**Recommendation(s):** The KYDEP should pursue collection of assessed penalties to promote compliance by deterring future violations. Penalty reduction due to a facility's claim of inability to pay should only be considered upon review of appropriate supporting financial documentation submitted by the facility. All documentation supporting the mitigation of an assessed penalty, in addition to inability to pay, should be retained in the facility file. EPA Region 4 can provide guidance and instruction on how ability to pay issues are addressed and determined. KYDEP should continue promoting the use of Supplemental Environmental Projects (SEPs) as an option to mitigate assessed penalty amounts.

The KYDEP should ensure penalty assessment and collection information is properly and timely encoded into PCS as required pursuant to the CWA §106 workplan (see Element 9). Documentation or tracking records of penalties collected (payment acknowledgement letter, copy of payment checks, database reports, etc.) should be consistently maintained and available for review upon request.

**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:** The KYDEP met or exceeded most requirements of their NPDES compliance and enforcement FY2005 CWA §106 workplan.

Kentucky's CWA §106 workplan states the Kentucky is to "Maintain procedures, processes, and records pertaining to compliance evaluation and enforcement actions including actions involving penalties and associated penalty calculations, and make such records available for review and program oversight. (40 CFR Section 123.26 and 40 CFR Section 123.27)--Must meet minimum standards for State Compliance program and State Enforcement program and authorities." Because penalty documentation is not retained consistently and when available, does not specify economic benefit consideration, fulfillment of this workplan commitment could not be demonstrated.

Additionally, the Section 106 workplan addresses data management requirements that apply to all NPDES permits unless otherwise specified. In FY2005, Kentucky committed to timely enter and maintain in PCS the assessed and collected penalty amounts and the date of penalty collection, and to enter and maintain in PCS all inspections and enforcement actions (formal and informal).<sup>3</sup> KYDEP has not

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<sup>3</sup> The Kentucky FY 2005 CWA §106 workplan specifies for storm water general permit information, KYDEP can submit quarterly reports indicating the number of facilities inspected, the number and type of formal and informal enforcement actions taken, and the number of facilities covered by each storm water general permit, if storm water general permit information is not currently entered/maintained in PCS.

consistently entered penalty collected data and enforcement actions into PCS. The Field Operations Branch has not been entering enforcement actions into PCS stating limited resources available for data entry.

*Citation of Information Reviewed for this Criterion:*

- EPA/KY CWA §106 Program Workplan
- Pacesetter information
- Comments provided by KYDEP
- PCS data pull for FY2005

**Recommendations:** KYDEP should comply with negotiated grant workplan commitments. Anticipated concerns that may impact meeting workplan commitments (i.e. limited resources) should be discussed during the workplan development phase. EPA should be notified as soon as the state is made aware, of any unanticipated concerns or the inability to meet established workplan commitments in order to discuss options and expectations.

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

**Findings:** The KYDEP timely enters the most minimum data requirements (i.e. effluent limits and monitoring requirements for all major facilities, DMR data entry, enforcement actions, compliance schedules, etc. ) into PCS as specified in the Kentucky CWA §106 workplan (see Element 9). DOW has a dedicated PCS coordinator responsible for entering all required data into PCS. Major facilities' effluent data entry into PCS is excellent. Kentucky has converted to a multimedia State system, TEMPO, and is currently entering most data directly into both PCS and TEMPO systems. Kentucky started implementation of TEMPO for KPDES in March 2003. TEMPO addresses all aspects of KPDES, from facility site information to enforcement information.

The KYDEP is required to maintain a DMR and parameter data entry rate for majors at or above 95% per the PCS policy statement and the annual CWA § 106 workplan commitment. For the FY2005, the KYDEP data entry rate was an impressive 100%; this exceeded the national average of 95.5%. 100% data entry helps ensure accurate SNC identification and accurate ECHO reports. SRF metrics data reports that Kentucky's DMR entry for non - majors is 87.4%. DOW is one of the few state agencies that actively electronically tracks NPDES permit limits and conditions contained in minor NPDES permits, similar to what it does for major NPDES permits. This information is made available in PCS. Since this information is not currently required, the state significantly exceeds existing expectations.

Additional minimum data requiring PCS data entry per the CWA §106 workplan include all formal and informal enforcement actions, assessed and collected penalty amount, compliance schedules, and inspections. The file review discovered that penalty information, informal enforcement actions and inspection documentation were found to be in the facility file but not entered into PCS consistently. The DENF

SOP has a penalty tracking process developed which requires penalty and/or cost recovery information to be entered only into TEMPO within a certain defined time frame.

DMRE utilizes their own separate and distinct database, Surface Mining Information System (SMIS)-Doctree, which contains information such as permits, enforcement, complaints, etc. DOW does not perform oversight or verification to ensure timely and accurate PCS data entry regarding inspections, enforcement actions, and DMR results for the DMRE inspected facilities. DMRE management explained that DMRs received are reviewed by DMRE staff. If DMR limits are exceeded, a copy of the DMR is sent to DENF for appropriate enforcement response. The DMRE “complete inspection” includes review of the facility’s KPDES requirement. If noncompliance is determined as a result of an inspection, DMRE is responsible for the enforcement response. The frequency of a “complete inspection” performed by DMRE is once per quarter per facility. Four inspections a year for each permitted facility should be documented in PCS, which is not the case.

*Citation of Information Reviewed for this Criterion:*

- On-site file review
- EPA/KY CWA §106 Program Workplan
- CWA State Review Framework Metrics Data
- DENF SOP
- PCS data pull for FY2005 and IY2005

**Recommendations:** Kentucky should enter all required minimum data into PCS in a timely manner for inspections, enforcement actions, permit limits, penalty information and/or DMR data (see Element 9). The DENF SOP penalty tracking process should be revised to include penalty and/or cost recovery information to be entered into PCS, in addition to TEMPO, within a certain defined time frame consistent with the CWA §106 workplan.

Kentucky should quarterly pull PCS and TEMPO data reports to compare results and reconcile any noted differences immediately to ensure that PCS is reflecting up to date information.

KYDEP should also perform periodic QA/QC checks to ensure that DMRE data is both timely and accurately inputted into PCS. The revised MOU should clearly define each agency’s role to ensure that the data in PCS is complete and entered in a timely manner.

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

**Findings:** The SRF data metrics noted major facilities having correctly coded limits (current) for Kentucky is below the national goal of at or above 95%, but close to the national average of 88.8%, reported at 87.1%. However, findings from the on-site file review did not support this metric finding. DMRs were spot checked during the

on-site file review activity and were compared to the values reported into PCS, as well as to the facility permit. Effluent limits entered in PCS matched with the limits noted in the permits; and parameter measurements reported on the DMRs reviewed matched with the measurements entered and recorded in PCS.

Of the 37 facility files reviewed, one inspection date, five inspection types, one ACO date, and one penalty amount were found to be incorrectly entered into PCS. One Agreed Order was also found to incorrectly reference an inactive permit number for the same facility. Revision of the electronic database and quarterly reviews has minimized errors in regard to inspections. This was initiated in February 2006.

*Citation of Information Reviewed for this Criterion:*

- On-site file review
- CWA State Review Framework Metrics Data
- EPA/KY CWA §106 Program Workplan
- PCS Data Pull for IY2005 and FY2005

**Recommendations:** Data quality with respect to DMR and parameter measurement coding into PCS should be 95%, at a minimum. Kentucky should re-evaluate and revise, as necessary, current protocols to ensure limits are coded correctly.

The usefulness of PCS is only as good as the data that supports the database. Data must be entered timely and accurately to ensure current information is available and reliable to determine compliance status. Data entry procedures should be developed that account for regular QA/QC of data entered 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:** During the file review, six inspections and 21 NOVs were documented in the file but not entered into PCS.

Although KYDEP was able to maintain a DMR and parameter entry rate for majors at an impressive 100%, data completeness is a concern. For FY2005, PCS reports 217 NOVs were issued compared to 827 NOVs listed in a TEMPO pull provided by DENF management for the same reporting period. The number of formal actions reported in PCS was 32, while DENF provided TEMPO reports provided at the time of the on site file review displayed 51 (agreed order and demand letters). Total assessed penalties reported in PCS is \$234,300 compared to DENF provided information of penalties collected of \$298,535. The number of credited inspections conducted for the CWA §106 workplan reported in PCS is 2,178 versus 2,610 reported by Kentucky (includes all on site compliance monitoring). These discrepancies in data indicate that not all required data is being reported and/or accurately reported into PCS.

*Citation of information reviewed for this criterion:*

- On-site file review
- CWA State Review Framework Metrics Data
- EPA/KY CWA §106 Program Workplan
- PCS Data Pull for IY2005 and FY2005
- DENF provided TEMPO Data Reports and information

**Recommendation(s):** Since the on site file review, DENF has been working to correct problems with TEMPO that inhibit an accurate count of Agreed Orders and other milestones in the formal enforcement process. DENF has provided supplemental information that now displays 39 formal actions (after taking into consideration multiple TEMPO entries for the same enforcement action). KYDEP should institute procedures that assure that all information that should be entered into PCS is routed to data entry staff. Periodic TEMPO and PCS data pulls should be performed for all minimum data sets required to reconcile any differences found. Kentucky should comply with the minimum data requirements per the EMS, CWA §106 workplan and MOU.

**Program: RCRA Hazardous Waste Enforcement Program** (RCRA compliance and enforcement activities are shared between the Division of Waste Management and the Division of Enforcement)

**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 operating TSD be inspected once every two years. The State Review Framework Metrics indicate that KYDEP inspected 94% of the operating TSDs in their state in the two-year time period of FY2004 to FY2005, which is below the statutory requirement of 100% inspection coverage. The data metrics indicate that one facility was listed as an operating TSD in RCRAInfo but did not receive a compliance inspection during the two-year period. According to KYDEP, this facility did receive a permit for storage and treatment of hazardous waste, but never actually operated as a TSD. If this facility was omitted, the data metrics would show 100% inspection coverage for operating TSDs. It has been recommended that KYDEP update the facility status in RCRAInfo so that the facility would no longer appear in the operating TSD universe.

**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 three federally-owned TSDs located in Kentucky, and in FY2005 all three facilities received a compliance inspection as required by federal statute.

**Inspections at State & Local TSDs:** The Solid Waste Disposal Act §3007(d) requires that every operating 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 two state-owned operating TSDs in Kentucky, and both state facilities received a compliance inspection in FY2005. However, one is not listed as an operating TSD in RCRAInfo. It was recommended that KYDEP update the status in RCRAInfo so that the facility is correctly listed as an operating TSD.

**Inspections at Land Disposal Facilities:** The OECA FY2005-FY2007 Memorandum of Agreement (MOA) Guidance specifies that every Land Disposal Facility (LDF) should receive an inspection of their groundwater monitoring system once every three years. This could be a Comprehensive Groundwater Monitoring Evaluation (CME) for new or newly regulated LDFs, or an Operation & Maintenance (OAM) inspection at LDFs where the groundwater monitoring system has been adequately designed and installed (as determined by EPA and/or the state). More frequent CMEs should be conducted in situations involving complex compliance or

corrective action requirements; inadequate ground water monitoring systems, significant changes to ground water monitoring systems, and actual or suspected changes in local ground water regimes. When hazardous waste is no longer being received, and the regulated unit has a ground water monitoring program in place, physical inspections can be replaced by record reviews of the sampling/analysis data and the quarterly/annual ground water monitoring reports generated from the detection monitoring activities.

In RCRAInfo, there are 27 land disposal facilities in Kentucky subject to the RCRA Subpart F groundwater monitoring requirements (as determined by the post-closure universe). In FY2005, nine facilities, or 33% of the universe, received a CME (now termed GME in RCRAInfo) and/or an OAM evaluation. However, only 63% of the land disposal facilities received a GME and/or OAM between FY2003 and FY2005. This does not meet the inspection coverage requirements that are outlined in the OECA FY2005-FY2007 MOA Guidance.

**Inspections at LQGs:** The OECA FY2005-FY2007 MOA Guidance specifies that 20% of the LQG universe should be inspected every year, with a goal of achieving 100% inspection coverage every five years. The data metrics show that in FY2005 KYDEP inspected 78.6% of the LQG universe, and 86% of the LQG universe from FY2001-FY2005. EPA Region 4 has allowed Kentucky to substitute some SQG inspections for LQG inspections (at a 2:1 ratio) over the past two years, but the exact number of inspections is not known. It was not formalized in the KYDEP grant workplan.

**Other Inspections:** Although the FY2005-FY2007 OECA MOA Guidance does not specify further inspection coverage requirements, it does recommend that the regions and states determine appropriate levels of inspection coverage for Small Quantity Generators (SQGs). Currently, Kentucky has more than 400 SQGs, and according to the State Framework Metrics, KYDEP inspected an average of 72 % of all SQGs over a five-year period (FY2001-FY2005).

*Citation of information reviewed for this criterion:*

- The Solid Waste Disposal Act
- OECA FY2005-FY2007 MOA Guidance
- OECA RCRA State Review Framework Metrics
- RCRAInfo data

**Recommendation(s):** Kentucky did not meet two of the statutory and/or OECA FY2005-2007 MOA Guidance requirements for RCRA inspections, including the following:

- Only eighty-six percent of the LQGs that were inspected over the five-year period from FY2001-FY2005. OECA NPM guidance requires 100% LQG inspection coverage every five years.
- Thirty-seven percent of the land disposal facilities did not receive the required

GME and/or OAM during the three-year period from FY2003-FY2005.

Kentucky did inspect 100% of the operating TSDs from FY2004-2005 and 100% of the State & Local TSDs for FY2005, which meets the statutory inspection requirements. At the time of the SRF Review, this information was not reflected in RCRAInfo because two facilities had incorrect operating status codes. It has been recommended that KYDEP update the operating status of two facilities in RCRAInfo.

For the two missed OECA requirements, there are possible explanations for these events. The Kentucky LQG universe may have inactive facilities that are still coded in RCRAInfo as active LQGs. This could result in an erroneous calculation for LQG inspection coverage if the universe number is reported much larger in RCRAInfo than in actuality. It is recommended that the facility status codes in RCRAInfo be reviewed for accuracy. In addition, both of the LQG and LDF requirements in the OECA guidance are multi-year standards (five-years for LQGs and three-years for LDFs). It is possible that the grant workplans, which are submitted annually, do not take into account the multi-year tracking of these OECA requirements. The workplan may only target 20% of LQGs and 33% of LDFs for that fiscal year, and the multi-year responsibilities for inspection coverage may not be tracked. Inspections at SQGs that are substituted for LQG inspections should also be tracked in the grant workplan. For all recommendations, KYDEP should continue to work with EPA Region 4 during the development of the fiscal year grant workplan to ensure the statutory inspections and OECA guidance requirements are included in the grant commitments, and fulfilled in agreed upon timeframes.

**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, KYDEP conducted inspections at 696 facilities and issued eleven formal enforcement actions in FY2005. In the protocol, this translated to 20 to 40 files that should be reviewed where 50% were enforcement files and 50% were inspection files. Since there were only 11 facilities that were newly identified SNCs and/or in enforcement proceedings from the previous fiscal year, EPA selected a total of eleven enforcement files and 22 inspection files, for a total of 30 files reviewed. All files were reviewed at KYDEP's offices in Frankfort, Kentucky

Inspections are documented through a combination of inspection checklist, brief narratives, and/or documentation (photographs, copies of manifests, etc). The majority of the inspection reports included adequate information to document



violations. However, approximately a third of the reports had a very limited or missing description of the hazardous waste management activities, including the description of facility processes. Understanding the facility processes is a vital component in determining the applicability of RCRA hazardous waste management standards. EPA Region 4 is particularly concerned with the limited information in the TSD and LQG inspections reports reviewed. For example, there was no facility description or narrative of the hazardous waste activities in any of the reports reviewed for an hazardous waste incinerator that closed in September 2004.

*Citation of information reviewed for this criterion:*

- KYDEP files.

**Recommendation(s):** Approximately one third of the inspection reports reviewed at part of the SRF did not contain sufficient documentation of inspection findings and/or descriptions of facility operations. KYDEP should outline steps to ensure that (a) RCRA inspectors are trained in conducting and documenting RCRA inspections, including process descriptions and hazardous waste management activities; and (b) future inspection reports include sufficient documentation, including that for process descriptions and hazardous waste management activities. A timeline for implementation of this training should also be developed.

EPA recently provided Basic Inspector Training (April 2006) and Hazardous Waste Site Sampling (April 2007) to KYDEP staff, and RCRA Enforcement Response Policy training is scheduled for the fall of 2007. Additional resources for training include EPA's National Enforcement Training Institute, which includes several computer-based training courses at no cost (including RCRA Basic Inspector Training). The Region will work with KYDEP to secure other training requests, as available.

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

**Findings:** KYDEP issues very timely RCRA inspection reports. Of the KYDEP inspection files reviewed, 84% of RCRA the inspection reports were completed within 14 days from the date of the inspection. If additional information or sampling is required, the report may exceed this time frame. There is no timeframe for the completion of RCRA inspection reports in the current MOA between the Commonwealth of Kentucky and EPA Region 4, signed December 15, 1999.

*Citation of information reviewed for this criterion:*

- KYDEP RCRA Inspection files.

**Recommendation(s):** None

**4. Degree to which significant violations and supporting information are accurately identified and reported to EPA national databases in a timely manner.**

**Findings:** The OECA data metrics evaluates the Kentucky SNC identification rate compared to the national average. In FY2005, KYDEP RCRA SNC rate was 1.0%, which is less than one - third of the national average of 3.3%. File reviews were conducted to see if an underlying cause of the low SNC rate could be identified. Where violations were identified, the inspection reports did contain supporting documentation. However, approximately one third of the inspection reports reviewed at part of the SRF did not contain sufficient documentation of inspection findings and/or descriptions of facility operations. From the file review, it is not apparent that in-depth compliance inspections were actually being conducted.

In addition, RCRAInfo data pulls were compared with information in the file to determine if the violation data was reported timely and accurately. When SNCs were identified, the SNY evaluation was found to be reported into RCRAInfo (RCRAInfo V3 does not currently have the capability to determine timely SNC entry into the database). At KYDEP, inspectors and enforcement staff fill out Compliance Monitoring & Enforcement Logs (CMELs) to have data entered into RCRAInfo by a dedicated RCRAInfo staff person. Not all of the files reviewed contained CMELs for data entry. However, in four KYDEP files, the date stamp on the RCRAInfo logs indicated that the SNY was entered between four to eight months after day one (first date of inspection), with an average greater than 180 days. This exceeds the 150 day timeframe for timely determination and entry of SNC data into RCRAInfo.

*Citation of information reviewed for this criterion:*

- KYDEP inspection files
- OECA RCRA State Review Framework Metrics
- Hazardous Waste Civil Enforcement Response Policy (December 2003)
- Memorandum of Agreement (MOA) between KYDEP and EPA (dated September 16, 1999)
- RCRAInfo data.

**Recommendation(s):** KYDEP's low RCRA SNC rate may be attributed to inadequate training in conducting RCRA inspections. As mentioned above, it is recommended that the state take steps to ensure that RCRA inspectors are trained in conducting process-based inspections, and that process descriptions, including the current hazardous waste management activities, are documented in compliance inspection reports. Second, it is recommended that KYDEP review their procedures for RCRAInfo V3 data entry. The late entry of data into RCRAInfo was not limited to enforcement data, but covered compliance information as well. Lastly, in accordance with the signed Memorandum of Agreement (MOA) with EPA (dated September 16, 1999), Kentucky should "provide to EPA by the 20<sup>th</sup> of every month RCRIS (*now RCRAInfo*) data representing the previous month's activities." This would include all SNC and Secondary Violator (SV) information from RCRAInfo.

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

**Findings:** EPA reviewed eleven enforcement files as part of the Kentucky RCRA SRF. Nine of the cases reviewed included required actions for the facility to return to compliance. Two cases were either referred to Superfund or went into bankruptcy. In RCRAInfo, a SNC facility's return to compliance is not linked to the formal enforcement action taken for the SNC violations. This includes the compliance schedule evaluations (CSE), record reviews, and SNN determinations. Documentation in the files indicates that the SNC facilities returned to compliance through formal enforcement (other than Superfund/bankruptcy cases). However, without physically reviewing the enforcement files, it is not possible to determine how and when the SNC facility fully complied with the enforcement action.

*Citation of information reviewed for this criterion:*

- KYDEP enforcement files
- RCRAInfo.

**Recommendation(s):** KYDEP enforcement actions do require complying actions that will return facilities to compliance in a specific timeframe. However, this information is not reflected in RCRAInfo. The enforcement actions are not being "linked" in RCRAInfo to a return to compliance that has been documented by a compliance inspection, facility submittal, etc. It is recommended that KYDEP staff receive training on RCRAInfo V3 compliance and enforcement module. EPA Region 4 will work with Kentucky to secure this training.

**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 Enforcement Response Policy (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 after the first day of inspection, the state should issue its unilateral or initial order, if appropriate;
- Day 360 - by this number of days after the first day of inspection, 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 Kentucky, enforcement is initiated when the Regional Office (RO) refers a case to

the Enforcement Division. An Enforcement Specialist drafts a Case Resolution (CR), outlining the case based on the RO's inspection report and NOV. The CR includes remedial measures, dates for violations to return to compliance, and a draft civil penalty. The civil penalty is determined case by case based on the types of violations and consistency with similar historical enforcement (KYDEP does not use EPA's RCRA Civil Penalty Policy). The civil penalty is reviewed and approved by the Enforcement Division Director. A Conference Letter (CL) is issued to Respondent requesting a meeting to discuss alleged violations and resolution of outstanding issues. A conference is scheduled organizing all necessary KYDEP staff and Respondent representatives. The parties meet during the conference in order to reach an agreement in principal. If an agreement is mutually reached, an Agreed Order is drafted and issued to Respondent for review and comment. In general, discussion on the Order's language is negotiated until both parties agree. KYDEP does not assign an attorney to an enforcement case unless the Respondent retains counsel for the conference or Respondent fails to respond to the CL or when KYDEP cannot resolve the case by reaching an agreement in principal. If KYDEP cannot reach an agreement in principal with Respondent, the case is referred to the Office of Legal Services (OLS) and an attorney is assigned.

Eleven enforcement files were reviewed as part of the KY State Review Framework. Each of the facilities reviewed received a formal enforcement action in FY2005. Excluding two cases (18%) where the facilities went into bankruptcy or were referred to Superfund, the average time to reach a final RCRA enforcement order action was greater than 700 days. Only one of the eleven cases (9%) met the ERP criteria for timely enforcement response. The reorganization of the enforcement programs into the Division of Enforcement in FY2004 may have resulted in KYDEP not meeting the ERP 360 day timeline for formal enforcement cases since new processes and procedural changes to be implemented within the new Division. According to RCRAInfo, the ERP timelines for recent enforcement cases have improved since FY2005.

*Citation of information reviewed for this criterion:*

- Hazardous Waste Civil Enforcement Response Policy (December 2003)
- KYDEP facility files
- RCRAInfo data
- KYDEP FY2005 Annual Performance Review

**Recommendation(s):** The review of the FY2005 KYDEP files disclosed a prolonged enforcement response time to SNC violators. KYDEP should continue to make resolution of SNCs a high priority and reexamine ways this could be improved so the goal of all SNCs being resolved in 360 days is met. Specifically, it is recommended that KYDEP analyze their SNY resolution rate and submit a findings report, including recommendations, to EPA. This can be fulfilled as part of the established bi-monthly conference calls between KYDEP and the EPA Region 4 RCRA & OPA Compliance and Enforcement Branch.

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

**Findings:** KYDEP does not utilize the RCRA Civil Penalty Policy because of a statutory prohibition against the use of guidance or policies in setting penalties. KYDEP does have factors they consider when determining a penalty amount. KYDEP uses a guide for the maximum daily penalty amounts shown in the Kentucky Revised Statutes (\$25,000 per day per violation). They are found in a March 29, 1994, Commonwealth of Kentucky Hearing Officer's Report and Recommendation. These factors do contain a gravity component (designed to reflect the seriousness of the violation) and economic benefit component (designed to calculate the economic advantage of noncompliance). The KYDEP documents these factors in its Case resolution proposals. KYDEP considers the factors of gravity and economic benefit, among other factors, in determining the penalties in the enforcement cases. However, no penalty documentation of these considerations or penalty calculations is permanently maintained in the files after the cases are fully resolved.

*Citation of information reviewed for this criterion:*

- KYDEP RCRA files
- March 29, 1994, Commonwealth of Kentucky Hearing Officer's Report and Recommendation

**Recommendation(s):** In order to maintain consistency in enforcement proceedings and penalty calculations, KYDEP should consider options to permanently document the penalty calculations in the enforcement files. The state will consult with EPA in selection and implementation of the option to ensure that it appropriately addresses the aforementioned concerns.

**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:** It is KYDEP's policy not to include penalty calculations in the enforcement files. The final penalties were reflected in RCRAInfo, but the penalty calculations were not formally documented in the files. KYDEP does a narrative documentation of their penalty calculation in an internal document they call a "case resolution proposal. This is a confidential document that is usually destroyed after the case is completely resolved and closed. KYDEP keeps all of the documentation that the penalty was paid and the resolution document, which is usually an agreed order, that sets forth the agreement including the penalty amount and the violations cited. The case resolution proposal includes confidential information that the case specialist believes the Director may want to consider in deciding on the penalty. One of the reasons the contents of a case resolution proposal are so important and useful is that staff, knowing the contents will not be released to anyone are comfortable writing whatever is relevant to the case.

*Citation of information reviewed for this criterion:*

- KYDEP RCRA files
- RCRAInfo data.

**Recommendation(s):** In order to maintain consistency in enforcement proceedings and penalty calculations, KYDEP should consider options to maintain both initial and final penalty documentation, including economic benefit and gravity - based calculations. The state will consult with EPA in selection and implementation of the option to ensure that it appropriately addresses the aforementioned concerns.

**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:** In April 2006, EPA Region 4 conducted a review of the KYDEP RCRA program, as required by 40 CFR §35.115, to assess progress toward meeting the FY2005 Grant Workplan commitments and discuss any potential obstacles to meeting FY2006 commitments. This review is conducted by the EPA Region 4 RCRA Division, and covers all aspects of the RCRA program (permitting, compliance and enforcement, data management, etc.). Following the review, a report to document the findings was developed. In the final RCRA FY2005 Annual Performance Review Report (dated August 4, 2006), it was found that KYDEP met the majority of the compliance related grant commitments, but missed several enforcement grant workplan commitments for FY2005. In the chart below, the grant commitments that are required by RCRA statute and/or applicable OECA National Program Manager's Guidance have been marked with asterisks (\*\*).

**KYDEP RCRA FY2005 Grant Commitments**

Activity	FY2005 Grant Commitment	FY2005 Accomplishments
<b>Land Disposal Facilities Subject to Subpart F</b>		
**CMEs at other facilities	3	3
**O&Ms at Federal Facilities	1	1
**O&Ms at other facilities	5	5
<b>Compliance Evaluation Inspections (CEIs)</b>		
**LDF Federal Facilities	1	2
**LDF State and Local	0	0
**All non - Government LDFs	10	19
**Combustion facilities	4	169 (165 @ LWD)

**TSDs Federal Govt.	2	2
**TSDs State and Local	2	2 (one TSD not identified in RCRAInfo)
**All other TSDs	11	16 (12 @ Safety Kleen)
CERCLA TSDs	4	19 (19 @ Safety Kleen)
<b>Other Handler Inspections</b>		
**CEIs at LQGs	118	146
CEIs at SQGs (10% of universe)	128	117
CEIs at CEGs		157
<b>Enforcement Activities</b>		
SNCs Identified by KYDEP	12	5
SNCs Not Credited In '04/Credited In '05 By KYDEP		0
Formal Administrative Actions Issued for SNCs	10	8
Total Formal Initial Enforcement Actions	Combined Below	
Total Formal Final Administrative Enforcement Actions	10	9
Civil/Criminal Cases Filed	2	1
Civil/Judicial Orders	3	1
Civil/Judicial Orders Appealed	0	0
Referrals to State DOL		
NOVs Issued	120	99
Corrective Action Orders	2	0
Number of Compliance/Administrative Orders Appealed	1	0
Show Cause Meetings	30	35
Criminal Investigations Supported	2	1
<b>Record Reviews</b>		
Full Financial Record Reviews	70	83
Manifest Exception Reports	8	18
Annual Reports	375	564
Delisting Petitions Reviewed	0	0

\*\*Required by RCRA statute and/or applicable OECA National Program Manager's Guidance

While KYDEP did not meet several of the enforcement related grant commitments, the state did meet the grant compliance monitoring commitments. Regional EPA/state grants often include activities beyond the statutory and national guidance requirements in order to give a better representation of the state's workload in implementing the RCRA enforcement and compliance program. Many enforcement grant commitments could be viewed as "work projections" rather than actual commitments required by statute/guidance. In many areas, especially enforcement, it is difficult to project exactly how many enforcement cases will develop during any fiscal year.

*Citation of Information Reviewed for this Criterion:*

- KYDEP RCRA FY2005 Annual Review Report (dated August 4, 2006)

**Recommendation(s):** It is recommended that grant workplan be updated annually to reflect any changes in guidance/policy for that fiscal year and any changes to the RCRA regulated universe. Any changes to the regulated universe should also be reflected in RCRAInfo. All grant workplan commitments and projections should be negotiated and agreed upon by both KYDEP and EPA Region 4.

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

**Findings:** The RCRA Enforcement Response Policy states that SNC 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 provision is included so that no SNC entry is withheld until enforcement is completed, and therefore not tracked for timely enforcement response.

The OECA data metrics indicate that 100% of the SNCs identified in FY2005 were entered into RCRAInfo greater than 60 days after the date of SNC determination. Similarly, the file review of four FY2005 concluded enforcement cases indicated that the SNY designation were entered into RCRAInfo greater than 180 days (on average) after first date of inspection.

*Citation of Information Reviewed for this Criterion:*

- KYDEP File Review
- RCRAInfo data.

**Recommendations:** The RCRA SRF data metrics and file review both point to a timeliness concern for the entry of SNCs into RCRAInfo. As mentioned in Element 4, it is recommended that Kentucky review their procedures for data entry into RCRAInfo V3, as well as the guidelines established in the RCRA Enforcement Response Policy for timely and accurate data entry. It would also benefit KYDEP staff to receive training on both the RCRA Enforcement Response Policy as well and RCRAInfo v3.



**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 metric indicates that during FY2005, there were no KYDEP RCRA SNC determinations made on the same day as formal enforcement actions.

Metric 11(a)(2) - This metric also measures the “closeness” between SNC determination and formal enforcement actions. The metric indicates that during FY2005, there were no KYDEP RCRA SNC determinations made within one week of formal enforcement actions.

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 Kentucky there were nine facilities that were in violation for greater than three years.

*Citation of Information Reviewed for this Criterion:*

- RCRA State Review Framework Metrics.

**Recommendations:** In conjunction with previous recommendations, EPA proposes that KYDEP closely review the enforcement response procedures between the KYDEP field offices, the Division of Waste Management, and the Division of Enforcement to determine potential delay times. Secondary Violators (SVs) that have not returned to compliance within 240 days should be redesignated as SNC facilities, and undergo formal enforcement actions. KYDEP should evaluate the compliance status of the nine SV facilities that are included in the data metrics and provide an update on the next bi-monthly conference call with the EPA Region 4 RCRA & OPA Enforcement and Compliance Branch.

**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 State Review Framework Metrics were provided to KYDEP. While there has no formal disagreement from the state with the data provided in the report under Metric 12, data discrepancies have come to light in the other SRF element findings. There are two TSDFs in Kentucky with incorrect operating status. Potentially, there may be other discrepancies in the LQG universe.

*Citation of information reviewed for this criterion:*

- RCRA State Review Framework Metrics

**Recommendations:** As mentioned in previous SRF elements, it is recommended that KYDEP review that accuracy of the regulated universes in RCRAInfo. A beneficial time to review the universe accuracy would be during the development of the annual fiscal year grant workplans.

## **Element 13 – KYDEP Compliance Assistance and Innovative Projects**

### **KY EXCEL (Excellence in Environmental Leadership)**

The Compliance Assistance Program was established in 2005. This program provides free technical and regulatory assistance to any entity regulated by the Department for Environmental Protection. Since the program's inception two years ago, the program has assisted more than a 1,000 entities with a large variety of concerns. Demand for this assistance increased 125% in 2006 compared to 2005. The division tracks all requests, the nature of the request, the type of entity seeking assistance, and the time it takes to provide the needed assistance. This data is maintained in a local database and pertinent information is shared with other Department staff within the Department's enterprise database, TEMPO. The Compliance Assistance Program has proven to be one of the fastest growing programs established by the Department for Environmental Protection in many years. Because of its success, the department will be expanding this program to include proactive assistance as well as maintain its existing reactive services.

KY EXCEL was launched on January 17, 2006. This environmental leadership program was developed with the financial and technical support of U.S. EPA's National Environmental Performance Track Program. The program is open to any corporate or private citizen that wishes to voluntarily engage in projects that improve Kentucky's environment. The program has four tiered levels that can accommodate membership for entities with diverse backgrounds and capabilities. The Division provides an incentive package to KY EXCEL members to encourage participation and improved environmental performance. In just one year, KY EXCEL has accepted approximately 65 members that have committed to performing roughly 175 voluntary environmental projects. The program tracks a variety of demographic information about its members, tracks and evaluates the administrative process related to application review, and most importantly, tracks quantitatively the voluntary projects conducted by each of the KY EXCEL members. Measures vary based on the projects being conducted but include both output and outcome measures such as: individuals trained, acres protected, pounds of pollutants reduced, facilities mentored, environmental management systems developed, etc. Membership information, workflow, and project commitments are documented in the Department's database, TEMPO. In addition, program outcomes will be published annually in a publicly available report.

### **Auto Repair and Maintenance Wastes**

The Kentucky Division of Waste Management has made RCRA Compliance Evaluation Inspections of auto repair and maintenance facilities a local priority over the last three years. We have targeted these facilities because they are numerous and are generally small operators whose wastes have the potential to do serious damage to the environment. While conducting these inspections our staff provides advice on recycling and waste minimization. We also provide a booklet that can be used as a quick reference for waste management of eighteen common auto repair shop wastes. Forty-four CEIs were conducted at these facilities during Fiscal Year 2005, forty-three during FY 2006 and thirty-one during the first half of

FY 2007. This represents about 5% of Kentucky's total inspections.

### **Household Mercury Collections**

Since 2000 Kentucky has had 112 incidents involving mercury that required state or federal emergency response. Forty-one involved schools. In Fiscal Year 2006 the Kentucky Department of Waste Management took the initiative to remove mercury from the environment by conducting household mercury collection events around the state. At seven events over the past eighteen months the Division has collected over 1750 pounds of elemental mercury and mercury containing devices. Four additional events are scheduled over the next 5 months which will bring the total mercury and mercury containing devices collected to over one ton.

The Division has partnered in these efforts with other state and local agencies as well as the private sector.

### **“Black Water” Initiative**

In 2004 and 2005, the Kentucky Department for Environmental Protection, the Kentucky Department of Natural Resources, and other agencies began the “Black Water Initiative” to address pollution from coal mining operations. This initiative included quick response to “black water” releases to the environment, and creation of a “Black Water Workgroup” to develop recommendations for preventing “black water” releases.

The initiative has resulted in a measurable decrease in the incidence of “black water” releases. The KYDEP responded to 106 “black water” releases in 2004, 88 releases in 2005, and 62 in 2006.

“Black water” contains significant concentrations of silt, coal dust, and fines. Typical sources include: runoff from coal processes such as coal tipples, coal piles, “gob” piles (refuse and shale piles); discharges from silt ponds or pipeline breaks; dam leaks or breaches from slurry ponds or impoundments; deliberate pumping; washouts of pond or impoundments; poor settling due to insufficient retention or interference from mechanical or chemical processes; and careless dipping (removal of settled solids). “Black water” releases can also involve slurry. Slurry has a high solids content and consists mostly of clay particles and coal fines. Slurry is created by coal washing processes.

“Black water” releases can be very damaging to the environment and environmental systems. They can result in fish kills and restrains, and can be very damaging to drinking water intakes and drinking water systems.

Kentucky has had several major “black water” releases in the past. In February 1991, the Great Western Coal release plugged a drinking water filtration system, which required several days of mitigation before potable water could be restored safely to the affected community. In October 2000, the Martin County Coal Slurry Spill degraded waterways to the extent that dead fish were hard to find because they were “buried” in the contamination

plume. Propellers on the Department of Fish and Wildlife boats used to investigate the fish kill had to be replaced within a couple of days of working on this plume due to accelerated wear.

### **Straight Pipe Initiative**

The KYDEP administered the Straight Pipe Initiative (SPI) program from August 1, 2001 through FY 2004-2005. The SPI was initiated by Secretary James Bickford of the Kentucky Natural Resources and Environmental Protection Cabinet, U.S. Representative Hal Rogers, and U.S. Representative Ernie Fletcher. The purpose of the program was to address the discharge of raw sewage (straight pipes) into Kentucky's waterways in a 39 county area of southeastern Kentucky. The program consisted of several efforts: grant administration, compliance inspections, promotion of beneficial wastewater projects, and public education.

Kentucky PRIDE (Personal Responsibility In a Desirable Environment) provided grants for the installation of onsite wastewater treatment systems and the expansion of existing sewer systems into new areas. Funding for the grants was provided by the National Oceanic and Atmospheric Administration, the U.S. Environmental Protection Agency, and the U.S. Army Corps of Engineers.

The KYDEP's Division of Water (DOW) performed compliance inspections to identify straight pipe discharges in support of the SPI. Between August 17, 2001, and May 30, 2003, DOW committed over 6,000 hours of staff time. DOW conducted 921 inspections in 2001-2002, 499 inspections in 2003, 313 inspections in 2004, and 14 inspections in 2005. When straight pipe discharges were discovered, the DOW issued Notices of Violations requiring homeowners to contact their local health department to obtain a permit to install an onsite wastewater treatment system and, in the case of low income homeowners, to contact PRIDE for grant money.

The DOW's Facilities Construction Branch worked to promote the expansion of wastewater collection and treatment systems into areas which previously lacked those services.

### **Open Burning Initiative**

In the spring of 2006, the Division for Air Quality began an intensive open burning media campaign to try to reduce illegal open burning activities throughout the state and reduce associated pollution. To date the Division has spent \$156,000 on the following media categories: radio ads, newspaper and TV ads; audio new releases and letters-to-the-editors. The Division has developed a *Learn Before You Burn* brochure in both English and Spanish. Approximately 21,000 of these brochures have been printed with 10,000 + distributed in the state. The Division also partnered with the University of Kentucky's Environmental and Natural Resources Issues Task Force to: (1) create additional publications that detail the health effects of open burning with a similar one developed for the low literacy population; (2) design two posters focusing on health impacts related to open burning. The publication and posters are being distributed by the Division for Air Quality and the University of Kentucky Extension Service.

The Division for Air Quality also implemented a toll-free 24-hour open burning hotline which is printed on all media and print materials and on its website. Since the Spring of 2006, the Division for Air Quality has documented approximately 500 calls.

The Division for Air Quality has also developed a detailed power point presentation that explains KY's open burning regulation and the legal and illegal aspects of open burning. Numerous Division for Air Quality staff have presented this PowerPoint to large audiences across the state. Primary audiences include: local firefighters, EMS staff, Solid Waste Coordinators, Division of Forestry staff, and local officials. The PowerPoint presentation has been placed on the Division's website and at least one state has requested permission to use it as their model presentation.

An educational presentation for 3<sup>rd</sup> through 5th graders has been presented to over 500 students.

### **Self-Audit Program**

Kentucky operates a self-audit program under Chapter 224.01-040 of the *Kentucky Revised Statutes*. This statute is intended to encourage regulated entities to perform voluntary environmental audits, to voluntarily disclose violations, and to work to correct these violations. In exchange, the statute creates an environmental audit privilege that prohibits the findings and disclosures from the audit from being used as evidence in a civil or administrative proceeding. The statute specifies specific criteria that must be met during the audit and the disclosures for an entity to be covered under the environmental audit privilege. The statute also prohibits the Environmental and Public Protection Cabinet from seeking civil penalties for violations discovered through an environmental audit, provided specific criteria are met.

The voluntary disclosures are reviewed by the Field Operations Branches of the Division for Air Quality, the Division of Waste Management, and the Division of Water. This review consists of a determination as to whether or not an entity has met the criteria to be granted the environmental audit privilege, a determination as to whether appropriate corrective actions have been taken, and whether the discovered violations are part of a larger pattern of violations.

The statute allows for the environmental audit privilege to be denied. In those instances the Kentucky Department for Environmental Protection will review the facts and determine whether or not to pursue a formal enforcement action and the assessment of civil penalties.

### **Discharge Monitoring Report Review Program**

The KYDEP's Division of Enforcement (DENF) administers a Discharge Monitoring Report (DMR) review program that is above and beyond the inspection commitments and reporting requirements specified in the CWA 106 Work Plan. This program allows the KYDEP to be more proactive in its enforcement of KPDES permit requirements.

DENF reviews the DMRs for all major KPDES facilities on a quarterly basis to determine compliance with each facility's KPDES permit limits. When violations are discovered, DENF issues Notices of Violation (NOVs). The NOVs require the facility to explain the causes of the violations, actions they will take to return to compliance, and a schedule by which those actions will be implemented.

This program allows the KYDEP to address KPDES permit violations in a more timely manner. Without this program, DMR data for major KPDES facilities would be reviewed annually as part of the normal inspection cycle. This program increases the frequency of reviews, and often allows violations to be identified and corrective actions planned before the violations become Significant Non-Compliance.

**2006 LOUISVILLE-METRO AIR POLLUTION  
CONTROL DISTRICT 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 fiscal year (FY) 2005 review by Region 4 of the Louisville Metro Air Pollution Control District (LMAPCD) Air compliance and enforcement programs, utilizing the State Review Framework (SRF). This review has been a collaborative effort between the Region and the LMAPCD and captures both successes as well as any identified areas that need improvement. As this is the first review of this type for the LMAPCD, 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 and local enforcement program performance as well as to provide the basis for a consistent mechanism for EPA Regions to provide flexibility to state and local agencies which can demonstrate an adequate core enforcement program.

The LMAPCD has responsibility for implementing the delegated CAA requirements for the Louisville, KY metro and therefore, this review consists of 12 critical elements which compare actual compliance and enforcement practices in the Clean Air Act (CAA) Stationary Sources 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 13<sup>th</sup> element. EPA and ECOS encourage the use of the 13<sup>th</sup> element to ensure the review takes a measure of the full range of program activities and results. These components can add meaningful input into the overall performance and program review. 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 1-12.

Kentucky's Air program is implemented by the LMAPCD as well as the Commonwealth. The LMAPCD Air program underwent a review that was parallel to the state review effort with Regional staff performing a separate data analysis and onsite file review. The statewide Kentucky Air data was refined by the Region to obtain specific data for LMAPCD.

## **Process Followed in the Review**

Region 4's evaluations of the LMAPCD's Air program were conducted by staff from the Region's Office of Environmental Accountability (OEA) and the Air program, using Elements 1-12 of the SRF, described above. The media technical authority (TA) from OEA and staff from the Air enforcement program worked with their counterparts at the LMAPCD to determine the number of files to be reviewed. The number of files to be reviewed was not based on the protocol in the Implementation Guide. Details are in the report. Files from LMAPCD were reviewed at their Louisville office. The scope of review generally evaluated the LMAPCD against FY2005 agreements and outputs. For those instances where two years of data was required, FY2004 and FY2005 information was used. The report contains findings of the review and areas of concern, with a full explanation of these concerns along with recommendations for resolution. The LMAPCD chose to submit information for the optional Element 13.

## **Information Considered From Other Reviews and Other Sources**

For the Air compliance and enforcement program, Region 4's OEA staff obtained those documents that identified negotiated compliance and enforcement commitments with LMAPCD. These documents were reviewed for consistency with national and regional policy and guidelines as well as commitments that may differ from OECA expectations.

## **Inspection Implementation**

**CAA** - The CMS Plan committed to 44 FCEs at Title V sources for FY2004-FY2005, however, according to the data metrics, two FCEs were performed out of 59 CMS identified major sources for that time frame. This is below the commitment in LMAPCD's CMS plan. Note that the difference between the 44 and 59 numbers is likely due to the CMS flag in AFS not being current. With respect to SM-80 sources, the data metrics show that from FY2002-FY2005, 22% of SM 80 sources received FCEs, the national average being 77%. This is below the commitment in LMAPCD's CMS plan.

Reasons given for LMAPCD not meeting their CMS commitments were competing priorities and resource issues. Those FCEs that were completed took upwards of three years to complete once they were begun.

Based on the inspection reports found in the files, all but two were written within 50 days of the inspection. The timeliness of completing written inspection reports is commendable and ensures that high priority violators (HPVs) that might be a result of an inspection get identified and addressed in a timely manner.

## **Enforcement Activity**

**CAA** - There are no statistics in the data metrics on the discovery rate of HPVs because HPVs have not been identified for several years by LMAPCD. Similarly, of the source files reviewed, none were identified as having a HPV. However, a review of four files

indicated violations that could have been HPV but were not reported as such.

LMAPCD follows EPA's penalty policy for HPVs. They have developed a penalty assessment table for non HPVs; however, the file review could not document use of this table.

### **Commitments in Annual Agreements**

CAA - LMAPCD have consistently met or exceeded all of the enforcement requirements in their 105 Grant funded Annual Planning Agreement (APA) except for the ensuring that AFS contains accurate and timely data on the minimum data elements for synthetic minor sources. [

### **Data Integrity**

CAA - HPVs should be shown in AFS as in non-compliance. There were no new HPVs identified during the time frame of this review thus no information on how timely LMAPCD is with the 60 day requirement to enter HPVs in AFS after they are designated HPVs. HPVs compared to their AFS plant compliance status.

As noted throughout this report, LMAPCD puts a low priority on entering information into AFS.

### **Summary**

The Region will continue to work closely with the Louisville Metro Air Pollution Control District to implement the recommendations made in this report. The Region will incorporate the recommendations in this report into the National SRF Tracker System along with agreed upon timelines, milestones, and any tracking agreements, such as an MOA, PPA, or PPG, as well as provide timely updates as to the progress made in the implementation of the recommendations.

## **II. Media Program Element Reviews**

### **Program: CAA Stationary Source Enforcement Program – Louisville Metro Air Pollution Control District (LMAPCD)**

**Introduction:** The CAA portion of this report entailed a 1 1/2 day review of files and an analysis of data in the LMAPCD. The period of time for this review was FY2004-FY2005, the most recent period of complete data when preparation for the review began. In consultation with LMAPCD, 15 files were selected to review. Due to competing priorities, only 30 FCEs have been done by LMAPCD since FY 2004 and thus the file selection protocol was not used. The 15 files were selected based on those that had a FCE, those that had an enforcement action and then a mixture of major sources and SM 80 sources.

The data analysis consisted of reviewing information generated by the SRF data metrics. The data metrics consists of a standard retrieval of data (for air its source of information is AFS) and it analyzes over 40 pieces of data. The data metrics pull was done on December 20, 2006, and it covered FY2004-FY2005.

The findings and recommendations that follow reflect the 12 elements of the SRF that were investigated. These 12 elements encompass four review areas: inspections, enforcement activity, annual state/EPA agreements and database integrity. Also, encompassed in this report are the results of the CMS evaluation that was done in conjunction with the SRF. The CMS report appears first followed by the SRF results.

### **LMAPCD's FY2006 CAA CMS Report**

#### ***Organizational Structure***

The Louisville Metro Air Pollution Control District, which covers Jefferson County, is headed by a director and an assistant director that oversee the Engineering Division, the Air Quality and Environment Programs Section, Financial/Administrative Support and Outreach (see attached organizational chart). The Stationary Sources Group and Toxics Program are responsible for compliance assurance activities, among other responsibilities. A total of 25 positions are assigned to the Stationary Sources Group and Toxics Program. Currently there are 15 staff members on board, one supervisor and nine positions vacant. In addition to compliance and enforcement activities (described in more detail below), the Stationary Sources Group and Toxics Program are also responsible for major and minor source permitting, evaluation and processing of emissions inventory calculations submitted by industry and entering data into AFS.

Enforcement within the Engineering Division consists of two positions, one of which is currently vacant. Enforcement is responsible for finalizing and pursuing NOVs once they are identified by the Stationary Sources Group and Toxics Program. The Jefferson County attorney staff is assigned, as needed, to work with Enforcement on specific cases.

The Air Pollution Control Board is the regulatory authority for air pollution control in Louisville Metro/Jefferson County and adopts regulations, orders and resolutions as needed.

The Board consists of seven private citizens that are appointed to serve in their positions for three-year terms. The current members were appointed by the Louisville Metro Mayor, the Jefferson County Judge/Executive, or the City of Louisville Mayor. The political party affiliation of Board members is restricted per KRS 77.070 (4). According to this regulation no more than four Board members shall be of the same political affiliation.

### ***Compliance and Enforcement Strategy***

Compliance and enforcement activities originate within the Engineering Division's Stationary Sources Group and Toxics Program. These enforcement activities, among other items, include the completion of inspections, inspection reports, compliance reviews/evaluations, the identification of areas of non-compliance, and the preparation of draft NOVs. The Environmental Engineering Supervisor assigns the various tasks needed to complete full compliance evaluations of Title V and synthetic minor (FEDOOP) stationary sources to the staff engineers. These tasks include the completion of on-site inspections and inspection reports, review of the various reports and other documents required to be submitted, identification of potential areas of non-compliance and the preparation of draft NOVs. There are 44 Title V and 172 synthetic minor sources within the District though this number fluctuates due to sources shutting down, new ones being built and sources changing size categories. There are also about 550 minor sources in the District that must receive permits and be inspected.

Potential areas of non-compliance are identified either through on-site inspections or review of documents required to be submitted by the sources. In many cases where non-compliance is identified, an "incident number" is applied for tracking purposes. In other cases an area of potential non-compliance may be identified but the decision of whether to assign an incident number is not made at the time. The Stationary Sources Group, after identifying incidents of non-compliance, prepares draft NOVs and sends them to Enforcement for review (currently consisting of one individual). Enforcement determines whether an NOV should be issued and works to resolve the violations with the source. NOVs are resolved using Board Orders, which specify measures to return a facility to compliance, penalties and any other required measures. The chairperson of the Air Pollution Control Board signs the Board Orders along with a representative of the LMAPCD and a company official for the facility.

### ***Data and Reporting Requirements***

LMAPCD has not reported FCEs or HPVs to AFS since 2002.

The completion of the various components of FCEs is documented in inspection reports and reports that document the review of required items submitted to LMAPCD (for example, quarterly excess emissions reports). Each file reviewed contained a summary table that clearly identified the completion dates of each FCE component and listed identified areas of potential non-compliance.

### ***Compliance/Enforcement issues identified***

LMAPCD identified a number of core compliance/enforcement tasks and areas for which they have fallen behind including:

**Completion of FCEs:** LMAPCD has a significant backlog of FCEs that have not been completed within the time frames specified in their compliance monitoring plans, including FCEs that were to be initiated and completed in FY2003. In general, the onsite portion of the inspection is completed in a timely fashion, but the remaining records review portion of the FCE is delayed.

**Identifying areas of non-compliance and referring them to Enforcement:** The Stationary Sources Group and the Toxics Program send draft NOV's to the enforcement group for potential further action. There is a backlog of areas of non-compliance that have been assigned a specific incident number, but have not been referred to enforcement, as well as potential incidents where it has not been determined if an incident number should be assigned. This backlog is estimated to consist of 1000 incidents and potential incidents.

**Resolving areas of non-compliance through enforcement actions once they are identified:** There is a backlog of approximately 50 draft NOV's that have been sent to Enforcement from the Stationary Sources Group that have not been acted on or otherwise resolved. These draft NOV's date back to FY2002-FY2004 and may not be acted on because of statute of limitation deadlines. LMAPCD has indicated that it considers many of these backlogged NOV's to be for relatively minor incidents, such as late reports.

LMAPCD indicated that the primary cause for these backlogs in core compliance and enforcement tasks is a resource problem. Specifically:

**Vacant positions:** Currently nine of the 25 positions in the Stationary Sources Group and Toxics Program are vacant and one of the two positions in Enforcement is vacant.

**Inability to hire and retain experienced staff:** Only three of the nine staff engineers in the Stationary Sources Group have more than three years experience with the program. Significantly higher salaries within industry sectors make it difficult to retain staff for longer periods. The hiring process is implemented by the LMAPCD director and is slow and burdensome. Applicants often give up because of the length of time of the hiring process. Starting pay, which ranges from \$32,000 to \$43,000 (with a masters degree in engineering), is not considered to be competitive with other potential employers. By policy, LMAPCD cannot hire potentially qualified non-engineers to do the same work as the engineers in the Stationary Sources Group.

**Increasing work loads:** The number of Major and FEDOOP sources as well as area sources has increased over time, which increases the burden for both permitting and compliance. In addition, full implementation of the MACT program adds substantially to the work required to complete an FCE<sup>1</sup>. LMAPCD has recently shifted resources to permitting. Since the Stationary Sources Group and the Toxics Group are responsible for both compliance and permitting activities, this shift has resulted in fewer resources available for compliance.

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<sup>1</sup> LMAPCD has indicated that because of the implementation of many new MACT regulations that there exists a great need for training on how to assess and ensure MACT compliance.

## **SRF Report**

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

#### **Findings:**

**FCEs at Title V major sources:** Under LMAPCD's FY2004-2006 CAA CMS Plan, LMAPCD planned to meet the prescribed EPA frequencies of FCEs i.e., once every two years for Title V majors and once every five years for SM 80 sources. The CMS Plan committed to 26 FCEs at Title V sources in FY2004 and 18 in FY2005 for a total of 44 Title V FCEs. According to the data metrics, two FCEs were performed out of 59 CMS identified major sources for FY2004-FY2005. This is below the commitment in LMAPCD's CMS plan.

**FCEs at SM 80 sources:** A SM 80 source is one which emits or has the potential to emit at or above 80% of the major source threshold. LMAPCD calls them Federally Enforceable District Origin Operating Permits (FEDDOOPs). LMAPCD's FY2004-2006 CMS Plan committed to 92 FCEs at SM 80 sources (32 in FY2004; 32 in FY2005 and 30 in FY2006). The data metrics show that from FY2002-2005 (the data metrics was only able to generate a four year vs. five year period), 23 FCEs were performed out of 107 (22%) SM 80 sources. The national average is 77%. Thus LMAPCD needs to complete 84 FCEs in FY2006 in order to meet their CMS Plan to perform FCEs at 100% of all SM 80 sources over five years.

LMAPCD was asked about their FCE completion rate. They shared that due to competing priorities and resource issues they could only perform 30 FCEs in FY2004 (11 Title V; 15 SM 80 and four true minors) and none since then. These 15 FCEs took upwards of three years to complete once they were started. Note that EPA's guidance requires FCEs to be completed within the fiscal year they were begun.

LMAPCD reports, following our on-site review, that they have completed the following. This could not be confirmed due to lack of LMAPCD coding such information into AFS

#### **2004:**

Title V inspections: 18

FEDDOOP inspections: 20

Title V FCEs completed: 8

Title V MACT reports reviewed: 93

Title V semi-annual reports reviewed over the FCEs: 43

FEDDOOP FCEs completed: 12

FEDDOOP quarterly reports reviewed over the FCEs: 80

#### **2005:**

Title V inspections: 9

FEDDOOP inspections: 26  
Title V FCEs completed: 8  
Title V MACT reports reviewed: 37  
Title V semi-annual reports reviewed over the FCEs: 2  
FEDDOOP FCEs completed: 7  
FEDDOOP quarterly reports reviewed over the FCEs: 6

**2006:**

Title V inspections: 19  
FEDDOOP inspections: 33  
Title V FCEs completed: 7  
Title V MACT reports reviewed: 14  
Title V semi-annual reports reviewed over the FCEs: 0  
FEDDOOP FCEs completed: 7  
FEDDOOP quarterly reports reviewed over the FCEs: 4

**Title V Annual Compliance Certifications received and reviewed:** According to the data metrics (i.e., AFS) for LMAPCD, no Title V annual compliance certifications were received nor reviewed in FY2005. This reflects the low priority put on coding information into AFS. However, as documented in the file review, some Title V annual certifications are received and reviewed by LMAPCD staff.

**Sources with “Unknown” Compliance Status Designations:** The data metrics show 47 major and synthetic minor sources with an “unknown” compliance status. An “unknown” compliance status is usually associated with a source going longer than two succeeding years without a FCE being recorded in AFS. Given the above discussion on LMAPCD’s FCE completion, this number of “unknowns” is not unusual.

*Citation of information used for this criterion*

- LMAPCD’s FY2004-2006 CMS Plan
- Data metrics (source of data is AFS)

**Recommendation(s):** LMAPCD should propose and implement a plan that will ensure that their FCEs get completed as committed in their CMS Plan and within the time frames outlined in EPA’s CMS policy. This plan should also address steps to minimize the number of unknowns.

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

**Findings:** Fifteen source files were reviewed to see how LMAPCD documents a completed FCE. Eight of these source files were major sources. This represents 73% of the eleven major source FCEs done in FY2004-FY2005. All elements of a FCE and compliance monitoring report (CMR) were examined: general and facility



information about source; a description or listing of all applicable requirements for the source; an inventory and description of regulated units and processes; information on previous enforcement actions; compliance monitoring activities; reviews of all required reports such as Continuous Emission Monitoring System (CEMS) reports, malfunction reports, the annual compliance certification and semi-annual monitoring reports; assessments of control device and process operating conditions, process parameters and control equipment performance parameters; reviews of facility records, operating logs and visible emissions observations; reviews of stack test reports and findings/recommendations relayed to the source during the compliance evaluation (see EPA's April 25, 2001 CMS guidance for a description of these terms).

States/locals may document these elements as they deem appropriate. LMAPCD does this through their inspection reports, construction and operating permits, receipt and reviews of various source reports and a summary table identifying the completion of each FCE component. However, it was acknowledged by LMAPCD staff, that they took the opportunity in knowing in advance about the files to be reviewed to organize the 15 files and ensure that each documented all elements of an FCE. Thus for the 15 files reviewed each had the appropriate FCE documentation and were well organized. LMAPCD should aspire to have all their files in such condition.

*Citation of information used for this criterion*

- LMAPCD's source files
- EPA's 4/25/01 CMS guidance

**Recommendation(s):** LMAPCD should develop and implement a plan to have all their source files document FCE elements as thoroughly as the 15 files reviewed.

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

**Findings:** Based on the 15 inspection reports found in the files, all but two were written within 150 days of the inspection (average time was 17 days). The two that took longer were completed six and eight months from the on-site visit. Since these were both mid 2004 inspections, the rationale for the delays was not known. The timeliness of completing written inspection reports is commendable and ensures that HPVs that might be a result of an inspection get identified and addressed in a timely manner.

*Citation of information used for this criterion*

- LMAPCD's source files

**Recommendation(s):** None

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

**Findings:** There are no statistics in the data metrics on the discovery rate of HPVs

because HPVs have not been identified for several years by LMAPCD. Also, entering of data into AFS (the source of the data metrics) has been a low priority. Discovery rate compares the number of HPVs identified in a given fiscal year to either the total number of FCEs completed in the same time period or compared to the number of operating major sources. The resultant stats provide insight into how frequently HPVs are identified across all states. This is important for timeliness tracking under the HPV policy, the Watch List, award program screening and public access to data. In addition, review of four files, indicated violations that could have been HPV but not reported.

LMAPCD staff shared that they are resource challenged in that they have, ~~meaning~~ an inability to hire new staff (nine vacancies out of a 25 person program) and retain experienced staff (eleven of 14 staff with < three years experience) due to 1) competing priorities of analyzing the results of an inspection to see if HPVs are triggered, 2) taking enforcement action to previously identified non compliance issues, 3) processing requests for new permits or modifications to exiting permits, 4) addressing new programs like MACT, among other daily assignments. There was no indication that there was lack of understanding on what triggers a HPV.

*Citation of information used for this criterion*

- Data metrics
- Periodic HPV calls

**Recommendation(s):** LMAPCD should examine their present practices of identifying HPVs and develop and institute a plan that will ensure conformance with the processing requirements of the HPV policy.

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

**Findings:** Of the 15 LMAPCD sources files reviewed, three contained a board order (note that because of the limited knowledge gained from the data metrics it was not possible to choose files with known enforcement activity). Two have returned to compliance. The file on the third source shows the order being met and that the penalty has been paid but no indication of full compliance.

*Citation of information used for this criterion*

- LMAPCD's source files

**Recommendation(s):** LMAPCD should propose and implement a plan that will ensure source files document compliance with board orders.

**6. Degree to which a state takes timely and appropriate enforcement actions, in accordance with policy related to specific media.**

**Findings:** As stated earlier, LMAPCD's has not reported HPVs for several years. Thus no data available to see how timely LMAPCD is in addressing HPVs. Of the 15 source files reviewed, none were identified as having a HPV. This is due to competing priorities and limited staff.

The LMAPCD reports, however, that they have taken enforcement actions with penalties for non-HPV violations. Below is a summary of actions and penalties for fiscal years 2004, 2005 and 2006. This again could not be confirmed due to lack of LMAPCD coding such information into AFS

In **FY04**, the District collected **\$49,435** in penalties:

Title V:	\$14,625
Synthetic Minor	\$12,800
Minor Source	\$3,625
Asbestos	\$6,525
Stage II	\$10,200
Area Sources	\$1,660 (construction dust, open burning)

In **FY05**, the District collected **\$172,875** in penalties:

Title V:	\$35,900
Synthetic Minor	\$3,050
Minor Source	\$9,125
Asbestos	\$112,250
Stage II	\$11,850
Area Sources	\$600

In **FY06**, the District collected **\$384,735** in penalties:

Title V:	\$92,350
Synthetic Minor	\$34,750
Minor Source	\$79,500
Asbestos	\$156,600
Stage II	\$18,175
Area Sources	\$860
112(r)	\$2,500

LMAPCD further states that in all of the above enforcement actions, the violator took corrective actions that returned the facility to compliance by the time the case was resolved. In addition, LMAPCD reports that they were involved in two administrative hearings in FY 2006—one related to a synthetic minor facility and the other related to asbestos. They prevailed in both cases. In the asbestos case, the Louisville Metro Air Pollution Control Board (Board) ordered the responsible parties to pay \$57,000 in penalties, and in the synthetic minor case, the Board ordered the company to pay \$41,250 in penalties. The latter case is currently being appealed to the circuit court by the company.

Thus, says LMAPCD, the trend over the past three years has been increased

enforcement activities with increased penalties.

Finally, LMAPCD reports issuance of two Notices of Violation in FY 2006 alleging a number of High Priority Violations against two Title V facilities and is currently negotiating corrective actions and penalties under EPA's Clean Air Act Stationary Source Civil Penalty Policy.

*Citation of information used for this criterion*

- Data metrics
- Source files
- Information submitted by LMAPCD

**Recommendation(s):** As noted in the element 4 recommendation, LMAPCD should examine their present practices of identifying HPVs and propose and institute a plan that will ensure conformance with the processing requirements of the HPV policy.

**7. Degree to which the State has a penalty policy that includes both gravity and economic benefit calculations.**

**Findings:** LMAPCD does not have a penalty policy but uses EPA's penalty policy as a guide for HPVs. They have developed a penalty assessment table for non HPVs but it does not have a clear gravity component (designed to reflect the seriousness of the violation) and economic benefit component (designed to calculate the economic advantage of noncompliance).

*Citation of information used for this criterion*

- Source files
- LMAPCD's "E&E Typical Penalties Assessed for Stationary Sources" table

**Recommendation:** None

**8. Degree to which state documents both gravity and economic benefit in accordance with any applicable penalty policy.**

**Findings:** Of the three Board Orders found in the files reviewed, all three contained a penalty. As noted above, LMAPCD uses a penalty assessment table to guide them through penalty calculations for non HPVs. For example, if a source is found operating without a permit, the table reflects a penalty ranging from \$750 if it is a true minor source to \$5000 if it is a major source. The penalty can be escalated if source is recalcitrant or has violations of a repetitive nature.

There was no documentation (meaning a worksheet) in the source files on how the penalty amounts were derived for these Board Orders. Specifically, two incident investigation reports were submitted. In one case it showed two penalty figures with a regulation citation and in the other it showed a penalty number that was derived from multiplying a certain number of emission units times a dollar amount. There

were no references to extenuating or mitigating factors that would impact the penalty. When cross checking these penalties with the penalty assessment table the penalties correlated. LMAPCD also shared, post the visit, examples of how they calculated penalties for HPVs. These were for HPVs concluded in 2001-2002 (no HPVs were identified nor concluded during the time period of this review). They used a penalty calculation worksheet that addressed both the gravity and economic benefit components of a penalty calculation.

*Citation of information used for this criterion*

- Source files

**Recommendation:** LMAPCD should develop and implement a penalty calculation worksheet or some method that documents if extenuating or mitigating factors are considered resulting in a deviation from the penalty assessment table. LMAPCD should also continue to use their penalty calculation worksheet for HPVs when the opportunity arises.

**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:** The LMAPCD has an annual Air Planning Agreement (APA) with EPA Region 4. The APA principally applies to non major sources and asbestos demolition/renovation projects and is funded through CAA Section 105 grant dollars. Activities related to Title V sources (i.e., major sources) are funded through industry fees and thus they are not eligible for grant dollars

With respect to the APA compliance and enforcement programs, the LMAPCD in FY 2005, committed to the following:

- Ensure 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 (computer uploading)
- Resolve violations of any rule for which EPA has delegated authority to the state for non major MACT sources and synthetic minor sources
- Utilize the pollution prevention database to enhance PP outreach activities during compliance inspections
- Inspect 25% of all NESHAP asbestos demolition/renovation projects
- Observe asbestos work practices in progress whenever possible to assess compliance
- Utilize ACTS/NARS. Report to EPA at least 45 days after each quarter (note that in all the regional FY 2006 APA's, this language was changed to say that the ACTS/NARS database is no longer available and instead report the asbestos NESHAP activities to EPA)
- Maintain a state health and safety plan for asbestos demolition/renovation

- inspectors
- Recommend cases and provide support to the EPA Criminal Enforcement Program
- Implement the CAA, section 112 (r) program. Develop a work plan including risk management program audits and facility inspections

In LMAPCD's FY 2006 APA, another commitment was added addressing the new Air Facility Subsystem (AFS) requirements under the Information Collection Request. This language states: *Ensure complete, accurate and timely data consistent with the Compliance Monitoring Strategy, High Priority Violations Policy, and the AIRS Facility Subsystem (AFS) requirements under the Information Collection Request.* This commitment closes the loop in requiring that information on major sources be put in AFS.

LMAPCD has met most of their FY 2005 APA deliverables based upon the overview the region does on a semi-annual basis using the regions grant tracking system. The regions focus is on major sources and though some APA commitments are not fully met none are so egregious as to withhold grant dollars. Also, region 4 has assisted LMAPCD with AFS coding and is continuing to work with them to improve information in AFS.

*Citation of information used for this criterion*

- LMAPCD's FY2005 APA
- Regional APA tracking form

**Recommendation(s):** None (AFS coding issues are addressed in following element)

**10. Degree to which Minimum Data Requirements (MDRs) are timely (focus on integrity of HPV data).**

**Findings:** MDRs represent the minimum amount of data that EPA believes nationally is necessary to oversee the national stationary source compliance monitoring and enforcement program. Examples of the 26 elements that comprise the MDRs are recording of FCEs, HPVs, stack test results, compliance status and Title V annual compliance certification reviews. In examining the MDRs for the 15 LMAPCD files there was a number of deficiencies: no HPV designations, no enforcement actions, no PCE/FCE designations.

One specific item that the SRF requests to be analyzed is the HPV MDRs. These MDRs require timely entry of HPV data into AFS. There were no new HPVs identified during the time frame of this review thus no information on how timely LMAPCD is with the 60 day requirement to enter HPVs in AFS after they are designated HPVs.

*Citation of information used for this criterion*

- EPA's minimum data requirements
- Data metrics

**Recommendation(s):** LMAPCD should develop and implement a plan that will ensure accurate and timely entry of the MDR into AFS.

**11. Degree to which MDRs are accurate (focus on plant compliance status).**

**Findings:** This metric analyzes sources carried as HPVs compared to their AFS plant compliance status. HPVs should be shown in AFS as in non-compliance. With no HPV information in AFS, this element could not be analyzed.

With respect to stack test data, the data metrics show no stack tests performed in FY2005 (or at least none entered in AFS).

*Citation of information used for this criterion*

- Data metrics

**Recommendation(s):** LMAPCD should ensure that MDRs are entered timely and accurately into AFS.

**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 goal of this metric was to ensure agreement between the states/locals and the region on the completeness of the MDRs being reported into AFS and, where discrepancies exist, to develop an action plan for making appropriate corrections. Specific MDR elements examined included: Title V universe; source count of major, synthetic minor and NESHAP minor sources; universe of new source performance standard (NSPS), NESHAP and MACT sources; completeness of FCEs and partial compliance evaluations (PCEs) being reported; historical non compliance counts; completeness of sources receiving NOV's; completeness of HPV reporting; completeness of enforcement actions being reported and completeness of penalty dollars assessed by. As noted throughout this report, LMAPCD puts a low priority on entering information into AFS.

*Citation of information used for this criterion*

- AFS
- LMAPCD's CMS Plan

**Recommendation(s):** LMAPCD should examine the overall integrity of the MDR data in AFS and develop and implement a plan to rectify issues. The recommendations in elements 9-12 could be addressed together.

**Element 13 – MDEQ Compliance Assistance and Innovative Projects**

The Louisville Metro Air Pollution Control District has had several successes in tightening the city's clean air regulations. Perhaps the District's greatest achievement was the approval of the Strategic Toxic Air Reduction program (STAR) in 2005. Significant District resources were committed to this program in the time covered by this audit.

The STAR program works to reduce harmful levels of toxic air contaminants in Louisville's ambient air. The goal is lower residents' risk for cancer and other diseases from toxic air pollution. Early reports from Title V emissions inventories show that local companies are making progress in using Best Available Technology to bring cancer risks closer to the goal of one-in-one-million.

Regulations establish the structure for determining the environmental acceptability of toxics emissions; establish goals and timetables for larger industrial sources; and require the District to assess the risk from small industrial, mobile, non-road mobile, and area sources, and, through an active and meaningful stakeholder process, develop a plan for reducing unacceptable risks by 2012. Enhanced toxics emission reporting is required as part of this program.

Recently, the STAR program was honored with one of the U.S. Environmental Protection Agency's prestigious Clean Air Excellence Awards. The Government Accountability Office, in a Report on EPA's air toxics program, identified the STAR program as having innovative and unique features that could serve as a model at the local, state and federal level.