



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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REPLY TO THE ATTENTION OF

AUG 04 2016

Keith Baugues
Assistant Commissioner
Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204

Dear Mr. Baugues:

I am pleased to transmit to you the final Indiana New Source Review (NSR) and Title V program evaluation report. The U.S. Environmental Protection Agency staff met with Indiana Department of Environmental Management (IDEM) managers on October 26-27, 2015 in Indianapolis, Indiana, to discuss IDEM's NSR and Title V program implementation efforts. The meeting was part of EPA's initiative to evaluate state permit program implementation.

Please see the enclosed report for further information regarding EPA's program evaluation findings, including program strengths, follow-up issues, and IDEM's recommendations and concerns. We appreciate IDEM's assistance and responsiveness during the program evaluation.

If you have any questions, please contact Michael Langman, of my staff, at (312) 886-6867.

Sincerely,

A handwritten signature in black ink, appearing to read "Edward Nam".

Edward Nam
Acting Director
Air and Radiation Division

Enclosure

FY 2016 Review of Indiana's New Source Review and Title V Operating Permit Programs

Introduction

On October 26-27, 2015, the U.S. Environmental Protection Agency conducted an on-site evaluation of Indiana's New Source Review (NSR) and Title V operating permit programs. EPA conducted this evaluation as part of its ongoing oversight of state and local NSR and Title V permit programs. This report summarizes EPA's review and findings of Indiana's NSR and Title V permit programs. The findings in this report are based on the Indiana Department of Environmental Management's (IDEM's) response to an EPA questionnaire, subsequent discussions, and EPA's observations from reviewing IDEM's permits and conducting oversight activities.

Follow-up From Previous Evaluation

RACT/BACT/LAER Clearinghouse (RBLC) Issues

Since the 2012 program evaluation, EPA and IDEM have worked together to resolve the technical issues that prevented IDEM from making timely updates to the RBLC. IDEM has addressed the technical issues by using the RBLC standalone editor (SAE) software that allows for off-line data entry, which is then submitted to EPA for inclusion in the RBLC. On average, IDEM updates the SAE and submits the data to EPA within 30 days of permit issuance. EPA considers the previously identified RBLC issues to be resolved.

Occasionally, EPA updates the SAE software without notifying IDEM, causing compatibility issues. IDEM has also been struggling to use the SAE in Windows 7 and anticipates additional problems when they update to Windows 10. IDEM should continue to notify Region 5 staff when these and other issues arise. EPA will work with IDEM to address any future RBLC issues.

Test Method Identification

During the 2012 program evaluation, EPA expressed concern that, in general, Indiana Title V permits do not specify a test method unless the underlying applicable requirement specifies one. In cases where the applicable requirement does not specify a test method, IDEM stated that test methods are not prescribed in a permit to provide flexibility for new or alternative test methods based on information not available at the time of permit issuance. In the 2012 program evaluation report, EPA cited the monitoring and recordkeeping requirements of 40 C.F.R. § 70.6(a)(3)(i)(B), which requires periodic monitoring, including the use of test methods, sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit when the applicable requirement does not require periodic testing or monitoring. 40 C.F.R. § 70.6(a)(3)(i)(A) requires each permit to include all test methods required under any applicable testing requirement. Indiana's Title V program includes provisions that are consistent with the requirements of 40 C.F.R. § 70.6(a)(3)(i)(A) and (B) at 326 IAC 2-7-5(3)(A)(i) and (ii).

IDEM cites and incorporates by reference 326 IAC 3-6 as the basis for each periodic testing requirement in its Title V permits. 326 IAC 3-6-1 requires the owner or operator of an emission unit to conduct an emission test in accordance with any applicable procedures and analysis methods specified in 40 C.F.R. Parts 51, 60, 61, 63, 75, and other procedures as approved by IDEM and EPA. In addition, 326 IAC 3-6-1 states that the requirements of 326 IAC 3-6 apply to any emissions unit performing testing to determine compliance with applicable emission limitations. 326 IAC 3-6-2 requires the source to submit a test protocol identifying the test method no later than 35 days prior to the intended test date to IDEM for review and approval. 326 IAC 3-6-5 identifies specific testing procedures for particulate matter (PM), PM₁₀, PM_{2.5}, SO₂, NO_x, and VOC, as well as opacity. Although several test methods are identified at 326 IAC 3-6-5 for each pollutant, each permit does not identify the specific test method that would apply to a particular facility for each pollutant. Some pollutants, such as carbon monoxide, are not identified in 326 IAC 3-6-5.

40 C.F.R. § 70.6(a)(3)(i)(A) requires all test methods required under applicable monitoring and testing requirements to be included in the permit, including those identified at 326 IAC 3-6-5. For those pollutants that are not specifically identified in 326 IAC 3-6-5, 40 C.F.R.

§ 70.6(a)(3)(i)(B) requires IDEM to identify the appropriate test method in the permit. To satisfy each requirement, each part 70 operating permit should specifically identify the test method that the source will use to demonstrate compliance with each emission limit in its operating permit. Incorporating by reference into each permit a rule containing test requirements does not specifically identify the applicable test method and may cause confusion regarding what test method the source must use to adequately demonstrate compliance with an applicable emission limitation. Although 326 IAC 3-6-2 requires the subject facility to submit a test report ahead of each performance test, specifically identifying the test method in the permit ensures that the facility, EPA, IDEM, and members of the public know in advance how compliance will be determined.

IDEM intends to develop permit language that will address the test method identification issue while preserving some of the flexibility IDEM prefers in its permits. EPA intends to work with IDEM as it develops and implements permit language to resolve this issue.

Program Strengths

EPA evaluated IDEM's NSR and Title V permit issuance process, including pre-application meetings, application forms, permit development, public involvement and permit issuance. The evaluation identified several program strengths, including high permit issuance rate and low permit backlog, consistency in permit development and internal review procedures, and staff expertise and training.

High Permit Issuance Rate and Low Permit Backlog

Since 2010, Indiana has consistently maintained one of the lowest Title V permit backlogs in Region 5. The permit backlog has been reduced since the last program evaluation from 28 permits in January 2012 to zero as of March 2016.

To provide some context for the data provided above, in January 2012, there were 622 sources subject to Indiana's Part 70 requirements, and in January 2016, there were 599 sources. In 2015, IDEM issued 105 Title V renewals. In total, IDEM completes over 1,300 permit actions per year (total permitting actions, including new permits, permit modifications, renewals, revocations and minor sources).

IDEM attributes its high permit issuance rate and low permit backlog to its staff training and mentoring program, access to training/guidance documents, branch structure, section chief oversight, and software tools. IDEM also noted that its performance is due to the permits branch management's willingness to proceed with decisive action when a permit action is controversial or high-profile in nature.

Permit Development Consistency and Internal Review Procedures

IDEM maintains model documents to promote permit consistency and quality, increase permit writing productivity, and efficiently implement updates to standard permit language and other document changes to the permit staff. Model documents include permits, technical support documents (TSDs), various permitting-related notices and letters, and calculation spreadsheets. Software mail merge and fillable fields are used to populate the model documents. In addition, IDEM maintains an electronic clearinghouse for permit-related guidance documents to further support consistent permit development.

Furthermore, IDEM has reduced permit issuance time and increased quality through the use of a web-based application platform (SharePoint) for the electronic storage, tracking, and management of permit documents. SharePoint has improved IDEM's permitting process by improving file version control, allowing multiple staff to review and comment on a draft permit in parallel which speeds up the permit review process, providing a platform for task assignment and management, and providing a centralized storage location for documents. Use of this platform results in the timely and consistent rollout and implementation of updated model permit and technical support documents and other tools that are available to each permit writer.

The structure of IDEM's permitting branch has also contributed to its performance. IDEM has noted greater efficiency by combining the issuance of construction and operating permits for new sources. Construction and operating approvals are kept separate for modifications to existing Title V sources. Sections are generally divided by standard industrial classification (SIC) code, and the section chiefs are all former permit writers with technical expertise. Permit consistency is strengthened by IDEM's internal review process, which involves several layers of review that always includes the section chief, and in many cases, the branch chief. Managers routinely meet to discuss policy and procedural changes to ensure there is consistent implementation.

Staff Expertise and Training

IDEM indicated that high staff turnover is an ongoing challenge. IDEM has been able to maintain its performance by having a strong training and mentoring program and experienced core staff. Each permit section has experienced mentors who provide training for others within the section. IDEM also provides annual training for permit writers to review changes to the

process and update staff on changes to model language. IDEM maintains references to training manuals, internal and external guidance documents, EPA documents, and other files to assist permit writers.

Environmental Justice

In its response to the program evaluation questionnaire, IDEM replied that it is not using or considering using EJSCREEN as part of its permitting process. Although not required, EPA believes EJSCREEN is a useful and informative tool and encourages IDEM to use it as part of its permitting process.

Permit Review Findings

1-hour NO₂ Standards

EPA requested an example of a permit that contains nitrogen oxides (NO_x) emission limitations. IDEM submitted Midwest Fertilizer Corporation, permit number 129-33576-00059, a PSD permit authorizing the construction of a stationary nitrogen fertilizer manufacturing facility in Mt. Vernon, Indiana. Permit conditions D.1.4, D.4.4, D.5.4, and D.7.4 are NO_x best available control technology (BACT) emission limits. The averaging time for the NO_x limit on the reformer furnace (EU-001) and the nitric acid plant (EU-009) is 30 days, while the averaging time for the remaining emissions units is a 3-hour average. Compliance determination requirements include the use of continuous emissions monitoring systems (CEMS), periodic testing, and recordkeeping. The NO₂ portion of the air quality analysis was completed consistent with the 2010 and 2011 NO₂ EPA guidance. EPA has determined that the permit's NO_x limits and compliance methods adequately address the 1-hour NO₂ standards.

Single Source Determination

EPA requested an example of a permit that contains a single stationary source determination. IDEM submitted Smoker Craft, Inc., permit number 039-35173-00073, a Title V operating permit renewal for a stationary fiberglass and aluminum boat manufacturing. IDEM determined in the TSD that two separate plants should be considered part of the same major source as defined at 326 IAC 2-7-1(22). IDEM determined that both plants are owned and operated by Smoker Craft, Inc., and have the same SIC Code, meeting the requirements of common control or ownership and being part of the same major group, respectively. IDEM then evaluated whether the two plants were located on contiguous or adjacent properties. In its evaluation, IDEM noted that the two plants are located on separate properties that do not share a contiguous boundary. IDEM proceeded to determine whether the two plants are located on adjacent properties. IDEM noted that the term "adjacent" is not defined in Indiana's air permitting rules. To help determine whether the two sources are adjacent, IDEM refers to the May 21, 1988¹ [sic] letter from EPA, Region 8, to the Utah Division of Air Quality (Region 8 letter). Based in part on the guidance contained in the Region 8 letter, IDEM determined that the two plants are adjacent since the two plants satisfy the common-sense notion of a source discussed in the Region 8 letter. Since the two plants were determined to be commonly controlled and owned,

¹ EPA notes that the Region 8 letter cited in IDEM's determination is dated May 21, 1998, not May 21, 1988.

part of the same major group, and adjacent, IDEM determined that the two plants should be considered as one major source.

Indiana's definition of "major source" at 326 IAC 2-7-1(22) is consistent with the federal definition of major source at 40 C.F.R. § 70.2. In the TSD, IDEM clearly identified and evaluated the definition of major source in its source determination. The analysis evaluated whether the two plants have common control and ownership, are part of the same major group, and are contiguous or adjacent. Where the term "adjacent" was not defined, IDEM referred to available guidance, here the Region 8 letter, to help determine that the two plants were adjacent. This demonstrates that IDEM adequately evaluated whether the two plants should be a single stationary source with sufficient supporting detail in the TSD.

Findings and Conclusions

EPA has determined that the RBLC issues identified in the 2012 program evaluation are resolved. EPA and IDEM have worked together to address RBLC data entry technical issues, including the use of the stand-alone editor to enter information into the RBLC.

EPA has concluded that, while progress has been made on identifying test methods in IDEM's part 70 operating permits, test methods applicable to a particular facility should be specifically identified in the permit. EPA will work with IDEM to address this issue.

EPA has identified as program strengths IDEM's high permit issuance rate and low Title V permit backlog. IDEM attributes its performance to its training program, the tools and procedures used to ensure consistency and efficiency, and its organizational structure. Despite a high staff turnover rate, IDEM maintains its institutional knowledge by developing and providing annual training to its permit-writing staff, making training materials readily available to its staff, and employing the use of experienced mentors to help train others within each section. IDEM employs tools and procedures that include the development and consistent use of model permit documents, using mail merge and fillable fields to assist permit writers in drafting permits, maintaining an internal clearinghouse of permit-related guidance, and the use of SharePoint to manage permit documents. IDEM's performance is also supported by its organizational structure. Each of IDEM's permits sections is led by a chief who has prior experience as a permit writer. IDEM's branch and section chiefs monitor each permit's progress and review every permit that is issued to ensure the issuance of a quality and consistent permit.

As part of this evaluation, EPA also had the opportunity to review two permits. In both permits, EPA observed that IDEM made determinations that are consistent with federal NSR and Title V program requirements and relevant EPA guidance. EPA also determined that both permit records contain sufficient information to support IDEM's determination.

IDEM also identified several issues as part of its feedback during the program evaluation. These concerns and EPA's response can be found in Appendix A.

Appendix A - State Comments

Communications between IDEM and Region 5

IDEM provided the following suggestions to improve communications between the state and EPA: EPA submit permit comments prior to the last day of the comment period; contacting the state as early as possible in the permit review period to informally discuss potential issues in the permit; and raising comments on a programmatic level when issues affect multiple permits. In addition, IDEM requests a periodic list of all Indiana permits that EPA has reviewed, even if the review resulted in no comments.

EPA response. EPA understands IDEM desire to receive EPA's comments as soon as possible prior to the end of a permit's comment period. EPA's review of permits, however, typically requires close to the full comment period to complete due to the time needed to review supporting documents and to analyze potential issues with a draft permit. It is an existing practice for EPA to contact the permit writer as soon as possible in the review process to begin discussions on potential issues. For issues that apply at a programmatic level, EPA will work with IDEM to address these as a program-wide discussion. EPA has begun providing IDEM a list of permits review during the regularly scheduled monthly conference calls as a result of this feedback.

National consistency

IDEM commented that obtaining best available control technology (BACT) information from other states can be difficult and there is no national consistency.

EPA Response: EPA has undertaken an effort to improve entry of BACT information in the RLBC over the past few years. If IDEM identifies specific examples of permitting authorities that do not adequately document BACT determinations, EPA will follow up on the issue.

IDEM is concerned about the lack of consistency in how permitting requirements are implemented in different states and regions. IDEM says there are instances where sources claim, and the state confirmed, that Indiana's requirements are more stringent than what is being allowed in other states.

EPA Response: EPA is willing to work with IDEM to follow up on specific examples of permits that do not meet Clean Air Act requirements. However, some instances of inconsistency may result from state-specific requirements. EPA also recognizes that permitting requirements, especially those for non-major sources, vary widely among permitting authorities.

IDEM would like more formal determinations entered in EPA's Applicability Determination Index (ADI). Many entries are informal emails to other state agencies, and IDEM says using these informal responses as the basis for a formal response is difficult.

EPA Response: Since the ADI is a compilation of new source performance standards and national emission standards for hazardous air pollutants determinations made across the agency, there is no practical way to require more formal determinations be made and entered into the ADI.

Industry Trends

IDEM has seen an increase in proposals for renewable fuels/waste-to-energy plants for which there are no good emission factors for the creation of liquid fuel. Also, IDEM is concerned about the distinction of pyrolysis units from incineration units at waste-to-energy plants which is not clear in federal rules. Finally, IDEM has been grappling with permitting agriculture sources such as digesters.

EPA Response: EPA will look into how pyrolysis is addressed in federal standards with regards to the definition of incineration units.

Regarding permitting activity for agricultural sources, several Region 5 states explained during the January 2016 Region 5 States quarterly call that they issue permits to emissions units such as digesters and engines, but do not issue permits for barns or other farming-related activities. Based on the discussion, this is consistent with IDEM's issuance of permits to agriculture sources.

Training Requests

IDEM would be interested in advanced BACT training that discusses detailed analysis and, specifically, cost analysis and source aggregation with case studies.

EPA Response: EPA staff will work with IDEM to pursue the possibility of advanced BACT training. In the meantime, EPA hopes the presentation and discussion session on common permit implementation issues as part of the April 2016 Region 5 states meeting was helpful. Due to federal rulemaking actions pending for the source aggregation issue, written guidance and training are not available at this time. We encourage IDEM to utilize the quarterly calls with the other Region 5 states to discuss how they are interpreting source aggregation.

Program Evaluation Timing and Usefulness

IDEM expressed concern about the scheduling and usefulness of the program evaluation. IDEM also inquired how EPA conveys the results of the program evaluation to the other EPA state leads and to the other states.

EPA Response: EPA conducts program evaluations of all Region 5 states once per successive five-year period. While each state is assigned one review per five-year period, the order of the reviews may change in subsequent five-year periods. As a result, in some instances, a state may have program evaluations less than five years apart and in other

instances, reviews may occur greater than five years apart. In the end, the same number of evaluations are conducted per state regardless of the scheduling.

EPA believes that program evaluations and face-to-face meetings are an important part of our oversight of state programs. Even in instances where program deficiencies aren't identified, state program evaluations can be used to identify the lessons learned and best practices of states, so that other states may benefit from that information.

EPA makes the final reports accessible online for other states and the general public to access.