

Basis for Vermont's Decision to Retain its Existing NSR SIP Provisions

This document is being submitted to the U.S. Environmental Protection Agency (EPA) to summarize Vermont's position relative to its currently effective set of federally approved State Regulations and federally approved State Implementation Plan (SIP) provisions (collectively referred to as the "Vermont New Source Review SIP"). These provisions deal with the review of new and/or modified stationary sources of air pollution. They primarily include Sections 5-501 and 5-502 and definitions contained in 5-101 of Chapter 5 of the Vermont Agency of Natural Resources Environmental Protection Regulations entitled "Air Pollution Control", as well as Chapter 9 of the Vermont SIP narrative document entitled "New Source Review" (see attachments 1 and 2). These provisions have been reviewed vis-à-vis whether they are at least as-stringent-as recently adopted changes in the EPA base New Source Review (NSR) program.

It is Vermont's belief that the changes made to the federal NSR program promulgated on December 31, 2002 and on August 27, 2003 have significantly narrowed (rather than expanded) the applicability of the federal rules, and will likely allow facilities regulated by them much greater leeway to install new polluting equipment and/or modify existing equipment without applying modern pollution controls through expansion of the flexibility and options that facilities will have. This additional flexibility and potential cost effectiveness and efficiencies may be appropriate for complex and very large facilities which require frequent review and permitting activity to insure that the environmental protections, which are the principal goal of new source review requirements, are being achieved. Vermont is not convinced that such narrowing of applicability would allow its NSR program to operate as effectively as the existing Vermont rules have operated. Because of this belief, and the success demonstrated over the past 23 years in implementing its existing NSR program, Vermont will not adopt any of the specific changes which have been made to the federal NSR rules but will continue implementing its own existing NSR program with full confidence that it is at least as-stringent-as the new federal program, as required by the Clean Air Act (CAA).

Historical Record:

In 1979, following the CAA amendments of 1977, Vermont submitted revisions to its SIP addressing CAA Part D Plan Requirements for non-attainment areas also articulated at 40 CFR 51.160 through 51.165. These revisions were mostly approved by EPA on February 19, 1980, with the exception of a conditional approval of the public participation portion of the plan and the disapproval of Vermont regulation 5-501(3) which related to default permitting. On

November 3, 1981 Vermont again submitted additional rules to EPA to satisfy CAA requirements related to preconstruction permitting of new major source and major modifications in both attainment (including PSD requirements) and non-attainment areas. Regulations amended included 5-101, "Definitions", 5-501, "Review of Construction or Modification of New Air Contaminant Sources", 5-502, "Major Stationary Sources" and also portions of Section 9 of the SIP narrative related to new source review. These changes to the SIP were proposed as part of a package of changes that combined preconstruction review permitting activities for both attainment areas and for non-attainment areas into a unified program.

On November 12, 1981 EPA published a notice of proposed rulemaking (NPR) in the Federal Register (46 FR 55719) proposing approval of amendments to the Vermont SIP dealing with NSR that had been submitted on November 3, 1981. On February 10, 1982 final approval of these SIP provisions was published (47 FR 6014) making Vermont's approved SIP for NSR effective immediately on that date. EPA stated in its final rule that "the Vermont revisions meet the requirements of the Clean Air Act and 40 CFR Part 51". The Vermont NSR program adopted at that time was uniquely structured to be equally inclusive of sources in all parts of Vermont regardless of any area's designation for criteria pollutant attainment or non-attainment. The Vermont NSR rules have the same applicability no matter where a source of air pollution is located in the state. This feature is central to providing certainty to industries and businesses locating in Vermont about the applicability of the rules and has been a component of the program which necessarily makes the State NSR approach significantly different from the federal one. Vermont's program does not distinguish between a "PSD review" and a "non-attainment review". In fact Vermont's designations for the criteria pollutants have been "attainment" or "unclassified" everywhere in the state for all of the past twenty years or more, but new and modifying sources of air pollution locating everywhere in Vermont have been, and will continue to be, subject to requirements which produce a higher degree of control of air pollutant emissions overall than would have been produced if review had been carried out under the federal NSR rules, either those existing prior to December 31, 2002 or the newly promulgated federal rules in place since then.

In order to demonstrate in 1981 that it was achieving an "equivalent" level of overall control at least as-stringent-as BACT or LAER applied to separate area designations, the Vermont NSR program defined a control technology level called the "most stringent emission rate" (MSER). This level of control as a condition of each major stationary source construction permit becomes the equivalent of federally applied BACT/LAER through its applicability everywhere in Vermont and its applicability to many more sources (major source definition under the Vermont NSR SIP is 50 tons per year of a criteria air pollutant, rather than 250 tons per year as under the old and revised federal NSR programs). The Vermont NSR provision applying

MSER to all 50 ton-per-year applicable sources was demonstrated to be at least as-stringent-as the application of BACT/LAER only to sources of 250 tons per year when Vermont originally submitted its NSR program for SIP approval in 1981. EPA agreed with the analysis supporting the NSR SIP provisions submitted by Vermont in 1981 and approved the use of the hybrid applicability approach and the use of MSER in conjunction with its smaller source size cutoff applicability criteria for Vermont's NSR program. These concepts offered more certainty for the regulated community in Vermont than the federal NSR rules which were designed for applicability to much larger and more complex new air pollution sources in general than Vermont has been reviewing or is likely to need to review in the future.

Further revisions to Vermont's NSR SIP rules and the narrative portion of the SIP were adopted effective in Vermont on August 13, 1993. These rule changes were in response to requirements contained in the Clean Air Act Amendments (CAAA) of 1990 which were concerned primarily with non-attainment area NSR provisions and provisions specific to areas located within the Ozone Transport Region (OTR). In creating additional new source review provisions (greater than 1:1 offsets in the OTR which includes Vermont for example) and making the major source size cutoff definition more inclusive than previously (100 Ton per year for NOx for example), the CAAA of 1990 required some adjustments to the basic Vermont NSR approach adopted in 1981. These adjustments were not ones which rendered the previously determined "equivalence" of the MSER and unified review approach invalid. Over the next few years the necessary changes to Vermont NSR rules to meet the requirements of the CAAA of 1990 were proposed and state enactment on these rule changes was completed on July 14, 1995. EPA last approved NSR-related rule changes in the Vermont SIP on August 4, 1997.

Characterization of Vermont Air Permitting Universe

Vermont is a rural state with a relatively few small stationary sources of air pollution. There are currently 392 permitted air pollution sources in Vermont. The vast majority of these sources have emissions far below the federal major source threshold. Examples of small sources typically permitted in Vermont are concrete batch plants and crematories. These small sources have annual emissions aggregating to a few tons per year. Review of the last three years of registration data shows that only thirteen sources had actual emissions of any criteria pollutant greater than 100 tons per year, and no source had actual emissions of any criteria pollutant greater than 900 tons per year. The thirteen largest sources include two wood fired power plants,

four secondary fiber paper mills, two wood furniture manufacturers, one plywood manufacturer, a sawmill, two ski areas and a cheese manufacturing plant. For seven of these thirteen facilities, the largest emission unit was a wood fired boiler.

The Vermont Air Division is also fairly small. There are six permitting staff performing all state and federal, new source review and operating permit reviews. The entire Division has less than 30 staff members.

Vermont permitting staff work very closely with permitted sources. Sources call staff to discuss proposed changes long before a permit application is developed. These pre-application discussions address regulatory thresholds, pollution control devices and project timelines in order to ensure timeliness of reviews. As permitting staff work together with sources, they are able to provide the sources with clarity and certainty in the permitting process.

EPA's NSR Reform focused on large, complex sources of air pollution. It is easy to see how complex and burdensome the air permitting for such a source can be, and how NSR Reform could help provide flexibility and certainty. However, although large, complex sources are significant in the rest of the country, they are not representative of Vermont sources. In Vermont we have developed an air permitting program that is appropriate for the size and type of sources regulated. Vermont permitting staff provide personalized services to sources, working cooperatively to resolve permitting issues.

The discussion below briefly describes the Vermont NSR approach to each of the six major elements identified in the base program changes made to federal NSR by EPA on December 31, 2002 and on August 27, 2003.

BASELINE EMISSIONS: This provision allows a source to use any 24 month period in the last 10 years as the actual baseline emissions. Vermont Regulations (Section 5-101) define "actual emissions" as the average emission rate during the preceding two year period, or other representative period. Vermont has used historical high emission periods as baseline in cases where the industry operation was cyclical. Asphalt plants are an example of a source type that has used historical high periods as the baseline. Vermont regulations provide for flexibility by allowing the use of a more representative period for the baseline actual emissions. This clearly allows for a look-back period of ten, or more, years.

APPLICABILITY TEST: This provision allows a source to size the proposed modification by the difference between current actual emissions and future actual emissions.

Vermont uses the difference between the current actuals and potentials to determine the size of a modification. The size of the modification is determined through conversations between the source and permitting staff. This allows permitting staff to clarify how to determine the size of the modification during project development stage. Staff provide the source with a determination, thus providing the source with clarity and certainty at the outset of the project.

The proposed actual to actual test relies on the facility to make appropriate emission calculations to determine the size of the modification. Large sources with extensive environmental staff have the expertise to correctly perform this calculation and ensure that actual operations do not exceed the projection. Vermont however, regulates small sources with limited environmental staffing resources. Errors in calculating the size of a modification, or in operating in excess of projected levels could require a facility to go through new source review after the fact. Making such changes after the fact can be a significant financial burden, especially for such small facilities. For the small sources that make up the Vermont industrial base, working with state permitting staff to determine how the modification will be sized prior to construction, provides greater clarity and certainty to sources.

CLEAN UNIT EXCLUSION: This provision has been vacated by court order and due to the uncertainty of it (or a revision of it) being eventually included in the final federal NSR rules Vermont does not address this element.

POLLUTION CONTROL PROJECT EXCLUSION: This provision has been vacated by court order and due to the uncertainty of it (or a revision of it) being eventually included in the final federal NSR rules Vermont does not address this element.

PLANTWIDE APPLICABILITY LIMITS (PALs): This provision allows sources to make changes at the facility without obtaining permitting approval provided the source operates under approved caps. Vermont does not have regulations that specifically address PALs.

However, Vermont has incorporated similar caps into permits in order to provide additional flexibility to individual sources, as appropriate. Examples of permits with such caps are wood furniture manufacturers and ski areas (See attached permits for Killington Limited and Vermont Tubbs). Vermont has written permits for wood furniture manufacturing that include permit limits on emissions of VOCs and air toxics and require recordkeeping to ensure the limits are not exceeded. Provided the VOC and air toxics limits are not exceeded, facilities are able to make process changes without going through permit review. For a ski area the permit limits the diesel engine fuel consumption as well as the total engine horsepower and emission characteristics of the engines. As engines are typically leased for a single season, the source is

able to vary the type and number of engines from year to year, without going through additional permit review. These permits allow the source to make changes in order to meet market demand, as needed. This provides facilities with flexibility coupled with the certainty that they are in compliance with the regulations.

Conclusion

The Vermont NSR Regulations are appropriate for the scale of industrial sources that operate in the state. Staff have developed a cooperative working relationship with regulated industries. Implementation of the new federal NSR rules would increase the program complexity for facilities in addition to increasing the burden on the state due to additional rulemaking. Rulemaking would represent a substantial burden and divert the work of staff from their core function: working through permitting issues with sources. In addition, given the small size of Vermont sources, the new rules would apply to few, if any, sources.

Vermont meets the needs of her regulated community through working closely with sources under the current regulatory climate. The current rules are appropriate for the number and type of sources regulated in Vermont. The simplicity of the current rules is appropriate for the small source base and provides sources with flexibility, clarity and certainty. By incorporating much lower size cutoffs for major source review and requiring a “most stringent emission rate” (MSER) defined to be consistent with both BACT and LAER under federal rules but applied throughout Vermont (with no non-attainment areas for any criteria pollutant), Vermont’s NSR program is certainly at least as-stringent-as the federal NSR program.