

Wisconsin New Source Review Program Review

Performed by US EPA Region 5
September 2005

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I. Executive Summary

The United States Environmental Protection Agency (USEPA) is performing on-site evaluations of the New Source Review (NSR) Program for all permitting authorities as part of the national NSR Program Evaluation Project. These permit program reviews are intended to highlight the positive aspects of a state's air permitting program, and foster quality improvements for the state and federal air programs.

We conducted the Wisconsin Department of Natural Resources (WDNR) NSR program review on September 20-21, 2005, concurrent with a review of WDNR's Title V program. The NSR review consisted of two parts: a discussion based on the national New Source Review Program Questionnaire and a permit file review.

We found that the WDNR NSR program has many strengths which include, a good modeling program, a good public comment process, and overall clear and well-organized permits. WDNR maintains a website that contains all permit actions. WDNR has been consistent in staying up to date with logging Best Available Control Technology (BACT) and Lowest Achievable Emission Rate (LAER) determinations into the RACT/BACT/LAER/Clearinghouse (RBLC). WDNR also has a program for improving the quality and issuance of permits called the Air Permit Improvement Initiative (APII). WDNR works with USEPA to ensure decisions for determinations are made based on USEPA policy.

We found a few areas which can use some improvement. USEPA would like WDNR to be more prompt in sending applications for PSD projects. Also, USEPA would like WDNR to improve their permit tracking system. Finally, USEPA would like WDNR to be more prompt in responding to permit comments before the final permit is issued. In some cases, WDNR sends responses to comments concurrently with issuing a permit; however, USEPA would like every opportunity to view responses to comments before a final permit is issued.

II. Introduction

In 2003, as part of its oversight role, USEPA began a four year initiative to review the implementation of the Title V and NSR

permit programs by permitting authorities throughout the country. USEPA developed two questionnaires, one addressing Title V implementation and one addressing NSR, for the Regional offices to use to provide a consistent review of all of the permitting authorities. The program review questionnaires consist of two components: questions about program implementation and criteria for a file review. The purpose of the evaluation was to review the permit programs, note practices that could be helpful to other permitting authorities, document areas needing improvement, and learn how USEPA can help the permitting authority and further improve the national programs.

On September 20-21, 2005, Region 5 staff visited the WDNR offices in Madison, Wisconsin. USEPA's NSR program review team consisted of Pamela Blakley, Susan Siepkowski, and Danny Marcus. Prior to our visit, we provided the questionnaire to WDNR and the Department provided us with the answers to the questionnaire. During the visit, we discussed the questionnaire in more detail and performed a file review according to the criteria in the questionnaire. The results of the questionnaire and file review are in Appendices A and B of this report.

This final report summarizes the findings and conclusions of USEPA Region 5 from its review of the WDNR NSR program. The findings and conclusions in the final report are based on the answers WDNR gave to the questionnaire, the file review, and USEPA staff's knowledge of the program from experience with reviewing WDNR permits and programs. This information was compared to the statutory and regulatory requirements for federal permitting programs.

III. Description of the WDNR Program

The Air Management Program, within the WDNR, is responsible for issuing construction permits to assure that all new or modified sources of air pollution will not have a detrimental impact on human health, human welfare, or the environment and will comply with all applicable state and federal requirements. The statutory authority for WDNR's air permit program can be found under Wisconsin's state statutes, chapter 285, Air Pollution. The applicable regulations are found in NR 400 - 499 of the Wisconsin Administrative Code. Under s. 285.60, Wisconsin Statutes, all new, modified, reconstructed, relocated, or replaced air pollutant sources (unless exempt from construction permit requirements under ch. NR 406, Wis. Adm. Code) are

required to obtain a construction permit from WDNR prior to commencing construction. "Commencing construction" includes, but is not limited to, site clearance, grading, dredging, or landfilling.

These same sources, unless they are exempt from operation permit requirements under ch. NR 407, Wis. Adm. Code, must file an operation permit application at the same time they file a construction permit application. The operation permit will contain all the state and federal air quality requirements that apply, including emission limits and operating conditions.

Prevention of Significant Deterioration (PSD)

Wisconsin has a State Implementation Plan (SIP) approved program for the permitting of major sources in attainment areas. USEPA approved Wisconsin's PSD program on May 27, 1999. Prior to this time, WDNR implemented the federal PSD program under 40 C.F.R. § 52.21 through a delegation of authority from USEPA pursuant to a February 16, 1989, delegation letter. WDNR's PSD regulations can be found at NR 405 of the Wisconsin Administrative Code.

Non-attainment NSR

Wisconsin also has a SIP-approved program for the permitting of major sources in non-attainment areas. USEPA approved Wisconsin's non-attainment NSR program on January 18, 1995. WDNR's non-attainment NSR regulations can be found at NR 408 of the Wisconsin Administrative Code.

NSR Reform

On December 31, 2002, USEPA substantially reformed the NSR program. These revisions are commonly referred to as "NSR Reform" regulations and became effective on March 3, 2003. Permitting authorities had until January 2, 2006, to submit to USEPA revisions to their PSD and Non-attainment NSR programs which implement the new NSR Reform provisions. WDNR has submitted these revisions to the Wisconsin Natural Resources Board for approval, and will be submitting them to USEPA for SIP approval once approved by their Board and Legislative Committee.

This questionnaire only focuses on pre-NSR Reform regulation implementation.

IV. Findings

A. Strengths

APII

WDNR established APII in 2003 in an effort to improve the way the air program issues permits. The creation of APII stemmed from growing concerns about the significant time and effort needed to produce an air permit, and whether that time and effort actually and consistently resulted in measurable environmental benefit. In addition, a large backlog of uncompleted operation permits led to several things: environmental groups petitioning the USEPA on WI's Title V permit program and a subsequent "Notice of Deficiency" from USEPA; a Legislative audit of the air program; and numerous complaints from industry. Under APII, numerous workgroups have been developed to improve aspects of WI's permit program from public involvement to the regulation of stationary sources.

Applicability Determinations

WDNR effectively communicates with USEPA Region 5 regarding the permit applicability issues that come up in Wisconsin. Although it is WDNR's primary responsibility to implement regulations through their SIP approved PSD program, WDNR seeks guidance from USEPA on issues that haven't had much precedence. Also, WDNR usually forwards USEPA copies of applicability determinations made at the state level. Applicability determinations that WDNR has requested guidance on include issues such as, debottlenecking and increased utilization, and stationary source determinations.

Public Notice

WDNR requires all construction permitting actions to be public noticed. Minor source construction permits, PSD permits, and NSR synthetic minor permits are all public noticed. WDNR requires a 30-day public notice for all construction permits. WDNR identifies in the public notice document the type of permit it is making available for public review.

Clear/Well Organized Permits

Permits issued by WDNR are clear and well organized. The permits use a table format that lists, for each emission unit: the applicable emission limitations, method of compliance demonstration, recordkeeping and testing required. This method of organizing permit conditions provides an efficient way for anyone from a governmental regulation agency or the public to identify requirements applicable to a particular facility.

PSD permits issued by WDNR include a well-written preliminary determination (PD) which contains a top down BACT approach. If the top option is not chosen as the control technology, the PD goes through a full analysis of the top down BACT approach, and explains the reason for each eliminated option. The PD provides full documentation of the selection of BACT.

Entering BACT and LAER Determinations in the RBLC

WDNR has been consistent in entering BACT and LAER Determinations in the RBLC. According to the annual reports by the Clean Air Technology Center, WDNR has been the second highest contributor of determinations in Region 5 during the years of 1999-2003.

Permits Webpage

WDNR maintains a webpage that contains all of its permit actions. This allows the public up to date access to permit documents. The webpage is organized according to source name, and contains both operation and construction permits, listed by permit number. The dates of certain permit actions, such as when the permit was public noticed, and other milestones are also tracked for each permit. A permit file typically includes the construction permit, the preliminary determination (PD), the public notice document, and other addendums if relevant. A permit file typically includes the construction permit, the preliminary determination (PD), the public notice document, and other addendums if relevant.

Modeling

WDNR requires sources to run an ambient air quality modeling analysis for PSD permits, which WDNR then verifies. WDNR runs a modeling analysis for minor NSR permits, which are then evaluated for increment consumption in counties where the minor

source baseline has been set. The standard analysis in the state places receptors at no greater than 25 meters apart in the area of highest concentration. The USEPA definition of ambient air is applied, such that if there is no fence or barrier, receptors are placed right next to buildings and the model calculates impacts where and when it can.

On December 9, 2005 USEPA promulgated AERMOD to be the recommended dispersion model replacing ISC3. WDNR has required the use of AERMOD for all applications to a construction permit submitted after January 1st, 2006.

B. Areas for Improvement

Permit Tracking

WDNR posts its permit files on a public webpage which contains information such as the date of public notice and final permit issuance date. However, the information available on this webpage could be improved. For example, the system is not searchable or sortable. Therefore, it is very difficult for example, to locate only certain types of facilities, to view only recent draft permits, or to find a source in a particular town, or near an address. While the permit numbers used by WDNR generally indicate the type of permit (Title V, FESOP, renewal, construction etc.) the specific permit type can not be identified. (This is especially true for construction permits, as major PSD, non-attainment and minor source permits are not differentiated). One of WDNR's APTI workgroups has begun working to address some of these issues by improving the information on the on-line permit system.

Response to Comments

WDNR at times does not respond to comments submitted by USEPA Region 5 staff. USEPA recommends WDNR respond to every comment provided by Region 5, such that issues can be resolved before final permits are issued. Furthermore, the response to comments should be included with the rest of the documents in the permit file uploaded onto the WDNR permits website.

File Review

As part of the program evaluation, USEPA conducted a review of WDNR's files for five construction permits. USEPA found the files to be disorganized. Some of the files did not contain the letter transmitting the permit to the facilities. There were

responses to comments in some files and none in other files. Some files contained compliance reports and other reporting information all in the same file, which made it difficult to find documentation for certain permitting actions.

C. Other Noted Aspects of the Program

Environmental Justice

WDNR does not have any issues with environmental justice areas for NSR purposes. However, they do have in place a guidance document that was signed by the Secretary's Directive on August 9, 2000. The guidance document describes WI's tradition of inclusiveness of all citizens through innovative legislation, education, and communications programs. The document defines and establishes a goal for environmental justice; to reach as broad of an audience as possible when making decisions, providing education/information, and creating regulations. The document contains instructions for WDNR staff describing how to help reach the goal.

V. Recommendations

Response to Comments

USEPA recommends that WDNR respond to all comments submitted by Region 5. It is recommended that these responses are provided to Region 5 before the issuance of a permit. This will give USEPA an opportunity to address all issues that arise and will ensure greater consistency for permits that are issued. It is also recommended that WDNR should be more consistent in uploading response to comments documents into permit files on the web.

PSD Applications

WDNR usually sends PSD applications to Region 5, and is required to do so. It is recommended that WDNR be more consistent in assuring that all PSD or major NSR applications that WDNR receives are also forwarded to the appropriate staff at Region 5. It would be helpful for USEPA Region 5 to have the applications available when PSD permits are public noticed. This will minimize the time necessary for USEPA's review, and help ensure consistency.

File Review

USEPA recommends that WDNR have more complete files available to the public. It is recommended that a more organized file system be developed such that more complete files are maintained. This will allow any citizen, who requests a permit, to review a complete file for a facility.

VI. WDNR Comments

RACT/BACT/LAER Clearinghouse

Wisconsin fully supports a detailed and complete clearing house of BACT/LAER decisions. While the state has made significant efforts to submit its PSD/NSR determinations to the clearing house, in our opinion other states are falling short with their submittals. While the Clean Air Technology Center (CATC) has made significant efforts to simplify the submittal of BACT/LAER determinations, it would be beneficial to all if USEPA could extend efforts to make additional improvements. In addition to BACT/LAER, USEPA should also consider the submittal of synthetic minor control technology applications.

PSD/NSR Training

While 3 Wisconsin staff have been able to attend training on BACT/LAER analyses recently, current staff have not undergone any formal PSD/NSR training conducted by USEPA staff. The last training session on PSD that Wisconsin staff attended was in 1992. With the changing applicability requirements and increased emphasis on BACT/LAER and ambient air impacts, updated training from USEPA would be appreciated and beneficial.

Relationship with USEPA

Wisconsin is appreciative of its relationship with USEPA Region 5's permitting staff and the assistance that is provided by them to us. However, there have been several occurrences over the last few years where it seems that OAQPS has not made Regional staff aware of Federal program initiatives or proposed changes such that questions elevated by Wisconsin have not been timely answered. Increased communication between OAQPS and R5 or more internal training opportunities may assist in resolving similar occurrences in the future. Examples of such situations included potential RMRR policy setting in regard to Appleton Coated, revisions in debottlenecking and aggregation regulations, and 8 hour ozone transition.

NSR Reform and Minor NSR

During Wisconsin's development of NSR program revisions to meet the federal changes of December 31, 2002, WDNR identified the need to provide for an interface between those changes and existing minor NSR and Title V programs. Despite several requests for guidance on these matters, USEPA was unable to provide national assistance. While Region 5 did provide many insightful thoughts on some of the barriers to interfacing the NSR revisions with the Title V program, no interfacing criteria was able to be provided. WDNR was able to develop some interfacing features in its minor NSR program with Region 5's help. It is unfortunate that USEPA has yet to provide national assistance to assist in the implementing the NSR revisions as many Wisconsin facilities have informed WDNR that implementation of changes made under the 2002 reforms will be unduly delayed as they wait for Title V modifications.