IOWA DEPARTMENT of NATURAL RESOURCES

2005

AIR PROGRAM REVIEW

Final Report

Conducted by:

U.S Environmental Protection Agency
Region 7
Air, RCRA and Toxics Division
Air Planning and Development Branch
Air Permitting and Compliance Branch
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ACRONYMS

ACTS – Asbestos Contractor Tracking System
ADI – Applicability Determinations Index
APCO – Air Permitting and Compliance Branch
APDB – Air Planning and Development Branch
AQB – Air Quality Bureau
CAA – Clean Air Act
CAIR – Clean Air Interstate Rule
CAP – Compliance Advisory Panel
CFR – Code of Federal Regulations
CMS – Compliance Monitoring Strategy
CO – Carbon Monoxide
EIU – Emission Inventory Unit
EPA – Environmental Protection Agency
EPC – Environmental Protection Commission
ESD – Environmental Services Division
FO – Field Office
HPV – High Priority Violator
ICMS - Inventory, Compliance and Monitoring Section
IDED – Iowa Department of Economic Development
IPP – Inventory Preparation Plan
IWRC – Iowa Waste Reduction Center
LOA – Letter of Agreement
MACT – Maximum Achievable Control Technology
MDR – Minimum Data Requirement
NAAQS – National Ambient Air Quality Standards
NARS – National Asbestos Registry System database
NH3 - Ammonia
NEI – National Emissions Inventory
NEO – New Employee Orientation
NESHAP – National Emission Standards for Hazardous Air Pollutants
NIST – National Institute for Standards and Technology
NOIA – Notice of Intended Action
NOV – Notice of Violation
NO2 –Nitrogen oxide
NSPS – New Source Performance Standards
O3 – Carbon monoxide
PM – Particulate Matter
POIS – Program Operations and Integration (EPA)
PPA/PPG – Performance Partnership Agreement/Performance Partnership Grant
PSD – Prevention of Significant Deterioration
PTE – Potential to Emit

QAPP – Quality Assurance Project Plan
SBAP – Small Business Assistance Program
SBTCP – Small Business Stationary Source Technical and Compliance Assistance Program
SFY – State Fiscal Year
SIP – State Implementation Plan
SLAMS – State and Local Air Monitoring Station
SO2 – Sulfur dioxide
SOP – Standard Operating Procedure
SPARS – State Permitting and Air Reporting System
UHL – University of Iowa Hygienic Laboratory
VOP – Voluntary Operating Permits

Chapter 1
Executive Summary

Introduction

The following summarizes results from the U.S. Environmental Protection Agency (EPA) program review of the Air Quality Bureau (AQB) of the Iowa Department of Natural Resources (IDNR). The program review took place over a two-week period, February 23-24, 2005, and February 28 – March 3, 2005. The exit interview was conducted on April 20, 2005, at the IDNR offices. The agenda, attendees, and EPA notes are located in Appendix 1-1. The Executive Summary is divided into sections, each applying to a major program area and addresses EPA's findings as well as preliminary comments from IDNR.

Planning and Program Development

Regulatory Development and Contract Analyses

The regulatory portion of the review focuses on two areas: 1) the State Regulatory Process, and, 2) Federal requirements for the State Regulatory Process.

Information and forms were provided to EPA with regard to the State Regulatory Process. Rules are developed based on Iowa legislative actions, Federal actions, workgroup efforts, and general rulemakings which are accomplished in the spring and fall.

The State of Iowa provides a "Quality in Rulemaking Academy", which four of the Program Development Section staff have completed, or are in the process of completing. The attorneys that work on Iowa air rules have also attended the Academy. The Academy is composed of nine courses that must be completed in two years. The Program Development Section has the responsibility of preparing the rules for the Environmental Protection Commission (EPC), preparing for public hearings, meeting the requirements of the Administrative Rules Committee and providing follow-up with internal IDNR personnel as well as EPA personnel.

On a monthly basis, the IDNR and EPA share tables of rules that are pending and work in close contact to complete the rules as expeditiously as possible; however, it takes at least six to nine months for a rule to be completed in the state of Iowa, and up to a year for EPA to complete a Federal rulemaking. Great strides have been made over the past 18 months between EPA and IDNR regarding the timely Federal (EPA) review of Iowa air rules. EPA comments and clarification are provided soon after the Notice of Intended Action (NOIA) so that IDNR can address any issues.

IDNR has taken steps to streamline revisions to the Iowa State Implementation Plan (SIP), especially for those areas with previously monitored National Ambient Air Quality Standards (NAAQS) violations. In June 2004, IDNR submitted a draft SIP management plan for EPA's review. EPA reviewed the management plan and returned comments in August 2004, that suggested clarifying language and the plan was returned on September 23, 2004, with the comments incorporated. Although at the time of the 2005 program review no revised SIPs for the areas with previously monitored NAAQS violations had been submitted under the new plan, EPA looks forward to working with IDNR to streamline the SIP process.

During the program review, two rule files were reviewed and it was noted that the information contained in the files was parallel to information in the EPA files. IDNR is not required to keep internal comments in the file unless the rule is controversial.

In spite of the fact that there have been vacant positions in the Program Development Section over the past two years, this group has done an exceptional job of responding to the needs of Iowa citizens on various issues, as well as submitting SIP revisions in a timely manner.

The Program Development Section is responsible for a variety of contracts with CAA 105 funds. Contracts include, but are not limited to, contracts with the local air quality agencies, the University of Iowa Hygienic Laboratory for technical services, computer-based vendors, voluntary programs and other projects. All contracts with a funding amount of $25,000 or above, must be approved by the EPC. Copies of contracts with local agencies can be found in Appendix 3-4.

Contract oversite continues to be exemplary, and the money is spent on projects, such as the grain bin vent testing contract, that is useful throughout Iowa. The results from this particular contract can be used nationally as well.

EPA commended IDNR on the great strides that have been made in the past 18 months to improve communications, and ensure the rules are submitted and approved in a timely manner. IDNR does an exceptional job managing contracts.

Emissions Inventory

As part of EPA's evaluation of the programs administered by the IDNR, EPA Region 7 conducted a review of the Air Quality Bureau's (AQB) Emission Inventory Unit (EIU). This review consisted of determining the organization of this unit, examining the procedures and primary components of emission inventory development within this unit, and acknowledging improvements accomplished since IDNR's program review conducted in FY-2001.

The development of a technically defensible emissions inventory is important. Emissions inventories serve as the foundation of sound public policy and are used to carry out many tasks within EPA as well as state/local regulatory agencies such as air dispersion modeling, regional

strategy development, regulation development, air toxics risk assessments, formulation of appropriate control strategies, and tracking trends in emissions over time.

Prior to calendar year 2000, the state of Iowa had been collecting emissions information from Title V point sources, but had not included statewide emissions from all source categories (Area, Biogenic, Mobile and Non-Road). The AQB renewed their commitment to provide a comprehensive statewide emissions inventory for the following emission year (2002). Although, the AQB did not submit the optional data for Area, On-Road Mobile, Off-Road Mobile, and Biogenic Sources for the 2002 emission year, they successfully submitted the required point source data to EPA's Emission Inventory Group for the National Emissions Inventory (NEI). The AQB, however, did complete a comprehensive inventory for the 1999 emission year for Scott County using methodologies developed by EPA (Appendix 3-2b), but did not submit this data to the NEI. The AQB also reviewed the 2002 preliminary emission inventory for all source categories released by EPA.

The AQB increased their capacity to track emissions data and create emission inventories when they updated their database system by developing the State Permitting and Air Reporting System (SPARS). SPARS houses and tracks data pertaining to permit applications, emissions and contact information for sources, etc. In addition, this database has helped streamline a number of tasks associated with emissions reporting. Some functions that this system allows are electronic reporting, the creation of new inventories using previous inventories, auto calculation of emissions and auto loading of control equipment.

The interviews conducted during this review were to the EIU team leader, the regional modeler, and information technology staff. These interviews provided information on what the AQB has done in the past years, as well as to future plans for the emission inventory unit.

EPA commended the AQB EIU for effectively participating in the NEI. IDNR has also created a database that effectively allows for reporting to the NEI. The EIU has created and adheres to an effective, EPA-approved EI Quality Assurance Project Plan (QAPP). The creation of SPARS has greatly facilitated this process. To improve quality data for non-road diesel engines, a survey was created to accurately collect population and activity data for equipment used in the construction and mining industry. The data will improve air pollutant emission estimates for 12 types of diesel-powered equipment.

The EIU has made great strides in a small period of time. EPA is confident that this progress will continue in future emission years.

EPA found errors in SPARS, such as errors in mailing addresses and discrepancies in emissions data rounding conventions in SPARS and the EIQ. EPA recommended that these be addressed immediately before they become QA issues. (Recommendations are discussed in detail on page 25 of this report.)

Grant and Work Plan Management

This portion of the review covered areas such as developing workplan commitments, accomplishing and tracking workplan activities, and reporting accomplishments. It should be noted that in 2002, IDNR converted from a categorical grant to a Performance Partnership Agreement/Performance Partnership Grant (PPA/PPG). Workplans, funding, and accomplishments are now negotiated and reported between the financial office of IDNR and the Program Operations and Integration branch of EPA. The EPA project officer for the air program is considered the "sub-project officer" or "program project officer" for the grant.

The PPA/PPG gives IDNR more latitude in funding projects that are considered priority in the PPA that is negotiated between EPA and IDNR. There have been concerns with regard to shifting funds between environmental programs without the EPA sub-project officers being notified. In addition to assuring workplan commitments are completed, the sub-project officer must know how the money is spent to determine the maintenance of effort for the next funding period. Funding for the air program has not changed significantly in the past few years; however, shifting funds between programs should be accomplished in consultation with EPA sub-project officers.

Although the PPA/PPG financial tracking is done through the financial offices at IDNR, the Program Development Section receives a report entitled "AirBud" which is used to review expenses charged to the Clean Air Act (CAA) 105 funds. The Program Development Section is also involved in state budget issues, which is a year-around project that starts as soon as the state fiscal year (SFY) budget is assigned. The SFY is from July 1 – June 30. To ensure accuracy and continuity of budget procedures, the Program Development Section is in the process of developing a budget manual that explains the various procedures. This manual, like many of our collective manuals, will be a work in progress as procedures change. A draft of this manual is included as Appendix 3-3.

EPA commended the Program Development Section for tracking workplan accomplishments and managing funds. This is especially noteworthy as IDNR has to coordinate three timelines – the State fiscal year, the Federal fiscal year, and the calendar year.

In addition, the 2001 program review report indicated that the AQB needed to address strategic planning. The PPA/PPG process appears to have resolved this issue as the FY-2003 through FY-2005 PPA discusses the development of the strategic plans with goals that parallel EPA's strategic plan.

While not an issue at the AQB level, it should be noted that the shifting of PPG funds should be in consultation with the EPA sub-project officers. In addition, EPA sub-project officers have been tasked with additional accountability for grant oversite and all files have to be annotated when money is shifted as the workplan may need to be adjusted.

Local Agency Coordination

EPA reviewed the degree of coordination, financial management practices, and level of consistency between the local and state air regulations. There are two counties in Iowa which have local air programs: Polk County and Linn County.

The AQB and the local agencies negotiate and sign annual letters of agreement (LOA) that are extremely comprehensive (Appendix 3-4.) Funding levels are proportional to the scope of the LOA. Coordination is maintained through quarterly meetings, telephone calls, e-mail and other written correspondence. Audits are performed by IDNR biennially (a local agency per year). Rule updates for the local agencies are submitted to the Program Development Section and forwarded to EPA for inclusion in the SIP. Reports from the previous audit for each local entity are included in Appendix 3-4. The local agencies are committed to the same priorities as IDNR and EPA.

During the program review, EPA personnel had the opportunity to briefly meet with Polk County personnel. EPA personnel also make an effort to attend the quarterly meetings with the local agencies, as well as perform on-site visits as funds allow.

EPA commended the AQB for excellent oversite of local programs.

Training

In addition to the "Quality in Rulemaking Academy," that is mentioned in the Regulatory Development and Contract Analyses section of this summary, the IDNR has a New Employee Orientation (NEO) which provides the opportunity for newly-hired staff to become familiar with IDNR. After NEO, staff is required to complete required training courses, such as Diversity in the Workplace within six months of hire. Section supervisors establish training programs for new staff members that are designed to support bureau, division, and department missions and performance goals, and the PPA/PPG. AQB personnel have taken advantage of various "in-house" courses such as, "Ethics in the Workplace," "Managing Time and Priorities," and "Achieving Effective Communication," that have proved to be beneficial for career development.

Although training funds are included in the in-state and out-of-state travel budgets, it is difficult for a large number of staff to vacate their jobs to attend training. The state of Iowa also has travel restrictions that generally prohibit more than three IDNR staff from attending the same out of state training at the same time. Furthermore, many of the staff have attended the same courses repeatedly and have expressed the need for updated EPA courses.

CenSARA has requested that IDNR host training but they can not guarantee that 20 or more people will attend. If attendance of 20 or more can not be guaranteed, IDNR is no longer a consideration as a host of the training course.

EPA noted that training continues to be an area that could be improved but due to resources and workloads, it is difficult to maintain with any level of certainty. EPA provided IDNR with a listing of the Air Pollution Training Institute tapes that are recorded from satellite downlinks, and will continue to provide as much information and assistance as possible given the collective funding restrictions.

Modeling

The IDNR and EPA modeling staff met March 1-3. Although no new problems were discovered, there are some issues that should be addressed that are discussed in the full narrative of this portion of the program review.

The modeling unit has experienced staff that follow IDNR and EPA air regulations and guidance while reviewing air dispersion modeling submitted with Prevention of Significant Deterioration (PSD) applications as well as construction permit applications. In addition, modeling staff often meet with industry (pre-meetings), and provide companies and their consultants with the necessary meteorological and terrain data to perform air quality analyses. Another notable working relationship is that of the modeling staff with the GIS department. The modeling unit staff have continued to be very responsive to EPA Region 7 requests for modeling and/or meteorological data.

The modeling unit is taking a more active roll in supporting modeling at the Polk County agency by providing training/guidance, and requiring the agency to be more active in modeling.

Problems with modeling methodologies addressing the treatment of property-fence lines (ambient air) and fugitive dust from haul roads remain an issue in Iowa. Specifically, IDNR needs to ensure that ambient concentrations are predicted on company property if fences or other barriers do not exist, and emissions from haul roads should be accounted for in minor source permits, as well as PSD permits. It is essential that all evaluations consider ambient air.

EPA noted that the modeling unit has a dedicated, experienced staff. Efforts have been made by the staff to communicate with the permitting staff with regard to applications and these efforts are commendable. EPA appreciates the efforts of the modeling unit staff as they continue to be very responsive to requests from our modeling staff.

It was recommended by EPA that issues with property-fence lines and fugitive dust from haul roads need to be addressed; emissions from haul roads should be accounted for in minor source permits, and EPA and IDNR need to reach agreement on the modeling unit's modeling guidelines (EPA's previous comments on these guidelines are included in

Appendix 1-2.) PSD increments and background values used in the air quality evaluations need to be reviewed and periodically tracked to ensure that they are appropriate for all parts of the state.

Small Business Assistance Program (SBAP)

Reid Bermel, the SBAP Ombudsman, and Heather Hamilton of EPA met on February 23, 2005, to discuss the SBAP program in Iowa. Mr. Bermel took over this position in December 2004 after a four-month lapse in personnel. This position is located in the Iowa Department of Economic Development (IDED).

The basic structure of the program remains the same and three areas were reviewed in detail: Ombudsman and Compliance Advisory Panel (CAP) appointments and duties, outreach, and financial eligibility.

The 2001 program review noted that four CAP positions had not been filled. This issue has not been addressed. Mr. Bermel said that the new contract that is being completed by IDED/IDNR adds provisions to fill the CAP positions.

Since Mr. Bermel had not been in the position very long prior to this program review, he had not had the opportunity to review all the outreach materials but fully intends to continue with outreach visits as opportunities are presented.

During the 2001 program review, it was noted that a needs assessment was going to be performed during the fall of 2001. Mr. Bermel provided a synopsis of the needs assessment (Page 31).

EPA commended IDNR/IDED on the expedient selection for the replacement of the Ombudsman position and looks forward to working with the SBAP program in the future. Overall, the program continues to perform well; however, it has been brought to the attention of EPA Region 7 by the EPA National Small Business Ombudsman that the CAP positions are still vacant. Thoughtful selection of the CAP positions under the new contract should be considered priority (Clean Air Act, Section 507(e)). During preparation of this report, IDNR indicated that they are again in the process of filling the CAP positions.

Permitting

This section of the review covers permitting activities. During FY-2005, EPA Region 7 performed a comprehensive evaluation of Iowa's air permitting program. This evaluation is based on reviews of major source (PSD) pre-construction permits, Title V operating permits, and reviews of non-major pre-construction permitting project files during an on-site visit to IDNR's

offices during February 2005. The Title V fee program was evaluated off-site and is included in another section of this report.

EPA finds that, in general, the department implements a comprehensive and effective permitting program that, in several areas, serves as a good model for others to follow.

Commendations:

- **Files are well-maintained and include comprehensive notes and analyses;**
- **IDNR's efforts to make permitting information available on-line is impressive;**
- **Telephone records of conversation and e-mails indicate that IDNR is not taking permit applications at "face value" and is providing follow-up with facilities;**
- **IDNR staff reviewed, challenged and corrected emissions estimates;**
- **"As-build" projects dropped off substantially. IDNR has undertaken numerous efforts to better educate those who make use of the program;**
- **IDNR is conducting air quality impact analysis on a project-by-project basis;**
- **IDNR is relying more on verifying actual emissions and stack testing, and is replying less on AP-42. EPA encourages continued use of this practice;**
- **IDNR corrected errors noted in the last program review with regard to minor source permits issued in ethanol plants;**
- **Permits document parameters used to validate modeling results;**
- **IDNR is to be commended for streamlining efforts.**

Recommendations for improvement:

- **An Engineering Evaluation was found for every project but lacked detail. EPA encourages IDNR to look for opportunities to enhance the description of permitting activities, especially for large projects;**
- **The repetitive nature of standard conditions for each permit offers a streamlining opportunity that could reduce resources. EPA suggests that IDNR consider placing multiple emissions points under one set of standards;**
- **Due to the often rapidly expansions of industry, EPA suggests inclusion of a forward-looking condition to describe consequences (beyond enforcement) of not meeting plant-wide emissions caps. (See 52.21(r)(4));**
- **EPA recommends IDNR document the need for a rolling 12-month period in a memorandum to the file or the Engineering Evaluation. (See January 25, 1995, guidance: "Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act (Act)", and June 13, 1989, "Guidance on Limiting Potential to Emit in New Source Permitting");**
- **Clearly document the decision for no modeling or no stack testing;**
- **Sequential projects should be properly documented so that those projects do not escape major source review;**

- **Permits should always correctly document applicability of NSPS, NESHAP or MACT standards.**

Program deficiency:

EPA identified one program deficiency in the program review. IDNR does not public notice its minor NSR permits as required by Section 110 of the Clean Air Act (CAA). This issue is discussed in the permitting section portion of the report, (page 34.)

IDNR provided comments with regard to the permitting section of EPA's draft report that are addressed in Chapter 4 of this report.

Compliance and Enforcement

The 2005 review of the IDNR compliance and enforcement program was targeted in ten program areas: Identification of violations; Designation of High Priority Violators; Timely and appropriate response to High Priority Violators; Tracking of required facility submittals; Tracking and review of excess emission reports; Local agency oversight; Air Quality Bureau facility files vs. Field Office facility files; Ethanol plant enforcement; Compliance Monitoring Strategy implementation; and entry of Minimum Data Elements into AFS. All areas except Ethanol plant enforcement and Compliance Monitoring Strategy Implementation had been covered in the 1999 and 2001 program reviews. Each area evaluated was based on the review of different information.

Overall, Region 7 was impressed with the high quality of the compliance and enforcement program. Only two areas where improvements could be made were identified. These areas included increasing the size of penalties and increasing the timeliness of addressing high priority violators (HPVs). Even recognizing the internal agency limitations in these areas discussed in the report, EPA's concern with penalties could be addressed with the development of a separate penalty policy to supplement the minimum requirements in 455B.109 of the Iowa Administrative Code. Similarly, EPA's concern with the timeliness of addressing HPVs could be addressed with development of an enforcement response policy where timelines are established.

EPA commended the compliance and enforcement program for successfully continuing operations. Constant communication between IDNR and EPA has greatly enhanced productivity for both parties. EPA felt that improvements should be made in the areas of penalty size and improving/increasing the timeliness of addressing HPVs. IDNR provided comments in Chapter 5 of this report.

Asbestos

On March 1 - 3, EPA Region 7 personnel visited IDNR to discuss the asbestos program. The AQB of IDNR implements a fully-delegated asbestos NESHAP program pursuant to 40 CFR Part 61, Subpart M. The program is responsible for notifications, inspections, enforcement, case development, outreach, and data management. Given the limited resources devoted to the program, the level of effort is commendable. The AQB exercises common sense and good judgment in prioritizing inspections and pursuing enforcement actions. The asbestos files are well indexed and organized, and include adequate documentation to support enforcement actions. With the loss of contractor support for EPA's national asbestos database, IDNR should consider developing an asbestos database system which will meet its needs.

EPA personnel noted that the Asbestos program continues to do a commendable job given the limited resources. EPA noted that an asbestos demolition/renovation penalty policy should be developed. Given the demise of Asbestos Contractor Tracking System (ACTS)/National Asbestos Registry System Database (NARS) contractor support, IDNR should consider developing an asbestos database system which will meet its needs.

Monitoring

IDNR is responsible for conducting the ambient air monitoring program throughout the state of Iowa. This program includes a State and Local Air Monitoring Station (SLAMS) network of air monitors for carbon monoxide, ozone, particulate matter-10 micron, particulate matter-2.5 micron, nitrogen dioxide, ammonia, and sulfur dioxide. This network is designed to meet the EPA siting regulations and is reviewed annually.

All of the monitors and the laboratory analytical procedures being utilized in this SLAMS network are EPA designated reference or equivalent methods. The standard materials used to calibrate and audit the monitoring systems are properly certified and have the required certification to NIST reference standards.

IDNR's standard operating procedures and QAPP are in good order and well written. IDNR's data completeness has historically been good for all pollutants monitored as have been the precision and accuracy results for their monitoring.

The monitoring staff at IDNR has been instrumental in submitting technical information for the Regional Monitoring Strategy. The Strategy, which should be completed by May 2005, will provide a comprehensive plan to collect air quality data which will support both regional and national environmental human health priorities. It will be submitted to EPA Headquarters to seek technical approval and monetary support.

EPA Region 7 Air Monitoring staff performed the technical system audit (TSA) in phases on the IDNR air monitoring program, including local agencies, contractors, and laboratories. The initial phase of equipment audit was completed on the required 25% of the air monitors in Iowa during January and February 2005. No major discrepancies were found in the results of these audits. Internal audits (review of pertinent paperwork and records) of all Iowa program offices were conducted in April 2005.

It should be noted that the TSA is a requirement of the Clean Air Act, rather than the Region 7 EPA program review. The timing of the TSA was coincidental with the program review, and therefore, will serve as the program review report. Although comments were provided by IDNR on the final TSA reports, the comments were administrative in nature and objectively reviewed by EPA monitoring personnel.

NOTE: Due to the phased audit, commendations and recommendations for the review were not available at the time of the exit conference as the report(s) were not complete from the internal audits conducted in April 2005. The reports were finalized in May 2005 and recommendations for Linn and Polk Counties, and the University of Iowa Hygienic Laboratory (UHL), are included in the individual TSA Reports in Appendix 7. The commendations and recommendations from the TSAs are also included in the monitoring section of this report (page 63).

Title V Fees

Code of Iowa, 455B.133B authorizes the IDNR to collect Title V permit fees and retain the fees for activities related solely to major source activities. The AQB uses a Title V Annual Emissions Summary/Fee Form 5.0 to calculate and collect an annual emission fee from all major Title V sources. The major sources pay an annual emission fee based on the first 4,000 tons of each regulated air pollutant, excluding CO and total particulate matter emissions. The Title V fees are based on the previous calendar year's actual emissions. The fee for 2005 was $32.25 per ton. The annual emission fee is set by the EPC.

The Title V fees for each source are tracked in a Title V Access Database. These revenues are recorded in an Air Quality Receipts – Daily Transmittal Listing Form and are sent to the IDNR cashier's office. The records are sent back to the AQB for validation and confirmation in the Title V Access Database.

The IDNR staff tracks their time through the use of electronic timesheets that use Cost Centers and Funding Source codes to differentiate between Title V and Non-Title V activities. Currently, Title V dollars fund 56 FTEs. Personnel expenses are reviewed monthly by the AQB.

EPA commended IDNR for implementing the Title V Fee program extremely well. The Title V fee program is very well documented, and there is excellent communication within and across the program.

Section 2
Introduction

Purpose:

Many governmental and nongovernmental entities are responsible for ensuring environmental protection throughout the nation. The majority of environmental programs are carried out through the shared responsibility of the EPA and its non-Federal partners.

In the spirit of partnership, EPA Region 7 has delegated a large share of its authority to the states. IDNR has been delegated authority for New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants under Sections 111 and 112 of the Clean Air Act, the Title V permit program, and has the authority to pass through grant funds and contracting money to local authorities and other entities as deemed appropriate. After delegation is granted, the EPA maintains responsibility for delegated programs and continues to be accountable for progress toward meeting national environmental goals and for ensuring that Federal statutes are fulfilled. The various delegated programs are described throughout this report and EPA Region 7 is pleased with the management of the programs by IDNR. It is EPA's responsibility is to ensure fair and equitable application and enforcement of Federal environmental laws, regulations, and standards, and to provide to IDNR with the necessary assistance, tools, methods, and back-up support to solve mutual environmental problems.

In delegated programs, the goal of oversight is to strengthen the relationship among EPA and its partners to ensure that the national environmental goals expressed in the EPA Strategic Plan are met and retained. Effective oversight helps to ensure adequate environmental protection through continued development and enforcement of National Ambient Air Quality Standards (NAAQS), and the use of direct enforcement action against polluters is necessary to reinforce the action and authority of the EPA's partners. Oversight also helps to enhance the partners' capabilities to administer sound environmental protection programs through increased communication and a combination of support and evaluation activities. Finally, Federal oversight seeks to describe and analyze the status of national and regional environmental quality, through continued collection and distribution of information from governmental agencies and other major sources. The EPA is fully committed to the success of its partners' environmental programs. A clear expectation for program performance is a crucial factor in achieving an effective partnership.

Fostering quality delegated programs is dynamic in nature and will vary across the different delegated entities. Conditions change, and program activities must change to respond to new environmental problems and challenges. Consequently, the methods used to oversee delegated programs must change over time, depending on the maturity and complexity of national programs and on the capability of the EPA's delegated partners.

Process:

The 1984 "EPA Policy on Oversight of Delegated Environmental Programs" provides the foundation for structuring a Program review. Starting with this policy, EPA Region 7 staff developed a *Program Review Protocol* document, which provides the justification and framework for conducting program reviews in the Air, RCRA, and Toxics Division (ARTD) of Region 7.

The protocol established a minimum frequency for conducting program reviews within the Division, defines the scope of full and partial reviews within each program, and provides a consistent basis for determining which type of review is appropriate. The protocol includes how to document a rationale for determining whether or not a program review effort is necessary, includes a summary of the regulatory requirements for the major programs within ARTD, a discussion of oversight policy, and differentiation between the requirements of grant close-out reviews and program reviews.

ARTD issued two additional documents, *Operating Principles for Conducting Program Reviews*, which outlines the process for providing consistent internal procedures, and the *Program Review Criteria Notebook*. The notebook contains criteria and checklists for each of the program areas. It was noted by EPA and IDNR that the checklists need to be revisited to more accurately evaluate the various programs.

As stated in the Program Review Protocol, Region 7 will review each state once every four years. The last review of the IDNR was 2001.

Procedure:

In 1999, EPA Region 7 developed several documents to assist staff in conducting program reviews. These documents were created to establish minimum frequency for program reviews, to set forth the rationale for program reviews, to provide consistency between programs, to provide objective criteria, and to provide a basis for determining whether a full, partial, or self assessment would be required. In addition, criteria and instructions for conducting program reviews were established to assist review teams with coordination and logistics. Finally, each program within EPA Region 7 was tasked to create checklists and program-specific criteria. The checklists provide a means of uniform review coverage as well as enabling partners to understand the minimum requirements of an adequate program. It should be noted that checklists are subject to updates as program guidance is updated. As an example, for this review the Compliance and Enforcement checklist was updated to reflect OECA guidance for program reviews. EPA Region 7 recognizes that other checklists should be reviewed and updated to reflect recent changes to process, procedures, and National guidance.

The EPA team leader for the IDNR program review started coordinating review events in the fall of 2004. It was mutually agreed by EPA and IDNR that the review would take place over a two-week period from February 22 to March 4, 2005. Checklists from various programs were e-mailed to IDNR prior to the end of the calendar year and the introductory "kick-off" letter was sent to the Air Quality Bureau Chief on January 11, 2005. IDNR completed and returned the checklists to EPA in a timely manner. Each program's checklists are included in the corresponding appendices.

Due to improved communication between EPA and IDNR, it was agreed that an entrance conference would not be necessary. Schedules, file lists, logistics, etc., were shared via e-mail or telephone prior to the arrival of EPA personnel. It was decided prior to the review, that the close-out conference would be held on April 20, in Des Moines, Iowa. Although the close-out conference is usually held on the last day of the program review, it was felt by both parties that a later date with a draft program review executive summary would initiate more useful dialogue between the parties.

EPA Region 7 provided the initial draft report to IDNR on June 15, 2005, and IDNR responded to the draft comments on July 19, 2005. However, the permitting portion of the report was delayed while final details and appendices were provided by EPA permitting personnel. The final draft report was sent to IDNR in November 2005. The appendices were shared and reviewed by IDNR personnel as well. IDNR will be submitting a formal response to the final program review report within 60 days of receipt of the official copy.

The EPA staff received the full cooperation and assistance of the AQB staff throughout the on-site visit. Supervisors and individual staff members made themselves available as necessary to answer questions or to otherwise assist the EPA staff. This cooperation in the spirit of partnership existed throughout the report-writing process as well.

Chapter 3
Planning and Program Development

The areas of review in this section include the following:

1. **Regulatory Development and Contract Analyses**
2. **Emissions Inventory**
3. **Grant and Work Plan Management**
4. **Local Agency Coordination**
5. **Training**
6. **Modeling**
7. **Small Business Assistance Program**

1. Regulatory Development and Contract Analyses

As described in the introduction, the on-site portion of the Program review took place from February 23 through March 3, with the exception of the monitoring program. EPA personnel visited the Air Quality Bureau (AQB) in Urbandale, Iowa, and conducted file reviews and took the opportunity to conduct face-to-face conversations with the AQB staff.

There are eleven positions within the Program Development Section, all of which were filled at the time of the review (See Appendix 3-1a, "IDNR Structure and Personnel"). Duties vary within the section and include, but are not limited to, both long- and short-term planning, rule development, meteorological and dispersion modeling, budgeting, State Implementation Plan (SIP) development, contract management and special projects. Since the last review, the Program Development Section has suffered numerous resource losses and only recently has become fully staffed. In spite of these changes, the Section has done a remarkable job of handling the day-to-day workload, and has come up to speed on major issues such as reviewing the New Source Review rules for approval.

In addition to the AQB staff in Urbandale, there are six field offices dispersed throughout the state (Spencer, Mason City, Manchester, Atlantic, Des Moines, and Washington). Although these offices do not actively participate in planning activities, they are involved with responding to citizen complaints as well as conducting inspections of air emission sources. A map that includes the field offices is located in Appendix 3-1a. There are also two local agencies, Polk County and Linn County, that receive "pass-through" grants from IDNR. The local agencies administer area-specific rules that complement the state's air pollution control rules.

The AQB does not directly adopt air pollution control rules. As prescribed in section 455A.6 of the Iowa Code, rule adoption is carried out by the Environmental Protection Commission (EPC). The EPC consists of nine members that are appointed by the Governor for a staggered term of four years. Three members must be actively engaged in livestock and grain

farming, one member must be engaged in the business of finance or commerce, and one must be engaged in the management of a manufacturing company. The final four must be electors of the state. Commission appointees are subject to senate confirmation. A roster of the EPC members is included as Appendix 3-1b as well as a sample agenda of the February 2005 meeting, and December 2004 meeting notes. EPC meetings are held on the third Monday of each month, generally at the AQB offices in Urbandale. The EPC is responsible for setting policy, hearing appeals in contested cases, approving/disapproving contracts, and approving the Title V budget.

When air quality rules are to be presented to the EPC, a member of the Program Development Section gives an oral and written presentation on three separate occasions: when the rule is presented for information purposes, when the rule is presented as an intended action (Notice of Intended Action, or "NOIA"), and when the rule is presented for final adoption. The last two actions include a notice of filing in the Iowa Administrative Bulletin.

There are generally four instances in which a rule is developed: Iowa legislative actions, Federal actions, workgroups efforts, and general rulemakings which are accomplished in the spring and fall. The Program Development Section provides a "Rule Recommendation Request Form" that IDNR staff is required to complete for rule development (See Appendix 3-1c). The Program Development staff has the responsibility of preparing the rules for the EPC, preparing for public hearings, meeting the requirements of the Administrative Rules Review Committee and providing follow-up with internal IDNR personnel as well as EPA personnel. At best, it takes a rule six to nine months to complete the rulemaking process from its inception to publication in the Iowa Administrative Bulletin. A summary of the rulemaking process, Schedules for Rule Making, publication procedures, a roster of the Administrative Rules Review Committee, and other materials relating to the rulemaking process are included in Appendix 3-1c.

Rules that are submitted for inclusion in the SIP are also prepared and tracked by the Program Development Section. Ideally, draft SIP revisions should be reviewed by EPA prior to the final submittal. The NOIAs and proposed rules are on the IDNR web site and EPA has made every effort to review NOIAs prior to submission so that changes in the rules are minimal. This effort has improved due to active communications between EPA and IDNR.

Improved communications includes daily phone calls or e-mails, EPA attendance at EPC meetings (as resources allow), quarterly conference calls with regard to rules, EPA attendance at quarterly meetings with local agencies as resources allow, and sharing spreadsheets on the status of pending rules. In addition, the IDNR and EPA attorneys speak when the opportunity arises on matters where legal implications may impact the rule. The fact that both the EPA and IDNR planning branches are fully staffed has had a positive impact on the expediency of the rulemaking process.

During the program review, two IDNR rules files were reviewed. The files included the documents that go to the EPC, the initial and final publication of the rule in the Iowa Administrative Bulletin, and public hearing comments and documentation, if any. If the rule is

controversial, the files may also contain information from workgroup meetings, and other correspondence to support IDNR's decision to change the original rule in any way.

The Clean Air Act (CAA) Section 105 contracts are maintained by the Program Development Section and are used to fund the appropriate activities. An example of these activities are the Ozone Flex contract for the Bi-State (Davenport) area which made use of CAA 105 funding to elevate awareness of ozone-related activities in northeast Iowa. Another contract was procured for bin vent testing that not only provided useful information about particulate matter and emissions from grain elevators in Iowa, but also provided information that could be used in other states as well.

IDNR also maintains the contracts for the local air quality agencies (Polk and Linn Counties in Iowa), the UHL for support of AQB activities, contracts for computer-base vendors (i.e., SPARS), the University of Northern Iowa Waste Reduction Center for small business technical assistance, the Department of Economic Development Small Business Liaison, and voluntary programs. An all-inclusive list of contracts initiated since the previous program review is provided in Appendix 3-1c.

2. Emissions Inventory

A technically defensible emission inventory (EI) serves as the foundation of sound public policy. The AQB contributed to the development of a comprehensive emissions inventory for the 2002 emission year. This will greatly improve the ability of the department to derive technically defensible control technologies within the state. This section will outline the organization within the Emission Inventory Unit (EIU), how the unit addresses some of the primary components of EI development, improvements made within the unit and recommendations that may further improve the program.

EI Unit Organization

The EIU is housed within the Inventory, Compliance and Monitoring Section of the AQB and consists of four staff members, including the unit team leader. The main tasks for employees in this unit consist of reviewing Iowa's minor source inventory[a] as well as assisting the public in filling out minor source Emission Inventory Questionnaires (EIQ) [1]. The team leader, however, serves as the main contact for National Emission Inventory (NEI) issues and has additional responsibilities that include oversight of other EIU staff as well as the compilation and submission of Iowa's EI to EPA's Emission Inventory Group (EIG). The EIG uses the data submitted by Iowa and other states and locals to prepare the NEI.

The EIU is not responsible for reviewing EIQ information for sources identified as point sources or Type A and B facilities according to definitions found in the Consolidated Emissions

[1] *Minor sources, in the state of Iowa, are facilities smaller than Title V sources and thus considered area sources by EPA's definition. These are not reported to the NEI.*

Reporting Rule. These sources are classified as Title V and thus the responsibility to review data currently in the SPARS database for these facilities would fall under the Operating Permits Section staff duties.

Primary Components of EI development: EI Components on outline below

Planning/Management

It is recommended that an Inventory Preparation Plan (IPP) be put together by inventory preparers. An IPP serves as a planning document that details objectives and general procedures that will be followed by the inventory preparer to document and present the inventory. Although the AQB has not prepared an IPP for the 2002 emission year for the entire state, they have prepared a Quality Assurance Project Plan (QAPP) for emission inventory preparation (See Appendix 3-2a). A QAPP serves as a tool to document the type and quality of data needed for environmental decisions and to describe the methods for collecting and assessing the data, and for purposes of the 2002 EI the QAPP can be considered to meet some of the planning and documentation objectives of an IPP. If resources allow, the EIU plans to update an IPP prepared for Scott County for the 1999 emission year and expand it to include the entire state (See Appendix 3-2b). Scott County's IPP was created with the purpose of researching and developing inventory methods that can be applied to the entire state in addition to providing detailed data that would help for planning activities related to ozone reductions in the county. We recommend that the EIU take into consideration changes currently being proposed by EPA's Emission Inventory Group to the NEI schedule when revising this IPP.

The AQB has provided adequate training opportunities to the emission inventory unit (See Appendix 3-2c). The group completes Air Pollution Training Institute courses as well as attends training offered by EPA and IDNR. Some training courses the group attended over the years include: EPA's Annual Emissions Inventory Conference, NEI development training and internal SPARS training. For the most part the minor source inventory staff, the regional modeler and the SPARS project manager are in attendance at the Annual Emission Inventory Conference.

The EIU believes they have an adequate number of project personnel to perform the tasks currently assigned to complete their minor source inventory and submittal of point sources for the NEI, but they feel that they did not have adequate resources to complete an area source inventory for the entire state for the 2002 emission year. The AQB is not certain if resources will be available to complete an area source inventory for future emission years. The AQB did not submit a mobile emission inventory for the 2002 emission year, but they did revise EPA's estimates and supply surrogates to be used for the modeling conducted by EPA. The AQB plans on completing and submitting mobile emission data to the NEI in future emission years.

Documentation/Data Entry/Quality Control

The AQB updated their database system and developed the SPARS. SPARS searches for data pertaining to permit applications, emissions data, control technologies, and other information associated with specific sources. This database has helped streamline a number of tasks associated with emissions reporting such as data entry, Quality Assurance/Quality Control (QA/QC), and reporting to the NEI.

Some functions that facilitate reporting include the option for electronic reporting, the creation of new inventories using previous inventories, auto calculation of emissions, and auto loading of control equipment. Backups of data stored in SPARS are made once a week. These are kept on site for four weeks and then are moved offsite, where they are kept for five years.

Although the use of SPARS offers a number of advantages to facilities as well as IDNR staff, the system is not currently being used by 100% of facilities in the state to report emissions. The IDNR promotes the use of SPARS to facilities and offers training on the system twice a year.

Although this system allows for the storage of data for sources required to submit emissions data in the state of Iowa, this database does not include facility information from years prior to SPARS becoming functional. The EIU recognizes the advantages of having this information available electronically and is in the process of scanning all EIQs for minor sources. The older Title V inventories were imaged, and IDNR is planning to add those images to the DocDNA server.

Data entry and QA/QC procedures can vary within the EIU staff and the Operating Permit staff. EIU staff is responsible for minor source inventory data and the Operating Permit staff is responsible for sources subject to Title V. In the subsequent text, the processes followed by each of these groups will be summarized.

When minor source EIQs are received, they are distributed to one of the members of the EIU (See Appendix 3-2d)[2]. This data is reviewed and entered into SPARS. Some quality assurance procedures are as follows:

1. Completing an "*Emission Inventory Point Source Review Checklist"* (Appendix 3-2e) – This checklist is used to conduct a completeness and technical review. This checklist helps confirm that all forms in the EIQ were completed and that emission estimates are accurate.
2. Completing an *EIQ Notes* Checklist (Appendix 3-2f) – This checklist allows for the documentation of errors found and corrected during the technical review. The EIU staff may find errors such as the use of wrong or obsolete emission factors or inaccurate emission calculations. Unless the correction requires making contact with the facility, the

[2] *Minor Source EIQs are sent to 1/3 of the facilities each year. These are usually sent in the following order Eastern third, Central third and Western third.*

reviewer can make modifications and document these on this form. An example of EIQ Notes is included in Appendix 3-2g. These notes are located in the facility file in SPARS.

3. After preliminary review, the EIQ is sent to the unit leader for further review. The unit leader will determine if all QA procedures were followed by the first reviewer.
4. Lastly, staff always compares reported emissions to historical emissions when reviewing the current inventory.

The Operating Permit staff has dedicated data entry staff that enters emission information into SPARS for facilities that submit EIQs (Appendix 3-2h) or review data submitted electronically. The data entry staff completes the *Title V Application Review: SPARS Data Entry Issues of Paper Applications* Form (Appendix 3-2i). This form allows staff to mostly address data-entry problems, not a data accuracy review. The Operating Permits staff conducts a data accuracy review for 20% of their sources each year. During this review, the staff member writes a memorandum describing why the emissions have increased or decreased, and outlining any needed corrections. This memorandum is posted on the IDNR shared drive. If corrections are needed, the memorandum is sent with a correction request letter to the facility.

Emissions Reporting and Submission

The EPA encourages states to submit their Criteria and Toxics emissions inventories to the NEI. Currently, EPA is in the final stages of reviewing the 2002 NEI. IDNR successfully completed their point source submission, followed procedures outlined in the Emission Inventory Quality Assurance Project Plan and submitted a QA audit report to EPA Region 7. IDNR planned on submitting a statewide comprehensive emissions inventory, but due to lack of resources, only point source data and ammonia area source data were submitted. However, the AQB did complete a review of the source categories found in the NEI. This review consisted mainly in identifying outliers and verifying that surrogates used truly represented the state of Iowa. The AQB hopes to have the resources and a statewide IPP in place to complete future statewide comprehensive emissions inventory. The AQB has an IPP in place for Scott County that outlines methodologies that may be applied to the creation of a statewide area and mobile emissions inventory. The AQB hopes to expand this IPP to cover the entire state.

The decisions made and procedures followed for the 2002 NEI submittal were documented and reported in the QA audit report submitted to, and received by EPA Region 7 on July 1, 2004 (See Appendix 3-2j). This report summarizes the steps taken by the EIU staff to retrieve data, perform quality assurance checks, document and correct errors found and submit emission inventory data to the EIG. This report also documents the parts of the inventory not submitted and the reasoning behind this. Some error messages obtained when running EPA's QA checker included but were not limited to: emission point duplicates, site duplicates, or emissions found to be out of range.

Conclusion and EPA commendations:

Iowa's participation in the NEI has improved significantly. IDNR has moved from not submitting data to the NEI, to creating a database that will effectively allow for reporting to the NEI and creating a QAPP that will outline the necessary steps to assure the quality of the data received and submitted to EPA. When SPARS was first operational, the AQB staff experienced some difficulties with the program. Since then, a number of improvements have taken place. These include, but are not limited to the creation of SQL scripts to export data from SPARS into a format useable for submission to the NEI and the addition of tables to facilitate NEI reporting requirements.

The AQB has recognized the need for better data for the construction and mining industry sectors within the state of Iowa and has made an effort to improve this data by sending a survey to these industries. The purpose of this survey is to collect population and activity data for equipment used for the construction and mining industry sectors. This data will help IDNR improve air pollutant emission estimates for 12 types of diesel powered equipment. The initial intention of this survey was to provide corrections to the 2002 NEI defaults for Non-Road emissions, but due to lack of response at this time, this may not be possible. The AQB plans to compare NEI defaults with emission estimates obtained using the data gathered through the survey to determine if this survey adds value to the inventory. Depending on what is found the AQB may grow estimates from 2002 to 2005, send a new survey for 2005, or accept EPA's estimates.

We commend the AQB for taking the initiative to improve their program and the quality of their data. In a small period of time IDNR's program has advanced significantly and we are confident that this progress will continue in future emission years.

EPA recommendations:

During this site visit, three Minor Source EIQs and two Title V EIQs were reviewed. This consisted of comparing hard copy EIQs to electronic EIQs for consistency. Some issues of concern were identified during this review, but it was determined that these were not caused by data entry or human errors. The problems identified include:

- ◊ Errors in mailing addresses – The EIU team leader indicated that SPARS had been linking some facility information tables inadequately and that this problem was being addressed.
- ◊ Discrepancies in emissions data found in SPARS and the EIQ – A limitation of the SPARS database was identified during this file review. SPARS rounds emission data in the computer screen to the nearest one hundredth (0.00). For example, an EIQ may indicate that the facility had 2.0×10^{-3} ton/yr of CO and what the reviewer will see on the screen is 0.00. Although this limitation only applies to emission data on the computer screen this can cause inaccurate decisions when comparing data from one year to the other. This can become a QA issue if it is not addressed. It is recommended that

information technology staff take action to address this issue to ensure that the QA procedures can be met.

3. Grant and Workplan Management

The grant cycle for CAA 105 grants are based on the Federal fiscal year (October 1 – September 30), and begins with EPA sending a "kick-off" letter in April. The letter indicates the expected award for the coming year and highlights any areas of special interest. Negotiations begin in May between the EPA and IDNR Air Quality staff. Prior to these meetings, senior management of both agencies along with the project officer of the PPA/PPG meet to discuss mutual priorities and objectives across all media. These discussions lead to the creation of the PPA which creates the basis for workplans. Currently the grant cycle covers two years with the first year being the even-numbered year and the second year being the odd-numbered year. Typically, the odd-numbered year grant negotiations make minor changes to the existing workplan.

The Iowa state budget negotiations start immediately following the approved budget. The state fiscal year is from July 1 - June 30. Since IDNR is working within three timelines (state, federal and calendar years), a budget manual is being created to assist AQB personnel that explains the various procedures. This manual is included in Appendix 3-3. It should be noted that the manual has not been finalized and is still in draft stages. As budgeting and finance procedures are ever-changing, this manual will be updated as necessary and is considered a dynamic document.

Of particular concern to EPA is the CAA 105 money being used for other programs in the PPG. Although the pretense of a PPG is much like a checkbook where funds can be used for various expenses, the CAA 105 money is distributed based on EPA's national priorities, and Region 7 has distributed money to the four states based on a formula that includes consideration of non-attainment areas, population, and air-related needs of each state. In addition, the CAA 105 funds are directly connected to workplan activities. Shifting funds from the AQB to a non-air activity distorts the proportion of funds expended for each air activity. It is fortunate that the AQB has the ability to track CAA 105 funds through a system entitled "AirBud" to ensure appropriate distribution of funds.

NOTE: CAA 103 funds are used for PM2.5 monitoring and the grant cycle is based on the calendar year.

4. Local Agency Coordination

As discussed in the Executive Summary, there are two counties in Iowa which have local air programs; Polk County and Linn County. IDNR provides oversite of these programs by audits that are conducted biennially (one local agency per year), quarterly meetings, telephone calls, e-mail and other correspondence. Copies of the most recent audits are included in Appendix 3-4.

A comprehensive Letter of Agreement (LOA) is signed annually between the local agencies and the IDNR. The contract consists of "pass-through" funds from IDNR's CAA 103 and 105 funding and Title V fees. Each county matches the CAA 105 funding using local funds. Funding is proportional to the scope of work in the LOA.

During the program review, EPA personnel had the opportunity to briefly meet with Gary Young, of the Polk County Air Quality Division. Mr. Young provided a tour of the facilities, introduced the staff, and shared information about Polk County. For instance, there are a total of 600 sources, 20 of which are Title V facilities. Mike Bronoski, EPA Region 7 also had the opportunity to visit with Mr. Young. Information about that visit is indicated later in this report. Most sources in Polk County do not "self-disclose", but if found, are fined double. The Polk County Air Quality Division is a customer-oriented facility where citizens can come and complete air permit applications and pay the related fees.

5. Training

The IDNR has a New Employee Orientation (NEO) which provides the opportunity for newly-hired staff to become familiar with IDNR. During the NEO, they also have the opportunity to meet Bureau Chiefs, Division Administrators, the Deputy Director and Director. After NEO, new staff members are required to complete required training courses, such as Diversity in the Workplace, within six months of hire. Section supervisors establish training programs for new staff members that are designed to support bureau, division, and department missions and performance goals, and the PPA/PPG.

AQB personnel have taken advantage of various "in-house" courses such as, "Ethics in the Workplace," "Managing Time and Priorities," and "Achieving Effective Communication," that have proved to be beneficial for career development.

Although training funds are included in the in-state and out-of-state travel budgets, it is difficult for a large number of staff to vacate their jobs to attend training. The state of Iowa also has travel restrictions that generally prohibit more than three IDNR staff from attending the same out-of-state training at the same time. Furthermore, many of the staff have attended the same courses repeatedly and have expressed the need for updated courses.

On a regular basis, EPA records Air Pollution Control Institute courses from satellite downlinks. These courses are catalogued and a copy of was faxed to the IDNR.

6. Modeling

The modeling unit in the AQB has experienced and dedicated people. They follow Iowa and EPA air regulations and guidance while reviewing the air dispersion modeling for Prevention of Significant Deterioration (PSD) applications. The modeling unit attends pre-application meetings with the company. The Industrial Source Complex Short-Term model is

the model used most often in the analyses. The AQB provides companies or their consultants, with the necessary meteorological and terrain data to perform an air quality analyses. Site plans from the company and aerial photographs from the Iowa GIS Department are used to verify emission point locations. The GIS Department has worked closely with the modeling unit to provide them with terrain and land use data. The modeling group has continued to be very responsive to Region 7 requests for modeling and/or meteorological data.

The modeling unit audited the modeling performed by Polk County. In addition, the agency modelers spent a week with the modeling unit reviewing procedures. The agency is required to model at least 20 percent of the permits the agency issues. This interaction and communication is important and should continue.

The permit unit reviews a company's construction permit application and determines if the modeling unit should review the application. Frequently the modeling unit has talked previously to the applicant about the modeling. The modeling unit feels that it is reviewing the majority of the permits that require a modeling review. There is considerable interaction between the permitting and modeling staff which is an improvement from the 2001 Program review. This coordination should continue.

Several construction permits identified by reviewers of EPA Region 7's Air Permitting and Compliance Branch (APCO) as having possible modeling problems were reviewed. The modeling staff provided clarification of the modeling analyses and no new problems were detected.

Presently, PSD increments are not being tracked. While this activity should be ongoing, EPA Region 7 personnel have found that this problem is not unique to Iowa.

Background values used in the air quality evaluations should be reviewed. It may be possible to have regional background values instead of statewide values. In particular the sulfur dioxide (SO_2) values should be reviewed. The same background value, 20 micrograms per cubic meter for SO_2 is used for all time periods. Background values for lead and carbon monoxide should be determined.

The latest versions of the AQB's modeling guidelines for PSD projects and for non-PSD Pre-Construction Permit Applications were reviewed with the staff. In general the guidelines are very good. However, the ambient air and fugitive emission issues that we previously commented on for construction permits, as well as the criteria for exempting projects from modeling, remain.

Fence lines or other physical barriers, not property lines, define ambient air areas. If a physical barrier does not exist, then receptors must be located on the source's property. The AQB continues to use the property line instead of the fence line for defining ambient air when reviewing construction permits. Emissions from haul roads can cause NAAQS, or increment, violations and must be considered in air quality analyses for construction permit applicants as well as for PSD applicants. Fugitive emissions from haul roads and material storage piles are

exempt from modeling unless the department has reason to believe that these units are the cause of a NAAQS violation. The exemptions from modeling based solely on distance from the source and the height of a stack above a building are not sufficient to prevent NAAQS or increment violations. There are too many variables that influence the dispersion to have a simple algorithm determine the concentrations.

EPA and IDNR need to have more discussions with the AQB to reach an agreement on the modeling guidelines.

7. Small Business Assistance Program

On February 23, 2005, Reid Bermel, Small Business Air Quality Liaison, and Sharon Timmons, Regulatory Assistance Coordinator, met with Heather Hamilton, EPA Region 7. The meeting took place in Des Moines, Iowa, from 12:30 to 2:30 P.M.

STRUCTURE OF PROGRAM:

The Small Business Air Quality Liaison Program was established in October 1995 and is located in the Iowa Department of Economic Development (IDED). One FTE has been established to fulfill the duties of this position. The Liaison is Reid Bermel, who started this position in December 2004 with a four month lapse between personnel. His direct supervisor is Sharon Timmons. For the purposes of this report, the Liaison is also referred to as the Ombudsman.

The IDNR and IDED have a Memorandum of Agreement (MOA) for the Liaison position and services are covered under a contract that is updated yearly and approved by the EPC (Appendix 3-7). IDNR also has an MOA with the Iowa Waste Reduction Center (IRWC) at the University of Iowa, Cedar Falls, Iowa, to conduct the SBAP programs. The Iowa Air Emissions Assistance Program conducts technical assistance and outreach to small businesses in Iowa.

Questions provided to the SBAP prior to the Review, and findings are as follows:

1. Are the Ombudsman and Compliance Advisory Panel Appointments (CAP) positions filled in accordance with Section 507(a) of the CAA?

Program Response: The Ombudsman position has been filled in accordance with Section 507(a) of the CAA. The position is located with IDED in the regulatory assistance team. The CAP positions have been partially appointed.

Findings: The CAP should consist of two members selected by the Governor (not small business owners), four members selected by the legislature (small business owners) and one member selected by the head of the Agency. The vacant positions are the four members that are selected by legislature. Requests to select the remaining CAP members have been made at the state and

national levels to no avail. IDNR will be working closely with its legislative liaison to make this a top priority.

The Iowa General Assembly is delinquent by eleven years. Realizing this is a political issue in many states, EPA Headquarters established a National CAP with one of the many purposes being, to assist states where CAPs do not exist or are weak. **During preparation of this report, IDNR indicated that they are again in the process of filling the CAP positions.**

Recommendations: While the appointment of a National CAP may be the interim solution, it would behoove the State of Iowa to appoint the remaining CAP members to protect and enhance the interests of the citizens of Iowa.

2. Does the Ombudsman have direct access to state agencies and officials to relay concerns of small businesses?

Program Response: The Ombudsman has direct access to state agencies and officials. Besides direct e-mails and phone calls, the officials are also available at public meetings. The most commonly attended monthly meetings would be the Client Contact meeting and the Environmental Protection Commission meeting. The Ombudsman also attends a quarterly meeting with the SBAP and DNR staff. The DNR and IDED have created an efficient protocol to effectively deliver concerns to the appropriate state agencies and officials.

Findings: When the need arises, Mr. Bermel consults with his direct supervisor and then the IDED Liaison is consulted. The IDED Liaison deals directly with the Liaison in the Governor's office.

Recommendations: None

3. Does the Ombudsman have authority and access to obtain data from state agencies?

Program Response: Yes, the Ombudsman does have authority and access to obtain data from state agencies.

Findings: No comments.

Recommendations: None

4. Have sufficient resources been provided to successfully fulfill Ombudsman/SBAP responsibilities?

Program Response: Yes, the ombudsman is involved in the budgeting process each year. Adjustments in resources can be made to the work plan and budget each spring.

During the 2001 Program Review, the SBAP was in the planning stages of initiating a needs assessment for the SBAP program. A summary of the assessment is as follows:

The assessment included four components: (1) An evaluation of Iowa's Small Business Stationary Source Technical and Compliance Assistance Program (SBTCP) communication efforts, (2) A review of best SBTCP communications practices in other states, (3) Focus group surveys of Iowa small business to determine their level of awareness and understanding, and, (4) Development of recommendations to guide future communication activities.

Assessment Results:

- SBTCP needs to collaborate with other agencies to have a more productive means of communication to the businesses, which will result in non-duplicating, effective efforts.
- There was a huge variety of communication practices among the different states that it did not appear that there was one "best" method. Methods ranged from extensive websites, to using local agencies to get the word out, mailings, newspapers, etc. Some methods worked well depending on various locales.
- The focus groups were consistent in saying that their knowledge of the laws that regulate their industry is minimum to very low. There is a need for educational opportunities, outreach and assistance programs for these industries.
- Three recommendations were suggested which including setting goals, including cross-agency efforts, and communicating information in a more understanding fashion.

Findings: None

Recommendations: None

5. Has the CAP rendered any opinions on the effectiveness of the SBAP effectiveness?

Program Response: The CAP has not been fully appointed and therefore, has not met to render opinions on the SBAP's effectiveness.

Findings: None

Recommendations: None

6. Have any reports been submitted to the EPA's Small Business Ombudsman?

Program Response: The Small Business Stationary Source Technical and Compliance Assistance Program Annual Reports were by the deadlines and included in Appendix 3-7.

Findings: None

Recommendations: None

7. What outreach techniques are currently used by the SBAP (seminars, Internet, etc.,)?

Program Response: The SBAP uses the most appropriate outreach technique for the information being delivered. Printed materials are still used while others are focused to on-line customers. A quarterly newsletter is sent to thousands of small businesses across the state by the IWRC. (http://www.iwrc.org/programs/dcinit.cfm.) Pages from the web site are included in Appendix 3-7. The toll free number (800-422-3109) has been very useful.

In addition, the Dry Cleaner Manual was recently published and is provided in Appendix 3-7. This plain-English document should be very useful to industry personnel.

Findings: Continued outreach is a priority with the SBAP. In addition, EPA provides outreach information when it is appropriately related to the SBAP, as well as funding opportunities and training.

Recommendations: None

8. Does the SBAP coordinate with the other programs, state, etc.?

Program Response: The SBAP coordinates with the IDNR, other sources within IDED as well as IWRC. It is vitally important with regard to the workshops, outreach and rulemaking to coordinate and communicate with other entities. The SBAP recently assisted in the coordination of filling the SBO vacancy. The SBAP staff participates in workgroups related to rulemaking activities and bureau and department initiatives.

Findings: None

Recommendations: None

9. Describe how well the SBAP provides compliance assistance to identify applicable requirements and obtain appropriate permits.

Program Response: Based on information obtained from Ombudsman audits, submitted construction permit applications, and discussions with SBAP staff, the SBAP level of assistance in identifying applicable requirements and obtaining appropriate construction permits is acceptable. There are occasionally problems noted with some construction permit applications, such as incomplete applications or incorrect information or calculations, submitted to IDNR, but these are easily resolved and the construction permit(s) issued.

Findings: During the Kaizen proceedings at IDNR for permitting procedures, Mr. Bermel attended to offer input from not only the SBAP standpoint, but as a former IDNR employee as well.

Recommendations: None

10. What mechanism exists to exclude sources with sufficient financial and technical resources to meet their obligations?

Program Response: The SBAP staff does not have financial eligibility criteria. Assistance is offered to all eligible small businesses.

Findings: None.

Recommendations: None

11. Has the method been established for ascertaining the eligibility of small businesses to receive assistance under the SBAP?

Program Response: The only eligibility criteria used by SBAP staff is outlined in Section 507 of the Clean Air Act. Specifically, eligibility is limited to small businesses that employ 100 or fewer individuals; does not emit 50 tons or more per year of any regulated pollutant; and emits less than 75 tons per year of all regulated pollutants.

Findings: None.

Recommendations: None

12. What mechanism exists to exclude sources with sufficient financial and technical resources to meet their obligations?

Program Response: No mechanisms are in place to exclude companies that have sufficient financial and technical resources. However, assistance is not provided to major stationary sources or to consultants.

Findings: None

Recommendations: None

Chapter 4
Permitting

Over the past several years, IDNR and EPA have established a good working relationship. Significant challenges are on the horizon for FY-2006 and beyond. These include timely issuance of pre-construction permits and re-issuance of Title V operating permits that include Compliance Assurance Monitoring (CAM) plans and Maximum Achievable Control Technology (MACT) standards promulgated since initial permit issuance. In addition, priority activities for the near future include major source NSR reform rule making; and the Clean Air Interstate Rule (CAIR).

Additional detail on each of the above, as well as additional improvement opportunities, is provided as follows.

Section I. Introduction

On February 28 through March 3, 2005, EPA Region 7 performed an evaluation of Iowa's air permitting programs. This review was conducted in part to fulfill a regional office commitment with EPA headquarters to perform an annual comprehensive review of at least one state or local agency permitting program, and in part to satisfy EPA Region 7's policy on periodic review of state and local programs. The overall scope of the review focused on 1) synthetic minor permitting, 2) New Source Performance Standards (NSPS) and NESHAP determinations, 3) establishment of enforceable permit conditions, 4) generation, accounting, and use of Title V fees, and, 5) the interaction between the Title V and NSR programs.

The review team was comprised of Ward Burns, Jon Knodel, Dan Rodriguez, and Bob Webber with Region 7's APCO branch. The team evaluated 22 source files containing approximately 45 permit projects. Most of the projects reviewed were permitted in either 2003 or 2004, and represented only a small fraction of the total projects approved during this time frame. During the review, the team also discussed a number of the projects with permit staff and had a general permitting conversation with the permit managers. Overall, we found that the department is running a very competent permitting program, continuing the trend observed during our last program review in July 2001.

The list of permits reviewed and the specific details of each review are included in Appendix 4. The majority of permit files reviewed were selected based on source type or because it appeared the source had a significant number of discreet projects over a short period of time. The remaining files were randomly selected and taken together with the others, should have generally represented the IDNR air permitting program as a whole.

Because of the EPA's national commitment to evaluate all major source preconstruction permits prior to issuance, the team chose not to evaluate the PSD air quality program during the on-site program review. Nevertheless, EPA summarized the PSD activity during 2003 and 2004. This summary of activity can be found in Appendix 4. The team also chose not to concentrate

on specific Title V permits since EPA receives all draft and proposed permits and has an opportunity to comment on these permits in real time. Instead, the review team focused on the interaction between NSR permits and Title V to assure that preconstruction permit terms were properly being incorporated into Title V permits.

Section II. Summary of Findings and Conclusions

Overall, the department continues to run a very comprehensive air permitting program. The department is fortunate to have several staff with many years of experience and knowledge in the air program. As we have found in other permitting programs, this institutional knowledge is the glue that holds the program together. Further, much of the success of the program is attributed to these individuals working together as a single, centralized organization. As was evident from our interviews and file review, the staff is knowledgeable about the air program and generally makes conservative decisions. Screening modeling for the minor source permitting actions is indicative of the IDNR's desire to protect public health. As during any review, we found both strengths and areas for improvement in the program. These are described in more detail below. On balance, though, the program is on the right track and has many attributes that serve as a good model for others to follow.

We encourage the reader not to over-emphasize or compare the relative number of strengths or weaknesses, or the relative length of text summarized in this section. Overall strengths in the program heavily outweigh any weaknesses. By necessity, the "areas for improvement" and the basis for these recommendations requires a more comprehensive review and write-up.

Commendations:

1. The files were well-maintained and contained the types of documents one would expect to find for a pre-construction review. All included comprehensive permit applications, review notes, records of conversations with the source and their consultants, final permits, and a brief engineering summary. Many also included ambient air quality analyses to demonstrate compliance with the national ambient air quality standards.

2. IDNR's efforts to make permit information available online, both through its "IowaCleanAir" website and its beta "document DNA" system has been very impressive. Despite some minor shortcomings in the "document DNA" system, we found it a very useful tool during our program review; in particular, the ability to retrieve and save individual or groups of documents in Adobe PDF format. We encourage the department to make continued use of these types of systems to make permitting information widely accessible.

3. We found many telephone conversation records and emails between the permit review staff and sources and their consultants throughout the files. This is a good indication that staff is conducting comprehensive reviews and are not necessarily taking the information in permit applications at face value.

4. We noted many instances where staff reviewed, challenged, and corrected emissions estimates made by sources and consultants. In most cases, the emission factors used were well documented. This is a healthy process to assure that applicants use the most recent, or best documented, information.

5. The number of "as built" projects appeared to drop off substantially from the last permit review. Since that time, the department has added permit forms and instructions to its website and has undertaken numerous efforts with industry to improve the permitting program, all of which appear to better educate those who must make use of the program.

6. Despite pressure to quickly issue permits or provide permit exemptions for smaller sources, the department appears to conduct a number of rigorous air quality-impact analyses on a project-by-project basis. In many cases, these analyses either led to further refined modeling or other options such as raising stack heights to eliminate adverse concentrations. For example, Ralston Purina 23-01-021, project 03-688 for a new 32.4 MMBtu/hr boiler fired on natural gas and #2 fuel oil was reviewed. The permit was issued on January 13, 2004. As a result of SO_2 modeling, the sulfur limit for the #2 oil was lowered from 0.5% by weight, as requested in the application, to 0.17% by weight. These analyses are very well documented through a series of checklists and a comprehensive summary memorandum to the file. It is encouraging to see that the minor source program generally has a strong public protection component.

7. As noted during the last program review, the department continues to place a heavy reliance on AP-42 factors for determining permit applicability and compliance with long term 12-month rolling emission limits. Unlike the last review, we noted that the department appears to be requiring more stack testing to verify actual emissions and to establish site-specific emission factors used to verify ongoing compliance. Where there is uncertainty in the process, either because emissions are projected to be near a permit applicability threshold (e.g., PSD) or because the quality of an emission factor may be poor, we continue to encourage the department to overcome this uncertainty through site-specific emission factor development.

IDNR requested clarification as whether the preceding finding was a commendation or recommendation. EPA clarified that this was meant to be a commendation. The comment was meant to emphasize that over-reliance on AP-42 can be problematic. IDNR appears to be requiring more site-specific data.

8. Most all of the serious errors noted in minor source permits issued to ethanol plants during the last review appeared to be corrected. For the projects reviewed, the department properly evaluated PSD applicability at the 100 ton-per-year threshold, included fugitive emissions, clearly documented NSPS applicability for NSPS Subparts VV and Kb, required refined modeling where concentrations were close to the air quality standards, and acknowledged the need for volatile organic compound (VOC) controls on dryers and product and raw material loadouts.

9. The permits clearly document the stack, building, emission, and other parameters used to validate any modeling results. In general, this practice assures that the applicant constructs the process as described in its application. We also noted that a significant number of these permits were later administratively amended to correct the modeling parameters if such parameters deviated more than 20% from their original design. These amendments help to create a record of what was actually built for any future modeling that may be required. In a few cases, these design changes triggered additional modeling and a re-evaluation of permit limits. But in most cases, the changes were just reflected in the permit with little or no additional review. On balance, this approach is good for protecting air quality; but may provide an opportunity for a streamlining analysis if the department finds that too many permits have to be reopened because of poor initial design estimates.

10. We appreciate IDNR's efforts over the last two years to work with affected industry, the public, and EPA, to look for streamlining opportunities in the pre-construction review program without sacrificing air quality protection. While it is probably too early to tell whether the objectives have been met, the Kaizen streamlining events are an excellent way to bring diverse parties together to seek common solutions.

Recommendations for Improvement:

> **Please note:** The "recommendations for improvement" are generally listed in priority order from those of most concern to those of least concern. EPA recommends that IDNR undertake an effort over the next few years to focus on the top two priority "areas for improvement", as these recommendations will provide for more understandable permits and permit decisions, making compliance easier.

IDNR requested that EPA clearly note if perceived deficiencies are critical components of IDNR's federally-approved programs, and whether IDNR is required to take corrective action. Upon completion of the review, EPA noted that public notice for minor source permits is the only program deficiency.

1. The "Engineering Evaluation", while found for every project, often provided only sparse details about the project as a whole. This evaluation, much like the fact sheets or statement of basis used by other states, provides an opportunity to clearly document the record for future permitting and actions and should contain a detailed explanation of the project under review, anticipated emissions from the project and source as a whole, any associated impacts analyses, and a clear rationale for why any stack testing, monitoring, record keeping, or reporting is, or is not required.

While the files contained a lot of information and permits for individual emission units, there was often no single document that brought the project together into a cohesive review. The "history of projects" is an essential tool for understanding the pace of source expansion and whether new emission units have been properly permitted. We understand that documenting this project history can be a time-consuming process, but the approach helps to provide a clear basis

for the current activity at a plant and leaves a historical trail for future permit writers. We propose that the department look for opportunities to enhance the description of its permitting activities, especially when issuing one or more permits as part of a larger project.

IDNR noted that this appears to be a "high priority" recommendation. However, EPA initially stated that it is simply encouraging the department to look for opportunities to enhance the description of permitting activities. EPA revised the language from "encourage" to propose" in the previous paragraph, fourth sentence.

2. Because of the department's focus on emission points when issuing permits, a project may often be comprised of as many as 15-20 permits. One project reviewed involved amendments to 39 permits. Each individual permit is 8-10 pages and contains just over one page of unique information for the emission unit, including point specific emission limitations, testing requirements, any special record keeping or reporting requirements, and information detailing stack parameters. The remaining 7-9 pages set forth boilerplate language, which is then repeated for every permit. The repetitive nature of the standard conditions for each permit seems to offer a streamlining opportunity that could result in substantial resource savings, both in terms of time spent printing and collating the documents and in the amount of paper utilized. EPA suggests placing multiple emission points under one set of standard conditions. This may also assist in implementing our suggestion to enhance the Engineering Analysis and may make the meaningful project conditions more readily accessible to inspectors, the public, and permit writers who must incorporate these requirements into Title V operating permits.

IDNR questioned the severity of this finding. EPA responded that the preceding finding is an area for improvement as it appeared that a large amount of time and office supplies are expended on portions of the permits that are repetitive and not value-added for other than the first permit document.

3. A significant number of permits contained plant-wide emission caps or other limitations to assist a source in staying below the major source thresholds for HAPs or PSD review. With the ability for certain source categories to rapidly expand and a general industry desire to avoid major source preconstruction review, we recommend inclusion of a forward-looking condition that clearly describes the consequences, beyond enforcement, of not meeting those limits. For example, if a source takes a limit to avoid PSD review, Title V or 112(g) review for HAPs, one non-enforcement consequence is the source must go back and obtain the appropriate permit as though the project has not been constructed. Language, like that contained in EPA's PSD 40 CFR 52.21(r)(4) relaxation provisions, would help to minimize any surprises.

4. All permits containing an emissions cap, such as those used to limit a HAP source from becoming major or allowing an individual project to avoid PSD review, specified a compliance verification period of 12 months, rolled monthly. The "rolling" aspect is generally acceptable, but of the permits reviewed, 1) none indicated that the department required the source to justify the need for such a long term emission cap, 2) none had a clear verification or reporting mechanism for determining compliance during the <u>initial</u> 12-month period, 3) all imposed a

monthly record keeping and verification of compliance contrary to EPA policy of daily record keeping, and, 4) none contained any methodology for computing the 12-month rolling sum or any adjustments to total emissions (e.g., such as reclaim or shipment of off-site wastes). We recommend that the department document the need for a rolling 12-month period in a memorandum to the file or in the Engineering Analysis. If a long-term period is justified - based on a highly variable day-to-day or seasonal emissions fluctuation - then the permit should also include a special condition for the first 12-month period which states, for example, "that any exceedance of the cap during the initial 12 month period constitutes a violation which must be immediately reported to the department." If emissions are not variable, then the permit should impose shorter averaging periods. Lastly, we strongly recommend that the department specify clear procedures for calculating the 12-month sum, either through the inclusion of example emissions accounting forms, by specifying the actual mass balance equations, including explicit calculation instructions in each permit, or any combination thereof. (See January 25, 1995, guidance: "Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act (Act)" and June 13, 1989, "Guidance on Limiting Potential to Emit in New Source Permitting").

IDNR requested federal authority for the previous requirement which EPA added as the last sentence. EPA further responding by clarifying that the intent of this comment was to make sure the Department is writing permit conditions that are permanent, quantifiable and otherwise enforceable as a practical matter. "Blanket limits" without any clarification on how they are to be determined are not recognized for limiting potential to emit restrictions. If IDNR is going to continue to issue these types of limits, they should look for ways to improve the clarity of such limits.

5. When a "no modeling" or "no stack testing" decision is made, it would be helpful to document the basis for that decision in the record. We found many instances where such decisions were made, but the reason for the exemption was unclear or undocumented altogether. For example, could it be that the exception is consistent with a department policy or guidance document? Or, are the anticipated emissions so far below the limit that they could reasonably be expected to demonstrate compliance? Or, has the source previously tested and the department is willing to use such results for subsequent permitting? Documenting these actions, beyond a "yes" or "no" answer, would assure a better level of consistency between permit reviewers and provide a historical record for such decision.

IDNR commented that modeling and testing decisions should have been documented in the engineering notes and if the notes were lacking, EPA should note the specific projects so IDNR can appropriately respond. EPA observed that modeling and/or testing deficiencies were noted in the summary finding for each file reviewed. This was a very minor oversight but one which could easily be improved by providing a basis for the "no test" or "no modeling" decision other than "not performed". (For other examples, see Alliant Energy, CGB Printing, and Manidra Milling comments.)

6. For at least two of the eight source files reviewed, it was evident that the department questioned multiple, sequential projects that occurred over a short amount of time. This is an important practice to assure that "related" projects do not escape major source review by virtue of splitting themselves into multiple, minor projects. For the remaining source files, the nature of the sequential permit actions was related to administrative permit changes, so even if considered together, none of the reviewed projects would have triggered major new source review. Nevertheless, for future permitting actions it would be worthwhile for the review engineer to create an enhanced paper trail either in the "Engineering Analysis" or a memorandum to the file detailing why the current project is, or is not part of any other permitting action occurring within the past 12-18 months.

EPA observed a large number of administrative permit amendments and did not identify enough information to make a finding that IDNR's efforts were defective; however in limited cases, when it was apparent a large number of permitting actions were occurring, an analysis could be found. Since the 2001 review, EPA concluded that the proceeding three years of documentation was less rigorous than before.

7. We noted that the permits almost always correctly document applicability of NSPS, NESHAP, or MACT standards.

IDNR had concerns with regard to permits that may not have had correctly documented applicability of NSPS, NESHAP, or MACT standards. EPA noted that deficiencies were annotated in the summary findings for each file that was reviewed. The summary is located as Appendix 4.

An example of a permit where the applicability determination was questionable was annotated in the Otter Tail Ethanol file as follows:

"Project 03-554 authorizes the installation of a boiler with a design capacity of 100 mmBtu/hr. Restrictions in the permit on fuel usage effectively limit the boiler to less than its full annual capacity. The permit notes that the boiler is subject to NSPS Subpart Dc by virtue of this restriction. But, based on EPA guidance available on the Applicability Determinations Index (ADI) (http://cfpub.epa.gov/adi/) and in recent, unrelated discussions with the department, it is clear that such fuel restrictions may not be used to limit applicability for NSPS purposes. If the boiler has a design capacity of 100 mmBtu/hr or exceeds this level on a short term basis, it would be subject to the more substantive boiler standards under NSPS Subpart Db. The department should re-evaluate its Subpart Dc finding and notify the company that the boiler will be subject to Subpart Db unless physical changes are made to the boiler which limits its design capacity. The ADI provides further guidance on what type of physical changes are acceptable."

EPA recommends that the department review and evaluate the specific findings for Otter Tail Ethanol, and take any corrective action that may be necessary.

Also see in Appendix 4: Alliant Energy, #90-70-001 (comment 3); Climax Molybdenum, #56-02-021 (comment 1); and Keokuk Steel, (#03-531 comment 1).

Program Deficiency:

EPA identified one program deficiency during the review as follow:

IDNR does not public notice its minor NSR permits as required by Section 110 of The Clean Air Act (CAA). Section 110 (a)(2)(C) requires that the SIP contain a program to ensure that construction or modification of stationary sources will not interfere with achieving the ambient air quality standards. EPA's implementing regulation, 40 CFR 51.161, states that the program required by the statute "must" provide opportunity for public comment, including opportunity to comment on the permitting authority's proposed decision on the construction or modification of a stationary source. We are requesting that IDNR update its minor NSR program to include public notice and comments as required by 40 CFR 51.161.

Other Observations:

Note – these observations are meant to be neither commendations or recommendations, but rather a statement documenting the baseline that was observed during the review.

Over the past couple of years, EPA has taken an interest in variances issued by states to allow sources to commence construction prior to obtaining all required approvals. EPA's position is that any source that commences construction without the appropriate permit conditions to limit major source permit applicability (e.g., PSD, Title V, Section 112(g)) is in violation of those requirements. Several states have revised their SIPs to allow for pre-construction waivers for true minor sources, but we have observed that sources may also try to seek a waiver to begin major source construction activities prior to receiving their permits. During our review of the Iowa permit program, we attempted to look at how Iowa addresses these variance requests. EPA's findings are summarized as follows:

- Using the "document DNA" search tool, we observed that the department approved approximately 30 variances from pre-construction permitting during the 2003 and 2004 review period. During this same period, IDNR disapproved two pre-construction waiver requests.

- Although EPA does not endorse the use of waivers to allow sources to construct without a valid construction permit, were recognize that often states use this tool to prioritize project reviews. The two waiver disapprovals were appropriate since the sources requesting them were simultaneously seeking synthetic minor permits to keep them out of either Section 112(g) or PSD review.

- None of the 30 waiver approvals appear to be contrary to EPA's position described above. The various requests involved permission to, 1) conduct short testing

programs, 2) install temporary equipment where the primary equipment suffered catastrophic failure and a shutdown would cause severe hardship to the company and its employees, 3) conduct short (e.g., 3-5 day) research and development trial runs to determine product viability before permanently reconfiguring the process, 4) install temporary pollution controls during maintenance, replacement, or repair of permanent controls, and 5) undertake emergency modifications deemed as a safety hazard by another regulatory agency.

IDNR commented that the previous finding appeared to be a commendation. EPA responded that the response were not meant to be either a "commendation" or "recommendation for improvement" but rather a statement documenting the baseline that was observed during the review. The previous finding is included in "other observations."

- In all cases, the sources had to emit at or below their previously permitted levels and in a few instances the department modeled the resulting emissions to assure that no ambient problems would be created by granting the variance.

- Overall, it appears the department is taking a reasonable approach to evaluating construction permit variances and only approving those that would not otherwise trigger major source review. We encourage the department to remain vigilant and assure that pre-construction waivers are used only when absolutely necessary, consistent with the principles identified above.

Section III. Summary of Iowa Title V Review

EPA granted interim approval to the Iowa Title V permitting program in a rulemaking dated September 1, 1995, and final approval September 12, 1997. Based upon that approval, under the authority of the Clean Air Act, IDNR was to issue all initial Title V permits within 3 years of that effective date, or no late than, September 12, 2000. As of January 2005, IDNR has not issued all initial Title V permits (see January 6, 2005, e-mail from Harriett Jones, "Removing Barriers to issuing Major Source Operating Permits", Appendix 4).

Failure to issue timely Title V permits has affected IDNR's ability to apply CAM requirements, since the CAM requirements are effective on permit renewal. These rules, promulgated on October 22, 1997, assure that control measures taken by the owner or operator to achieve compliance are properly operated and maintained so that the owner or operator continues to achieve compliance with applicable requirements.

We continue to strongly encourage IDNR to issue the remaining initial Title V permits, IDNR may want to consider additional resources for Title V permitting if they are not currently able to issue permits in a timely manner.

Additionally, as we approach the end of the issuance cycle of the initial Title V permits and move towards the renewal permits, we can, and should look for ways to learn from our experiences over the last several years and seek to continuously improve. One such opportunity for improvement that impacts all Iowa Title V permits is the combination of the two separate documents currently prepared by IDNR (i.e., the Fact Sheet and the Permit Writer's Notes) into a single document (i.e., Statement of Basis). We do not believe that this would result in additional effort, and we believe that the benefit would be a significantly improved Statement of Basis. We hope that you will carefully consider this recommendation as it applies to future permits.

Observations:

Note – these observations are meant to be neither commendations or recommendations, but rather a statement documenting the baseline that was observed during the review.

1. EPA commends IDNR for their efforts to ensure that NSPS and MACT applicabilities in Title V permits are correct.

2. Iowa operating permit writers use a "Title V Permit Review Checksheet" and "Title V Permit Review Manual" to help the permit writers. Having these formal checklists helps reduce errors.

3. IDNR provides reminders to Title V sources to apply for renewal permits.

4. The Operating Permit Section currently is almost fully staffed for Title V (one permit writer short). IDNR is having problems keeping experienced staff.

- One-half of writers (4) have less than two years experience;
- Two have between two and four years experience; and
- Two have four or five years experience.

PSD Program Activity

As previously stated, EPA R7 did not have the opportunity to review the entire IDNR PSD program. Rather, EPA personnel reviewed 22 PSD actions from the last several years to gain a broad understanding of the PSD program processes. Although EPA had comments on the draft permits, (Appendix 4), it should be noted that outstanding issues were resolved prior to issuing the permits.

Commendations in their entirety are as follows:

Commendations:

1. The department routinely reviews proposals for SIP (including PSD and Title V) and federal regulation applicability.

2. NSPS/NESHAP determinations are set forth in writing, generally in permit cover letters.

3. Construction was not allowed to commence before construction permit issuance.

4. Permits are generally issued in a timely manner.

5. The intended averaging period for an emission limit is, most always, set forth in permits; re: run duration, runs per test and test method(s). The averaging periods are consistent with the averaging periods of applicable NAAQS.

6. Permits identify provisions not intended to be enforceable.

7. Permits do not contain vague provisions.

8. Permits incorporate the associated permit applications.

9. Permits contain deadlines for commencement and for completion of construction.

10. Permits that were reviewed set forth monitoring requirements.

11. Permits set forth excess emission "reporting" and "action" requirements.

Chapter 5
Compliance and Enforcement

A. Introduction

APCO last conducted a review of the IDNR's Air Compliance and Enforcement Program in July 2001, as part of an entire program review of IDNR's Air Quality Bureau (AQB). The final report for this review was issued on April 16, 2002. The previous review of the program was conducted in May 1999. Due to the short interval between reviews and the regular communication between the R7 Iowa Compliance Coordinator (ICC) and the Inventory, Compliance and Monitoring Section (ICMS) of the AQB, this 2005 review was targeted based on outstanding areas identified in the 2001 review as well as a few new areas. These new areas included Ethanol plant enforcement and the Compliance Monitoring Strategy portion of the Draft State Enforcement Review Framework. The Framework will eventually be the protocol for all future program reviews.

The program areas evaluated in the 2005 program review are as follows:

◦ Identification of violations

◦ Designation of High Priority Violators

◦ Timely and appropriate response to High Priority Violators

◦ Tracking of required facility submittals

◦ Tracking and Review of Excess Emission Reports

◦ Local agency oversight

◦ AQB facility files vs. Field Office (FO) facility files

◦ Ethanol plant enforcement

◦ Compliance Monitoring Strategy (CMS) Implementation

◦ Minimum Data Requirements

B. Overview of IDNR Air Enforcement Program

This section is being updated from the 1999 and 2001 program review reports because the organization of the IDNR with respect to air compliance and enforcement has changed. The air compliance and enforcement program consists of a central office enforcement and compliance unit, six field offices distributed throughout the state, and a central office legal group. The enforcement and compliance unit is organized as the ICMS under the AQB,

Environmental Services Division. The ICMS consists of four staff. The six field offices are organized under the Field Services and Compliance Bureau, Environmental Services Division and include at least two inspectors in each field office with some responsibility for air quality matters. The legal services group is organized under Legal Services and answers directly to the Deputy Director. Two attorneys are assigned to air quality matters under Legal Services. It is important to note that although the ICMS regularly coordinates with the field offices in the Field Services and Compliance Bureau and with Legal Services, these entities are located outside the AQB and have separate management.

The field offices perform all IDNR air quality inspections. The enforcement response to any violation identified in an inspection generally follows the guidance in the Air Quality Inspector's Handbook. The Air Quality Inspector's Handbook is somewhat dated. Complaints received at the field office or received at, and forwarded by, the ICMS or EPA are also forwarded to the field office for follow up.

The ICMS pursues enforcement actions based upon review of facility submittals such as Title V certifications, Excess Emission Reports, stack test reports and referrals from the Construction Permit and Operating Permit Sections. The response to any violations identified generally follow the Air Quality Inspector's Handbook, the Enforcement Procedures for Late Title V Reports (guidance), and the Timely and Appropriate Enforcement Response to High Priority Violation (guidance).

Legal Services develops administrative orders, penalty orders, consent agreements and referrals to the Attorney General's office based on information received from the FOs and the ICMS. Referrals to the Attorney General's office must be approved by the EPC before going to the Attorney General's office.

C. Program Review Methodology

Each program area evaluated was based on the review of different information which will be explained in the respective discussion of program areas.

D. Evaluation of Program Areas

1. Identification of violations

This program review criteria will be discussed in two sections. The first section will discuss the identification of violations by the FOs. The second section will discuss identification of violations by the ICMS.

The FOs identify violations while conducting inspections and to a lesser extent from follow up to complaints and from receipt of excess emission reports. Region 7's review of the FOs' identification of violations is based on the Region 7's on-line or hard copy review of 46 compliance and enforcement files from calendar years 2000-2004 which were housed at the AQB's office. The review was conducted during the period February 28-March 2, 2005, by Mike Bronoski, the ICC and Lisa Hanlon, the Missouri Enforcement Coordinator. All files reviewed

were Title V major sources except for 4 of 5 ethanol plants which were synthetic minor sources. In hindsight, the selection of Title V sources for review versus other types of sources was not optimum because the Iowa Enforcement Coordinator receives copies of the Notices of Violation (NOVs) issued to every major source so he was already familiar with many of the violations identified and the FO's follow up to the violations identified.

In the 46 files reviewed, 14 inspections were identified where violations were discovered. Ten NOVs were issued for the violations identified. Nine of ten (90%) of these NOVs were for record keeping violations and the remaining NOV was for an inaccurate Annual Title V Certification. Two of the NOVs for record keeping violations also included separate violations for a late stack test, inaccurate stack parameters in a permit and no Title V Operation and Maintenance Plan. The remaining five inspections where violations were found but where no NOV was issued involved situations where IDNR exercised enforcement discretion. For example, two of these violations were failure to keep 12 month rolling totals where the facility was keeping monthly totals. One involved a permit condition that was required by the construction permit but which never made it into the Title V permit. Another involved a facility that was not completely performing its NSPS Subpart VV monitoring because the facility was working with a consultant at the time of the inspection to set up a facility-wide monitoring protocol. R7 agrees that these scenarios merited use of enforcement discretion. Overall, the FOs responded to the violations identified by following the guidance provided in the Air Quality Inspectors Handbook discussed earlier. None of these violations where a NOV was issued resulted in further enforcement; however, Region 7 is aware from the bi-monthly Region 7/IDNR enforcement coordination calls that the FOs periodically refer violations to Legal Services for the preparation of a penalty or non-penalty compliance order.

Four references to complaints were also found in the files reviewed. In all cases, the FOs followed up on the complaint almost immediately resulting in two inspections, the issuance of a NOV, and a follow up telephone conversation with the complainant. These results are consistent with the experiences of the ICC. The ICC regularly receives complaints from the general public, immediately forwards them to the appropriate FO and then receives a response from the FOs on its follow up. This experience demonstrates the same timely response.

Overall, Region 7 concludes that the FO's identification of violations, follow up enforcement actions and follow up on complaints is good.

The ICMS identifies violations from the review of reports submitted by facilities, from referrals from the Construction Permitting and Title V Permitting Sections and to a lesser extent from violations identified by the FOs where the FO does not wish to take an enforcement action itself. The reports submitted by facilities include but are not limited to Title V annual certifications, Title V semi-annual monitoring reports, MACT semi-annual and annual reports and COM/CEMS Excess Emission Reports. The Title V annual certifications and Title V semi-annual monitoring reports were found in the files reviewed during the on-site program review, but were not reviewed individually because the ICMS and the ICC discuss every certification and any enforcement follow up in special teleconferences conducted every year following the due date for annual certifications. A sample of the enforcement responses taken in response to deviations identified follows this report. Any criticism of the enforcement responses taken by

the ICMS must recognize that the ICC is a party to these decisions. Similarly, violations identified in other reports received from major sources where a NOV is issued are discussed on the bi-monthly ICMS/Region 7 enforcement coordination calls. The ICC is again a party to any enforcement decisions.

Potential violations at major sources referred to the ICMS by the Construction Permitting or Title V Permitting Sections or the FOs where a NOV has been issued are also discussed at the bi-monthly ICMS/Region 7 enforcement calls. The ICC is again a party to any enforcement decisions.

The approach of using the bi-monthly conference calls as the basis for monitoring state enforcement activity and enforcement decisions at major sources does not provide for ICC oversight of violations and follow up enforcement at minor sources. Region 7 believes that this lack of oversight is acceptable since EPA Headquarters emphasis is on major and synthetic minor sources only and not on minor sources.

Although there are possibly several methods for evaluating the ICMS's identification of violations and enforcement follow up, one method is to look at the number of NOVs, Administrative Orders, and Consent Agreements issued as well as the number of referrals made to the State Attorney General's Office. OTIS and/or AFS retrievals for this information were performed for calendar years 2003 and 2004 and the data are shown below. In reviewing the table, it should be noted that penalties are usually collected with Administrative Orders, Consent Agreements and Referrals so that these actions should be considered together when evaluating the ICMS's assessment of penalties.

Enforcement Action Type	**Major Sources**		**Minor Sources**	
	2003	**2004**	**2003**	**2004**
NOVs	143	118	173	128
Administrative Orders	4	4	13	10
Consent Agreements	8	3		1
Referrals to AG Office	1	1		

Without having similar data that would represent a national average, it is difficult to assess how the ICMS compares to other states. However, it is Region 7's conclusion that the ICMS's identification of violations and enforcement follow up is good.

2. Designation of High Priority Violators (HPVs)

Any discussion of the ICMS's implementation of the HPV Policy must first recognize that it is the IDNR AQB position that the HPV Policy is EPA's policy and that IDNR AQB has not adopted the Policy, but will follow it to the extent it deems appropriate. Further, IDNR takes this position in direct opposition to STAPPA/ALAPCO which approved the Policy by stating that although a member of STAPPA/ALAPCO, STAPPA/ALAPCO does not speak for IDNR.

HPV designations are made by the Program and Region 7 at the bi-monthly Region 7/ICMS enforcement coordination conference call. The 2001 program review report identified that certain HPV designations were not being made because neither the Region 7 ICC nor the ICMS acted to designate certain violations as HPVs on the bi-monthly calls. These violations were generally of two types, failed stack tests and opacity violations, where calculations were needed to be performed to confirm a HPV designation per the HPV Policy. This deficiency on the part of the Region ICC and the ICMS was corrected soon after the 2001 program review. HPV designations are now made in strict accordance with the HPV policy by the Region 7 ICC even if the ICMS disagrees. As a result, any data pull of HPV designations since the 2001 program review will likely show a higher percentage of HPV designations.

3. Timely and appropriate response to HPVs

Timeliness refers to the amount of time it takes to address an HPV. In general, an HPV can be addressed by the issuance of a penalty or non-penalty order or by referring a HPV to the State Attorney General's office. Ten (10) designations in AFS HPV Addressed/Unaddressed 620 reports dated March 2, 2005, were reviewed for compliance with the Day 270 criterion for addressing a HPV. The Day 270 criterion was met for two HPVs (20%), there was time remaining to address four HPVs (40%), and the remaining four HPVs (40%) missed the deadline. This compares to 41%, 6% and 48% respectively identified at the time of the 2001 program review. The reasons for missing the 270 day deadline for the current four HPVs vary widely between facilities and will not be discussed here. However, it can be said that the ICMS has recently addressed one of the four unaddressed HPVs and is currently in the final stages of initiating an addressing action for the remaining three unaddressed HPVs. Region 7 is committing to emphasize this requirement with the ICMS by reviewing the Day 270 date for each HPV on the bimonthly Region 7/ICMS enforcement coordination call.

Appropriateness refers to the type of enforcement action taken and the amount of penalty collected. The HPV Policy generally calls for all HPVs to be addressed with a penalty action, although some readers of the HPV Policy conclude that a penalty is not required. Using the same current 10 HPV designations discussed above, of which two HPVs were identified as being addressed, a penalty was collected for the one HPV (Holcim) and a penalty is expected to be collected for the second HPV (Roquette) since the violation was referred to the AG's office. Of the eight remaining HPVs for which the Day 270 date is in the future and/or has passed, a penalty was recently assessed for one (CDI), a penalty is expected to be assessed for three of the HPVs and no penalty is expected to be assessed for four of the HPVs. The reason that no penalty is expected to be assessed for four of the HPVs is because the violations are "failed stack tests" where the facilities have, or will apply for, and will likely receive, legitimate, revised emission limits.

Although the HPV Policy establishes enforcement responses and time lines for violations identified as High Priority Violations, the IDNR/AQB/ICMS has no formal response policy for lesser violations which are not HPVs other than the policy found in the "Air Quality Inspectors Handbook" and the internal ICMS document entitled "Enforcement Procedures for Late Title V Reports." Region 7 believes that the enforcement response to HPVs as well as lesser violations should be identified in a formal enforcement policy.

Because the reporting of penalties collected in AFS is not a required Minimum Data Requirement and because EPA Headquarters has still not decided how penalties should be entered into AFS, it is somewhat difficult to evaluate the ICMS's assessment of penalties. For some unknown period of time, Region 7 and the ICMS have had an informal agreement that Region 7 will enter all penalties collected from major sources into AFS so at least this information is in the AFS database and is assumed accurate. An AFS retrieval of penalties collected by IDNR from calendar year 2000 to the present shows other penalty information, however, and it is not known if the information is complete or accurate. Using all this information, AFS shows penalties collected from 15 major sources that ranged from $600-$10,000, from eight synthetic minor sources that ranged from $1,000-$8,000, and from two minor sources that ranged from $2,500-$5,000. All that is legitimately concluded from this information is that the ICMS is collecting penalties for a variety of violations from major, synthetic minor and minor sources, and that these penalties are significantly lower than what EPA might collect for the same violations based on the Clean Air Act Civil Penalty Policy.

The only other information Region 7 is aware of with respect to penalties is that the ICMS assesses penalties based on the Iowa Administrative Code (IAC) sections 455B.109 and 455B.146. IAC 455B.109 allows for the administrative assessment of penalties of not more than $10,000 for violation of rules, permits or orders and requires the consideration of the factors of economic benefit, gravity and culpability when proposing or assessing penalties. These factors are generally the same factors required to be considered for administrative penalties under the Section 113(e) - Penalty Assessment Criteria of the Clean Air Act. IAC 455B.146 allows for the Attorney General to institute a civil action for the assessment of penalties not to exceed $10,000 per day for each day such violation occurs. The significance of IAC 455B.146 to the ICMS is that the ICMS regularly chooses to assess a penalty administratively rather than referring a violation to the Attorney General's office because of the regular, lengthy delays encountered in pursuing a penalty through the Attorney General's office.

It was learned at the April 20, 2005, Program review closeout meeting that the Iowa Legislature is currently considering raising the cap on administrative penalties from $10,000 to $20,000. If adopted, this change will go a long way toward addressing Region 7 concerns with low penalties. However, regardless of whatever cap is ultimately established, Region 7 also believes that the ICMS should develop a penalty policy to allow for consistent assessment of penalties up to the cap.

Overall, Region 7 concludes that ICMS is assessing reasonable penalties given the limitations discussed above and knowing what the remaining three Region 7 states are collecting as penalties.

4. Tracking of required facility submittals

Although tracking of MACT submittals is not required, the 2001 program review report identified that MACT submittals were entered into a spreadsheet "as received." This approach allowed for violations to be missed if reports were not anticipated by the ICMS and subsequently

not received. This deficiency was to be addressed by creation and use of the Compliance and Enforcement Module of the SPARS database. The Compliance and Enforcement Module has yet to be created, so this deficiency remains. It is Region 7's understanding that creation and implementation of the Compliance and Enforcement Module is again underway after being at a standstill.

5. Tracking and review of Excess Emission Reports

The 2001 Program review report identified that Excess Emission Reports (EERs) were not regularly being entered into the PC-CEMs database directly and/or being forwarded to Region 7 for entry. This deficiency was corrected soon after the 2001 Program review; Region 7 is now receiving results of the EERs reviews regularly for entry into the PC-CEMs database by Region 7.

6. Local agency oversight

Region 7's review of the ICMS's oversight of the Polk County and Linn County local programs compliance and enforcement programs included a review of the respective Interagency Agreements, the quarterly reports submitted by the local agencies, and the compliance and enforcement sections of the IDNR audit reports. A comparison between the ICMS's completed file review checklists for select facility files and Region 7's file review of the same files during the 2005 on-site visit was also conducted.

Region 7 was pleased to see that the Interagency Agreements require that the local agencies perform all the tasks that Region 7 requires of the ICMS and field offices. These tasks required of the ICMS are either documented in the formal CAA Section 105 grant work plans, or are undocumented because they are informal. For example, as discussed earlier, although the ICMS makes it a point to say that it has not adopted the HPV Policy, the Interagency Agreements require that the local agencies follow the HPV policy.

Region 7's reviews of the quarterly reports submitted by the local agency also show that the ICMS performs adequate oversight of the local agencies on a quarterly basis. The quarterly reports include but are not limited to information on inspections completed and enforcement actions initiated.

Region 7's review of the IDNR audit reports was completed after review of some of the same facility files that the ICMS reviewed during IDNR's most recent audits of the local programs. Region 7 was again pleased to see that ICMS's comments in the audit reports for the local agencies were the same type of comments that Region 7 has made during the Program reviews for the IDNR. Overall, the ICMS section of the IDNR audit reports concluded that there were some minor problems needing improvement in areas where Region 7 would agree.

Region 7 concludes that ICMS oversight of the compliance and enforcement program of the local agencies is more than adequate. Region 7 would also like to note that this positive finding was not the finding from the Program reviews conducted in some of the other Region 7

states and hence the emphasis on this program review criteria in this program review of the ICMS.

7. Air Quality Bureau facility files vs. FO facility files

Both the 1999 and 2001 program reviews identified that some of the material contained in the FO files were not present in the AQB facility files. Although no FO compliance and enforcement facility files were reviewed during the 2005 program, it was obvious that some of the FO file information was absent from the AQB. For example, the Region 7 ICC knows that all complaints are directed to the FO for follow up. As previously discussed in D.1., few complaints were found in the AQB files reviewed.

Since knowing the enforcement history of a facility is important when considering further enforcement, it continues to be Region 7's opinion that the AQB facilities should be compelled to include all compliance and enforcement material in the FO files. This is the basis for Region 7's continuing comment on this subject. This alleged deficiency may take care of itself if the new electronic file system incorporates all documents. If not, R7 is willing to let this matter go if the ICMS acknowledges that it reviews or somehow considers what is in the FO files when making enforcement decisions.

8. Ethanol plant enforcement

Region 7 has been participating for several years in a national initiative involving VOC emissions from dryers at new and existing ethanol plants. Under the national initiative, Region 7 has taken the enforcement lead for addressing violations at two existing ethanol plants in Missouri and one in Kansas. IDNR has elected to be the enforcement lead for all new and existing ethanol plants in Iowa. The purpose of this review item was to evaluate if IDNR was following the intent of the national settlements in the permitting of new plants and in addressing violations at existing plants. The national settlements generally require the installation of thermal oxidizers on dryers at new or existing plants. Region 7 selected five plants in Iowa for which the files would be reviewed. It turned out that all of the plants selected were new plants. As a result, the files were checked to see if (1) an application was filed before construction commenced; (2) a construction permit was issued before construction commenced; and (3) a thermal dryer was required as control on any applicable dryer. In all five cases, conditions (1) through (3) were met and it was concluded that IDNR is following the spirit of the national settlement as least as far as new plants are concerned.

9. Compliance Monitoring Strategy (CMS) implementation

The proposed State Enforcement Review Framework (Framework) concentrates in part on implementation of the CMS. Since this program review requires an evaluation of CMS implementation, the Framework evaluation criteria will be used for this program review. The data presented below is from the IDEA database as called for by the Framework. It should be

noted, however, that there are several ways to pull data from which to assess CMS performance and analyses of other data could show slightly different results.

Metric a-CAA Major Full Compliance Evaluation (FCE) Coverage in last two years: CMS requires that a Full Compliance Evaluation (FCE) be conducted at Title V sources every two years. At the time of the IDEA retrieval on February 22, 2005, there were 271 facilities with Title V air programs of which 169 received FCEs in 2004. This is 62% of the Title V universe which is greater than the 50% required by CMS. The ICMS appears to have met this Metric for 2004.

Metric b-CAA Synthetic Minor 80% sources (SM-80) FCE Coverage in last five years: At the time of the IDEA retrieval on February 22, 2005, there were 661 facilities in the 80% Synthetic Minor universe of which 244 received FCEs in 2004. This is 33% of the 80% Synthetic Minor universe which is greater than the 20% (once every 5 years) required by CMS. The ICMS appears to have met this Metric for 2004.

Metric d-Review of Self-certifications completed: The IMCS has reviewed 100% of the Title V self-certifications annually since inception of the program.

Metric e-Number of facilities with unknown compliance status: An AFS data retrieval on 03/14/05 identified that 37 CMS sources were listed as having an Unknown plant wide compliance status. The original CMS Policy dated April 2001, calls for the plant wide compliance status to automatically change to Unknown if a FCE has not been conducted within two years of the 1st FCE having been conducted on a 365 day rolling basis. The Policy was changed in late 2004 to change the 365 rolling day basis to a two Federal Fiscal Year basis. Region 7 does not know if this change has actually been made in the appropriate database so cannot comment on the correctness of the 37 sources identified.

10. Minimum Data Requirements (MDR)

The CAA Section 105 grant work plan entered into bi-annually between Region 7 and the IDNR requires that MDRs be entered into the AFS data system. Since the inception of CMS, MDRs have been entered per an informal agreement between Region 7 and ICMS. The ICMS has agreed to assume this responsibility for the Title V certifications received in 2005. With this change, IDNR is fully meeting the requirements to enter MDRs into AFS within the timelines specified.

E. Conclusion

Region 7 concludes that the IDNR air enforcement and compliance program as executed by the ICMS and FOs is good. Especially noteworthy in this 2005 program review is the continued, honest coordination with the Region 7 ICC and the ICMS oversight of local agencies. Areas where improvements could be made are increasing the size of penalties and increasing the timeliness of addressing HPVs.

R7 acknowledges the $10,000 limitation on administrative penalties imposed by the IAC and the current Legislative effort to raise this cap. That fact aside, Region 7 recommends that the IDNR/AQB/ICMS develop a penalty policy to allow for consistent assessment of penalties up to the cap.

Although the HPV Policy established enforcement responses including timelines for violations identified as High Priority Violations, the IDNR/AQB/ICMS has no formal response policy for lesser violations which are not HPVs other than the policy found in the "Air Quality Inspectors Handbook" and the internal ICMS document titled "Enforcement Procedures for Late Title V Reports". Region 7 believes that the enforcement responses, including timelines to HPVs as well as lesser violations, should be identified in a formal, written enforcement policy.

IDNR indicated that there were legislative efforts to raise the administrative penalty cap. However, this legislation was vetoed by the Governor in this last legislative session (Spring 2005).

Chapter 6
Asbestos

A. Program Operation

1. Non-notifiers

IDNR identifies non-notifiers in several ways. The most frequent method occurs when someone lodges a complaint with the AQB. Field investigators are dispatched to the site and conduct a field interview and investigation. The AQB receives five to ten complaints per month. The AQB endeavors to ensure that all complaints are investigated.

Also, during their routine duties, inspectors from the IDNR field offices advise the AQB of demolitions in progress or other suspicious activity. The IDNR field offices do not conduct asbestos inspections. Based on this information, AQB staff conducts inspections which may uncover regulated asbestos abatement where proper notification had not been submitted.

The APCP encourages "courtesy" notifications for projects below the NESHAP thresholds. With courtesy notification information, AQB staff can respond to any public inquiries about the site, and will not waste time conducting an unnecessary site inspection.

During EPA's on-site review, AQB staff inquired as to whether NESHAP notifications could be submitted electronically or by facsimile. EPA is aware of this concern nationally; however, the present version of the NESHAP regulation requires hard-copy notifications.

2. Enforcement Response Policy

The AQB does not have a specific penalty policy for asbestos violations. Generally, a notice of violation (NOV) is issued for first-time violators and for paperwork violations, whereas penalties are sought for repeat violators of emission control requirements. Penalty determinations consider both gravity of the violation and economic benefit. The AQB can levy a maximum penalty of $10,000; however, the Iowa Attorney General can levy penalties up to $10,000 per day. EPA recommends that the AQB develop an asbestos demolition/ renovation penalty policy. Such a policy would benefit the regulated community and would minimize the perception that penalties are established arbitrarily.

IDNR does not have a written policy governing the issuance of timely and appropriate asbestos enforcement actions. However, AQB staff have performance standards established which require NOVs to be issued within 30 days after the inspection; likewise, administrative penalty actions are to be issued within 60 days after the inspection.

In recent years, IDNR has focused its asbestos enforcement efforts on demolition contractors, rather than asbestos abatement contractors. As a result, many demolition contractors have been found as first-time violators. Thus, proportionally more of IDNR's enforcement activity has been NOVs, as opposed to penalty actions. IDNR believes this approach has brought about improved compliance in the universe of demolition contractors. IDNR now plans to increase its enforcement emphasis on hospitals and schools to reduce the potential for asbestos exposure in those environments.

3. Education and Outreach

The AQB realizes the value of education and outreach and has developed several products to support that goal. The AQB has produced a video tape, *Asbestos, The Miracle Mineral*, which provides general information regarding asbestos and its health effects, a summary of the regulatory requirements and tips for ensuring compliance. A companion brochure is also distributed with the videotape. A business card is included with all AQB outgoing asbestos correspondence which informs readers that the videotape is available. The AQB also distributes another summary of asbestos requirements, *Asbestos, What Businesses, Building Owners, Contractors and Others Need to Know about the Asbestos NESHAP*. Many of these materials are available on IDNR's website.

An on-going difficulty for the AQB has been fire departments which burn asbestos-containing houses for the purpose of training firefighters. AQB staff have conducted numerous outreach sessions with fire departments and have developed a specific form for such notifications, *Iowa Training Fire - Demolition Notification*. This form is presently being revised accommodate a new state regulation, *Controlled Burning of a Demolished Building*.

To ensure effective communication with asbestos project owners and operators, the AQB has developed the *Asbestos Requirements Checklist*. At the conclusion of an on-site visit, owners/operators must sign the checklist indicating that they understand the requirements applicable to them.

4. NESHAP Category I nonfriable floor covering

The AQB agrees with EPA policy with regard to the removal of Category 1 nonfriable floor covering. If the material is in good condition, and is not sanded, ground, or abraded, the removal is not considered a regulated project.

5. Policy Determinations

The AQB does not maintain a compendium of its policy determinations; however, the EPA Applicability Determination Index is accessed regularly for guidance on specific issues.

B. Data Management

AQB staff enters notification, inspection, and enforcement information into EPA's Asbestos Contractor Tracking System (ACTS) database; and, historically, these data have been uploaded quarterly to EPA's National Asbestos Registry System (NARS) database. Recently, however, EPA contractor support for ACTS/NARS has been terminated. As a result, EPA recommends that IDNR develop an asbestos database which will meet its needs and will offer improved access to the state's field offices. Thus, field office staff could include cursory visits to sites where asbestos demolition/renovation notifications had been received, and would not need to contact the AQB staff for such information.

C. File Review

The AQB asbestos files are organized in three different series, i.e., by contractor name, by complaint (chronologically), and by owner/operator where formal enforcement action has been pursued. The files are maintained in a centralized records management facility and are well indexed and organized. File documentation was excellent and included telephone conversation records, inspection reports, event chronologies, newspaper articles, results of asbestos sample analysis, chain of custody forms, notices of noncompliance, administrative orders and penalty actions. Field investigation photographs are stored separately due to space limitations in the central records center. In all files examined, enforcement actions taken were appropriate for the gravity of the violations. Penalty determinations included consideration of economic benefit where appropriate. Most enforcement actions appeared to proceed expeditiously and delays seemed to be beyond the control of the AQB.

EPA would like to recognize the efforts of Mr. Marion Burnside, IDNR Asbestos NESHAP Coordinator. Mr. Burnside exercises good judgment and common sense in pursuing enforcement actions, and balances the constant demands of conducting outreach, responding to complaints, conducting inspections, and entering data, all while retaining his enthusiasm and dedication.

D. Summary of Recommendations

1. Develop an asbestos demolition/renovation penalty policy.

2. Given the demise of ACTS/NARS contractor support, IDNR should consider developing an asbestos database system which will meet its needs.

Chapter 7
Monitoring

As previously discussed in the Executive Summary of this report, EPA Region 7 Air Monitoring staff conducted a phased monitoring of the IDNR air monitoring program, including local agencies, contractors, and laboratories. The equipment audit was completed in January and February, 2005; the records audit was completed in April 2005. The Linn County, Polk County, and University of Iowa Hygienic Laboratory (UHL), Technical System Audit reports in their entirety, are attached in Appendix 7.
The IDNR 2004 Annual Report is located in that section as well.

The monitoring section of the IDNR AQB continues to do exceptional work in the field of monitoring. In addition to maintaining the existing network, monitoring staff is constantly looking for ways to improve the network and has been instrumental in submitting technical data for the Region 7 Regional Monitoring Strategy, which will be submitted to EPA Headquarters for technical approval and monetary support.

The monitoring section provides technical and administrative oversite to Linn and Polk Counties, and UHL for monitoring activities. Contracts between IDNR and these entities are negotiated on a yearly basis.

The following sections summarize the results of the Linn and Polk Counties and UHL Technical System Audits. These audits focused on five areas: network management, field operations, laboratory operations, data and data management, and quality assurance/quality control. EPA personnel noted several positive themes among the three entities: 1) most of the monitors and the laboratory analytical procedures being utilized in the networks are EPA-designated reference or equivalent methods (exceptions are noted); 2) the standard materials used to calibrate and audit the monitoring systems are properly certified and have the required certification to NIST reference standards; 3) the SOPs and QAPPs from Linn and Polk Counties and UHL are in good order and well written, and, 4) data completeness has historically been good for all pollutants monitored as have been the P&A results for monitoring.

Minor deficiencies are listed as “recommendations” in the individual reports (Appendix 7). Commendations and recommendations and included in the executive summary.

Linn County Health Department

EPA personnel met with Linn County Health Department (LCHD) personnel on April 6, 2005. The purpose of the audit was to document the agency's compliance with the EPA ambient air monitoring regulations. The audit information was obtained from on-site monitor performance audits, agency staff interviews, a review of the most recent year of data in the EPA AQS, and the agency's performance in the National Performance Audit Program (NPAP).

The LCHD is responsible for conducting the ambient air monitoring program for Linn County in the state of Iowa. This program includes a State and Local Air Monitoring Station (SLAMS) network of air monitors for CO, O_3, PM_{10}, $PM_{2.5}$, NO_2, and SO_2. LCHD also operates a toxics monitor.

Region 7 staff visited 25% of the monitors in Linn County (a total of five monitors). Half of the monitors were selected using NPAP results, the current Data Completeness Report and the current PARS report; the other half were randomly chosen The results of the monitor audits were all satisfactory or better.

All of the monitors and the laboratory analytical procedures being utilized in this SLAMS network are EPA-designated reference or equivalent methods with the following exception:

1 site – $PM_{2.5}$ R&P 1400 AB TEOM with 8500 FDMS
1-site-ATEC Toxics Sampler analysis of samples by EPA TO-11A & TO 15 Methods
1 site – R&P 2300 Speciation Sampler

EPA commendations:

1. All sites maintained and operated by Linn County Health Department were clean, well maintained and in overall good condition.
2. All site personnel were gracious, professional and very knowledgeable about the equipment at each site as well as the overall site condition.

EPA recommendations:

1. All points of a multi-calibration for continuous gaseous analyzers should be within +/- 2% full scale of a best-fit straight line. This should be calculated and shown on the calibration sheet to insure that a calibration is valid, (Reference: Quality Assurance Handbook for Air Pollution Measurements Systems, Volume II: Part 1, Ambient Air Quality Monitoring Program Quality System Development, EPA-454-R-98-004, August 1998).

2. Performance audits should be done by an operator who does not operate or conduct the routine monitoring, calibration, or analysis. The audit equipment should not be the equipment used for routine monitoring, calibration, and analysis. All continuous pollutant and PM-10 monitors should be audited on an annual basis, quarterly for PM2.5. (Reference: 40 CFR Part 58, App. A).

3. Specific forms for monitor audits and calibration are recommended. Pertinent information such as operator initials and monitor comments should be included.

4. Hard copy files of all monitoring stations/sites should be maintained in a centrally located file. The file should include site/station information such as updated photos, monitoring problems, validation issues, location change approvals, and other pertinent information.

5. Create an Emergency Episode Plan as per Quality Assurance Handbook for Air Pollution Measurements Systems, Volume II: Part 1, Ambient Air Quality Monitoring Program Quality System Development.

Polk County Health Department

EPA personnel met with Polk County Health Department, Air Quality Division (AQD) personnel on April 5, 2005. As with Linn County, the purpose of the audit was to document the agency's compliance with the EPA ambient air monitoring regulations. The audit information was obtained from on-site monitor performance audits, agency staff interviews, a review of the most recent year of data in the EPA AQS, and the agency's performance in the NPAP.

The Polk County Health Department AQD is responsible for conducting the ambient air monitoring program for Polk, Warren and Story Counties in the state of Iowa. This program includes a SLAMS network of air monitors for CO, PM_{10}, $PM_{2.5}$, Air Toxics (EPA TO-11A and TO-15 Methods) and NO_2.

Region 7 staff visited 25% of the monitors in Polk County (a total of five monitors). Half of the monitors were selected using NPAP results, the current Data Completeness Report and the current PARS report; the other half were randomly chosen The results of the monitor audits were all satisfactory or better.

All of the monitors and the laboratory analytical procedures being utilized in this SLAMS network are EPA designated reference or equivalent methods with the following exceptions:

1 site – $PM_{2.5}$ R&P 1400 AB TEOM with 8500 FDMS
1 site-ATEC Toxics Sampler analysis of samples by EPA TO-11A & TO 15 Methods
1 site – R&P 2300 Speciation Sampler

EPA commendations:

The Polk County Health Department Air Quality Division (AQD) staff is well trained and cognizant of field sampling, data processing, and quality assurance protocols. All field and laboratory documentation reviewed were well maintained and easily recoverable by AQD staff.

EPA recommendations:

1. Internal shelter temperature at monitoring stations must be maintained between 20-30 degrees Celsius to meet EPA reference and equivalency requirements. In order to document temperature control, a continuous temperature recorder at all monitoring sites is recommended. (Reference: Quality Assurance Handbook for Air Pollution Measurements Systems, Volume II: Part 1, Ambient Air Quality Monitoring Program Quality System Development, EPA-454-R-98-004, August 1998, Section 7.1).

2. It is recommended that all gas standard information used during a calibration, quality assurance check, and normal audit should be documented on the field sheet and calibration form.

3. It is recommended that zero point calibration of the carbon monoxide analyzer should be performed as close to zero as possible.

4. All points of a multi-calibration for continuous gaseous analyzers should be within +-2% full scale of best-fit straight line. This should be calculated and shown on the calibration sheet to insure that a calibration is valid. (Reference: Quality Assurance Handbook for Air Pollution Measurements Systems, Volume II: Part 1, Ambient Air Quality Monitoring Program Quality System Development, EPA-454-R-98-004, August 1998).

5. The converter efficiency slope criteria is recommended at 0.96 – 1.04. This criterion should be documented on the calibration and audit form. (Reference: 40 CFR, Part 50, Appendix F).

6. The mass flow controller used for calibration of the NO_2 instrument should be calibrated on a semi-annual basis.

University of Iowa Hygienic Laboratory

EPA personnel met with UHL personnel on April 7, 2005. As with Linn and Polk Counties, the purpose of the audit was to document compliance with the EPA ambient air monitoring regulations. The audit information was obtained from on-site monitor performance audits, agency staff interviews, a review of the most recent year of data in the EPA AQS, and the agency's performance in the NPAP.

The UHL is responsible for conducting the ambient air monitoring program throughout the state of Iowa. This program includes a SLAMS network of air monitors for CO, O_3, PM_{10}, $PM_{2.5}$, NO_2, NH_3, Particulate Speciation, Toxics, Hydrogen Sulfide (H_2S) and SO_2.

Region 7 staff visited 25% of UHL's monitoring sites (a total of 15 monitors). Half of the monitors were selected using NPAP results, the current Data Completeness Report and the current PARS report; the other half were randomly chosen The results of

IDNR Response: IDNR is also providing specific comments and edits on the Polk County, Linn County and UHL TSA documents.

EPA commendations:

1. All sites maintained and operated by UHL were clean, well maintained and in overall good condition.

2. There were no air monitor audit failures

EPA recommendations:

1. The operation range of all continuous analyzers is recommended to be 0 – 0.5ppm. This change would eliminate the use of simultaneous perm tubes for span checks which would decrease the chance for errors and decrease capital cost. It would also eliminate the linearity errors at the 800 parts per billion level.

2. All points of a multi-calibration for continuous gaseous analyzers should be within +-2% full scale of a best-fit straight line. This should be calculated and shown on the calibration sheet to insure that a calibration is valid. (Reference: Quality Assurance Handbook for Air Pollution Measurements Systems, Volume II: Part 1, Ambient Air Quality Monitoring Program Quality System Development, EPA-454-R-98-004, August 1998).

3. The converter efficiency slope criteria of 0.96 – 1.04 is recommended. This criterion should be documented on the calibration and audit form. (40 CFR, Part 50, Appendix F).

4. It is recommended the operator performing a calibration or audit should be documented on the calibration/audit form.

5. Hard copy files of all monitoring stations/sites should be maintained in a centrally located file. The file should include site/station information such as updated photos, monitoring problems, validation issues, location change approvals, and other pertinent information.

Chapter 8
Title V Fees

The purpose of the Title V Fee Review was to assure that the IDNR was collecting adequate fees and accounting for the direct and indirect costs associated with Title V and Non-Title V activities according to the Clean Air Act of 1990, section 502(b)(3) and agency regulation 40 CFR 70.9.

The EPA initiated the Title V Fee review by submitting a set of questions to the IDNR concerning the Title V fee revenue, expenditures, and the accounting system. The IDNR AQB provided a detailed response to the questions prior to the Title V fee review. In order to clarify some of the initial responses there was a conference call, and follow up questions to address were emailed to Wendy Rains and Jason Marcel. The IDNR AQB initial responses and follow up responses are listed in Appendix 8 of this report.

Code of Iowa, 455B.133B authorizes the IDNR to collect Title V permit fees and retain the fees for activities related solely to major source activities. The AQB uses a Title V Annual Emissions Summary/Fee Form 5.0 to calculate and collect an annual emission fee from all major Title V sources. The major sources pay an annual emission fee based on the first 4,000 tons of each regulated air pollutant, excluding CO and total PM emissions. The Title V fees are based on the previous calendar year's actual emissions. For 2005 the fee was 32.25 per ton.

The annual emission fee is set by the EPC. The IDNR submits a proposed budget for the following fiscal year to the EPC no later than March each year. The EPC approves the AQB's Title V budget and sets the Title V fee for the following fiscal year in May each year. This process allows for stable funding and the ability to adjust the fee annually to meet budget requirements.

The Title V fees for each source are tracked in a Title V Access Database. These revenues are recorded in an Air Quality Receipts – Daily Transmittal Listing Form and are sent to the IDNR cashier's office. The IDNR cashier's office cashes the checks and adds a validation number and the amount cashed to the Form 5.0. The Title V fee revenues are maintained in a separate account/cost center, designated 7230, from any other IDNR funds. The records are sent back to the AQB for validation and confirmation in the Title V Access Database.

The IDNR staff tracks their time through the use of electronic timesheets that use Cost Centers and activity codes to differentiate between Title V and Non-Title V activities. The time reporting for Title V and Non-Title V activities are received and reviewed quarterly. The IDNR AQB has a total of 77.5 FTEs. Currently, Title V dollars fund 56 FTEs. Personnel expenses are reviewed monthly by the AQB.

The overall finding is that the IDNR continues to implement the Title V Fee program well. The program is very well documented, and there is excellent communication within and across the program. The IDNR seems to be collecting sufficient fees, and accounting for the direct and indirect costs associated with administering the Title V program in conjunction with the Non-Title V activities.

Appendices

Note: Appendix numbers correspond to the related chapter/section of the Program Review Report

Iowa Department of Natural Resources (DNR)
Air Quality Bureau

Formal Response

to

U. S. Environmental Protection Agency (EPA) Region VII's
Iowa Air Program 2005 Review and Final Report
May 31, 2006

EPA Final Report

EPA conducted its most recent DNR air program review, on-site, between February 23 and March 3, 2005. EPA subsequently conducted a close-out meeting with DNR on April 20, 2005.

Between May and November 2005, EPA and DNR exchanged several versions of the EPA's draft report. EPA agreed to make some final changes to its report, as requested by DNR on December 8, 2005. On February 16, 2006, EPA provided the DNR with an electronic version of the final EPA report. On March 21, 2006, the DNR received a signed EPA cover letter, dated March 15, 2006, with a hard copy of the final EPA report.

The DNR provided preliminary comments to EPA's draft report in all program areas. Because EPA agreed to make a number of changes to the report, DNR is able to make fewer comments in our formal response.

Below the DNR offers formal comments on EPA's review report. We are providing specific responses to EPA's comments for the following air program areas: construction permits (minor New Source Review program), Prevention of Significant Deterioration (PSD) program, Title V Operating Permits, air dispersion modeling, (including PSD modeling), compliance and enforcement, and asbestos. The DNR is also commenting on procedural elements of the program review process.

This program review demonstrated that DNR continues to implement an effective and comprehensive air quality program in keeping with the requirements of the Clean Air Act, obligations specified in the current EPA-DNR contracts, agreements and the federally-approved state implementation plan (SIP).

DNR appreciates the commendations that EPA offered in its report, and is also encouraged by the fact the EPA found only one significant procedural element for which EPA is seeking changes to the Iowa program.

Program area Comments

The DNR is providing specific responses to EPA's program area review of Air Dispersion Modeling (including modeling for PSD), Construction Permits (minor NSR permits), Title V Operating Permits, PSD Program, Compliance and Enforcement, and Asbestos. The order of the DNR's responses do not reflect any level of importance, but simply mirror the order that EPA presented comments in the final report.

Planning and Program Development
(Air Dispersion Modeling and PSD Modeling)

Increment tracking

EPA stated the following in the audit report regarding increment tracking: "Presently, PSD increments are not being tracked. While this activity should be ongoing, EPA Region 7 personnel have found that this problem is not unique to Iowa."

DNR currently tracks the minor source baseline date and the source that triggered it for each of the 60 PM-10 baseline areas in the state (this is not necessary for NO2 and SO2 since the minor source baseline date and area is statewide). To date, 21 of the 60 PM-10 baseline areas in the state have been triggered. The boundary of each minor source PM-10 baseline area has also been plotted in GIS to facilitate the development of increment modeling inventories and to check whether untriggered areas are triggered when a complete PSD application is received. While these tools allow DNR to determine increment consumption or expansion in the vicinity of the source that is going through a PSD review, they do not allow for continuous tracking of increment consumption or expansion in the vicinity of each source located in each baseline area.

This "snapshot" approach to determining increment consumption or expansion in a specific baseline area of the state is not unique to Iowa. Results from EPA's questionnaire distributed at the 2004 R/S/L Modeler's Workshop in Boston, "Questionnaire: Regions - How does each one of your States do increment tracking?" indicates that approximately 75% of states are not tracking PSD increments. Reasons for not tracking increment include the difficulty in obtaining historical emissions inventory data, a lack of guidance, and a lack of resources. These are the same reasons that DNR is not currently attempting to track PSD increment consumption or expansion. The problems associated with conducting a PSD increment evaluation are being addressed on several fronts nationally, including WESTAR's recommendations for PSD reform, EPA's recent rule for the NO_X increment, and the North Dakota Class I Analysis. The DNR will continue to monitor and provide input into national efforts and discussions related to increment tracking as opportunities present themselves.

Background values

EPA commented that background values used in the air quality evaluations should be reviewed. EPA further suggested that it may be possible to have regional background values instead of statewide values. It was stressed that that the sulfur dioxide (SO_2) values should be reviewed and that background values for lead and carbon monoxide should be determined.

The DNR annually reviews monitored levels of PM_{10} to determine the PM_{10} background values to use in dispersion modeling analyses. The DNR is currently in the process of this review and will evaluate the possibility of establishing regional PM-10 background values instead of statewide default levels.

Presently, the SO_2 and CO monitors in Iowa are used to evaluate high SO_2 values from large point sources like coal fired power plants and high CO values associated with traffic in urban areas. These monitors were designed to measure levels near the NAAQS and have been found to be imprecise at measuring low level background values. The DNR is beginning to work with the new trace level analyzers and anticipates deployment of these types of monitors in areas appropriate for measuring background levels in the next few years. DNR will determine an appropriate CO background value and complete a review of the current SO_2 background values when data from these trace level monitors has been gathered.

Due to the reduction in lead emissions from transportation sources, ambient lead concentrations are primarily a result of point source emissions. Therefore, for most air dispersion modeling analyses, a background value is not necessary if all sources of lead in the vicinity have been included in the model. The DNR also does not monitor ambient lead concentrations at this time. EPA recently asked for comments on proposed changes to the level and form of the lead NAAQS. DNR will reevaluate the need for a lead background after any revisions that EPA may make to the lead NAAQS are finalized.

Modeling guidelines

EPA reviewed the latest versions of the DNR's modeling guidelines for PSD projects and for non-PSD Pre-Construction Permit Applications and found that, in general, the guidelines are very good. However, EPA reiterated the ambient air and fugitive emission issues that were commented on in the last audit, as well as the criteria for exempting projects from modeling.

The ambient air issue pertains to DNR's practice of treating the property line as the fence line for non-PSD modeling analyses. In the executive summary, EPA stated that "IDNR needs to ensure that ambient concentrations are predicted on company property if fences or other barriers do not exist." Per the DNR's "Air Dispersion Modeling Guidelines for Non-PSD Pre-Construction Permit Applications," a property line is treated the same as a fence line, even if the property line does not include a fence or other physical barrier that would prevent access of the public to the property.

This flexibility to treat the property line as a fence line for modeling purposes was included in the modeling guidance to address concerns from the small business sector that it is not practical in many instances to require small businesses to construct a fence or physical barrier and then control access to the property. It is also not practical or effective to implement additional controls and operating restrictions at a minor source based on modeling results that included receptors on the property of the minor source only because the source did not have a fence line with controlled access. Besides the practicality concerns, it was also identified that many of these businesses were located in rural areas, which further minimized the need to control access to the property.

DNR believes that the current practice of treating a property line as a fence line for purposes of receptor placement is a reasonable trade off to achieve implementation of control measures and operating restrictions at sources which frequently are not even permitted in surrounding states. The requirements for receptor placement continue to be strictly adhered to in PSD and SIP

modeling analyses. Based on these considerations, DNR does not intend to change its non-PSD modeling guidance regarding the placement of receptors on the property line.

EPA comments regarding fugitive emissions pertained to the modeling of emissions from haul roads. Specifically, EPA commented that "haul road emissions should be accounted for in minor source permits, as well as PSD permits." The currently approved model for evaluating predicted concentrations has been shown to over-predict concentrations from haul roads. It is also costly and time consuming for a minor source facility to obtain the site specific parameters required for determining accurate emissions from its haul roads. Additionally, haul road emissions are only a concern at a small subset of minor sources where the haul roads are used on a regular basis and may have a high volume of traffic. The emissions from haul roads at minor sources with infrequent, low volume haul road traffic are considered to be accounted for in the PM-10 background values.

In an effort to better address haul road emissions at minor sources, DNR recently began including best management practices as conditions in permits for haul roads at minor sources of concern. In instances where the minor source is located near a sensitive receptor or complaints indicate that additional control of the haul road emissions may be necessary, modeling will be used to further refine the best management practices to ensure that the PM-10 NAAQS is not exceeded. Requiring the use of best management practices ensures that the haul road emissions are accounted for in the permits for minor sources where haul road emissions are typically a concern and minimizes the chance of requiring over application of controls due to poor characterization of the haul road emissions in the model. DNR believes that this new approach adequately addresses haul road emissions at minor sources of concern.

Issues related to the criteria used to determine whether a non-PSD project should be modeled were identified by EPA and responded to by DNR in the previous audit. DNR did not plan to revise these criteria until after promulgation of the AERMOD dispersion model to allow the revised criteria to be based on AERMOD results. Since the promulgation of AERMOD became effective on December 9, 2005, the DNR will be establishing a taskforce and seeking recommendations regarding possible revisions to the modeling determination criteria portion of the non-PSD modeling guideline document. The taskforce meetings are expected to start in mid 2006.

Additional clarification

It was incorrectly stated in an engineering evaluation for a permit that EPA reviewed during the audit that the DNR modeling guidelines include an exemption for emergency diesel generators. This is not correct. Emission units, such as emergency diesel generators, used only when other emission units at a facility are not in operation, are generally not required to be included in the facility-wide dispersion modeling analysis. Based on engineering judgment, the department may require a separate modeling analysis of these emergency-use-only emission units to verify compliance with the short-term NAAQS for PM_{10} and SO_2.

Permitting (Construction Permits – Minor NSR)

EPA Comment (EPA Commendation 7)

The department continues to place a heavy reliance on AP-42 factors for determining permit applicability and compliance with long term 12-month rolling emission limits…Where there is uncertainty…we continue to encourage the department to overcome this uncertainty through site-specific emission factor development.

DNR Response

DNR agrees with EPA that use of source specific test data is preferred over emission factors. We recognize and use all available emissions resources in our construction permit review and for setting emission limits.

However, states do not have the resources that EPA has to develop emission factors. The fact that emissions testing data is not widely available is precisely the reason that EPA developed AP-42. EPA promotes use of AP-42 as a basic tool on its CHIEF and TTN website. If EPA does not wish these factors to be used, EPA should not be providing this data to states. EPA should take the lead on improving AP-42 emission factors so that they can continue to be a valuable resource to states.

In addition, there seems to be inconsistency regarding EPA's assessment of DNR's use of AP-42 factors. For example, EPA's above comment seems to be in conflict with the following EPA commendation found on page 12 of the EPA report: "IDNR is relying more on verifying actual emissions and stack testing, and is relying less on AP-42. EPA encourages continued use of this practice."

Further, the file review notes in Appendix 5 of EPA's report indicate only one case in which EPA commented on use of AP-42. This does not support EPA's statement that the DNR "continues to place heavy reliance on AP-42." The one instance that EPA clearly identified was in the Ag Bio-power file. Even in this instance, EPA's comment regarding use of AP-42 in the Ag Bio-power case is confusing. DNR's permits are pre-construction permits, and the proposed equipment is not able to be tested prior to being built. This particular equipment was a custom unit scaled up from home-made design of very unusual characteristics.

DNR's normal engineering reviews use all sources of information available to us. However, it is often the case that there is simply nothing better to use as a basis for issuing the permit than AP-42 emission factors. Since EPA developed AP-42 for precisely these situations, we would hope that EPA would support our use of this resource. When the expected or requested emission rate is close to the limit being set, testing is required.

EPA Recommendations

EPA Comment
We propose that the department look for opportunities to enhance the description of its permitting activities, especially when issuing one or more permits as part of a larger project.

DNR Response
We agree that an enhanced description of the project would be beneficial to anyone reviewing the project/file, and are currently incorporating more description into the engineering evaluations.

EPA Comment
The repetitive nature of the standard conditions for each permit seems to offer a streamlining opportunity that could result in substantial resource savings, both in terms of time spent printing and collating the documents and in the amount of paper utilized. EPA suggests placing multiple emission points under one set of standard conditions.

DNR Response
The DNR, in cooperation with stakeholders, has successfully implemented a permit streamlining effort. During this effort, industry clearly favored a permit format in which all permits looked identical, and all conditions were numbered consistently between permits. Neither the DNR field staff, members of the public, or DNR permit writers have voiced any concerns with this approach. Based on this stakeholder preference, and the DNR's longstanding approach to issuing permits for emission points, the DNR established the current permit format, and will continue to use this format.

EPA Comment
We recommend inclusion of a forward-looking condition that clearly describes the consequences, beyond enforcement, of not meeting those limits.

DNR Response
The setting of emission limits is the most common item of discussion between DNR staff and the permittee. While we do not keep a count of such conversations, it would be rare if this discussion did not take place at some point prior to permit issuance. Since most permit applications are submitted requesting limits to avoid certain thresholds, such as for PSD, Title V or MACT applicability, the applicant clearly knows the consequence of exceeding those limits.

It is not the purpose of the construction permits to contemplate all possible applicability and regulatory consequences of a failure to meet emission limits. A department fact sheet or guidance document would be a more appropriate means to convey the consequences of exceeding permit limits. The DNR is currently developing a fact sheet for ethanol plants. Since ethanol plants, in particular, are confronting possible PSD and Title V applicability, the DNR will consider including such a discussion in the fact sheet.

EPA Comments (regarding the minor NSR projects reviewed)

1) None [of the projects] indicated that the department required the source to justify the need for such a long term emission cap,
2) None [of the projects] had a clear verification or reporting mechanism for determining compliance during the initial 12-month period,
3) All [of the projects] imposed a monthly record keeping and verification of compliance contrary to EPA policy of daily record keeping, and,
4) None [of the projects] contained any methodology for computing the 12-month rolling sum or any adjustments to total emissions (e.g., such as reclaim or shipment of off-site wastes).

DNR Response

Over the past several years, the DNR has had many discussions internally, with EPA, and with industry regarding short and long term limits. The issue most often goes to the source's flexibility needs. When reviewing the intent of the guidance, it is the opinion of the permitting section that the primary goal is aimed at keeping the annual emissions (primarily VOCs) to less than certain thresholds dictated by specific regulations such as Title V, PSD, or NESHAP. Short-term standards do not come into play in these cases. Modeling is not an issue with VOCs, since there is no modeling unless the project is part of a PSD project.

The procedure used by the Construction Permits section mimics the EPA guidance for those facilities wishing to limit emissions below the major source thresholds issued by EPA (OAQPS) on October 15, 1993: "Guidance for State Rules for Optional Federally-Enforceable Emissions Limits Based on Volatile Organic Compound (VOC) Use." The discussion on Page 2, paragraph 1 requires monthly consumption records of all VOC and HAP-containing materials. DNR goes further than the guidance, and requires a rolling 12-month average, not just an annual summation. The facility must keep records to allow for inspection by field staff, thus fulfilling the enforceability aspect of the EPA guidance. Shorter-term limits add no additional benefit for the source or for DNR.

With regard to the initial 12 months, it is the DNR's position that if the facility wishes to consume the entire 12-month limit in the first month of operation, they should be allowed the flexibility to do so. Since they are calculating the tons each month, they will know whether they have exceeded the threshold. Furthermore, the recordkeeping and reporting provisions in the administrative rules and in DNR permits require the facility to provide notification of any exceedance of a permit limit. The facility is responsible for ensuring compliance with their permit.

It appears that EPA feels such permits may not be enforceable as a practical matter. According to EPA's 1995 guidance on limiting PTE, "…limitations and restrictions must be of sufficient quality and quantity to ensure accountability …" This is the "practical enforceability" required to make a limit enforceable. This guidance also states, "In general, practicable enforceable for a source specific permit means that the permit's provisions must specify: (1) a technically-accurate limitation; (2) the time period for the limitation (hourly, daily, monthly **and annual limits such as rolling annual limits** [emphasis added]); and (3) the method to determine compliance

including appropriate monitoring, recordkeeping, and reporting." The DNR believe our permits contain provisions that make the limits enforceable as a practical matter.

DNR Response to EPA sub-Item 4 (Reclaim or shipment of off-site wastes)
When it is requested, the DNR has incorporated the mechanism for reclaim credit into the permit. It is rare, however, that a company requests to take advantage of any recycling efforts (or offsite reclaim) in order to reduce their PTE. None of these projects were included in EPA's review. Recently, Linn County issued a permit to Rockwell Collins in Cedar Rapids that included such a provision that was based on examples provided by the DNR.

EPA Comment
When a "no modeling" or "no stack testing" decision is made, it would be helpful to document the basis for that decision in the record. We found many instances where such decisions were made, but the reason for the exemption was unclear or undocumented altogether. For example, could it be that the exception is consistent with a department policy or guidance document? Or, are the anticipated emissions so far below the limit that they could reasonably be expected to demonstrate compliance? Or, has the source previously tested and the department is willing to use such results for subsequent permitting?

DNR Response
The DNR has established guidelines for waiving testing or modeling. We agree that documentation of any waivers of modeling or testing should have been included in the engineering evaluation. It is likely that, in the case of modified permits, the rational for waiving either testing or modeling was included in the engineering evaluation for the original permits. The original permits, along with the engineering evaluations, should have been bound with the modified permits. The DNR agrees that the justification for modeling and stack testing decisions needs to be clearer. In the future, the engineering evaluations will either refer to the original justification for the original permit, or include a new justification for the modified permit.

EPA Comment
For at least two of the eight source files reviewed, it was evident that the department questioned multiple, sequential projects that occurred over a short amount of time. This is an important practice to assure that "related" projects do not escape major source review by virtue of splitting themselves into multiple, minor projects. For the remaining source files, the nature of the sequential permit actions was related to administrative permit changes, so even if considered together, none of the reviewed projects would have triggered major new source review. Nevertheless, for future permitting actions it would be worthwhile for the review engineer to create an enhanced paper trail either in the "Engineering Analysis" or a memorandum to the file detailing why the current project is, or is not part of any other permitting action occurring within the past 12-18 months.

DNR Response
One of the more important parts of the engineering review is the file review. Each engineer checks to see what has gone on recently at the plant for the specific purpose of determining whether PSD is an issue. While it may not be overly evident by reviewing a completed project file, this analysis has been conducted when appropriate. For every project, the review includes the following questions: Is this a major source? Are there any current applications in-house, or is there a project that has been permitted over the previous 12 months that should be considered one project with this application? Are the project emissions over PSD thresholds? Can emission limits be established to avoid PSD review? The two-page DNR checksheet containing these questions and the engineers' responses is now being included with the project as part of the file documentation.

EPA comment
We noted that the permits almost always correctly document applicability of NSPS, NESHAP, or MACT standards. An example of a permit where the applicability determination was questionable was annotated in the Otter Tail Ethanol file.

DNR Response
EPA identified one case in which they believe that the DNR made an incorrect NSPS applicability determination, Otter Tail Ethanol. The other cases mentioned in EPA's file review notes refer to a lack of documentation.

In the case of permit modifications noting NSPS or MACT applicability, DNR would have made the initial applicability determination for the original permit. The DNR agrees, however, that these determinations should be better documented. In the engineering evaluations for amended permits in which the change could affect NSPS or MACT applicability, the DNR will be begin including a reference to the NSPS or MACT determinations, either referencing the justification for the original permit, or including a new justification. For permit amendments that would not impact MACT or NSPS applicability, the DNR will not include an additional applicability determination.

In the case of the Otter Tail Ethanol project, EPA deduced that the DNR's reason for limiting the fuel was to limit capacity. This is incorrect. The limit was established to limit emissions below the Title V and PSD thresholds, and did not limit the capacity. The boiler is subject to subpart Dc as documented (nameplate of 100 million Btus), not Db by limiting capacity, as alluded to by EPA. The DNR concludes that no further action is needed in response to EPA's comments.

Additional DNR Comment
Although not mentioned as a recommendation, EPA noted in its file review notes for many of the individual permits that the permit conditions limiting a facility to natural gas "may" not be enforceable as a practical matter since there was no recordkeeping required for the type of fuel used. The DNR disagrees with this observation. Since most of the units for which this comment was made **cannot** burn any other type of fuel due to design restrictions, the DNR considers this to be a physical limitation, and therefore a restriction according to the definition of PTE.

EPA-noted Program Deficiency

IDNR does not public notice its minor NSR permits as required by Section 110 of the Clean Air Act (CAA). Section 110 (a)(2)(C) requires that the SIP contain a program to ensure that construction or modification of stationary sources will not interfere with achieving the ambient air quality standards. EPA's implementing regulation, 40 CFR 51.161, states that the program required by the statute "must" provide opportunity for public comment, including opportunity to comment on the permitting authority's proposed decision on the construction or modification of a stationary source. We are requesting that IDNR update its minor NSR program to include public notice and comments as required by 40 CFR 51.161. "

DNR Response

The DNR currently holds a 30-day public comment period, including holding a public hearing, for all draft PSD permits. Upon advance request from the public, the DNR will also hold a 30-day comment period and public hearing for any minor NSR project. Citizens and businesses are often well aware of proposed new plants or plant expansions in their community. These concerned parties will frequently contact the DNR, sometimes months before the DNR receives a construction permit application. In only a very few cases have these concerned parties have requested an opportunity for public comment and a public hearing. The DNR has granted, and will continue to grant, these requests for public comment and public hearings.

In addition, the DNR recently began posting all minor NSR applications on our website, at www.iowacleanair.com (click on the Construction Permits link, then scroll down and click on the link for Construction Permits Seeking Public Comment). At this site is a link to all new construction permit applications, and the following statement, "The Iowa Department of Natural Resources (DNR) is proposing to issue the following Construction Permit(s). Written comments should be directed immediately to the assigned engineer." The interested party can scroll through the list of projects, and click on the project links for more information. Each project link provides a brief description of each project, and includes an e-mail address and a phone number to contact the reviewing engineer.

The DNR believes that these activities sufficiently address this EPA comment, and exceeds what many other states are currently requiring for minor source permitting.

Permitting (Title V Operating Permits)

EPA Observation #4:

The Operating Permit Section currently is almost fully staffed for Title V (one permit writer short). IDNR is having problems keeping experienced staff.

- One-half of writers (4) have less than two years experience;
- Two have between two and four years experience; and
- Two have four or five years experience.

DNR Response

Like many other Title V programs throughout the country, DNR has experienced a frequent turnover of Title V staff.

Permitting
(PSD Program Activity)

EPA Comment

As previously stated, EPA R7 did not have the opportunity to review the entire IDNR PSD program. Rather, EPA personnel reviewed 22 PSD actions from the last several years to gain a broad understanding of the PSD program processes. Although EPA had comments on the draft permits, (Appendix 4), it should be noted that outstanding issues were resolved prior to issuing the permits.

DNR Response

For future audits, the DNR strongly recommends that EPA conduct a complete PSD review that includes review of the final PSD Permits. If a complete PSD review cannot be accomplished, an incomplete review should not be undertaken.

As with the Title V Operating Permit, the final PSD permit is the culmination of the DNR analysis, public comment, EPA review, and facility input. The final PSD permit is the federally enforceable document. As such, a review of a state's PSD program that does not include the final PSD permit is incomplete, at best.

DNR objects to the inclusion of the PSD project review chart in the EPA report (Appendix 4). We appreciate EPA acknowledging that "outstanding issues were resolved." We are similarly thankful that this chart is not presented in the body of EPA's report. However, the mere inclusion of the contents of this chart presents a very misleading picture of non-existent deficiencies in DNR's PSD program.

On EPA's chart, one column which is checked for nearly every PSD project is labeled "Inadequate BACT Analysis / Emission Limits - Feasibility, Justification, Standards, Stringency, Cost Impact". DNR does not believe that nearly all draft permits had deficiencies in this category. Since EPA reviewed only the EPA comments made on draft permits, it appears EPA checked this box if any comment was made in this category, regardless of the nature or merit of the comment. For example, some of EPA's comments during their review of the draft PSD permits were merely stylistic in nature, while other comments were regarding issues with which the DNR and EPA have a fundamental difference of opinion. By including this chart in the final audit, albeit as an appendix, it gives the appearance that the PSD program is deficient.

In addition, inclusion of this chart presents a widely disparate comparison of the PSD programs between the states. In some EPA Region 7 states, EPA made virtually no comments on PSD projects that were identical to Iowa's projects. This implies that Iowa's implementation of the program is flawed compared to other Region 7 states, an implication to which Iowa would take exception. Furthermore, EPA's comments on draft PSD permits go back well before the current audit period. Recognizing some significant changes that the DNR made to the PSD program since the prior audit would be appropriate.

In closing, the DNR disagrees with EPA that a PSD program review that consists of the EPA comments on draft PSD permits gives the public an understanding of Iowa's PSD review process and policies. Rather, it creates an incomplete and misleading picture of Iowa's PSD program.

Compliance and Enforcement

EPA Comment

4. Tracking of required facility submittals

Although tracking of MACT submittals is not required, the 2001 program review report identified that MACT submittals were entered into a spreadsheet "as received." This approach allowed for violations to be missed if reports were not anticipated by the ICMS and subsequently not received. This deficiency was to be addressed by creation and use of the Compliance and Enforcement Module of the SPARS database. The Compliance and Enforcement Module has yet to be created, so this deficiency remains. It is Region 7's understanding that creation and implementation of the Compliance and Enforcement Module is again underway after being at a standstill.

DNR Response

Rather than waiting for the Compliance and Enforcement Module of the SPARS database, ICMS is currently developing an Access database to track facility NESHAP submittals and due dates.

EPA Comment

7. Air Quality Bureau facility files vs. FO facility files

Both the 1999 and 2001 program reviews identified that some of the material contained in the FO files were not present in the AQB facility files. Although no FO compliance and enforcement facility files were reviewed during the 2005 program, it was obvious that some of the FO file information was absent from the AQB. For example, the Region 7 ICC knows that all complaints are directed to the FO for follow up. As previously discussed in D.1., few complaints were found in the AQB files reviewed.

Since knowing the enforcement history of a facility is important when considering further enforcement, it continues to be Region 7's opinion that the AQB facilities should be compelled to include all compliance and enforcement material in the FO files. This is the basis for Region 7's continuing comment on this subject. This alleged deficiency may take care of itself if the new electronic file system incorporates all documents. If not, R7 is willing to let this matter go if the ICMS acknowledges that it reviews or somehow considers what is in the FO files when making enforcement decisions.

DNR Response

To our knowledge, all copies of complaints related to air quality are sent to AQB for ICMS review. The majority of complaints received by the DNR, such as open burning complaints, are not associated with a particular facility. These complaints are filed in a separate county file at

AQB. To ensure that AQB is receiving all complaints, AQB will discuss this issue with FO staff at the next AQB/FO meeting.

EPA Comment

E. Conclusion

Region 7 concludes that the IDNR air enforcement and compliance program as executed by the ICMS and FOs is good. Especially noteworthy in this 2005 program review is the continued, honest coordination with the Region 7 ICC and the ICMS oversight of local agencies. Areas where improvements could be made are increasing the size of penalties and increasing the timeliness of addressing HPVs.

R7 acknowledges the $10,000 limitation on administrative penalties imposed by the IAC and the current Legislative effort to raise this cap. That fact aside, Region 7 recommends that the IDNR/AQB/ICMS develop a penalty policy to allow for consistent assessment of penalties up to the cap.

Although the HPV Policy established enforcement responses including timelines for violations identified as High Priority Violations, the IDNR/AQB/ICMS has no formal response policy for lesser violations which are not HPVs other than the policy found in the "Air Quality Inspectors Handbook" and the internal ICMS document titled "Enforcement Procedures for Late Title V Reports". Region 7 believes that the enforcement responses, including timelines to HPVs as well as lesser violations, should be identified in a formal, written enforcement policy.

DNR Response

DNR agrees that a penalty policy is needed to ensure consistent assessment of penalties. ICMS is currently working on a draft policy. We are also working more closely with our AG's office to address cases with penalties above the administrative cap.

DNR recently conducted a kaizen (process improvement) in an effort to streamline the enforcement process, ensure consistency in enforcement actions, and establish priorities. Enforcement procedures were developed after the kaizen and implemented in September 2005. The new process includes referral standards to determine the appropriate enforcement response and timelines to address all violations.

Asbestos

EPA Comment

D. Summary of Recommendations

1. Develop an asbestos demolition/renovation penalty policy.

2. Given the demise of ACTS/NARS contractor support, IDNR should consider developing an asbestos database system which will meet its needs.

DNR Response
DNR agrees that a penalty policy is needed to ensure consistent assessment of penalties. A draft policy has been developed and will be finalized soon. We are also working more closely with our AG's office to address cases with penalties above the administrative cap.

DNR is currently reviewing options for development of a new database.

DNR Procedural Comments

EPA Pre-Review Checklists
DNR appreciates the opportunity to do some advance work for the program review through pre-review checklists. We understand how these questionnaires could be helpful to EPA.

We recommend the following for future program reviews:

- EPA should review the questions on each checklist for relevance and utility. Many of the program checklists had numerous questions, some of which were redundant or did not apply to Iowa's program.
- Send pre-review checklist to the DNR at least 30 days in advance of when EPA needs a response. The checklists for Title V and emission inventory were not sent to DNR on time.
- Review the checklist responses with DNR staff during the first day of the on-site audit. It was unclear if and how EPA staff used the pre-review checklists. Going over the responses at the beginning of the audit will assist both DNR and EPA staff with the rest of the review, and will ensure that all responses are clear and understandable.

PSD and Title V Operating Permits
For future program reviews, we strongly recommend that EPA conduct a full review of the Title V and PSD programs to better reflect the entire permitting processes.

In this review, EPA elected to do an off-site, partial review of PSD and Title V draft permits and the EPA comments on draft permits. As a result, EPA did not account for the changes that were made to draft permits prior to final issuance of PSD and Title V Permits. Failing to include a review of the final permits, at best, creates an incomplete and misleading picture of Iowa's Title V and PSD programs. We include more specific comments regarding the PSD review in the program section of this document.

Close-out Meeting
DNR recommends that future close-out meetings be conducted at the end of the on-site review, rather than at a later date. At this meeting, we also request that EPA provide to DNR its draft comments and recommendations. This will provide an opportunity for DNR staff to address questions and concerns when the issues are fresh in everyone's minds. Further, this should allow many unresolved issues to be resolved prior to EPA drafting its report.

IOWA NPDES PROGAM REVIEW

Data Management Program Review July 11-13, 2005
Permit/Compliance/Enforcement Program Review
July 18-21, 2005

Prepared by:
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Region VII
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1.0 Executive Summary

1.1 General

This section is a brief and concise summary of major findings based on the review of the Iowa Department of Natural Resources (IDNR) National Pollution Discharge Elimination System (NPDES) Program, and recommendations for the program. This report has been prepared by the Environmental Protection Agency (EPA) Region 7 Water, Wetlands and Pesticides Division, with contributions from the Wastewater and Infrastructure Management Branch (WIMB), and the Water Enforcement Branch (WENF). The goal of this program review was to assess the National Pollutant Discharge Elimination Systems (NPDES) permit, compliance and enforcement program implemented by IDNR.

Through discussions with IDNR on their agency processes and policies, as well as a detailed review of NPDES facility files, it is the Region's assessment that IDNR is running an adequate NPDES permit, compliance and enforcement program as it relates to the Core Program, Combined Sewer Overflows (CSOs), Storm Water, Pretreatment and Data Management. EPA did however identify areas that need improvement that were primarily related to proper application of the IDNR's enforcement management system (EMS) and data entry. Also, EPA is concerned with the likely increase in the permit backlog during FY06. These findings along with others are discussed in the subsequent sections of this document.

In regards to IDNR's NPDES program for open feedlots, EPA does not believe IDNR has established an adequate compliance inspection program for this sector. EPA acknowledges that IDNR has taken significant steps to improve its open feedlot program since the agency's last program review and commends them for these steps; however, significant improvement in the areas related to permitting, inspections and enforcement is needed.

The following section identifies major findings and recommendations from each NPDES program area that were identified as a result of this program review. A more detailed discussion of these findings is presented later on in this document.

1.2 Major Findings and Recommendations

Permit Backlog:

- The national goal of maintaining at least 90% of NPDES permits that are current (not expired) will not be achieved this year. The goal of re-issuing 95% of the FY05 priority permits will not be achieved. IDNR should continue to look at all possible ways to improve the permit backlog.

Permit Program Implementation:

- The IDNR is doing a good job of implementing all aspects of storm water regulations and also the 316(b) regulations as they relate to permitting.

- Chronic whole effluent toxicity (WET) limits should be included in permits as necessary to assure that narrative water quality standards (WQS) are met.

- IDNR permits for power plants should contain limits that reflect the WQS for temperature and include monitoring to detail the pattern of any exceedences.

- If the discharge is to a 303(d) listed water body, the permit documentation should cover whether or not the discharge contributes to the impairment, and if it does, how the permit is written to protect the water body.

Concentrated Animal Feeding Operations (CAFO) Permits:

- All the requirements of the CAFO rule that have been adopted by the IDNR must be reflected in the NPDES permits issued by the IDNR.

- Exactly what is required of the CAFO should be clearly included in the NPDES permit. Most of the permits reviewed did not reflect the actual systems used by the CAFOs.

- A NPDES permit cannot include a compliance schedule for a technology based requirement that already was supposed to have been met.

- NPDES permits issued to CAFOs must be entered into PCS.

NPDES Core Program Enforcement:

- INDR should work to eliminate discrepancies between what it reports in its Performance Partnership Grant (PPG) reports and what it uploads into PCS when reporting the number of inspections and enforcement actions.

- Violations of the CWA that have been determined to be SNC need to be addressed through the use of a formal enforcement action. In cases where formal enforcement is not used, IDNR needs to have documentation in the facility file that explains the rationale for not taking a formal action and that documents that the violation has been corrected.

Storm Water Enforcement:

- EPA would like to improve coordination with IDNR to create a clear framework for conducting inspections and enforcement.

- IDNR should continue to assess penalties based off of gravity and economic benefit. Files with enforcement actions should contain justifications for penalty reductions in a manner that is calculated and consistent with the penalty process.

CAFO Enforcement:

- IDNR's inspections at open feedlots are not sufficient for the purpose of determining compliance with state and federal clean water laws. IDNR should develop a standard operating procedure (SOP) to establish uniform procedures for conducting and reporting results of compliance evaluation inspections at CAFOs subject to the NPDES provisions of the CWA. SOPs should also be developed for other inspection types (i.e., complaint investigations) associated with CAFOs.

- IDNR should be performing compliance evaluation inspections at 20% of Iowa's permitted CAFOs on an annual basis.

- IDNR should continue working with EPA on adopting new WENDB data elements that include fields that cover compliance monitoring and evaluation data at CAFOs. IDNR should continue to work with EPA to get this data into ICIS NPDES when it is brought online in the future.

- IDNR should develop and implement an enforcement strategy that identifies the criteria to be used in determining if a violation warrants formal or informal enforcement at both permitted and unpermitted CAFOs.

- IDNR should develop and implement a civil penalty policy that not only covers penalties associated with CAFOs, but penalties for all facilities (wastewater, storm water, etc.) covered under the state and federal clean water laws. This policy should layout specific instructions on how to calculate each component of the penalty and establish documentation requirements for these calculations.

- IDNR should maintain documentation in the facility file that documents compliance with all injunctive relief associated with formal and informal enforcement actions.

Combined Sewer Overflows/Sanitary Sewer Overflows (CSO/SSO) Enforcement:

- IDNR and EPA must complete the work plan process for the Region to proceed with the review of CSO Long Term Control Plans (LTCP).

- IDNR should create a data system that will separate and track all CSO/SSO dry and wet weather bypasses, and generates status reports for each CSO community.

Data Management:

- IDNR has entered most of the minimum data requirements into its NPDS system which then is transferred into the PCS national system. There appear to be few if any discrepancies between the state system and PCS and those should be addressed by improving data entry procedures.

- IDNR should utilize all inspection type codes available for use in PCS (i.e., Compliance Evaluation, Complaint, CAFO, Compliance Sampling, etc.) instead of only using the Compliance Evaluation code.

- IDNR should be entering single event violation codes and corresponding dates into its NPDS system and then uploaded into PCS. Single event codes and dates are a required WENDB data element for NPDES majors and are required to be entered into PCS as they are documented.

2.0 Introduction

EPA conducted a review of IDNR's NPDES program in the following areas: NPDES Permitting, NPDES Data Management, NPDES Compliance and Enforcement and Pretreatment. Outcomes from the last program review and the Partnership Performance Agreement and Grant (PPA/PPG) were also discussed. During the review, EPA referred to the 1999 EPA Enforcement Management System, which IDNR currently uses as their enforcement manual, the State of Iowa Program Integrity Profile (PER), the EPA's Office of Enforcement and Compliance Assistance (OECA) FY 2003 through FY 2004 (PCS) data metrics, and information obtained during the file reviews and interviews with the IDNR staff. The time periods covered under this review were different for each program area and are listed below:

Program	Time Period
NPDES Permitting	June 2004 – June 2005*
NPDES Data Management	2004
NPDES Compliance and Enforcement	2001-2005
Pretreatment	2001-2005
* Files that were reviewed were chosen from a list of permits that were issued or reissued within 12 months of the date of this review.	

3.0 NPDES Permit Program

3.1 Permit Issuance/Re-issuance and Backlog

1. Issuance Rate and Backlog

EPA's July 2005 quarterly report on permit backlog indicates that of the 128 major permits in Iowa, 35 are expired (27%); and of the 1446 individual minor permits, 237 are expired (16%). Iowa also has several general permits. Storm water general permits cover 4,000 dischargers. Non-storm water general permits also cover over 4,000 dischargers. There are a large number (540) of minor individual permits which will expire during FY06.

IDNR's permit writing resources have remained steady over the years. They have 5 staff members devoted to industrial and municipal permits, 2 staff members in the storm water program, and two staff members who write CAFO NPDES permits. The current pace of reissuing 136 minor permits a year, will likely result in a 40 % backlog of individual minor permits due to the large number of permits expiring in FY06. As can be seen from the above number of facilities covered by general permits, IDNR has made use

of this work saving system. However, they see the use of more general permits being limited by the required information for general permits that must be maintained in the national data system (PCS).

2. Priority Permits

IDNR's priorities for permit issuance include, first, new facilities, then major permits and other large dischargers. Through discussions with EPA, a list of priority permits for re-issuance during FY05 and FY06 was established. There are 20 permits on this priority permits list for re-issuing in FY05. This is a lower number than on the original list because several facilities on that list have closed. As of July 18, 2005, IDNR has reissued 8 priority permits and has placed 3 more on public notice. The forecast is to have 11 of the 20 priority permits reissued by October 1, 2005, which is considerably below the 95% goal that had been agreed to.

3. Changes to Water Quality Standards and Public Comments

IDNR has been in the process of revising its Water Quality Standards (WQS) for several years, using a phased approach, grouping issues. Rather than proposing all changes at the same time, IDNR has been working on several issues at once, but addressing all items over a period of several years. Among changes to the WQS that are being looked at are changes to existing and designated uses, the concept of protected flows used in Waste Load Allocation calculations, and anti-degradation procedures. Recently, several environmental groups have been sending comments to the IDNR in response to draft permits that discharge into water bodies that are likely to be affected by the contemplated WQSs changes. The gist of the comments is that the IDNR should not issue or reissue permits to dischargers that are based on "flawed" WQSs, when those WQSs will be changing shortly. Comments have also expressed concerns with other aspects of the draft permits, such as antidegradation review.

4. IDNR Efforts to Address Permit Issuance Rate and Comments

Last September, IDNR went through a Kaizen evaluation process on NPDES permit issuance. The emphasis at that time was on customer service, with the intent of having all permits reissued before they expire. A large flow chart of permit processing was produced. One of the recommendations was to have the permit writer preload the permit re-issuance application before it was sent to the permittee. It was hoped that this would decrease the time needed to get a complete application to use for drafting the permit.

In response to the expectation of a continuing backlog of expired permits and also to the comments received on draft permits, the IDNR is now revisiting the Kaizen process, with a new emphasis, not just on increased permit writing efficiency, but also on quality permit writing. The flow process is being refined with an expansion of what's inside the three boxes for permit writing. An outcome will be a permit writing procedures manual.

One recent improvement to the permit program is that the IDNR is now using the updated permit application form for publicly owned treatment works treating domestic sewage. This new form requires more information about the discharge than the previous form did. IDNR has done training on the new form with their field offices and also with the Iowa Water Pollution Control Association.

IDNR has evaluated the work it has to do in re-issuing permits that are expired and expiring next year, and has determined that it is very unlikely that it will be able to keep up with the workload with the present resources that are devoted to the NPDES permit program. IDNR has decided to focus its permit writing resources toward working on permits that are not affected by the proposed WQS changes. After WQS changes are effective and use attainability analysis are done on streams below discharges, then IDNR will process the permit applications. In the meantime, there should be enough permits not in that category to keep the permit writers busy. The addition of permit fees may be part of the solution to the backlog problem. Currently, only storm water permits have permit fees. IDNR has begun discussions with stakeholder group on starting a permit fee system for all NPDES permits. It hopes to present a proposal to the Iowa Environmental Protection Commission at the September 2005 meeting.

Recommendation/Comments

a) IDNR's permit backlog for minor permits is now around 15%. However, it is expected to rise dramatically within the next year. IDNR is evaluating its program, looking for ways to improve permit writing efficiency and increase permit writing resources. The national goal of maintaining at least 90% of NPDES permits that are current (not expired) will not be achieved this year. IDNR should continue to look at all possible ways to improve the permit backlog.

b) The goal of re-issuing 95% of the FY05 priority permits will not be achieved. IDNR should continue to focus permit writing resources on these permits and re-issue the remaining FY05 priority permits as soon as possible in FY06.

c) IDNR has made changes that improve the permit writing process. Two examples are the use of the new POTW application form and a more consistent review and documentation for anti-degradation requirements. The completion of the permit writing manual and its implementation should lead to further improvements.

d) NPDES permits must assure that the discharge does not cause or contribute to an exceedence of a WQS. IDNR has been in the process of making changes to the Iowa WQSs for several years. In August 2005, more changes to the WQSs were proposed. EPA has encouraged and supported this decision by the IDNR to improve and strengthen the State's WQSs. However, the schedule for changes to the WQSs process has contributed to the permit backlog. A key to timely implementation of new WQSs in permits is developing implementation procedures at the time that new

WQSs are proposed. In this way, the affect of any new WQSs on permits will be known by the IDNR, the regulated community, and the public.

3.2 Storm Water Permits

Iowa has completed the issuance of all 43 Phase I and II MS4 permits on an individual basis, including the re-issuance of the Phase I permits for Des Moines and Cedar Rapids. MS4 permitting information has been inputted to PCS. Part of the designation criteria for Phase II municipalities outside of urban areas considers whether or not the MS4 discharges to a 303d listed water body. Marshalltown was discharging to a 303d listed water body and was scheduled for permitting but recently the water body it discharges to came off the 303d list so that it currently doesn't need a permit. However, the stream in question may be going back on the 303d list and if so then Marshalltown will need an individual permit.

Many of the Phase II MS4s are currently submitting their first annual reports documenting their implementation of the permit requirements. Normally review of the annual reports is done out the regional offices. Annual reports and the associated permits for Johnston, Raymond, Des Moines, and the University of Iowa were reviewed as part of the program review. The only deficiency in implementation noted was for the city of Johnston. Johnston's permit requires that the City develop an ordinance that requires site plans and pollution prevention plans to be reviewed and approved by the city. The submitted ordinance didn't appear to meet this requirement. Discussion with storm water staff revealed that City in the process of revising the ordinance in question. It would be best if the state work closely with the appropriate city officials to ensure that the revised ordinance meets the permit requirements. Many municipalities are requesting extensions of permit deadlines, especially for requirements to pass ordinances. The state has begun granting those requests with compliance orders with stipulated penalties if they fail to meet the new deadlines.

Iowa has two general permits to cover storm water from industrial facilities. One permit covers asphalt, rock crushers, quarries, and mobile concrete plants. The other general permit covers all other industrial facilities. Inspections at industrial facilities are conducted when the department receives a complaint. Industrial Storm water Pollution Prevention Plans are required by the permit to be kept on site and are not sent to DNR.

<u>Recommendations/Comments</u>

a) The state appears to be adequately implementing all aspects of Phase I and Phase II of the storm water regulations.

3.3 Whole Effluent Toxicity

A Whole Effluent Toxicity (WET) acute limit is a condition in every major permit (based on narrative WQSs which protect against acutely toxic conditions). IDNR requires that majors conduct at least one acute WET test a year. Tests are pass/fail types at 100% effluent and diluted to reflect stream flow. Both water fleas and fathead minnows must be tested. Also, implementation of the narrative standard for TDS requires modeling of instream concentrations of TDS and chorides for any discharger, major or minor. If the modeling indicates in-stream concentrations of 1) total dissolved solids (TDS) may exceed 1,000 mg/l or 2) chlorides may exceed EPA's recommened criteria for chloride, then acute WET tests will be required or, depending on the water body designation, chronic testing may also be required. Tests must be conducted by an IDNR certified laboratory, of which there are five in the state.

If a facility fails an annual WET test, they are required to begin quarterly WET testing. If three successive quarterly tests do not indicate acute toxicity then annual testing can be resumed. If two successive tests or three out of five quarterly tests fail then the facility is required to conduct a toxicity reduction evaluation (TRE).

The State encourages multiple-dilution testing for facilities that may exceed the 1,000 mg/l TDS level in-stream. The state should consider requiring multiple-dilution testing at such facilities since pass/fail tests provide such minimal information on toxicity. A screening test using 100% effluent can be rather sensitive, but testing a sample diluted down to 10% effluent could miss very significant toxicity while passing all the tests.

A long set of passed tests does not provide any information on effluent variability and does not allow any statistical assessment of results. If a facility has a history of quantitative tests, then follow-up on problems is facilitated. The historic data set allows for logical strategy on follow-up and next steps. With a history of pass/fail tests, there may be no true way to know the toxicity history of the facility, thus a facility is driven into increased testing and a TRE with no preparation. Costs on WET tests have come down over the years with standardized methods; and multiple-dilution testing can, in certain circumstances, be more cost-effective in the long run.

<u>Cherokee, IA WET Follow-up</u>

Cherokee has two parallel treatment plants. One portion of the plant provides treatment for municipal wastewater, the second plant treats wastewater from the Tyson Retail Deli facility. The discharge from Outfall 001, the Tyson portion of the facility, has been failing WET tests for over a year, and the assessment of toxicity through a Toxicity Identification Evaluation/Toxicity Reduction Evaluation (TIE/TRE) has not been completed.

A part of the difficulty in resolving the issue is based on the way WET limits and follow-up are specified in IDNR rules. First, WET limits are based on testing with a

single dilution of effluent. This provides only a pass/fail result, which gives no information on the level or variability of toxicity. Second, follow-up for a test failure is the requirement for quarterly testing to assess the persistence of toxicity before starting a TIE/TRE. This allows a large amount of time to pass before toxicity is identified or reduced.

After the first failure of a WET test, the City of Cherokee sent samples to two labs (UHL and American Aquatic Testing) for testing. This caused some confusion, because one lab showed a failure and the other passed. Actually, this is not surprising: different labs have different genetic lines of test organisms. Also, since the tests were pass/fail, rather than multiple dilutions, the tests did not quantify toxicity.

It was difficult to see what progress had been made in the TIE/TRE process. A memo simply stated that about a year more time is needed to complete the study. This is an excessive amount of time. One of the keys to a successful TIE/TRE is an aggressive schedule with parallel testing of manipulated effluent samples very early on. This allows quick identification of the basic cause of the toxicity. If too much time passes, the source and pattern of the toxicity can change: this can create uncertainty in the TIE/TRE process while allowing the toxicity to continue untreated.

Recommendation/Comments

a) Changes to WET testing methods (to require multiple dilution testing) and to follow-up procedures (to require more timely retesting and TIEs/TREs) would allow faster response and resolution of toxicity problems.

b) Chronic WET limits should be included in permits as necessary to assure that narrative WQS are met. [If Iowa narrative WQSs are changed to protect against chronic conditions rather than just acute; then the permit program must be changed to reflect that new requirement.]

3.4 Power Plants

1. 316(b) Regulations Controlling Entrainment and Impingement at Power Plants

In 2004, EPA promulgated new regulations for intake structures at existing power plants. The new regulations are extremely complex and require a great deal of effort from both utilities and regulators. In late 2004, EPA held a kick-off meeting with all impacted facilities, and IDNR has also sent correspondence to all Iowa facilities.

Most of the large power plants in Iowa are required to propose fisheries studies and methods for assessment of the biological impacts associated with the intake of large amounts of water. Several facilities have submitted information to IDNR requesting a finding on regulatory status and applicability. IDNR has been exemplary in good communication, good decision-making, and timely turnaround of work products.

2. 316(a) Regulations Controlling Heat Discharges at Power Plants

WQS in Iowa require that river temperatures should not exceed a temperature cap (90°F in the Missouri River, 88-89°F in the Mississippi River) at the end of a regulatory mixing zone. In the past year we have observed high water temperatures in the Missouri and Mississippi rivers that approach the temperature maximum allowed in standards. As river background temperatures approach the WQS, the waste load allocation for heat approaches zero. If IDNR issues permits that are protective of the heat cap, as required by regulation, then it is likely that there will be occasional violations of those limits. If facilities cannot meet permitted limits consistently, then 316(a) studies may be appropriate to consider. Under 316(a), an alternate permit limit for temperature may be appropriate, if it can be demonstrated that the alternate limit is protective of "balanced, indigenous populations" of aquatic species.

Since 1999, the Missouri River has shown higher temperatures than those recorded over the previous century or so of observations. These 'heat events', which only last for several days, occur in the height of summer, in late July and early August, and have been related to the intense drought in the Upper Missouri watershed.

For power-plants cooled with river water, these heat events create a worst case scenario. The slow, low flows of the river minimize dissipation of the heat. The electrical demands of air conditioners push the plants to full capacity. These plants, needing maximum cooling, must do so by pumping through hot river water. As the intake water grows hotter, there is a loss of cooling efficiency and the plants overall electrical output can decline. Exceedences of the WQS temperature cap are seen as the heated water mixes with the river.

EPA reviewed the permit for the Mid-American Energy facility located at Council Bluffs. In 1994, Mid-American contracted with the University of Iowa's Institute of Hydraulic Research, to conduct a quantitative analysis of heat discharges using CORMIX modeling. The modeling was basically correct, showing that under most flow conditions the heat discharge meets Iowa State WQS. However, the study contains a key flawed assumption, stated in the last paragraph of the executive summary:

> "Under the working assumption, discussed with IDNR, that thermal standards do not apply when ambient river temperatures exceed 29°C, maximum outfall temperatures were calculated for worst-case operating conditions of full plant load, normal summer river discharge, and one circulating water pump off-line."

In other words, when temperatures approach the standard, the standard does not apply.

In 1997, MidAmerican cited the University of Iowa report as supporting the finding that permit limits were not needed for the facility. In spite of the fact that high river temperatures had been observed in the past, IDNR agreed to drop limits on heat, and more importantly, removed heat monitoring from the permit. In practice, this amounted to the granting of a variance from the heat standard based on the rarity of hot background

temperatures in the river. With no heat monitoring, IDNR was not aware of the heat events. [It should be noted that power plants measure intake and discharge temperatures on a continuous basis.]

Exelon's power plant at Cordova, Illinois, has a pipe with a heat discharge located on the Iowa side of the Mississippi River. The heat limits for this discharge are based on the Iowa WQS. In past summers, the facility has violated permit limits for heat, but was granted an "emergency variance" (to Iowa WQS) by the Illinois Pollution Control Board. Exelon has requested relaxed permit limits which allow longer periods of heat limit exceedence. Studies at the site show that there are periods when background river temperatures exceed the Iowa WQS for heat. In addition, the U. S. Fish and Wildlife Service is concerned because studies of mussel beds in the slough below the outfall show an absence of the Higgin's Eye Mussel, an endangered species.

EPA Regions 5 and 7, IDNR, the Illinois EPA, and the U.S. Fish and Wildlife Service are working with Exelon to resolve these issues.

Recommendation/Comments

a) IDNR is doing a good job of implementing the 316(b) regulations.

b) During heat events in the hot summers of the past few years, virtually all of the big river power-plants are contributing to violations of State WQSs (due to river temperatures that approach or even exceed the temperature cap on heat). IDNR permits should contain limits that reflect the heat cap and include monitoring to detail the pattern of these exceedences. If a facility cannot meet thermal permit limits, then 316(a) studies may be appropriate.

3.5 CAFOs

1. NPDES Permit Issuance and PCS

The IDNR reported that it had issued 54 permits to CAFOs. That information was determined from IDNR's internal data base, not PCS. A PCS inquiry (dated 7/14/05) indicated that only 47 permits had been issued. A comparison of the facilities in the two data bases showed some discrepancies. IDNR's data base is supposed to feed information into PCS. However, all the CAFO permits are not in PCS, and some of the information on CAFO permits that are in PCS, is not accurate (See attached printouts of PCS and IDNR databases).

2. File Review of Selected CAFO Permits

See *Appendix F - NPDES File Review - Permits* for individual file information.

During the review of files, it was noted that IDNR was using a slightly different procedure for public noticing for the most recent CAFO permits, compared with other

NPDES permits. The date of the public notice was not listed on the public notice document. For other NPDES permits the end of the public notice period is included in the public notice document and is 45 days from the date of the public notice. This gives the applicant 15 days to publish the notice in the newspaper and still have a 30 day public comment period. Since many applicants for CAFO permits would be publishing the notice in weekly papers, IDNR did not think that the normal 15 days was adequate. The applicant has 30 days to publish the notice in the paper. The public notice document says that the comment period ends 30 days from the date of publication. However, since the public notice document itself does not have an actual date on it, someone who does not get the newspaper notice, will not know when the public notice period ends.

The CAFO NPDES permits reviewed did not contain all of the requirements of EPA's Revised CAFO Rule. It is recognized that the IDNR has not yet revised all of its CAFO regulations in accordance with the Revised CAFO Rule. IDNR has adopted the CAFO Effluent Limitations Guideline (ELG). However, the permits did not contain all of the conditions needed for implementation of the ELG [an example is there was not a requirement for a Nutrient (or Manure) Management Plan].

The discharge limitations in the permits contained minimum storage requirements, even though some of the systems selected and used by the CAFOs would require far more storage than the minimum storage. The amount of storage contained in the system storage structures and the operation of the system are inter-related. However, the amount of storage required in the permits was not related to the permit conditions for dewatering of the structure.

The permit documentation in the files did not include a Statement of Basis or a Fact Sheet. A Statement of Basis or a Fact Sheet is a requirement for each NPDES permit.

IDNR has a requirement for pumping out at least one-tenth of the storage basin's capacity on a de-watering day. It was not noted in the file review that IDNR ever checked to see that the CAFO actually had this pumping capacity. A NPDES permit cannot contain a compliance schedule for a technology based requirement that was already supposed to have been met. One permit reviewed (Lowell Vos) included such a compliance schedule.

3. <u>CAFO Regulation Revisions</u>

IDNR had proposed revisions to the State CAFO regulations last fall and also a separate Open Feedlot regulation. EPA sent IDNR comments on both of the proposed regulations. IDNR has not finalized either of these regulations. This spring the Iowa Legislature passed an open feedlot bill. IDNR has recently drafted Open Feedlot Regulations in response to the terms of this legislation. EPA's preliminary comments on the draft Open Feedlot Regulations were discussed during the on-site review. [A comment letter was sent to the IDNR on July 27th.] These regulations were scheduled to be presented to the Environmental Protection Commission in August 2005.

Recommendation/Comments

a) In general, more specific language in CAFO permits and better documentation is recommended. A Statement of Basis or a Fact Sheet is required.

b) There is a problem in getting information on CAFO permits into PCS which must be corrected.

c) The public notice document should contain the ending date for the comment period.

d) All the requirements of the CAFO rule that have been adopted by the IDNR must be reflected in the NPDES permits issued by the IDNR.

e) The descriptions, requirements, and conditions in NPDES permits issued for CAFOs did not reflect the actual systems used by the CAFOs. Because of this difference, both the permittee and the IDNR will find it difficult to know exactly what is required of the CAFO.

3.6 File Review of Selected NPDES Permits

See *Appendix F - NPDES File Review - Permits* for individual file information.

Recommendation/Comments

a) IDNR records are well organized and show good documentation of decision-making. The documentation of the development of Best Professional Judgment (BPJ) technology-based effluent limits, has vastly improved since the last EPA review in 2001.

b) The public notice should list the actual receiving stream for the discharge.

c) If the discharge is to a 303 (d) listed water body, the permit documentation should cover whether or not the discharge contributes to the impairment, and if it does, how the permit is written to protect the water body.

d) The draft permit and public notice must be sent to the State Historical Preservation Officer and the State fish and wildlife agency.

4.0 NPDES Data Management

Background

IDNR maintains a sequel server relational (SQL) database called National Pollutant Discharge System (NPDS), which is used to issue National Pollutant Discharge

Elimination System (NPDES) permits and track compliance. The state uses NPDS rather than the Permit Compliance System (PCS) as its primary NPDES management tool. All required Water Enforcement National Database (WENDB) data elements that are entered into the NPDS system are converted to XML files and transferred to PCS via EPA's Interim Data Exchange Flow (IDEF) –Central Data Exchange (CDX) system. WENDB Data elements that are required to be entered for all NPDES Majors fall under 5 categories, 1) Facility Data, 2) NPDES Permit Data, 3) Inspection Data, 4) Enforcement Data and 5) Daily Monitoring Report (DMR) data.

IDNR's six field offices receive DMRs from each of their major facilities located within the geographical boundaries of each field office. This data is received in the field offices from the facilities on a monthly basis and staff from each field office inputs the data into IDNR's NPDS system. In addition to entering DMRs for their major facilities the field office staff also enter DMRs for their minor facilities and that information is keyed into the state's data base which is then uploaded to PCS.

1. Review Process

Facilities selected for review where chosen from two main categories. The first category consisted of NPDES majors with two or more E90 violations during calendar year January 1, 2004 – December 31, 2004. Out of Iowa's 128 majors, 50 facilities (39%) met these criteria. EPA selected 9 facilities from this list. The second category was associated with facilities that were in significant non-compliance for more than two quarters. From this list, EPA selected 12 facilities consisting of both NPDES Majors and Minors. A total of 21 facility files were evaluated for this portion of the program review. WENDB Data categories that were examined included inspection, enforcement and DMR data.

2. Inspection Data

For the most part, inspection information was properly entered into NPDS and PCS. There were however; isolated instances where inspections were entered erroneously or not even entered at all into the data systems. Please refer to Appendices B and C1 for specific findings. While the state enters their inspection information into the data systems, they only use one inspection type - compliance evaluation.

3. Enforcement Data

As with inspection data, enforcement related information was for the most part, properly documented in NPDS and PCS, however, EPA did document instances where Notice of Violations (NOVs) were not properly entered (e.g., wrong dates) or were omitted from the system altogether. EPA also documented that IDNR is not entering single event violation codes and related determination dates into its database to be uploaded into PCS. These are required WENDB data elements and need to be entered into NPDS and PCS. All formal enforcement actions at Majors appeared to be properly entered into PCS. Please refer to Appendices B and C1 for specific findings.

4. DMR Data

Total Suspended Solids: The quantity average and the concentration average for the months reviewed, along with the quantity maximum and concentration maximum, were all entered correctly The DMRs and PCS do match in these areas.

Flow, in Conduit or Through Treatment Plant: The quantity average and the concentration average for the months reviewed, along with the quantity maximum and the concentration maximum, were all entered correctly. The DMRs and PCS do match in these areas.

Chlorine, Total Residual: EPA reviewed the quantity average, quantity maximum, concentration average, and the concentration maximum and all matched for the months reviewed.

BOD, Carbonaceous: EPA reviewed the quantity average, and concentration average, quantity maximum, and the concentration maximum. All were entered correctly and the DMRs and PCS match in these areas.

pH: EPA reviewed the daily minimum and daily maximum concentration limits. All matched for the months reviewed.

Ammonia: EPA reviewed the quantity average, quantity maximum, concentration average, and the concentration maximum. All matched for the months reviewed.

Recommendation/Comments

a) With the exception of CAFO Data, Iowa's NPDES program has been successful at entering its minimum data requirements into its NPDS system, which then is transferred into the PCS national system. There appear to be few, if any, discrepancies between the state system and PCS and these should be addressed by improving data entry procedures.

b) IDNR should utilize all inspection type codes available for use in PCS (i.e., Compliance Evaluation, Complaint, CAFO, Compliance Sampling, etc.) instead of only using the Compliance Evaluation code.

c) IDNR should be entering single event violation codes and corresponding dates into its NPDS system and then uploaded into PCS. Single event codes and dates are a required WENDB data element for NPDES majors and are required to be entered into PCS as they are documented.

5.0 NPDES Compliance and Enforcement Program

5.1 CORE PROGRAM

Background

The Compliance and Enforcement Bureau, which includes six field offices throughout the state, has the responsibility to ensure that all facilities and communities are in compliance with all applicable state and Federal Clean Water Act regulations. The six field offices in this bureau conduct facility inspections, enter monitoring report information into IDNR's data system, evaluate compliance and make referrals to their Legal Services Bureau.

For the purposes of this program review, "Core Program" refers to Major and Minor Industrial and Municipal facilities that are operating under an NPDES permit in Iowa. It does not include "Wet Weather" sectors as they will be addressed in subsequent sections of this document. According to PCS, there are approximately 128 NPDES Majors and 1442 NPDES Minors currently operating in Iowa.

1. Core Program Review Process

EPA's evaluation of the State's core NPDES program was conducted by staff from the water enforcement program. File reviews were associated with facilities that were in significant non-compliance for more than two quarters and consisted of a thorough review of all DMR, enforcement and inspection data associated with the facility. In total, EPA looked at twelve facility files consisting of both NPDES Majors and Minors. EPA also reviewed Iowa's Permitting for Environmental Results (PER) Program, the Compliance and Enforcement Performance and Partnership Grant (PPG) Work Plan, and the most recent NPDES Program review for Iowa (2001).

2. Core Program Inspections

The actual number of inspections performed by IDNR during FY04 varies depending on the information source. PCS reports that IDNR performed approximately 76 inspections at NPDES Majors and approximately 323 inspections at NPDES Minors. IDNR's annual report for FY04 that was associated with their PPG, indicates they inspected approximately 90 NPDES Majors and 314 NPDES Minors. For the purpose of this program review, EPA relied primarily upon information from PCS.

Results from EPA's file review indicate that inspection reports associated with complaint investigations appear to contain the most accurate descriptions and observations. All of the inspection reports associated with EPA's review were completed in a timely manner and were typically completed within a week from when the inspection took place. Violations were identified and documented in reports as well as in Notices of Violations (NOVs). Facilities that were identified as Significant Non-Compliance (SNC)

facilities were accurately identified and reported to the national database (PCS) in a timely manner. NOVs were sent in a timely manner, typically within the same month from when the inspection took place.

Recommendation/Comments

a) INDR should eliminate discrepancies between what is reported in the PPG reports and what is uploaded into PCS.

3. Core Program Enforcement

The State's percentage of SNC addressed by formal enforcement actions in FY04 was 27%. The national average was 14 %. As with the inspection information, the number of enforcement actions taken varies depending on what data source you look at. PCS indicates that 27 formal enforcement actions were taken. IDNR's annual report for FY04 indicates 25 actions were filed. Approximately $79,000.00 in penalties was assessed in conjunction with these enforcement actions. No judicial actions were taken and one supplemental environmental project (SEP) was approved by the state in place of a penalty action.

IDNR relies on the NPDES Enforcement Management System (EMS) as its enforcement response policy for the NPDES Program. This policy is effective in establishing appropriate enforcement responses for core NPDES facilities. During the program review the state shared that they are preparing a state enforcement policy that can be approved and implemented as a part of the state's environmental rules.

IDNR does not have a formal penalty policy that it uses for its calculations. Instead, it relies on state regulations (567 IAC, Chapter 10), which identifies the minimum set of factors to be considered when assessing penalties. Under these rules, IDNR must consider 1) Gravity of the Violation, 2) Economic Benefit, and 3) Culpability. IDNR does not use the BEN model or any other state model when making economic benefit calculations; instead they are made by the compliance officer.

The state issued 312 NOVs compared to the 27 formal enforcement actions found in PCS for FY04. Enforcement actions associated with facilities that are part of the core program were not always timely and/or appropriate. Several files reviewed contained documented SNC violations that were addressed through the issuance of an informal NOV. Except on rare occasions, facilities that have met the conditions for SNC should be addressed through issuance of a formal enforcement action.

Recommendation/Comments

a) Violations of the CWA that have been determined to be SNC need to be addressed timely through the use of a formal enforcement action. In cases where formal enforcement is not used, IDNR needs to have documentation in the facility file that

explains the rationale for not taking a formal action and that documents that the violation has been corrected.

b) INDR should work to eliminate discrepancies between what it reports in its PPG reports and what it uploads into PCS.

5.2 CAFOs

Background

In Iowa, there are approximately 1630 total confinement facilities and approximately 230 open cattle feedlots currently operating. Historically, open cattle feedlots have made up the majority of the animal feeding operations (AFOs) in Iowa that are subject to the NPDES requirements. EPA's revisions to the CAFO rules in 2003 attempted to expand the NPDES program by removing the "25-year, 24-hour exemption" that allowed most if not all "total confinement" facilities to operate without an NPDES permit. It also required all CAFOs to apply for a NPDES permit. A recent decision by the 2nd Circuit of the United States Court of Appeals vacated portions of the revised rule that directly impacts the State and EPA's ability to regulate the total confinement facilities. Until EPA revises it rule to address this court decision, open cattle feedlots will continue to make up a majority of the CAFOs in Iowa's NPDES program.

Prior to 2001, CAFO compliance with the NPDES program was not considered a high priority with IDNR. As a result, many open feedlots were operating without an NPDES permit and were not in compliance with EPA and State requirements for control of runoff. In response to this noncompliance and in an attempt to get as many open lots back into compliance in a timely manner, the Iowa Plan for Open Feedlots (Iowa Plan) was started by IDNR in March 2001. It called for a registration of open lots, an evaluation and prioritization by the IDNR, and issuance of NPDES permits. The goal was to have all this accomplished and all open feedlots in compliance by April 1, 2006. In exchange for registration in the Iowa Plan, IDNR agreed to use its enforcement discretion and not seek penalties against operations who had failed to obtain a permit provided certain conditions were met and the facility was maintaining reasonable progress towards compliance.

1. CAFO Program Review Process

EPA's review of the State's CAFO compliance and enforcement program was conducted by Region 7's CAFO enforcement coordinator. Twenty one files were reviewed from Field Offices 3 and 4. All facilities were open cattle feedlots. Thirteen of the facilities had been issued NPDES permits. Given the fact that the Iowa Plan was still in effect, EPA did not randomly select files for review, rather it selected facilities based on two criteria 1) The facility had been issued an NPDES permit and was coming to the end of its current permit cycle, or 2) The facility was associated with and/or located near a fish kill that was attributed to CAFO operations.

In addition to the files identified above, EPA reviewed the Permitting for Environmental Results (PER) Program, which included limited information on the NPDES compliance and enforcement program in Iowa, the Compliance and Enforcement Performance and Partnership Grant (PPG) Work plan, and the most recent NPDES Program review for Iowa (FY 2001). The remainder of this section presents the findings and recommendations of EPA's review of IDNR's CAFO program.

2. CAFO Inspections

The 2004-2005 PPG did not specify a number or percentage of inspections that need to be performed at CAFOs. Instead it only specified that IDNR would "Inspect open feedlots". Information pulled from the State's CAFO database for the purposes of this program review indicates that a total of 201 "routine" inspections had been performed during FY04. Most of these inspections were performed at CAFOs that have yet to receive NPDES permits.

Based on information obtained from this program review, IDNR's CAFO inspections fall under three categories, 1) Complaint Investigations, 2) Iowa Plan Assessments, and 3) Permit Renewals. Of the three, complaint investigations appear to contain the most accurate descriptions and observations, however there does not appear to be an agency-wide format that is used. Regions and/or inspectors appear to have developed their own format for documenting these inspections. Inspections in the other two categories utilized checklists and did not include any narrative on what was observed. Inspections associated with the Iowa Plan focused primarily on site assessment rather than violations because of the amnesty provisions. Inspections associated with permit renewals utilized a one page checklist that allowed the inspector to gather general facility and permit information, but not enough to sufficiently identify and document all violations. Overall, inspection reports/checklists are completed in a timely manner; however the timely identification of violations was only observed when associated with complaint investigations. Compliance monitoring and evaluation data for NPDES minors has not been a required data element in (PCS). As a result, IDNR has not been reporting this information, as it relates to CAFOs, into the PCS system.

In order to assure CAFOs are in compliance with state and federal clean water laws, IDNR should be performing compliance evaluation inspections at 20% of Iowa's permitted CAFOs annually in addition to its inspections at non-permitted facilities.. While this will insure that all CAFOs operating under an NPDES permit will be inspected at least once during the permit cycle, it also is in line with EPA's *FY05-07 National Program Guidance* and EPA's *Performance Based Strategy for the CAFO OECA National Priority*.

Recommendation/Comments

a) Based on EPA's review, IDNR's inspections at open feedlots are not sufficient for the purpose of determining compliance with state and federal clean water laws. IDNR should develop a standard operating procedure (SOP) to establish uniform

procedures for conducting and reporting results of compliance evaluation inspections at CAFOs subject to the NPDES provisions of the CWA. SOPs should also be developed for other inspection types (i.e., complaint investigations) associated with CAFOs. At a minimum these SOPs should establish:

- General guidelines;
- Inspection procedures (including Pre/Post Inspection procedures);
- Inspection report/checklist format that will be used;
- Compliance determination procedures; and
- Data entry requirements for both federal and state data systems.

b) IDNR should be performing compliance evaluation inspections at 20% of Iowa's permitted CAFOs on an annual basis.

c) IDNR should continue working with EPA on adopting new WENDB data elements that include fields that cover compliance monitoring and evaluation data at CAFOs. IDNR should continue to work with EPA to get this data into ICIS NPDES when it is brought online in the future.

3. CAFO Enforcement

Because of the amnesty period associated with the Iowa Plan (2001-2006), the number of formal enforcement actions filed against CAFOs for CWA violations was low. The Iowa Plan will end on April 1, 2006. Of the 18 facilities reviewed, there were 2 that had been issued formal Administrative Orders. Both Orders had adequate injunctive relief to bring facilities back into compliance in a specific timeframe. There was no information in the file that indicated these facilities were in compliance with the conditions of their respective Orders.

Both economic benefit and gravity were included in the penalty calculations associated with the two Administrative Orders reviewed by EPA. Currently IDNR does not have a formal penalty policy that it uses for its calculations. Instead, it relies on state regulations (567 IAC, Chapter 10) which identify the minimum set of factors to be considered when assessing penalties. Under these rules IDNR must consider, 1) Gravity of the Violation, 2) Economic Benefit, and 3) Culpability. IDNR does not use the BEN model or any other state model when making economic benefit calculations; instead they are made by the compliance officer.

As mentioned earlier there was only one commitment that specifically dealt with CAFOs. IDNR agreed to inspect open feedlots and report the number of inspections on an annual and semi-annual basis. Other indirect commitments were associated with conducting complaint investigations when complaints are received on potential impacts to water quality. IDNR reported the number of complaints at both CAFOs and wastewater treatment plants.

Recommendation/Comments

a) To assure adequate enforcement response to state and federal clean water laws, IDNR should develop and implement an enforcement strategy that identifies the criteria to be used in determining if a violation warrants formal or informal enforcement at both permitted and unpermitted CAFOs.

b) IDNR should develop and implement a civil penalty policy that not only covers penalties associated with CAFOs, but penalties for all facilities (wastewater, storm water, etc.) covered under the state and federal clean water laws. This policy should layout specific instructions on how to calculate each component of the penalty and establish documentation requirements for these calculations.

c) IDNR should maintain documentation in the facility file that documents compliance with all injunctive relief associated with formal and informal enforcement actions.

5.3 Storm Water

Background

The storm water program at IDNR is implemented by the Field Services and Compliance Bureau and Water Quality Bureau. The Water Quality Bureau administers permits and reviews inspection reports from the field. The Field Services and Compliance Bureau, which has six field offices, is responsible for conducting storm water inspections, evaluating compliance and initiating enforcement. Field offices refer cases to the Legal Services Bureau of the central office for enforcement. All field offices inspect sites based on complaints. Several field offices conduct additional inspections through means of targeting.

For purposes of construction activity related to storm water, the IDNR uses a general storm water permit, referred to as Iowa Permit #2. Permits are administered with one-year, three-year or four-year periods of validation, depending on the time frame selected by the permittee. Permit fees correspond with the duration of the permit.

Inspection and enforcement activities for Phase II municipalities haven't begun in earnest yet. Again, inspections and enforcements will generally be conducted out of six regional offices with offices with the central office doing some administrative orders and other enforcement functions. EPA (with a contractor to EPA) and the State have inspected Des Moines' implementation of their Phase I permit. A report of the findings should be completed no later than September 2005. The state plans to conduct a Phase I inspection of Cedar Rapids in FY 2006 so there should be no problem meeting the OECA requirement that all Phase I cities be inspected by the end of FY2007.

The Phase II construction permit has been issued and about 360 sites, on average, are seeking permit coverage per quarter. As with MS4s most enforcement functions are handled out of the regional offices. Most regional offices conduct inspections only when

complaints are received, but some inspections are planned ahead. Typically there are a couple of construction referrals developed per year and 5 to 10 k per year in penalties collected.

Overall, the IDNR has implemented an effective storm water enforcement program. The IDNR communicates well with inspected facilities to identify violations by sending a Notice of Violation (NOV). NOVs are sent in a timely manner to assist with minimization of sediment run-off. The IDNR could reduce the number of sites out of compliance by adding a step to the permit application process which verifies that a Pollution Prevention Plan (PPP) has been drafted. The IDNR has also sent orders and sought penalties, where appropriate. Consistency in penalties can be improved by creating guidelines to justify penalty reductions, and providing an explanation in the file. Prior to closing a case, the IDNR must take steps to ensure that a final assessment is made to determine compliance and that a Notice of Termination is documented and filed upon completion of construction.

The Performance and Partnership Grant (PPG) does not contain provisions for the Storm Water program. However, EPA would like to improve coordination with the IDNR to provide a clear objective and determine a framework for activity.

1. Storm Water Program Review Process

During the IDNR Enforcement Program review, EPA staff reviewed a total of twenty storm water files, where enforcement had been conducted as early as May 2001 and as recent as July 2005. All files were related to storm water construction activity. The files were selected from sites submitted by the field offices which had received Notice of Violations (NOVs), Administrative Orders, or were referred for other enforcement actions. Field office numbers 1, 2, 4 and 5 submitted files for review. EPA did not review files from field office numbers 3 or 6, as files were not available for review.

2. Storm Water Program Inspections

The 2004-2005 PPG does not specify a number or percentage of inspections that need to be performed for entities subject to storm water regulations. The IDNR uses a standard inspection form to document inspections. The form is clear and provides prompts to document necessary information. Documented inspections contained clear content and were well-written. IDNR should continue use of the standard inspection form, which produces effective reports.

Inspection reports were completed in a timely manner, and were typically completed within a week from when the inspection took place. Of the twenty files reviewed, nineteen files contained citation of violations. Violations were always identified and documented in NOVs. NOVs were also sent in a timely manner, typically within the same month from when the inspection took place.

On a national basis, the EPA does not currently have a definition for "significant violations" in the storm water program. The Region considers "high priority violations" to be violations which contribute to the quantity of sediment discharged to waters of the United States. High priority violations include unpermitted sites, sites under construction without a Pollution Prevention Plan and sites lacking Best Management Practices. The IDNR tracks all sites which have applied for a permit electronically in a state database.

Recommendation/Comments

a) IDNR addresses non-compliance for storm water in a timely fashion, which is an asset to their program.

b) EPA would like to improve coordination with the IDNR to determine a clear framework for conducting inspections and enforcement.

3. Storm Water Program Enforcement

Of the twenty files reviewed, eight sites received administrative orders. The orders provided clear instruction as to the actions needed to come into compliance. However, files contained little information to reveal the final status of the site, and whether compliance had been obtained.

Both Crescent Golden Hills and Heartland Heights received NOVs prior to receiving administrative orders and continued to be out of compliance after having received the order. The sites were found to be out of compliance at a later date because they were re-inspected based on additional complaints. Both sites were found to be out of compliance several years beyond when initial enforcement was conducted. Other sites, such as Scenic Pointe Subdivision, Cherry Glen Ridge and Timber Ridge Estates were ordered to pay a penalty, but the file contains little evidence documenting that payment had been received or that the facility was in compliance. The IDNR assessed final compliance of two sites. Final compliance was either determined by re-inspection or by receiving a Notice of Termination.

The IDNR requests that a Notice of Intent (NOI) be filed in order to apply for a permit. The Notice of Intent certifies that a Pollution Prevention Plan (PPP) has been created for the site and that Best Management Practices are in place. The IDNR has a protocol to issue the permit within seven days from when the permit is received. The PPP is not always reviewed or verified prior to issuance of the permit.

Of the twenty files reviewed, five sites were granted permits that did not have sufficient PPPs drafted: Heartland Heights/BCD Corporation, Radford Road Development/Epic Construction, Huntington Hills Development/Dean Woods, D & S Swine, LLC and Iowa Ethanol, LLC.

Once permitted, a facility may be inspected. Inspections are initiated based on complaints. However, the IDNR has also targeted several agencies and larger developers

that have a past history of non-compliance. When violations are found during inspection, an NOV is sent to the responsible party. The IDNR exercises best judgement to determine whether enforcement in the form of administrative orders, penalties and referrals will be pursued. Field offices refer sites to the central office, which then processes the request, and determines the appropriate response. Referrals to the legal department are submitted through use of a referral form. The form is consistently applied, and captures the extent of the violations through documentation by the inspector.

Of the twenty files reviewed, penalties were sought in seven cases: Crescent Golden Hills/D&D Construction, Scenic Pointe Subdivision, Cherry Glen Ridge, Fran Gard Properties, Inc., D&S Swine, LLC, Iowa Ethanol, LLC and Environ Eggs Chicken Facility. The IDNR has a penalty policy, which assigns monetary amounts in three categories: culpability, gravity and economic benefit. Among the files reviewed, penalties were assessed with consistency and factored in all three criteria.

Of the seven cases in which penalties were assessed, 4 were reduced and were settled as donations to other interest groups. The penalty for Crescent Golden Hills was reduced from $10,000 to $900. Additional penalties were not sought. The penalties for Fran Gard Properties and D& S Swine, LLC were also reduced based on appeal, from $10,000 to $4,000 and $1,000 to $750, respectively. Penalties were sought against Iowa Ethanol, LLC for $10,000. However, there is no indication in the file that the penalty has been paid. Both Cherry Glen Ridge and Environ Eggs Chicken Facility made donations to private groups in lieu of a penalty.

Files should contain justification for penalty reductions in a manner that is calculated and consistent. The penalty for Crescent Hills was reduced by over 90%. This is a significant reduction, and there is little indication in the file to explain or justify this reduction, other than that an appeal was filed. It is probable that the low penalty did not create a sufficient deterrence, as Crescent Hills was found to be out of compliance two and a half years later for similar violations. The IDNR should develop guidelines for penalty reductions which can be applied to all cases when the agency chooses to pursue negotiations. Case closure and proof of payment should be available in the file for tracking purposes. If the IDNR chooses alternative penalty options, a formal process should be in place to document the rationale. Storm water enforcement is not part of the current PPG grant.

Inspection and enforcement activities for Phase II municipalities haven't begun in earnest yet. Again, inspections and enforcements will generally be conducted out of the six regional offices with the central office doing some administrative orders and other enforcement functions. EPA (with a contractor to EPA) and the State have inspected Des Moines' implementation of their Phase I permit. A report of the findings should be completed in late 2005. The state plans to conduct a Phase I inspection in FY06 so there should be no problem meeting the OECA requirement that all Phase I cities be inspected by the end of FY07.

The Phase II construction permit has been issued and about 360 sites, on average, are seeking permit coverage per quarter. As with MS4s, most enforcement functions are handled out of the regional offices. Most regional offices conduct inspections only when complaints are received, but some inspections are planned ahead. Typically there are a couple of construction referrals developed per year and $5,000 to $10,000 per year in penalties collected.

Iowa has two general permits to cover Storm Water from industrial facilities. One permit covers asphalt, rock crushers, quarries, and mobile concrete plants. The other general permit covers all other industrial facilities. Inspections at industrial facilities are conducted when the department receives a complaint. Industrial Storm Water Pollution Prevention Plans are required by the permit to be kept on site and are not sent to DNR.

Recommendation/Comments

a) The state appears to be adequately implementing all aspects of Phase I and Phase II of the storm water regulations.

b) The IDNR can improve enforcement effectiveness by either documenting re-inspection or requesting deliverables which indicate compliance, such as photographs of newly installed controls and the absence of sediment track-out, depending on the initial findings. The IDNR must track permit renewals and document renewed permits within the file. The IDNR must take steps to ensure that a final assessment is made to determine compliance and that a Notice of Termination is documented and filed upon completion of construction.

c) The IDNR should continue to assess penalties based off of gravity and economic benefit.

5.4 CSO/SSO

Background

It is the responsibility of the Field Services who have CSO communities and the Compliance Bureau to ensure that CSO communities are in compliance with all applicable State and Federal Clean Water Act regulations. The six field offices in this bureau conduct facility inspections, enter monitoring report information into the state's data system, evaluate compliance and make referrals to the Legal Service Bureau.

Iowa CSO requirements are written into each NPDES permit as a part of the special conditions these requirements conform to the 1994 CSO Control Policy. Iowa currently has eleven CSO communities. Since the IDNR conducted its' 1998 CSO inventory, seven cities have eliminated their combined sewers and have been removed from the list of CSO communities. Permits for eight of the remaining eleven CSO communities require implementation of the nine minimum controls and development of long term control plans (LTCPs). Two permits include schedules for sewer separation

and elimination of the CSOs. One very small community still needs CSO conditions included in its permit. The combined sewer operational plan required in each community's permit must provide for public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts. The LTCPs are under development and are required to be submitted in accordance with the enforceable NPDES permit compliance schedule dates. One LTCP has been submitted to date. None of the LTCPs have been approved by Iowa.

Iowa NPDES permits for municipalities list locations of any overflow point, including SSOs. Overflow reporting is treated in the same way as a bypass, with reports received at the IDNR field offices either through the requirement for 24-hour reporting or in the discharge monitoring report. Public notification needs are determined on a case-by case basis, depending on whether a public health threat exists. Iowa evaluates SSOs during the permit drafting process.

1. CSO/SSO Program Review Process

EPA's review of the State's CSO/SSO compliance and enforcement program was conducted by one of Region 7's CSO/SSO coordinators. Three files were reviewed from Field offices 5 and 6. Two facilities are CSO communities and one facility was confirmed through an inspection report to be an SSO community. All three communities had been issued NPDES permits. The facilities selected for review were based on communities who were to submit deliverables to the State as a part of the communities permit schedule for submittal of the LTCP.

In addition to the files identified above, EPA reviewed the Permitting for Environmental Results (PER) Program, which included limited information on the NPDES compliance and enforcement program in Iowa, the Compliance and Enforcement Performance and Partnership Grant (PPG) Work plan, and the most recent NPDES Program review for Iowa (2001). The remainder of this section presents the findings and recommendations of EPA's review of IDNR's CS/SSO program.

2. CSO/SSO Inspections

The 2004-2005 PPG inspection commitment for CSOs required IDNR to provide information to municipalities with CSOs that will assist them in the preparation, submission, and implementation of the NMC/LTCP provisions incorporated in their municipal permits. The State is actively reviewing, and documenting noncompliance into the state's NPDS data system. The state regularly inspects all CSO/SSO communities and is documenting any noncompliance that occurs. The state is not currently reviewing the LTCPs that have been submitted to the state for review.

3. CSO/SSO Enforcement

Of the three CSO files reviewed only one formal enforcement action was taken against a CSO community, the City of Clinton. The original order was issued in 2001

and amended in April 2003 and April 2004. The schedule requires a completion date of 2007.

On July 7, 2004, EPA conducted an inspection to determine if the City of Davenport was a CSO or SSO community. The inspection confirmed that the outfalls listed on the city's permit were SSO structures. The state has required the city to implement their nine minimum controls, develop a public notification plan and address the sanitary sewage overflows. The City of Davenport and the City of Bettendorf are continuing the Master Plan project that will separate combined lines and will eventually complete the Intergovernmental Agreement. The planned separation is scheduled for completion in 2006.

There is evidence in the files that the state actively works with the communities working through CSO/SSO improvements and preparing LTCP's however, it is difficult to track the current progress of where the city is with their plan based on the documents in the file. IDNR has not reviewed the LTCPs that has been submitted.

During the program review, the Region extended an invitation to the State to assist in the review of the CSO LTCPs that have been/will be submitted by CSO communities. EPA and IDNR should work together to identify available resources and develop a schedule of planned activities necessary for reviewing CSO LTCPs. The planned activities should be incorporated into a Memorandum of Understanding (or a similar document) between EPA and IDNR.

Several areas of concern were identified in 2001 program review, which included the identification of prioritizing SSO problem areas and storm-water repeat violators. The enforcement coordinator for NPDES program has highlighted SNC violations and bypass issues as the priority for the next year. These priorities have assisted the NPDES program in targeting problems in program processes, expediting the responses to the identification of violators and supporting enforcement actions.

Recommendations/Comments

a) IDNR and EPA should develop a Memorandum of Understanding regarding the review of CSO LTCPs.

b) IDNR should track all CSO/SSO dry and wet weather bypasses, and generate status reports for each CSO community.

6.0 Pretreatment

In Iowa, as in most other states, approved Program cities perform the bulk of Pretreatment inspections, permitting, and enforcement, and overall do a good job of it. To determine the effectiveness of each program, either a Pretreatment Compliance Inspection (PCI) or a Pretreatment Audit is performed by INDR or EPA each year. Below is discussed IDNR's coverage of PCIs and Audits since the last program review.

Pretreatment Program Cities

There are 21 approved Pretreatment Program cities in Iowa. At a minimum, the smaller program cities should either receive a PCI or Pretreatment audit every two years. The larger programs should receive a Pretreatment inspection annually, as should any program city that was found to have deficiencies from the previous year or annual report. To determine the coverage since IDNR's last program review data from PCS was used to determine from year to year the number of PCIs and audits, and the coverage for each city.

Fiscal Year 2002

In FY02, IDNR performed 15 PCIs and audits, while EPA did four Pretreatment audits, for a total of 19. The two program cities not inspected were Waterloo and Council Bluffs.

Fiscal Year 2003

IDNR conducted 11 PCIs and audits. In FY03 EPA performed six audits for a total of 17 inspections. Those cities that received neither type of inspection were Cedar Falls, Cedar Rapids, Dubuque, and Waterloo. Waterloo was the only city that did not have an inspection the previous year.

Fiscal Year 2004

Like the previous fiscal year, IDNR conducted 11 PCIs and audits. Another six audits were done by EPA so the total was 17. There were three cities that were neither inspected in FY03 or FY04: Cedar Falls, Cedar Rapids, and Dubuque. Council Bluffs received an inspection in FY03 but not in FY04.

Fiscal Year 2005

At the time of the program review there was roughly one quarter left to go in the fiscal year, consequently the performance will be incomplete. At the time of the review, IDNR had performed eight PCIs or audits. EPA had not yet done any but had six scheduled for the fourth quarter. Cedar Rapids and Dubuque are two cities that EPA will audit that were not inspected in FY03 or FY04.

For each year (except FY05, which is incomplete) IDNR has done well in total number of inspections conducted. However, some cities are going more than two years between a PCI or Audit. Davenport, Des Moines and Cedar Rapids are large programs and should be inspected annually.

The rest of the evaluation was dedicated to specific issues that have arisen over the past year. Each issue that was discussed is briefly presented below and any resolution identified.

Over the years, the Pretreatment program has evolved into one where the bulk of the information needed to evaluate compliance, both municipal and industrial, is shared between the agencies throughout the year. Consequently, the Region has a running understanding of conditions in Iowa throughout the year. This has the effect of allowing annual reviews to be one more of addressing outlying issues and special situations that surface during the year. Therefore, the following discussion is more a presentation of these special issues and not an overall evaluation of Program activities.

Industries Outside Program Cities

IDNR must also regulate directly Significant Industrial Users located in cities that are not required to develop a Pretreatment Program. At present there are 54 categorical industries identified in non-program cities. These industries are all controlled through "treatment agreements" with their respective city. The treatment agreements contain the appropriate discharge limits, either Categorical limits or local limits, whichever is more stringent.

All 54 facilities are required to self-monitor and/or be monitored by their municipality. These data are collected and submitted by the city with its monthly monitoring reports. These reports are received by the field office and the data input into IDNR's computer database. At the end of each six-month reporting period the central office creates a report that identifies the compliance status of each facility. Included is a synopsis of the violations behind each determination of noncompliance (both infrequent noncompliance and Significant Noncompliance). This report is shared with the field offices and a copy is sent to EPA.

Below is a table that shows the number of facilities in SNC for violations of standards for each six month reporting period since the last program review. Also shown is the percentage of facilities in SNC for the period and the number of facilities that remained in SNC for back-to-back reporting periods.

As can be seen from the table below, IDNR has maintained a very low SNC rate over the past four years. Moreover, only a handful of industries were in SNC with standards for two consecutive reporting periods. Though not shown in the chart, no industry was in SNC for three or more consecutive reporting periods.

Reporting Period	Number in SNC,S	Percent in SNC,S	Facilities in Repeat SNC,S
July-Dec 2001	3	5.2%	NA
Jan- June 2002	3	5.2%	0
July-Dec 2002	3	5.2%	1
Jan- June 2003	2	3.6%	1
July-Dec 2003	0	0%	0
Jan- June 2004	1	1.9%	0
July-Dec 2004	3	5.6%	1
Jan- June 2005	3	5.6%	1

Overall IDNR is doing an exceptional job with its Categorical SIUs located outside approved Pretreatment Program cities.

Appendix A - NPDES File Review - Permits

1. Chantland PVS Company IA0070238

Background

This permit was issued on 12/1/04. The facility has an Average Dry Weather (ADW) of 0.005 MGD. Chantland is a manufacturer of conveyor pulleys and rollers. The facility discharges boiler blow-down and autoclave condensate. The boiler is used to create steam heat. The facility was waived from having to test for total residual chlorine (TRC) per IDNR's letter dated 11/16/99. The TDS level in the effluent was reported as 100 mg/L.

Recommendation/Comments

a) Permit file documentation was complete.

b) The public notice lists the receiving stream as the Des Moines River, but the permit lists the route of flow as an unnamed Creek to the Des Moines River.

2. City of New Hampton IA0028525

Background

This permit was issued on 11/19/04. The facility has an Average Dry Weather (ADW) of 1.32 MGD. The discharge is from a trickling filter wastewater treatment facility into Spring Creek. There is a protected flow of 2 cfs used in the waste load allocation, instead of the 7Q10 of 0.1 cfs in Spring Creek, where the upper reach is a general use stream. However, 5.5 miles down, the stream is designated as a Class B(LR) Limited Resource. The city has a treatment agreement with TRI Mark Corporation and Dean Specialty Foods Group, prior to discharge to the POTW. The facility was put on a compliance schedule to analyze at least one sample for TDS of the final effluent by January 1, 2005. In addition, an acute toxicity effluent limit was set at 50.5% effluent and 49.5% dilution water.

Recommendation/Comments

a) Permit file documentation was complete.

3. Lisbon, City of IA0025909

Background

This permit was issued on 6/24/04. The facility is an activated sludge wastewater treatment plant with an average dry weather (ADW) of 0.12 MGD. Discharge is to an unnamed creek to the Spring Creek (a general use stream) to the Cedar River – an

impaired water body on the 303 (d) lists. Even though Lloyd Platting Company is an industrial user that discharges to the sewer system, the city's discharge was determined to have no reasonable potential to cause an exceedence of water quality standards for metals due to their low concentration in the effluent. The facility was put on a compliance schedule to achieve ammonia nitrogen limits by May 1, 2005.

The Cedar River (downstream of Lisbon's discharge) is listed on the 2004 303 (d) list as impaired for recreation due to high bacteria levels. A TMDL has not yet been developed for this segment of the Cedar River. The permit for Lisbon does not contain any limit on bacteria nor is there any discussion in the permit documentation that the Cedar River, downstream of Lisbon's discharge is impaired for recreation.

Recommendation/Comments

a) Permit file documentation was complete.

b) The permit was issued before the requirement for TDS and Chloride date for all facilities starting in December 2004.

c) The concern that this discharge may contribute to the listing of the Cedar River on the 303 (d) list was not addressed.

4. Prairieburg, City of IA0063347

Background

This permit was issued on 4/13/05 to a facility with an Average Wet Weather (AWW) of 0.031 MGD. It is a 3 cell lagoon wastewater treatment system with a controlled discharge to an unnamed creek to Buffalo Creek and then to Wapsipinicon River. The facility was put on a compliance schedule to monitor for TDS and Chloride at the next discharge.

Recommendation/Comments

a) Permit file documentation was complete.

b) The permit was issued after the requirements for TDS and Chloride date for all facilities starting in December 2004. Monitoring is required at the next discharge event.

c) The public notice list the receiving stream as Buffalo Creek, but the permit list the route of flow as to an unnamed Creek to Buffalo Creek and then to Wapspinicon River.

5. Pella Municipal Power Plant IA0032701

Background

This permit was issued on 12/20/04. It is an electric power plant with an Average Dry Weather (ADW) of 0.047 MGD, that discharges to Thunder Creek to the South Skunk River. Discharges include boiler feed pump seal, water leak-off, wash-down, and water treatment. There are five effluent outfalls.

Recommendation/Comments

a) The South Skunk River is on the 303 (d) list of impaired water bodies. The pollutant of concern is nitrate. The permit documentation should discuss whether or not the discharge is contributing to this impairment.

6. Proliant Biological IA0076953

Background

This permit, for a new discharger, was issued on 6/8/04. The facility produces bulk pharmaceutical proteins and nutraceutical proteins from cow plasma. The discharge is reject water from potable water reverse osmosis treatment with an average dry weather flow of 0.015 MGD. The discharge is to a drainage ditch which is tributary to Peas Creek and the Des Moines River. The facility is required to notify within 30 days of discharge. In a letter dated 6/16/03, IDNR denied the facility's request for a variance from the TDS water quality standard of 750 mg/l. The Iowa Environmental Protection Commission adopted a new, site-specific WQS for TDS at their March 2004 meeting. The memo which contains the rationale for the effluent limits for TDS indicates that the limits are site-specific, based on a toxicity test which was negative at the limit of 1500 mg/l.

Recommendation/Comments

a) Permit file documentation was complete.

b) The public notice list the receiving stream as to the Des Moines River, but the permit lists the route of flow as to an unnamed tributary to Peas Creek to the Des Moines River.

7. IP&L (Duane Arnold) IA0003727

Background

The IP&L facility is a nuclear fueled power plant discharging cooling tower blow-down to the Cedar River. The permit includes BAT limits for Zinc and Chromium, Water Quality based limits for Chlorine and WET, and BPJ-based controls on the use of Mulluscicides. The permit does not contain a temperature limit for heat.

Recommendation/Comments

a) Permit is protective for toxics with the limits properly derived.

b) The file indicated that there may be times when background temperatures in the Cedar River approach the water quality standard for heat (32°C heat cap). The permit may not be protective of the WQ standards for heat when the receiving stream is at high background temperatures.

8. Marshalltown IA0038610

Background

The facility has two treatment trains. One is a Sequencing Batch Reactor (SBR) and the other part is a standard activated sludge plant. The Average Dry Weather design flow is 6.4 MGD. Permit limits are based on secondary treatment limits for BOD and TSS. Water Quality-based limits are included for several metals, cyanide, and ammonia. The consideration of reasonable potential for WQ-based limits for metals and cyanide was based on a headwork's loading of metals that exceeded 50% of the calculated Waste Load Allocation for that metal.

Ammonia limits are flow variable and expressed as pounds of ammonia per CFS of stream flow per day (#/CFS/day). The city's wastewater treatment plant is capable of meeting the low flow based limits for ammonia; but according to information in the file, Swift (an industrial user) preferred flow variable limits to allow more flexibility for their operations.

Recommendation/Comments

a) IDNR granted a flow variable limit although Marshalltown could comply with the low flow WLA. Water quality based flow-variable limits are allowable, but not preferred. Such limits can create complexity in compliance tracking and evaluation, allow an increase of overall pollutant loading to the water body, and do not allow straightforward tracking of pollutant loads. This could be a problem later in TMDLs, modeling, considerations of hypoxia, or when nutrient criteria are established.

9. Coralville IA0020788

Background

Coralville wastewater is treated by an activated sludge plant with an average dry weather flow of 2.19 MGD. Permit limits for BOD and TSS are based on the standard secondary treatment requirements. The permit contains seasonal ammonia limits derived based on Iowa's standard implementation procedures. The file contains paperwork on many new sewer extensions indicating rapid growth.

Recommendation/Comments

a) Permit derived properly. Documentation is complete.

10. Harcourt STP IA0076244

Background

Facility is a small controlled discharge facility with a design dry weather flow of 18,000 gpd. The lagoon was recently built in a small, formerly un-sewered, town. The permit includes standard secondary limits for a lagoon. No water quality limits were considered. The permit states that discharge must occur from the lagoon as a controlled discharge and should occur in the Spring and Fall when flow in the receiving stream is not at its minimum. The permittee is required to contact the DNR field office in case of the need for an emergency drawdown when stream flows are below average, and obtain prior approval for such a discharge.

Recommendation/Comments

a) The permit doesn't define Spring and Fall, nor does it specify what "below average" stream flow means. No ammonia monitoring is required.

11. Ajinomoto Food Ingredients IA0072389

Background

The facility directly discharges cooling tower blow-down and treated sanitary wastes from workers. Process wastewaters are sent to Cargill and Industrial Energy Applications. TDS from the blow-down exceeds 1000 mg/L, so WET testing is being required.

Recommendation/Comments

a) Most process water is sent over to the Cargill, Eddyville plant for treatment.

12. HWH Corp. IA0071056

Background

Hydraulic leveling systems and room slide outs are manufactured. The permit is for domestic wastewater, cooling system water, and trailer wash waster. Two 2-cell aerated lagoons are used for treatment. One lagoon treats domestic wastewater and trailer wash water. The second lagoon receives cooling system water and trailer wash water. The public notice lists the Cedar River as the receiving stream, but the discharge is to a ditch,, then to Crooked Creek, and then to the Cedar River. It is 2 miles from the discharge point to the Cedar River. The facility is also covered by IDNR's general permit #1 for storm water. The check list used by IDNR for sending the public notice

and draft permit does not include the State Historic Preservation Officer and the state fish and wildlife agency (a part of IDNR).

Recommendation/Comments

a) The draft permit and public notice must be sent to the SHPO and the state fish and wildlife agency (40 CFR § 124.10 © (1) (iii) and (e)).

b) The public notice lists the Cedar River as the receiving stream even though it is two miles from the point of discharge.

13. Flying A. Cattle Co. IA0077861

Background

The file contained both the NPDES and construction permit information. The NPDES permit was issued July 16, 2004. The application, submitted in May 2004, indicates that this is a System 1 (which has one disposal period per year). For a drainage area of 27 acres, storage will be 1,873,954 $Ft^{3.}$ However, the permit requires only the minimum storage system and the accompanying operation based on a minimum storage system. The construction permit has a requirement for emptying the storage basin before winter, but the NPDES permit does not. The permittee must be able to empty the storage basin within 10 dewatering days. The file did not contain any record of IDNR checking that the facility actually had, or planned to have, the required pumping capacity. The file did not contain any information, discussion, or requirement on when the once a year pumping of the system was planned or would occur. NPDES permit conditions require that land application must be done in accordance with 567 – 65.3 (4).

Recommendation/Comments

a) The NPDES permit requirements do not reflect the system built at the CAFO. It is therefore unclear how much storage is required and what operational conditions are expected of the CAFO.

b) The file does not contain any information that indicates that planning for pumping capacity and the once a year disposal period has occurred.

14. Sunrise Beef IA007771

Background

The first page of the permit states that the design of the system is for a System 3 (April, July, and November disposal). The discharge limitations on page 2 of the permit require the minimum design storage (runoff from the 25yr -24hr event), but the operational conditions reflect a System 3 system. No manure management plan is required in the permit. Other ELG requirements (such as inspections) are missing. There are no land application requirements in the permit. Besides the permit itself, the documentation in the file did not mention a System 3 design. There was no

documentation that the system met the storage requirements for a System 3. A statement is made that the operation needs 650 acres for land disposal, but the application says there are only 240 acres available. It does mention a composting facility, but does not explain if there is any off-site transfer of manure or compost.

Recommendation/Comments

a) Page 1 and page 2 of the permit are not consistent as to the type of system and the storage required. The NPDES permit requirements do not appear to reflect the system built at the CAFO. It is therefore unclear how much storage is required and what operational conditions are expected of the CAFO.

b) The permit does not contain all the requirements of the ELG.

c) There is no documentation that the amount of storage is adequate for operating as a System 3.

d) The application states that 650 acres are needed for land disposal, but only 240 acres are available.

15. Lowell Vos IA0078701

Background

This CAFO operation had a permit issued in 1991, but did not apply for the permit to be reissued. Apparently no runoff controls were built to comply with that permit, because the permit issued on November 22, 2004, contained a compliance schedule for construction. The Natural Resources Conservation Service is now designing a system, and Lowell Vos has been approved for EQIP money. A Notice of Violation was issued on April 28, 2005, which required submission of final engineering plans within 30 days. No Manure or Nutrient Management Plan is required, but the permit does contain general language on land application.

Recommendation/Comments

a) The permit should not have contained a compliance schedule for a technology based requirement that already was supposed to have been met.

b) The permit does not contain all the requirements of the ELG (which include a nutrient management plan).

16. Couser Feedlot IA0079561

Background

The NPDES permit for the Couser Feedlot was on public notice at the time of the review. The public notice document did not contain a date for the end of the public comment period, but instead said the comment period ended 30 days after publication in

a newspaper (to be done by the permittee). The file contained a summary of the modeling comparison of the proposed Alternative Technology system with a baseline Effluent Limitations Guideline system. The models used do not contain output information on BOD_5, but instead use COD. It was noted that for 6 out of the 25 years of modeling results shown, the baseline ELG system performed better than the AT system. The draft permit discharge limitations state that the annual load is to be compared on a year-by-year basis.

Recommendation/Comments

a) Since the public notice document itself does not have an actual date on it, someone who does not get the newspaper notice will not know when the public notice period ends.

b) No information is in the file on BOD_5 annual loads from the baseline and AT systems.

Appendix B - NPDES File Review - Data Management

1. City of Clinton IA0035947

Background

The permit was issued 6/12/03 and will expire 6/11/08. Reviewed pH, TSS, Copper, BOD for the period January 1, 2004, thru March 31, 2005. The DMR data matched with what was in PCS. There were no inspections entered into PCS for the period January 1, 2004, thru December 31, 2004. The state had issued the following enforcement actions against this facility: NOVs on 9/13/03 and 11/1/04; an Administrative Order on 4/14/03; and an Administrative Order on 4/07/04.

Recommendation/Comments

a) The DMR data matched with what was in PCS, there were no differences. The inspection and enforcement data also matched with what were in PCS.

2. City of Dubuque IA0044458

Background

The permit was issued 7/14/98 and expired 7/14/03. Reviewed pH, TSS, Flow, and BOD for the period January 1, 2003, thru December 31, 2003. The DMR data matches with what was in PCS. A summary of the findings is located in the summary section. The enforcement and inspection data was not reviewed as those files did not make their way to the Des Moines Field Office #5.

Recommendation/Comments

a) Reviewed DMR data from January 2003 through December 2004 and found some inconsistencies, below is a summarization of my findings:

3. City of Grinnell IA0031186

Background

The permit was issued 7/7/00 and expired on 7/6/05. Reviewed pH, TSS, and Ammonia, Flow, and BOD DMR data for the period October 1, 2002, thru March 31, 2005. This facility's DMR data and PCS matched. All of the inspections in the file were entered into PCS; and there were no enforcement actions taken against this facility which matched with PCS.

Recommendation/Comments

a) The DMR data matched with what was in PCS, there were no differences. The inspection and enforcement data also matched with what were in PCS.

4. City of Keokuk IA0042609

Background

The permit was issued 8/6/02 and will expire 8/5/07. Reviewed pH, TSS, Toxicity and BOD DMR data for the period January 1, 2004, thru March 31, 2005. The DMR data matched with what was in PCS. All of the inspections were in the file and entered into PCS; there was one NOV issued against this facility on 02/23/04 which was in the file and matched with what was in PCS.

Recommendation/Comments

a) The DMR data matched with what was in PCS, there were no differences. The inspection and enforcement data also matched with what were in PCS.

5. City of Knoxville IA0035866

Background

The permit was issued 8/9/99 and expired on 8/8/04. Reviewed pH, Ammonia, Flow, Toxicity, and BOD DMR data for the period October 31, 2002, thru March 31, 2005. All of the DMR data matched with what was in PCS. Reviewed inspections in the file and verified they were reflected in PCS and verified the enforcement actions. The state has issued five NOVs against this facility: 01/07/03; 01/08/03; 01/09/03; 01/13/03; and 01/15/03, all NOVs in the file were reflected in PCS.

Recommendation/Comments

a) The DMR data matched with what was in PCS, there were no differences. The inspection and enforcement data also matched with what was in PCS.

6. City of Oelwein IA0032344

Background

The permit was issued 09/16/96 and expired on 09/16/01. Reviewed pH, TSS, Ammonia, Flow and BOD DMR data for the period October 31, 2002, thru March 31, 2005. All of the DMR data matched with what was in PCS. Looked at the inspections and enforcement action in the file and verified entry into PCS. There were no inspections or enforcement actions in the file or PCS.

Recommendation/Comments

a) The DMR data matched with what was in PCS, there were no differences. The inspection and enforcement data also matched with what was in PCS.

7. Roquette America, Inc. IA0000256

Background

The permit was issued 12/31/00 and expired on 04/21/05. Reviewed pH, TSS, Flow, and Temperature for outfalls SUMA 2, 005A, 009A, 010A, 012A for the period January 1, 2004, thru March 31, 2005. There were no discrepancies and the DMR data matched with what was in PCS. Checked the inspection and enforcement data and found the state had conducted three inspections at this facility: 08/05/03; 08/20/03; and 11/23/03 and they were in PCS; IDNR issued an NOV on 12/24/03 and Administrative Order on 04/07/04 and another Administrative Order on 12/21/04. All of these enforcement actions were reflected in PCS.

Recommendation/Comments

a) The DMR data matched with what was in PCS, there were no differences. The inspection and enforcement data also matched with what was were in PCS.

8. City of Vinton IA0035891

Background

The permit was issued 11/08/2002 and will expire on 11/07/2007. Reviewed pH, TSS, Ammonia, and BOD DMR data for the period October 1, 2002, thru March 31, 2005. The DMR data matched with what was in PCS. Checked the files for enforcement and inspection data and found no inspections or enforcement actions in the file which matched PCS.

Recommendation/Comments

a) The DMR data matched with what was in PCS, there were no differences. The inspection and enforcement data also matched with what was were in PCS.

9. City of West Liberty IA0031691

Background

The permit was issued 10/02/91st expired on 10/01/96. Reviewed pH, TSS, Ammonia, Flow, and BOD DMR data for the period January 1, 2004, thru March 31, 2005. Found a few typos. January 31, 2004, for the parameter CBOD, PCS had **2.96** and the DMR had **2.98**. May 31, 2004, for the parameter TSS, PCS had **5.36** and the DMR

had **5.38**. May 31, 2004, for the parameter Ammonia, PCS had **7.83** and the DMR had **7.93**. Checked the inspections and found three inspection had been entered into PCS: 03/07/03; 05/27/04; and 03/15/05. Also checked the enforcement file for enforcement actions and found the state has issued the following actions: 07/29/1999 NOV; 10/03/1999 NOV; 04/20/2001 NOV; 02/22/2002 NOV; 09/02/1998 AO; 06/13/2002 Consent Decree; and 09/09/2002 Consent Decree. All enforcement actions were entered into PCS.

Recommendation/Comments

a) DMR data matched with the exception of a few typos. The inspection and enforcement data also matched with what were in PCS.

Appendix C1 - NPDES File Review - Core Program Enforcement

As part of the program evaluation a selection of files were reviewed from all sections of the NPDES program, to determine compliance with permit limits, DMR submissions, and timely and appropriate enforcement and if it was needed. The following is a discussion of each file reviewed.

1. City of West Liberty IA0031691

Background

The city is currently operating under an expired permit. The permit was issued on October 2, 1991, and expired on October 1, 1996. The permit contained a Treatment Agreement (TA) with West Liberty Foods (WLF), a turkey processor who is roughly 40% of the plant flow. The TA was modified in 1997 with more restrictive limits.

West Liberty Foods caused interference and pass through at the city plant which led to an EPA administrative compliance order and an administrative penalty order. A consent agreement was executed on July 2, 2002, between the two parties. In addition, IDNR took a penalty action against the city.

IDNR requested that WLF and the city enter into a new TA to replace the one modified in 1997. The reason was that the existing TA authorized discharges in excess of the WWTP design. The city was required to submit a revised TA for approval by July 31, 2003, however, a 90-day extension was requested and granted. On November 25, 2003, IDNR sent a Final Notice to the city to submit the revised TA; however, no such document was found in the file.

Recommendation/Comments

a) The city's most recent inspection was April 20, 2005, however, as of this file review this record was not in PCS.

b) A review of the city's Monthly Operating Reports indicates they are meeting their limits. However, it doesn't appear that a new Treatment Agreement, as required by the IDNR, has ever been submitted.

2. City of Burlington IA0043079

Background

The city is operating under an active permit that expires October 24, 2006. Consequently, the facility will need to apply for a permit renewal next spring. Review of Burlington's MORs revealed that the facility is producing a very high quality effluent. Values for both BOD and TSS are frequently in single digits. Data entry of MOR data was found to be timely. Often it was entered the day following receipt.

The MOR print out from January 2005 through June had the same average values for BOD and TSS even though the range of values did not support the averages. Hence, it appears that when the city copied it's spreadsheet from 2004 forward to 2005 it pasted some formulas as values. This was brought to the staff's attention.

3. City of Davenport IA0043052

Background

The city's NPDES permit runs to July 2008. A Storm water permit is current that expires in July 2009. The field office last inspected Davenport July 28, 2003. Some BOD and TSS violations were noted, however, these occurred during a period when some aeration equipment was being replaced. A review of this year's MORs revealed that the city is producing good effluent quality.

Recommendation/Comments

a) The Davenport file was not in good shape. There were too many documents packed into one folder.

4. City of Fairfield IA0035076

Background

The city's NPDES permit expired September 14, 2004, and has not been reissued. The city reapplied for a new permit more than the six months before the expiration date. The last inspection occurred April 22, 2004. The report noted that a failed pressure relief valve caused sludge to flow out of the primary digester and into the receiving stream.

Treatment agreement limits for Dexter, Co. are contained in the city's NPDES permit. These TA limits are the 40 C.F.R. Part 433 Metal Finishing standards, the Categorical limits that apply to the company. A review of sampling results from reports covering October 2004 through December 2004 shows numerous violations for zinc. The sample values in the March 2005 showed violations of chromium, nickel and zinc. No enforcement actions were taken for any of these violations.

There were records in the file for a company named Falco (Fairfield Aluminum Casting). This facility appears to be subject to the federal Categorical standards for aluminum casting however, no record was found applying these standards. Falco had claimed that they never discharge however an inspection report indicated that they discharge from time to time. MOR data indicate the city is producing a high quality effluent. Frequently the BOD and TSS discharges are in the single digits and ammonia is less than one milligram per liter.

5. ADM Corn Processing, Clinton IA0003620

Background

ADM is currently operating under a permit that expired March 17, 2003. IDNR last inspected ADM on June 2, 2004. During the inspection the MORs from January 2003 through April 2004 were reviewed. The MORs documented numerous violations, however, it was found that all were either data entry errors or reporting errors.

The inspection noted that ADM was in the process of upgrading their treatment plant. Improvements included two 95 ft. diameter equalization tanks, conversion to jet aeration, aerator and blower upgrades, new filter presses, new sludge dryers, and new solids handling and chemical feed equipment.

ADM was issued an NOV December 15, 2003 for failing to report an 83,000 gallon bypass within 12 hours. At various times the discharges from ADM cause the build up of slime in Beaver Slough, their receiving stream. ADM is conducting a "slime study" to determine the cause so that it can be eliminated.

ADM has had some pH excursions over the past year. In late November 2004, 4,400 gallons of 4.5% NaOH was discharged over 50 minutes. This caused the effluent pH to spike to 9.7. In January 2005, ADM reported intermittent spikes to a pH of 9.1 to 9.2. This was traced to boiler blowdown procedures, which were changed to end the problem. ADM routinely discharges ½ or less of their permitted allowable loading for both BOD and TSS on monthly average and daily maximum basis.

6. City of Le Mars IA0036536

Background

Files associated with this facility were reviewed back to January 1, 2002. The latest permit, IA0036536, was re-issued on May 12, 2004, and will expire May 11, 2009.

1. On April 17, 2003, a compliance evaluation inspection was performed by IDNR. An NOV was issued on July 2, 2003, that documented the following effluent limit violations:

    - May 2001 NH_3-N (maximum)
    - March 2002 NH_3-N (maximum)
    - April 2002 NH_3-N (maximum)
    - July 2002 NH_3-N (maximum)

    No formal enforcement actions were filed in response to the violations identified during this inspection. Both the inspection and NOV were both properly documented in PCS.

2. On July 31, 2003, an NOV was issued to the facility, by IDNR, for not having a certified WWTP operator. This NOV was not associated with an inspection and has not been entered into PCS.

3. On October 2, 2003, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

    - March 2003 TSS (7 Day Maximum)

4. On February 4, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

    - November 2003 NH_3-N (Daily Maximum)

5. On April 14, 2004, a compliance evaluation inspection was performed by IDNR. The inspection was properly entered into PCS. This inspection documented the following effluent limit violations:

    - November 2003 NH_3-N (maximum)
    - December 2003 NH_3-N (maximum)
    - February 2004 NH_3-N (maximum)

    No formal enforcement actions were filed in response to the violations identified during this inspection.

6. On May 5, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

    - February 2004 NH_3-N (Daily Maximum)

7. On August 10, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

    - June 2004 NH_3-N (30 Day Average)
NH_3-N (Daily Maximum)

7. City of Cherokee IA0059005

Background

Files associated with this facility were reviewed back to January 1, 2002. The latest permit, IA0059005, was issued on April 24, 2003, and will expire April 23, 2008.

1. On August 6, 2002, a compliance evaluation inspection was performed by IDNR. The inspection did not document any violations and the inspection was properly documented in PCS.

2. On October 2, 2003, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - August 2003 TSS (30 Day Average)

3. On August 27, 2003, a compliance evaluation inspection was performed by IDNR. The inspection did not document any violations and the inspection was properly documented in PCS but had a date of August 24, 2003.

4. On February 6, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - December 2003 Acute Toxicity (Ceriodaphnia)

5. On March 30, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS) The NOV also required the facility to conduct a Toxic Reduction Evaluation (TRE).

   - February 2004 Acute Toxicity (Ceriodaphnia)

6. On June 21, 2004 a compliance evaluation inspection was performed by IDNR. The inspection did not document any violations and the inspection was properly documented in PCS.

7. On July 16, 2004, IDNR issued an Administrative Order to facility requiring TRE by October 2004, and quarterly toxicity tests until samples are non toxic. There was no penalty associated with this Order. This action was entered into PCS.

8. On August 10, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - June 2004 Acute Toxicity (Ceriodaphnia)

9. On March 29, 2005, a compliance evaluation inspection was performed by IDNR. The inspection did not document any violations. This inspection was not in PCS.

10. On May 18, 2005, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was not in PCS):

    - January 2005 Acute Toxicity (Pimephales)

8. City of Spencer IA0021059

Background

Files associated with this facility were reviewed back to January 1, 2002. The latest permit, IA0021059, was re-issued on March 9, 2001, and will expire March 8, 2006.

1. On September 23, 2002, a compliance evaluation inspection was performed by IDNR and documented the following effluent limit violations:

   - November 2001 NH_3-N (maximum)

   No formal enforcement actions were filed in response to the violations identified during this inspection. This inspection was not documented in PCS.

2. On June 30, 2003, a compliance evaluation inspection was performed by IDNR and documented the following violations:

   - December 2002 NH_3-N (maximum)
   - March 2003 NH_3-N (maximum)
   - Failure to submit required CSO reports

   No formal enforcement actions were filed in response to the violations identified during this inspection. This inspection was documented in PCS.

3. On September 19, 2003, an NOV was issued to the facility, by IDNR, for the following violations (NOV was entered into PCS):

   - Failure to submit required CSO reports.

4. On December 5, 2003, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - September 2003 NH_3-N (Daily Maximum)
     NH_3-N (30 Day Average)

5. On August 20, 2004, a compliance evaluation inspection was performed by IDNR. The inspection was properly entered into PCS. This inspection documented the same effluent violations documented in the 12/5/2003 NOV and identified the following new violations:

   - Failure to submit a Long Term Control Plan.

   No formal enforcement actions were filed in response to the violations identified during this inspection. An NOV was issued on September 2, 2004.

6. On January 24, 2005, an NOV was issued to the facility, by IDNR, for the following violation (NOV was entered into PCS):

    - Failure to notify IDNR of bypass.

9. City of Sutherland IA0036129

Background

Files associated with this facility were reviewed back to January 1, 2002. The latest permit, IA0036129, was issued on January 1, 2001, and will expire January 1, 2006.

1. On May 31, 2002, a compliance evaluation inspection was performed by IDNR and documented the following violations:

    - Failure to collect adequate composite samples.

    No formal enforcement actions were filed in response to the violation identified during this inspection. An NOV was issued on June 6, 2002. Both the inspection report and the NOV were not documented in PCS.

2. On August 19, 2003, an NOV was issued to the facility, by IDNR, for the following violations (NOV was entered into PCS):

    - Failure to submit complete effluent limits data report for July 2003.
    - Discharging without required data.

    The NOV also indicated that the violations would be referred to the Legal Service Bureau for enforcement.

3. On October 6, 2003, an NOV was issued to the facility, by IDNR, for submitting incomplete operation reports. (NOV was entered into PCS):

4. On October 30, 2003, a site visit was performed by IDNR. The site visit was not entered into PCS. The site visit documented a discharge from the north lagoon. A subsequent NOV was issued on November 6, 2003 for the discharge violation and it indicated that the violation would be referred to the Legal Service Bureau for enforcement. The NOV was entered into PCS.

5. On January 28, 2004, a Notice of Disciplinary Action was issued to the facility's WWTP operator and placed his certification on probation. This action was associated with violations identified above. This action was entered into PCS.

6. On January 13, 2004, IDNR issued an Administrative Order (AO) to facility requiring construction of new lagoons and compliance with permit. The Order also assessed a

penalty of $2,500.00. Facility proposed a SEP in lieu of penalty and IDNR agreed. SEP payment was made on 2/16/04. This action was entered into PCS.

7. On May 4, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - March 2004 CBOD (30 Day Average)

8. On September 7, 2004, IDNR issued an amended AO that changed the compliance schedule and allowed construction to be completed in two phases. Phase 1 would be completed by 11/1/05 and Phase 2 would be completed by 10/1/10. This action was entered into PCS.

9. On May 24, 2005, a compliance evaluation inspection was performed by IDNR and documented the following violations:

   - March 2004 CBOD5 (7 Day Average)
     CBOD5 (30 Day Average)
   - April 2004 CBOD5 (30 Day Average)
     TSS (7 Day Average)
     TSS (30 Day Average)
   - August 2004 CBOD5 (30 Day Average)
   - September 2004 CBOD5 (30 Day Average)

   No formal enforcement actions were filed in response to the violation identified during this inspection. This inspection was not documented in PCS.

10. On June 17, 2005, an NOV was issued to the facility, by IDNR, for submission of incomplete Operation Reports for May 2005 (NOV was entered into PCS).

10. City of Albert City IA0034312

Background

Files associated with this facility were reviewed back to January 1, 2002. The latest permit, IA0034312, was issued on January 1, 2001, and will expire January 1, 2006.

1. On January 18, 2002, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was not entered into PCS):

   - December 2001 CBOD5 (30 Day Average)
     CBOD5 (7 Day Maximum)

2. On March 5, 2002, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

- January 2002 CBOD5

3. On October 3, 2002, an NOV was issued to the facility, by IDNR, for submitting incomplete data. Submitted data did not include values for temperature and pH during August 2002 (NOV was entered into PCS).

4. On October 29, 2002, an NOV was issued to the facility, by IDNR, for submitting incomplete data. Submitted data did not include values related to Recycled Flow during August 2002 (NOV was entered into PCS).

5. On February 19, 2003, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - December 2002 CBOD5
     No Recycle Flow Data
   - January 2003 No Recycle Flow Data

6. On May 4, 2005, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - January 2004 CBOD5 (7 Day Maximum)

7. On June 21, 2005, a compliance evaluation inspection was performed by IDNR and documented the numerous effluent limit violations. No formal enforcement actions were filed in response to these violations, however, an NOV was issued on July 6, 2005. The inspection report and the NOV were not documented in PCS at the time of the review.

11. City of Galva IA0056537

Background

Files associated with this facility were reviewed back to January 1, 2002. The latest permit, IA0056537, was issued on December 23, 2002, and will expire December 22, 2007.

1. On August 15, 2002, a compliance evaluation inspection was performed by IDNR and documented the numerous effluent limit violations. No formal enforcement actions were filed in response to these violations, however, an NOV was issued on 8/27/02. The inspection was documented in PCS; however, the NOV was not.

2. On October 6, 2003, an NOV was issued to the facility, by IDNR, for submitting incomplete operation reports (NOV was entered into PCS).

3. On December 5, 2003, an NOV was issued to the facility, by IDNR, for submitting incomplete operation reports (NOV was entered into PCS).

4. On August 10, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violation (NOV was entered into PCS):

   - April 2004 NH_3-N (30 Day Average)

5. On November 19, 2004, an NOV was issued to the facility, by IDNR, for not submitting a monthly report for September 2004 (NOV was entered into PCS).

6. On April 28, 2005, a compliance evaluation inspection was performed by IDNR. The inspection report was not in the facility file, nor was the inspection information entered into PCS.

12. Heller's Carbonic West IA0077259

Background

Files associated with this facility were reviewed back to January 1, 2002. The latest permit, IA0077259, was issued on August 19, 2002, and will expire August 12, 2009.

1. On October 6, 2003, an NOV was issued to the facility, by IDNR, for discharging without a NPDES permit (NOV was entered into PCS).

2. On January 9, 2003, an NOV was issued to the facility, by IDNR, for discharging without a NPDES permit. (NOV was entered into PCS).

3. On August 10, 2004,an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was not entered into PCS):

   - May 2004 CBOD (30 Day Average)
     Oil & Grease (30 Day Average)
     Oil & Grease (30 Day Average Mass)

4. On August 10, 2004, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

   - August 2004 CBOD (30 Day Average Mass)
     CBOD (7 Maximum Mass)
   - September 2004 CBOD (30 Day Average Mass)
     TSS (7 Day Maximum Mass)
     TSS (30 Day Average Mass)

5. On January 24, 2005, an NOV was issued to the facility, by IDNR, for not submitting acute toxicity reports for December 2004 (NOV was entered into PCS).

6. On February 17, 2005, an NOV was issued to the facility, by IDNR, for the following effluent limit violations (NOV was entered into PCS):

• October 2004	CBOD (30 Day Average Mass) CBOD (7 Maximum Mass)
• November 2004	TSS (7 Day Maximum Mass) (30 Day Average

Appendix C2 - NPDES File Review – CAFO Enforcement

1. Performance Beef

Background

5/22/01	NPDES Permit issued for 2850 head open cattle feedlot.
5/22/01	Construction permit issued.
3/7/02	NOV issued for not submitting required records.
5/21/06	NPDES Permit expires.

Recommendation/Comments

a) This facility has never been inspected by IDNR during the current permit cycle. NPDES Minors need to be inspected at least once during the permit cycle. Inspections should also be documented in the facility file.

2. Schut Feedlot

Background

3/14/01	Facility Registers in the Iowa Plan.
12/10/01	NPDES Permit issued for 3200 head open cattle feedlot.
12/13/01	Construction Permit issued.
3/7/02	Letter sent to facility, from IDNR, requesting that facility submit records as required by the permit.
9/19/03	2nd letter sent facility, from IDNR, requesting that facility submit records as required by the permit.
9/24/03	Construction Permit extended until 12/13/2004.
1/26/05	IDNR memo to file documenting that facility had yet to complete installation of livestock controls.

Recommendation/ Comments

a) This facility has never been inspected by IDNR during the current permit cycle. NPDES minors need to be inspected at least once during the permit cycle. Inspections should also be documented in the facility file.

b) There is no evidence in the file that suggests the facility has ever provided the required data/records during the current permit cycle. While there were two letters issued requesting the information, it was not clear whether these letters were NOVs or mere reminder letters.

c) The facility was issued an NPDES permit in 12/01 but as of 1/05 the facility still had no completed construction of livestock controls.

d) Based on EPA's review of this facility file, Schut Feedlot appears to be in significant noncompliance with its NPDES permit and warrants formal enforcement from the State to assure the facility meets the conditions of the permit.

e) This NPDES permit should not be re-issued until controls are in place and the facility can demonstrate compliance with the CWA.

3. Lowell Vos Feedlot

Background

8/19/91	NPDES permit issued for 3000 head open cattle feedlot. Facility was required to install livestock waste controls.
7/1/96	NPDES permit expired. Livestock waste controls were never installed.
5/15/01	Facility registers in the Iowa Plan.
2/23/04	NOV issued for violation of the Iowa Plan.
4/27/04	2nd NOV issued for violation of the Iowa Plan (No Plan of Action).
11/22/04	NPDES permit that expired in 96 is re-issued, again required controls to be installed.
4/28/05	3rd NOV issued for violation of the Iowa Plan (No Final Design).
7/05	Facility still has not installed livestock waste controls as required under the permit.

Recommendation/ Comments

a) This facility has been operating under an NPDES permit for 14 years and has never installed livestock waste controls as required under the permit. This is a significant violation of the permit as well as the CWA. There is no documentation in the file that suggests IDNR has issued any informal or formal enforcement actions for these violations.

b) There is no documentation in the file documenting that IDNR has performed any type of compliance evaluation inspection during the time period in which this facility was operating under its NPDES permit. NPDES minors need to be inspected at least once during the permit cycle. Inspections should also be documented in the facility file.

c) Facility appears to be on two regulatory tracks, 1) the Iowa Plan, and 2) Renewal of existing NPDES. The facility's NPDES was renewed on 11/22/04; however in 4/05 IDNR issued an NOV to facility for not submitting a Final Design as part of the Iowa Plan. Final Designs are required from facility for review and approval by IDNR prior to a construction and/or NPDES permit being issued.

4. Triple U Ranch

Background

7/27/00	NPDES permit issued for a 1700 head open cattle feedlot. Facility was required to install livestock waste controls.
6/27/04	NPDES permit re-issued and construction permit issued.
7/9/04	Letter sent to facility, from IDNR, requesting that facility submit records as required by the permit.
4/18/05	NOV issued for not submitting required records.
7/05	Facility has yet to install livestock waste controls.

Recommendation/ Comments

a) This facility has been operating under an NPDES permit for 15 years and has never installed livestock waste controls as required under the permit. This is a significant violation of the permit as well as the CWA. There is no documentation in the file that suggests IDNR has issued any informal or formal enforcement actions for these violations.

b) There is no evidence in the file that suggests the facility has ever provided the required data/records during the current permit cycle. While there was one NOV issued, there was no follow-up from either IDNR or the facility.

5. Greig Cattle Company

Background

9/8/00	NPDES permit issued for a 2000 head open cattle feedlot. Facility was required to install livestock waste controls.
5/24/02	Facility reports a discharge.
8/13/02	NOV issued for discharge and resulting fish kill.
3/12/03	Administrative Order on Consent issued with $25,000.00 penalty.
7/8/05	Site visit performed for upcoming permit renewal.
9/7/05	NPDES permit expires.

Recommendation/Comments

a) There is no documentation in the file documenting that IDNR has performed any type of compliance evaluation inspection during the time period in which this facility was operating under its NPDES permit. NPDES minors need to be inspected at least once during the permit cycle. Inspections should also be documented in the facility file.

6. S&S Farms

Background

9/11/00	NPDES permit issued for a 4000 head open cattle feedlot.
12/19/00	Letter sent to facility, from IDNR, requesting that facility submit records as required by the permit.
4/7/05	Site visit performed for upcoming permit renewal.
9/11/05	NPDES permit expires.

Recommendation/Comments

a) There is no documentation in the file documenting that IDNR has performed any type of compliance evaluation inspection during the time period in which this facility was operating under its NPDES permit. NPDES minors need to be inspected at least once during the permit cycle. Inspections should also be documented in the facility file.

7. Derners of Milford

Background

10/9/00	NPDES permit issued for a 4000 head open cattle feedlot.
12/19/00	Letter sent to facility, from IDNR, requesting that facility submit records as required by the permit.
2/28/02	NOV issued for not submitting required records.
5/28/04	NOV issued for not submitting required records.
10/9/05	NPDES permit expires.

Recommendation/Comments

a) There is no evidence in the file that suggests the facility has ever provided the required data/records during the current permit cycle.

b) There is no documentation in the file documenting that IDNR has performed any type of compliance evaluation inspection during the time period in which this facility was operating under its NPDES permit. NPDES minors need to be inspected at least once during the permit cycle. Inspections should also be documented in the facility file.

8. Farmers Coop Society

Background

10/6/00	NPDES permit issued for a 2000 head open cattle feedlot.
4/13/01	Facility registers in the Iowa Plan.

3/7/02 NOV issued for not submitting required records.
6/7/05 Site visit performed for upcoming permit renewal.
10/6/05 NPDES permit expires.

9. Craig Anderson

Background

7/26/01 NPDES permit issued for a 2500 head open cattle feedlot.
7/25/06 NPDES Permit expires.
No information in facility file since permit was issued.

Appendix C3 - NPDES File Review – Storm Water Enforcement

1. Ridgeview Estates Subdivision IA-4722-4596

Background

A complaint was received by IDNR on January 22, 2004. A Notice of Violation (NOV) was issued to the facility on March 23, 2004, for sediment laden storm water discharge as a result of construction activities.

2. Crescent Golden Hills – D&D Construction IA-8020-7823

Background

A NOV was issued to the facility on April 5, 2000. An Administrative Order (AO) was issued on November 30, 2000. The AO required the site to obtain all required storm water discharge permits and comply with the site Pollution Prevention Plan (PPP) at all times to prevent sediment runoff. The facility must inspect and repair as necessary erosion/sediment control devises within 24 hours after each 0.5 inch rainfall event and maintain all proper records. In addition, the facility was ordered to pay a $10,000 penalty. An appeal was requested by the facility on June 22, 2001, and a hearing was held on November 7, 2001. On November 26, 2001, a proposed decision to the appeal reduced the penalty to $900.

A complaint regarding the facility was received on June 7, 2001, and a NOV was again issued to the facility on June 11, 2001, for failure to comply with the AO. An investigation of the facility was conducted from June 8, 2004, to July 9, 2004, and an NOV was issued on August 31, 2004. Additional complaints were made to IDNR regarding issues with track-out on November 18, 2004, and December 10, 2004.

3. Heartland Heights – BCD Corporation IA-2387-4400

Background

Investigations of the facility were conducted on October 6 and 21, 1999, and on March 3, 2000. The authorization to discharge under this general permit was issued to the facility on October 19, 2000, with coverage through October 1, 2005.

An AO was issued to the facility on October 31, 2000, and required the facility to obtain all required storm water discharge permits, develop an adequate PPP and comply with that PPP at all times to prevent sediment runoff, the AO also required the facility to inspect and repair, as necessary, erosion/sediment control devices weekly and within 24 hours after each 0.5 inch rainfall, and maintain proper records.

On October 5, 2001, and inspection was conducted at the facility in response to a complaint regarding inadequate erosion/sediment controls. During the inspection, IDNR staff noted the following:

- No erosion or sediment controls were observed at storm sewer intakes,
- Gully erosion was observed, and
- Observed silt fence that was in a state of disrepair and ineffective.

An additional site inspection was conducted on March 13, 2002, to respond to a complaint that nothing had been done with respect to the sediment/erosion controls at the facility. The inspection noted similar issues as the compliant as well as track-out. A NOV was issued to the facility on March 18, 2002. A PPP, dated April 15, 2002, was received by IDNR on April 29, 2002.

Additional complaint investigations were conducted on April 24, 2002, and May 2, 2002, and a site visit was conducted on May 7, 2002. A complaint investigation of the facility was conducted on July 11, 2002. On August 5, 2004, a site visit was conducted resulting in the determination that no further action will be taken.

4. Radford Road Development/Epic Construction IA-8525-8332

Background

IDNR general permit was issued to the facility on November 8, 2004. On March 14, 2005, a routine inspection was conducted at the facility. During the inspection, the IDNR inspector noted that disturbed areas of soil were not stabilized and storm sewer intakes were not protected. The inspector noted that the general contractor for Radford Road Development had not conducted site inspections and that the PPP was missing "quite a few items."

A NOV was issued to the facility on March 29, 2005. The NOV noted that the facility had failed to develop a complete PPP, failed to provide proper stabilization, failed to conduct inspections, and had failed to update the PPP. The NOV required the facility to: implement stabilization where there was not ongoing activity, implement a proper inspection and logging procedure, add the missing items to the PPP. In addition, the NOV stated that Radford Road Development was operating without a permit for a disturbed area south of the "Pizza Ranch" site and required Radford Road Development to obtain a permit. Epic Construction was also determined to be operating without a permit and the NOV required Epic Construction to either become a co-permittee with Radford Road Development, or obtain a separate permit.

5. Stonebrook 1st and 2nd Additions – Mt. Vernon Development Company IA-5131-4966 and IA-7076-6880

Background

IDNR general permit IA-5131-4966 for the 1st Addition was issued on November 26, 2001, and general permit IA-7076-6880 for the 2nd Addition was issued on November 20, 2003.

IDNR received a complaint regarding the facility on June 10, 2005. The complaint alleged that 9 lots were without silt fencing or had improperly installed silt fencing. In addition there was soil in the streets which was several inches deep, and the soil was entering the storm sewer intakes.

An inspection was conducted on July 5, 2005. The IDNR inspector noted that there were several houses under construction at the time and that there was silt in the streets, and only one site had sediment controls. A NOV was issued to the facility on July 11, 2005, and required the facility to keep copies of all transfers of responsibility for erosion control at the site. In addition, the NOV required the facility to immediately perform and document site inspections. Five separate homebuilders/companies were required to submit a PPP within 7 days, implement BMPs, and conduct and document site inspections.

6. Huntington Hills Development – Dean Woods IA-5612-5438

Background

A Notice of Intent (NOI) was received by IDNR on November 22, 2002, and discharge authorization was granted on November 27, 2002. On February 18, 2005, IDNR Field Office #1 received a complaint stating that the facility had no erosion control. IDNR conducted a site inspection of the facility on March 8, 2005, and issued an NOV on March 18, 2005. The site inspection reports documents that there were not long slopes with no erosion control nor were there controls at the bottom of those slopes. The IDNR inspector spoke with the facility representative and noted that a PPP had not been developed, no stabilization at the site, and inspections were not conducted or documented. The NOV required the facility to develop a PPP, stabilize the site within 7 days, and to conduct and document site inspections. IDNR Field Office #1 received the PPP from the facility on March 22, 2005. IDNR determined that the PPP was still inadequate and informed the facility of this in a letter dated March 24, 2005. The case was referred to the IDNR legal department.

7. Westgate Business Park Development IA-6261-6064

Background

An inspection of the facility was conducted on December 7, 2004, and the inspector documented track out and unprotected storm sewer inlets. In addition, the facility was operating without a permit and did not have a PPP. An NOV was issued to the facility on December 13, 2004, and required a written response by January 3, 2005. The facility submitted a response to IDNR on December 23, 2004. A general permit was obtained for the business park however, the respondent stated that the individual lots will be required to obtain separate permits. A letter to the facility, dated January 11, 2005, stated that a storm water permit had been applied for by Foxbridge Investments and advised the respondent to follow the PPP and to conduct and document site inspections. A referral summary package was included in the file review.

8. Terra Tender, Inc. IA-8592-8396

Background

The general permit was issued to the facility on December 1, 2004, with coverage through July 15, 2004.

9. Jean Scheon, Waukon, IA

Background

An inspection of the facility was conducted on June 10, 2005, as a result of a "drive by discovery." The inspector noted that the facility was a new subdivision, where several houses had been recently been built, yet several lots still did not have any construction. The IDNR inspector noted the size of the development to be approximately 5 acres. The inspector contacted the facility representative for additional information and notified Mr. Blake of the permit requirements and storm water regulations. A NOV was issued to the facility on June 24, 2005, requiring all land disturbances to cease until General Permit #2 has been authorized for the site.

10. John Knapp IA-8075-8067

Background

A complaint investigation of the facility was conducted on June 22, 2004. Four houses were being developed at the site without a permit or discharge authorization. An additional complaint investigation was conducted on July 15, 2004, due to sediment runoff from the site. Another complaint investigation was conducted on August 9, 2004, due to sediment runoff from the site.

11. Metropolis Acres IA-5617-5441

Background

A NOV was issued to the facility on June 10, 2004. A complaint investigation was conducted at the facility on June 29, 2004, for violating conditions of the general permit.

12. Storm Water Complaint Investigation, Council Bluffs, IA No. 06/04-21

Background

An NOV was issued to the facility on June 23, 2004, for failure to submit an NOI and an additional NOV was issued to the facility on September 3, 2004, for the same violation.

13. Scenic Pointe Subdivision IA-5440-5268

Background

The facility submitted a NOI on July 20, 2002. An initial complaint regarding the facility was received on August 22, 2002, and an inspection of the facility was conducted on August 28, 2002. The inspector documented sediment in the receiving stream from previous rain events and documented no BMPs besides a buffer strip. In addition, there was no PPP or inspection log for the facility. The facility was inspected again on October 2, 2002, and the inspector documented sediment in the receiving stream and took TSS samples above and below the facility, resulting in 36 ppm upstream and 220 ppm downstream of the facility. The facility was inspected on November 8, 2002, where the inspector asked for a copy of the site specific inspection log, and did not receive a copy of the log. A NOV was issued to the facility on November 25, 2002, and required the respondent to submit a copy of the site inspection log and provide written proof the site had been stabilized for winter.

An additional inspection of the facility was conducted on March 18, 2004. The inspector documented that the site was partly muddy with significant melt water runoff. At the east side of the site, there was significant erosion, ineffective silt fence, and sediment laden water running under the silt fence. In addition, a proposed retaining wall had not been constructed and there was discoloration of the water in the creek. A NOV was issued to the facility on April 9, 2004, for general water quality criteria violations. Samples for TSS taken upstream and downstream of the facility resulted in 960 ppm upstream of the facility and 1700 ppm downstream of the facility.

A Payment Notice of Permit Fee for Storm Water Discharge for the facility was sent on May 5, 2004. The facility's authorization to discharge expired on July 30, 2004. A NOV was issued to the facility on August 30, 2004, for failure to renew or discontinue the authorization to discharge.

An AO was issued to the facility on August 11, 2004, requiring the facility to comply with all storm water permit requirements and to pay a penalty of $10,000.

14. Cherry Glen Ridge IA-8603-8410

Background

The permit for the facility was issued on December 3, 2004. A complaint was received by IDNR and an inspection conducted on April 12, 2005. The complainant noticed soil erosion occurring at the facility, and photos taken by the complainant show runoff occurring during a rain even of approximately 1.5 inches during a 12-18 hour period on April 11, 2005. Sediment laden runoff was flowing off of the site, entered a roadside ditch and stream which flowed approximately 0.10 miles before entering a U.S. COE pond that has public fishing access. During the inspection, the IDNR inspector documented several areas of non-compliance including, a downed silt fence, a soil pile with little protection, silt to the U.S. COE pond, an inadequately stabilized slope, and minor track out. A NOV was issued to the facility for the deficiencies listed above. In emails dated May 13 and 19, 2005, there was discussion that the site had significant noncompliance issues. In addition, the emails also discussed trying to negotiate an agreement with penalties. A settlement was proposed on May 25, 2005, included that the developer proposed to donate a minimum of $4,500 for two community betterment projects. These projects included a purchase of environmental education material packages and to fund, organize, and present a seminar for local home builders on how to properly inspect their own developments or home sites. The proposal included that the two projects should be concluded by August 15, 2005, or a penalty of $9,000 will be accepted.

15. Timber Ridge Subdivision IA-8211-8012

Background

A complaint was received by IDNR on November 11, 2002. The complainant alleged that there was a large amount of fill material, possibly concrete and dirt deposited in a stream near the site. On December 4, 2002, and IDNR inspector visited the site and documented rubble and asphalt on the north slope of a ravine. On December 5, 2002, the inspector spoke with a City of Nevada, IA official who was unaware of the activity at the facility. A representative from the facility was also contacted on December 5, 2002, and on December 9, 2002, a letter from IDNR, was sent to the facility regarding the use of asphalt and rubble as fill material and the absence of a storm water permit.

A visit to the facility was conducted on June 25, 2004, and an NOV was issued to the facility on July 21, 2004, for failure to obtain a storm water permit. The NOV required the facility to submit a complete NOI with a permit fees retroactive to 2002 by August 31, 2004. The facility received authorization to discharge on August 31, 2004, permit number IA-8211-8012.

An AO, signed September 20, 2004, was issued to the facility. The AO required the facility to obtain coverage under general permit #2, to pay all past and current fees, retroactive to 2002, and to pay a penalty of $4,000. In a letter to IDNR, dated January 3, 2005, the facility appealed to IDNR for a reduction of the $4,000. IDNR accepted a penalty of $3,000 plus a $300 permit fee. The AO was signed by the respondent on February, 23, 2005 and by IDNR on February, 25, 2005.

16. Fran Gard Properties, Inc. IA- 2787-2620

Background

The facility received authorization to discharge on November 28, 1995. A payment/renewal fee notice was sent to the facility on September 16, 1996, and the facility filed a NOT, signed October 2, 1996, with IDNR claiming that the site had reached stabilization on June 1, 1996.

IDNR received a complaint regarding the facility on March 4, 2002, and a follow up inspection was conducted on March 14, 2002. No NOV was issued to the facility as a result of that inspection. Additional inspections of the facility were conducted on April 17, May 8, June 7, and June 13, 2002. The inspection conducted on June 13, 2002, found that there was inadequate stabilization at the site and inadequate record keeping and an NOV was issued to the facility as a result of the June 13, 2002, inspection. An additional NOV was issued to the facility on July 22, 2002, as a result of an inspection conducted on July 19, 2002. The NOV required the facility to clean, maintain, and repair silt fencing by July 26, 2002.

The facility was sent a payment/renewal fee notice on January 22, 2003, and IDNR had an acknowledgement of renewal fee dated February 14, 2003. An AO, signed on February 19, 2003, was issued to the facility. The AO required the facility to obtain and maintain all required storm water discharge permits in the future, to comply with all permit requirements, and to pay a penalty of $10,000. A complaint was received by IDNR on April 30, 2003, alleging that a drainage ditch adjacent to the property had filled with silt. A follow up inspection was conducted at the facility on May 16, 2003, and the facility was determined to be in compliance in a letter, transmitting the inspection report to the facility, dated May 20, 2003.

An appeal to the AO, issued on February 19, 2003, was offered to IDNR on June 2, 2003, and the facility offered to pay a penalty amount of $2,500. In an appeal to the AO, dated June 19, 2003, IDNR and the respondent came to an agreement to settle the matter by payment of $4,000 to the Linn County Conservation Board.

17. D&S Swine, LLC IA-6115-5921

Background

The facility received authorization to discharge on May 1, 2003. An inspection of the facility was conducted on July 10, 2003, and an NOV was issued on July 23, 2003,

for the lack of any BMPs and a PPP. A letter, dated August 7, 2003 was sent to the facility to transmit the inspection report of an inspection conducted on July 30, 2003. The Letter required the facility to implement and update the PPP, silt fences, and other BMPs. An additional inspection of the facility was conducted on August 14, 2003, and a record/document dated August 25, 2003, stated that the facility was in compliance. An AO, signed on August 27, 2003, was issued to the facility and requiring the facility to comply with storm water permit requirements and pay a penalty of $1,000.

A payment/renewal fee notice was sent to the facility on March 24, 2004. The facility submitted a NOT, signed on April 27, 2004, and stated that the site had been stabilized on April 25, 2004. An appeal to the AO, dated July 27, 2004, was accepted by IDNR and the matter was agreed to be settled for $750.

18. Tara Hills, LLC (Roger Elben, Elben Development, LLC; and Duane Menke) IA-8850-8655

Background

A NOV was issued to the facility on July 30, 1998, for storm water runoff from the site. On March 15, 2001, IDNR received a complaint regarding the site and a follow up complaint on May 15, 2001. An AO was issued to the facility on August 26, 2001, and on January 8, 2002, a notice of appeal declared the AO null and void and that the facility be exonerated from any responsibility or liability associated with activities on Whispering Woods Development and any other associated activities. The file contained another appeal of the AO dated November 10, 2003, as well as two letters discussing the appeal dated December 19, 2003, and January, 30, 2004. A site visit was conducted by an IDNR inspector to discuss acceptable final soil stabilization options at the facility. A discharge authorization permit (IA-8850-8655) was issued to the facility on March 14, 2005, with coverage through March 14, 2008.

19. Iowa Ethanol, LLC IA-6083-5891

Background

IDNR received an NOI on April 25, 2003,and authorization to discharge was issued to the facility on the same day. In addition IDNR also received a co-permittee certification statement on April 28, 2003. The NOI indicated that a PPP had been prepared prior to submission of the NOI. An inspection of the site was conduction on June 18, 2003, and the IDNR inspector documented that the PPP was incomplete and not current. In addition, inspections were not conducted or documented and there were controls that were lacking or needed maintenance. A NOV was issued to the facility on June 27, 2003. The site was inspected again on September 9, 2003, where it was documented that the facility failed to complete required actions. An additional inspection was conducted on September 29, 2003, and the facility was instructed to provide a current PPP to IDNR by November 1, 2003. IDNR received the PPP on October 16, 2003, and IDNR staff visited the facility on October 22, 2003. While at the facility,

IDNR staff documented that the inspection reports had not been kept since August 31, 2003, and silt fence and other controls had not been installed. An NOV was issued to the facility for failure to obtain a construction permit for a public drinking water well, failure to obtain a construction permit for a wastewater disposal system, and failure to comply with the PPP. The facility was referred to the legal section following issuance of the NOV.

An AO, stamped on January 29, 2004, was issued to the facility. The AO required the facility to develop and comply with an adequate PPP at all time and to prevent sediment runoff, to inspect and repair as necessary erosion/sediment control devices weekly and within rain events greater than or equal to 0.5 inches, and to pay a penalty of $10,000.

An additional inspection was conducted at the facility on May 27, 2004, and the inspector advised the facility to complete weekly inspections of the storm water controls. The inspector also documented that there was no copy of the PPP onsite and could not determine compliance with general permit #1. The inspector noted that previous inspections had taken place on June 18, 2003, and October 22, 2003, and that the facility had previously been referred to the legal department and issued an AO. An NOV was issued to the facility on June 11, 2004, and the facility sent a response letter to IDNR on July 13, 2004, regarding the June 11, 2004, NOV.

20. Environ Eggs Chicken Facility IA-4613-4450

Background

IDNR received a complaint at the facility on March 26, 2004. The complainant observed tan colored water in a drainage ditch as a result of the construction of a chicken facility. An IDNR inspector visited the area on March 29, 2004, and documented a light brown, dirty looking water in the drainage ditch. The inspector stopped at the facility and asked for the PPP. The facility did not have any records onsite and could not produce the PPP. In addition, the inspector documented considerable erosion on all areas of the site and did not observe storm water controls onsite. The inspector asked the facility representative to drop off a copy of the PPP at the field office the next day. The facility representative provided IDNR with copies of the PPP for the facility as well as two additional facilities.

An IDNR inspector visited the facility again on April 4, 2004, and observed that no additional water was running in the drainage ditch. However, the inspector documented that while silt fence had been installed, the fence had not been trenched in and was not effective. A NOV was issued to the facility noting the alleged deficiencies and informed the facility of the consideration of an administrative penalty. The NOV contained 11 requirements regarding the repair, installation, and maintenance of BMPs, as well as, the retention of records onsite. A follow up inspection was conducted on May 18, 2004, and the inspector documented that only 4 of those 11 required elements had

been completed. A NOV was issued to the facility on June 10, 2004, for failure to amend the PPP and for violation of general water quality criteria.

An AO was issued to the facility on July 9, 2004, requiring the facility to comply with all storm water permit requirements and to pay, in lieu of a penalty, $5,000 to the Wright County Conservation Board. The AO was signed by a facility representative on July 9, 2004 and by IDNR on August 22, 2004.

A payment/renewal fee notice was sent to the facility on July 27, 2004, and an NOV was issued to the facility on October 26, 2004, for failure to renew or discontinue the general permit. However, the IDNR file did contain an acknowledgement of permit renew fee, dated November 12, 2004. No further documents were contained in the file.

Appendix C4 - NPDES File Review - CSO/SSO Enforcement

1. City of Clinton IA0035947

Background

The permit was re-issued to the city on June 12, 2003. An Administrative Order #2001-WW- 27 was amended (A1) on April 14, 2003, requiring the city to, comply with interim limits, and submit a plan of action, and completer construction of wastewater plant improvements by March 15, 2007.

The order was further amended (A2) on April 7, 2004, to slightly extend the Plan of Action (POA) submittal date to May 6, 2004. The POA was subsequently submitted to Field Office (FO) # 6 on June 29, 2004. The POA contained an implementation schedule for wastewater plant improvements, with a completion date of March 15, 2007. The city's engineer, Stanley Consultants, submitted a revised schedule on December 17, 2004, this one having a completion date of September 2008.

The wastewater treatment plant upgrade shall be undertaken according to the following schedule as outlined in the Plan-of -action revision of December 17, 2004, by Stanley Consultants:

Preliminary Engineering Report	9/30/05
Preliminary Design	5/31/06
Final Design	11/30/06
Start Construction	2/28/07
Finish Construction	9/30/08
Compliance with final limits	11/16/08

The City via Stanley Consultants, submitted a Combined Sewer System (CSS) Operational Plan, as required by the NPDES permit. This plan details an extensive project to update the old combined sewer system, with an implementation schedule running in the year 2011. The Long Term Control Plan (LTCP) is due June 12, 2006. The facility currently has CSO violations and permit limit violations. The state is addressing these issues through an enforcement action that is being prepared by the state. The CSS upgrade will be undertaken according to the following schedule as outlined in the Combined Sewer System Operational Plan" of January 27, 2005, by Stanley Consultants:

Phase 1 (2005-06) - North Clinton Separation work & Install Flow Meters.
Phase 2 (2006-07) - Remainder of North Clinton Work.
Phase 3 (2007-08) - South Clinton Work & 1st. Ave. Pump Station Bar Screen.
Phase 4 (2008-10) - Develop Long Term Control Plan [Submit Plan 12-2010].
Phase 5 (2010-11) - Downtown work.

Recommendation/Comments

a) The state should review the CSS Op plan that the city has submitted, and clarify the submittal date of the LTCP.

2. City of Davenport IA0043052

Background

The permit was re-issued to the city on July 8, 2003. On April 15, 2003, a letter was prepared by the City of Davenport's Public Works Department discussing whether or not Davenport's sewer system or bypass outfalls should be classified as a combined system or if the system was purely a sanitary sewer line. A rationale was given by the city as to why each bypass outfall should be classified as a sanitary sewer overflow, and not a combined sewer overflow.

On July 7, 2004 EPA Region 7 conducted a CSO inspection to positively identify the type of outfalls listed in the city's permit, and provide the correct information of the determination to the state. The site inspections and review of the line diagrams confirmed that the outfalls listed on the city's permit were SSO structures. The City of Davenport was to develop a public notification plan to address the sanitary sewage overflows. The City of Davenport and the City of Bettendorf are continuing the Master Plan for development and maintenance of the sewer systems. The Master Plan describes projects that separate combined lines, and is consistent with the Intergovernmental Agreement. The City of Bettendorf plans to have the remaining combined sections separated by 2006.

Recommendation/Comments

a) The state should follow-up with the city on the development and implementation of the notification plan to address any sanitary sewer overflows.

3. City of Des Moines IA0044130

Background

The following is a list of wastewater bypass report found in the file. 2/7/05-comments about bypass included sewage bubbled up in a manhole and discharged out the top onto the road at the corner of SW 17th to Johnson St. The evidence was 150-200 gallons of sewage flowed into drainage ditch. A follow-up report was found to the bypass on 2/7/05, 12/09/02-bypass reported from facility sewage released from filter under drain filter is between the roughing filter and the activated sludge unit. The amount of this bypass was 2,000 gallons, 10/08/02-bypass by the city from the South-Ridge Estates MHP. The sewer line was plugged with grease, 9/13/02-bypass by city behind 2704 Sheridan.

Lab reports, EPA and state inspections, construction permits and design reports regarding CSO/SSO improvements, SRF applications were found in this file. These files described the status, development and follow-up actions to those projects. The following dates correlate to the various documents described above and found in this file: 4/11/05, 1/7/05, 12/16/04, 12/8/04, 12/1/04, 11/7/04, 1/1/04, 9/13/04, 7/19/04, 7/9/04, 4/23/04, 4/9/04, 3/30/04, 3/28/04, 3/19/04, 12/24/03, 10/1/03, 9/26/03, 9/23/03, 8/14/03, 7/31/03, 7/22/03, 6/6/03, 3/23/03, 3/21/03, 12/9/02, 8/0/02, 7/23/02, 6/26/01, 2/5/01, 12/008/14/00.

Recommendation/Comments

a) There is evidence in the file through the construction permits that the city is working through CSO/SSO improvements and establishing the LTCP, however it is difficult to track the current progress of where the city is with their plan.

b) The IDNR should continue to track all bypasses, but suggest documenting the type and track separately whether these discharges are dry weather and wet weather overflows.

c) The IDNR should create a tracking system that can generate a current status report of CSO/SSO activities and the implementation of LTCP plans in CSO communities.

d) The IDNR should also create a tracking system that will generate a current status report of those CSO communities who are choosing to separate, where they are in that process, along with schedules of completion dates.

Final Report (Findings and Recommendations)

Date: May 30, 2007

Program Evaluated: RCRA Subtitle C

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Process

This is a review of Region 7's direct implementation of the RCR Subtitle C program in Iowa. Iowa previously had the authorization to run this program, but returned the program to the Region several years before the review. The Iowa Department of Natural Resources takes no part in this RCRA Subtitle C program, neither in conducting inspections nor in issuing enforcement actions.

The on-site review was conducted in July 2005 at the Region 7 office in Kansas City, Missouri. Data for the review represents the last complete year of data, which was for Fiscal Year 2004. These data were shared with the Region prior to the on-site visit and were used for conducting the data analysis for the review and for selecting files.

The Region has an Enforcement Coordination Office that oversees enforcement policy in the Region. The compliance branches are in the media divisions. The RCRA compliance branch is in the Air, RCRA, and Toxics Division. The review team coordinated with staff attorneys in the Office of General Counsel on the enforcement cases reviewed during the on-site visit. During the on-site review, the review team conducted an initial entrance meeting and an exit meeting with Mark Hague, director of the Enforcement Coordination Office and Don Toensing, chief of the RCRA compliance branch.

The draft report was prepared and shared with the Region for comment. The comments were discussed with the Region and incorporated into the final report.

File Selection

The universe of RCRA sources in Iowa is 9 TSDs, 143 LQGs, and 1,093 SQGs. The universe of files was 297 files, which comprised 213 inspection files and 84 enforcement files. The File Selection Protocol requires a range of 15 to 30 files be reviewed for a universe of less than 300 files. For the review of the Region 7 RCRA program in Iowa, the review team selected 28 files to review. The files were randomly selected by the following categories: 3 TSDs, 18 LQGs, 6 SQGs, and 1 CESQG. Twelve of the files were enforcement only and 16 inspection only files. A total of 28 inspection

reports were reviewed.

Section 1: Review of State Inspection Implementation

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

   Findings:

Based on the FY 2004 data, Region 7's inspection coverage in Iowa is consistent with or above the national average for inspecting LQGs, and SQGs. Specifically, according to the data metrics:

- 36% of the LQGs (51 inspections out of a universe of 143 LQGs) were inspected in 2004. This is above the national average of 30.8%, and well above the 20% standard.
- 87% of LQGs were inspected over a five year period, which is above the national average of 71.4% though less than the 100% standard.

78% of TSDs (7 out of the 9 TSDs) in Iowa were inspected over two years, which is less than the 93.4% national average and the 100% standard set by statute.

In terms of inspection commitments, in 2004, Region 7 committed to conducting 7 TSD and 31 LQG inspections in Iowa in 2004. Both of these targets were either met or exceeded. The Region met the TSD commitment and exceeded the LQG commitment by 20 inspections. In 2005, the Region committed to inspect in Iowa 7 TSDs, and 16 LQGs. According to the OTIS report, in the Region conducted 31 inspections at 26 TSDs (this number includes storage facilities as well as treatment and disposal facilities), 18 inspections at LQG facilities, 35 at SQGs, and 38 at CESQG's.

The inspections are conducted by both contractors as well as by Regional inspectors. Given that Region 7 does not have extra RCRA FTEs to conduct the direct implementation program in Iowa, they are still able to cover a large portion of the operating universe each year. The Region has developed a process called a Notice of Preliminary Findings that their inspection contractors or inspectors use to identify potential problems at a facility. The Region reviews the findings from inspection reports prepared by Regional inspectors or contractor and identifies any issues or violations at the facility before deciding on an appropriate enforcement response.

Citation of information reviewed for this criterion: **2003 Revisions to the Hazardous Waste Enforcement Response Policy** (December 2003)

Recommendations if corrective action is needed:

Region 7 should ensure that it is inspecting 100% of TSDs in Iowa each year as required by statute.

2. **Degree to which inspection/evaluations reports document inspection findings, including accurate identification of violations.**

Findings:

As noted above, Region 7 RCRA inspections in Iowa are conducted by a mix of contractors and Regional inspectors. Based on the file review, 96% of the inspection files reviewed (24 of 25 files) were adequately documented in the files. The Region 7 RCRA program has a workable standardized inspection checklist, used by both the contractors and Regional inspectors. The checklist was found to be complete, well prepared, and organized in the files. The checklists are accompanied by other inspection information (i.e., photos, diagrams, maps, lab reports, interviews, etc.) that support the conclusions of the inspection reports and allow Regional management to make sound judgments in identifying potential violations.

While the inspection reports are thorough and complete, one of the files identified the person as a Conditionally Exempt SQG (CESQG). However, there was not enough information in the file to justify this determination; i.e., no report on the mass weight of the hazardous waste being managed in the file. The determination may be valid, but it cannot be verified based on the information was in the file. The Region needs to be careful that such justifications are well documented in the files. While this lack of documentation is an exception to most of the files reviewed, this is considered to be important enough to be noted.

Citation of information reviewed for this criterion: ***RCRA Inspection Protocol***

Recommendations if corrective action is needed:

The region needs to ensure that files for conditionally exempt small quantity generators (CESQG) have sufficient documentation to justify the accurate identification of source as conditionally exempt. The Region should work with the Office of Compliance to determine the type of documentation required and initiate its use during future evaluations of CESQGs.

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

Findings:

Region 7 does not identify all RCRA violations in Iowa in a timely manner. The standard for identifying violations is 150 days. Based on the file reviews, 74% of the files reviewed that identify violations (14 of 19) identified those violations in a timely manner. Where identification of violations and completing inspection reports were not timely, it appears the delay is due to the Region's efforts to ensure that these violations were indeed SNC. Specifically, it appears that the lengthening of response time occurs between the initial inspection and making determinations regarding the number and type of violations as well as the "SNC" status. Essentially, the Region is timely in completing inspection

reports and issuing NOVs after an inspection. Once the Region determines the full array of violations and the SNC status, the matter is quickly resolved (i.e., settle the matter or proceed into litigation).

Based on the file review, the SNC determinations were appropriate and consistent with the national Enforcement Response Policy (ERP). However, one file, which provided adequate documentation (i.e., contains an inspection report and a series of follow-up warning and information request letters) appears to classify these violations as a Secondary Violation, though escalation to SNC status may have been warranted (i.e., the person did not appear to return to compliance based on the initial response). The review team recognizes that this is a judgment call, and as noted above, the Regional decisions are documented. The person did receive an enforcement action appropriate to the determination and it appears the source returned to compliance, which may justify the initial determination. It appears that, in certain instances, the Region errs on the side of making an SV and not a SNC determination. The caution is for the Region not to under-identify and report SNC.

The region follows the RCRA ERP; however, the region's efforts to determine whether there is SNC requires additional steps, such as follow-up 3007 letters. These additional steps increase the time it takes to determine SNC and thus contribute to the increased time taken in developing a case.

The Region 7 RCRA program has a management process in place for reviewing inspection reports and determining whether violations rise to the level of SNC or Secondary Violations (SV). This management process, which includes both the technical and legal staff, promotes consistency with regional actions.

> Citation of information reviewed for this criterion: **2003 Revisions to the Hazardous Waste Enforcement Response Policy** (December 2003)

Recommendations if corrective action is needed:

1. ***It is recommended that the Region review those instances where the timeline exceeded the 2003 RCRA ERP to determine how it can streamline/shorten the period between inspection and formal enforcement activity.***

2. ***It is recommended that the Region look at the period of time to review information requests under RCRA Section 3007 and see if it can streamline the activities in order to identify violations earlier.***

3. ***Region should be careful to accurately identify and distinguish SNC and secondary violations. The region needs to ensure that files for conditionally exempt small quantity generators (CESQG) have sufficient documentation to justify the accurate identification of the facility as meeting the definition of a CESQG. The Region should have clear documentation in their files of the number and types of facility records that were examined and/or copied to definitely conclude that the facility complied with the following two criteria:***

a. ***Met the CESQG definition (facility generated less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste, per calendar month, and***
b. ***Accumulated less than 1,000 kg of hazardous waste, 1 kg of acutely hazardous waste, or 100 kg of spill residue from acutely hazardous waste at any time. (Examples could include manifests, shipping records, inspection records, biennial reports, types of operations conducted at the facility, etc.)***

Section 2: Review of State Enforcement Activity

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

Findings:

SNC determinations are expected to be reported within 150 days. There are two file review metrics for this element. The first metric (4E) is the number of SNC or SV determinations that are reported in a timely manner. This occurred in 15 of the 19 files reviewed. Of these determinations, four were SNC, three of which were not timely determinations. The other 15 were secondary violations and all were timely.

The second metric (4F) is the percentage of SNC and SV determinations that are reported accurately. This is 88% based on 15 of the 17 files reviewed. The two inspections that had inaccurate reporting were for reclassifying an SQG as a CESQG (General Parts) without proper documentation and not identifying a source (Tuttle Asphalt) as SNC in RCRA Info.

The OTIS management reports show that the SNC identification rate (SNC identified per 100 facilities inspected) is 3.8%, which is above the national average of 3.5%.

The Region has in place a process to identify and handle those persons who do not file a Biennal Report under RCRA. Though not filing a BR, which is a statutory requirement, is considered a significant RCRA violation, the Region's practice of issuing an information request under RCRA Section 3007 in conjunction with a Letter of Warning (informal enforcement action) with a specified timeframe for compliance, has proved to be an efficient and appropriate response. Regional communication (i.e., Letter of Warning) regarding a failure to file the Biennal Report under RCRA states that a failure to comply with the current filing or future filings of the Biennal Report will result in the identification of a SNC and formal action will be taken. Clarification is needed that the Region has in place a system to identify a repeat violator of the Biennal Report requirement (e.g., an internal Regional tickler system as part of the BR process developed by the Region; cross-check with RCRAInfo for prior violations).

Citation of information reviewed for this criterion: **2003 Revisions to the Hazardous Waste Enforcement Response Policy** (December 2003)

Recommendations if corrective action is needed:

Regional approach to handling first time failure to file Biennal Report is consistent with EPA's approach to smart enforcement. The Region should put in place a tickler system or other process to indicate if person has previously failed to file the Biennal Report. Such a process should provide notice to the Region so that appropriate enforcement action can be taken.

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

Findings:

The Region is effective in using enforcement actions to ensure return to compliance by a violator. For the formal enforcement actions, 100% of the files reviewed (11 of 11) contained an appropriate compliance schedule or an appropriate set of activities to ensure return to compliance actions. 95% of files reviewed with actions that are not formal actions (14 of 15) appear to return the sources to compliance. The files indicate that there is follow-up, via letters, and phone calls, with the sources and there are also follow-up inspections.

Citation of information reviewed for this criterion: **2003 Revisions to the Hazardous Waste Enforcement Response Policy** (December 2003)

Recommendations if corrective action is needed:

None

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

Findings:

The Region has a good record of taking enforcement actions in a timely manner in accordance with the national Enforcement Response Policy. For the files reviewed, 80% of enforcement action reviewed (8 of 10) were taken in a timely manner. For the informal actions taken, 100% of files reviewed (5 of 5) had appropriate enforcement actions. When cases are taken beyond the timeliness timelines, it is due to an extended process of making SNC determinations as noted in Element 3. One case took two years to be resolved. This was due mainly to the extended length of time taken in identifying

violations and in developing the case. It should be noted that while some cases do go beyond the timelines, they are eventually resolved in an appropriate way. It was commendable that the Region is careful about making appropriate SNC and SV determinations, but it should take and resolve enforcement actions in a timely manner. This is an area where the Region might try to improve.

Citation of information reviewed for this criterion: **2003 Revisions to the Hazardous Waste Enforcement Response Policy** (December 2003); **RCRA Civil Penalty Policy** (June 2003).

Recommendations if corrective action is needed:

Improve timeliness of enforcement actions by streamlining the process for case development and SNC determination.

7. Degree to which the penalty calculations include both gravity and economic benefit calculations for all penalties.

Findings:

In 100% of formal enforcement actions reviewed (5 of 5), the files contained appropriately calculated gravity penalties, but it is not clear the economic benefit is always determined properly. As a positive example, one case file (Acme Brass & Aluminum) contained good penalty documentation including an extensive memo that demonstrated the calculation for each count pursuant to the penalty policy. The file noted that the penalty payments were paid in installments and collected according to the CA/FO. In another file (Van Diest Supply Co) it is unclear if the Region has properly calculated or fully documented the economic benefit. This file documents that no economic benefit arose from the cited violations. However, from the documentation presented, it appears that the economic benefit was determined on a cumulative basis and not on a per count basis per the policy. RCRA Civil Penalty Policy states economic benefit calculation should be conducted for each violation that is estimated to have an economic benefit greater that $200 unless it is obvious that the relevant EBN total will not be reached. Any decision not to seek an economic benefit penalty and the rationale for such a decision should be documented in the case file.

Citation of information reviewed for this criterion: **2003 Revisions to the Hazardous Waste Enforcement Response Policy** (December 2003), **RCRA Civil Penalty Policy** (June 2003), and **BEN Model**

Recommendations if corrective action is needed:

It is recommended that the Region document in the case file, on a per count basis, whether or not an economic benefit was calculated and, ultimately, if a cumulative economic benefit should be captured as part of the overall assessed penalty. If the benefit per count is less than $200, a simple notation to that effect in the file will suffice.

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:

Once penalties are assessed, the Region collects them consistently. For the files reviewed where penalties where assessed, penalties were collected for 100% of final formal enforcement actions (4 of 4).

Citation of information reviewed for this criterion: **2003 Revisions to the Hazardous Waste Enforcement Response Policy** (December 2003), **RCRA Civil Penalty Policy** (June 2003), and **BEN Model**

Recommendations if corrective action is needed:

None

Section 3: Review of Performance Partnership Agreement or State/EPA Agreement

9. **Enforcement commitments in the PPA/SEA (written agreements to deliver product/project at a specified time), if they exist, are met and any products or projects are complete. For Regions, the MOAs for FY 2004 and the Annual Commitment System since FY 2005 are the documents which capture annual commitments.**

Findings:

Region 7 met and exceeded its MOA or Annual Commitment System (ACS) commitments for both FY 2004 and 2005. For FY 2004 the Region committed to conducting 7 TSD inspections and 31 LQG inspections in Iowa. In FY 2005, the Region committed to conducting 7 TSD inspections and 16 LQG inspections in Iowa. As noted in the discussion of Element 1, these commitments were met.

Citation of information reviewed for this criterion: **FY 2004 MOA Guidance and the FY 2005 National Program Guidance**

Recommendations if corrective action is needed:

None

Section 4: Review of Database Integrity

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

Findings:

The minimum data requirements appear to be entered into RCRAInfo in a timely manner. The review team used data sheets from RCRAInfo for each of the files reviewed. When comparing the data in the files with the data on the data sheets it, appears that the data was in the system and it appears that it was entered timely.

Citation of information reviewed for this criterion: **RCRA Info**

Recommendations if corrective action is needed:

None

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

Findings:

The minimum data requirements appear to have been accurately entered into RCRAInfo. The review team used data sheets from RCRAInfo for each of the files reviewed. When comparing the data in the files with the data on the data sheets, it appears that the data was accurately entered into the system.

That the RCRA compliance branch has one staff member dedicated to data entry and data quality. This person is knowledgeable about the data and ensures the timeliness and accuracy of the inspection and case information in RCRAInfo.

Citation of information reviewed for this criterion:

Recommendations if corrective action is needed:

None

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

Findings:

The minimum data requirements were found to be complete.

Citation of information reviewed for this criterion: **RCRA Info**