

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R06-OAR-2007-1147; FRL-]

**Approval and Promulgation of Implementation Plans; Texas; Control of Emissions of
Nitrogen Oxides (NO_x) From Cement Kilns**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is finalizing approval of revisions to the Texas State Implementation Plan (SIP). We are approving the rules in 30 TAC Chapter 117 that the State submitted on May 30, 2007, concerning control of emissions of NO_x from cement kilns operating in Bexar, Comal, Ellis, Hays, and McLennan Counties. We are approving the nonsubstantive renumbering of the rules for all five counties. We also are approving the substantive changes to the rules for Ellis County, based on a determination that the rules for Ellis County meet the NO_x Reasonably Available Control Technology (RACT) requirements for cement kilns operating in the Dallas Fort Worth (D/FW) 1997 8-hour ozone nonattainment area. We are taking this action under section 110 and part D of the Federal Clean Air Act (the Act, or CAA).

DATES: This rule will be effective on **[Insert date 30 days from date of publication]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-R06-OAR-2007-0523. All documents in the docket are listed on the www.regulations.gov web site. Although listed in the index, some information is not publicly available, e.g., Confidential

Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through www.regulations.gov or in hard copy at the Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 700, Dallas, Texas 75202-2733. The file will be made available by appointment for public inspection in the Region 6 FOIA Review Room between the hours of 8:30am and 4:30pm weekdays except for legal holidays. Contact the person listed in the FOR FURTHER INFORMATION CONTACT paragraph below to make an appointment. If possible, please make the appointment at least two working days in advance of your visit. There will be a 15 cent per page fee for making photocopies of documents. On the day of the visit, please check in at the EPA Region 6 reception area at 1445 Ross Avenue, Suite 700, Dallas, Texas.

FOR FURTHER INFORMATION CONTACT: Mr. Alan Shar, Air Planning Section (6PD-L), Environmental Protection Agency, Region 6, 1445 Ross Avenue, Suite 700, Dallas, Texas 75202-2733, telephone (214) 665-6691, fax (214) 665-7263, e-mail address shar.alan@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document “we,” “us,” and “our” refer to EPA.

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I. Background

A. What are we approving?

The EPA approved 30 TAC, Chapter 117, NO_x cement kilns rules at 69 FR 15681 published on March 26, 2004, as NO_x control emissions requirements for Texas under the 1-hour ozone SIP. On May 30, 2007, TCEQ submitted rule revisions to 30 TAC, Chapter 117, “Control of Air Pollution from Nitrogen Compounds,” as a revision to the Texas SIP. On July 11, 2008 (73 FR 39911), we proposed approval of the May 30, 2007 submittal. Today, we are finalizing our July 11, 2008, proposed approval.

In this rulemaking, we are approving the nonsubstantive renumbering of the rules for cement kilns operating in Bexar, Comal, Ellis, Hays, and McLennan Counties. We are approving the substantive changes to the rules for cement kilns operating in Ellis County as

meeting the Act's RACT requirements for NO_x emissions for the cement kiln source category in the D/FW 1997 8-hour ozone nonattainment area.

The State's adopted source cap calculation for the cement plants in Ellis County includes all kilns in operation at the three impacted accounts, i.e., Ash Grove Texas, L.P. (AG); TXI Operations, L.P. (TXI); and Holcim, L.P. (Holcim). No operating kiln in Ellis County is exempt from the source cap. The State chose 1.7 lb NO_x/ton of clinker for dry preheater-precalciner or precalciner kilns and 3.4 lb NO_x/ton of clinker for wet kilns, as the emission factors for calculating the source cap for the RACT rule. The NO_x source cap for cement manufacturing plants in Ellis County, Texas is calculated by a) multiplying the average annual production rate in tons plus one standard deviation for the calendar years 2003, 2004, and 2005 from all wet kilns by 3.4 pound NO_x/ton, b) multiplying the average annual production rate in tons plus one standard deviation for the calendar years 2003, 2004, and 2005 from all dry kilns by 1.7 pound NO_x/ton, and c) adding the computed products in "a" and "b" together and dividing the sum by ((2000 (pounds/ton) x (365 (days/year))). Thus, producing a total allowable NO_x limit, in tons per day, on a 30-day rolling average basis as a cap not to be exceeded. The source cap only applies during the D/FW ozone season (March 1st - October 31st). See 117.3123(b).

The rule provides multiple layers of flexibility by: i) providing for one NO_x limit during the ozone season (March 1st through October 31st), and another NO_x limit during the non-ozone season (November 1st through end-of February) within the D/FW area; ii) incorporating actual production rates that were provided by the affected companies to the State, then adding one standard deviation to the production rates as a part of rule development, for source cap allowance determination to account for production variability; iii) not mandating a specific post combustion control technology; iv) allowing the source to decide its method of compliance with

the source cap; v) determining compliance with the source cap on a 30-day rolling average basis; and vi) including all types of existing kilns. Therefore, multiple layers of flexibility have been built into the rule for compliance purposes.

As stated in our proposal, EPA has defined RACT as the lowest emission limitation that a particular source can meet by applying a control technique that is reasonably available considering technological and economic feasibility. See 44 FR 53761, September 17, 1979. Ozone nonattainment areas classified as moderate or above must meet RACT requirements as provided in sections 182(b)(2) and 182(f) of the Act. These two sections, taken together, establish the requirements for Texas to submit a NO_x RACT regulation for cement kilns (a major source of NO_x) in ozone nonattainment areas classified as moderate (such as D/FW) and above. Section 183(c) of the Act provides that we will issue technical documents, which identify alternative controls for stationary sources of NO_x. The EPA publishes the NO_x related Alternative Control Techniques documents (ACTs) for this purpose. The information in the ACT documents is generated from literature sources and contacts, control equipment vendors, EPA papers, engineering firms, and Federal, State, and local regulatory agencies. States can use information in the EPA ACTs to develop their RACT regulations. For a listing of EPA's ACT-related documents, including the ACT document for Cement Manufacturing, see http://www.epa.gov/ttn/naaqs/ozone/ctg_act/index.htm (URL dated April 22, 2008).

The public comment period for our 73 FR 39911 proposal expired on August 11, 2008. We received written comments during the public comment period and we respond to those comments below.

B. Who submitted written comments to us?

We received written comments on our July 11, 2008 (73 FR 39911) proposal from AG, TXI, and Holcim during the public comment period. Holcim's comments were submitted on this proposed action and on the proposed action to conditionally approve the D/FW area's 1997 8-hour ozone attainment demonstration SIP.

C. How are we responding to those written comments?

Our responses to those written comments received are as follows:

Comment # 1: AG indicated that the applicable source cap in the rule for Ellis County is achievable, AG intends to comply with the source cap limit, and supports its approval by EPA.

Response to Comment # 1: We appreciate the AG's statement that it intends to comply with the source cap limit in the rule.

Comment # 2: AG, TXI, and Holcim claim that the rule for Ellis County exceeds RACT and has negligible value to air quality planning. The State's photochemical modeling demonstrates that NOx reductions from the cement plants would not have a measurable impact on the critical ozone monitors in the D/FW Area. Thus, the stringent emission limitation is not a necessary component of the Texas SIP. TCEQ has not performed any analysis indicating that a high level of reduction of NOx emissions from the Ellis County cement kilns would result in the D/FW area coming into compliance with the 1997 8-hour ozone standard.

Response to Comment # 2: As discussed previously, RACT is a requirement of section 182 of the Act, and, regardless of whether the controls are necessary for attainment of the 1997 8-hour ozone NAAQS in the D/FW ozone nonattainment area, the SIP must include rules that meet the VOC and NOx RACT requirements of the Act. In Appendix J of the D/FW attainment demonstration SIP submission, entitled "RACT Analysis," Texas identifies (1) all Control

Techniques Guidelines (CTG) source categories of VOC and NO_x emissions within the D/FW area; (2) all non-CTG major sources of VOC and NO_x emissions; (3) the state regulation that implements or exceeds RACT for each applicable CTG source category or non-CTG major emission source; and describes the basis for concluding that these regulations fulfill RACT. TCEQ in Appendix J, pages J-3 to J-5 and Table J-1, specifically says that State rules that were consistent with *or more stringent* than the current control technologies and methodologies implemented in other moderate nonattainment areas *were also determined to fulfill RACT requirements for the D/FW area*. Texas views the cement kiln rules to be RACT for the D/FW area. It is not appropriate for EPA to question a State's choice of RACT control, as long as the statutory requirements of the Act are met. *Florida Power & Light Co. v. EPA*, 650 F.2d 570 (5th Cir. 1981). Moreover, States may adopt regulations that are more stringent than those required under the Act. See section 116 of the Act. To meet the statutory requirements, states are to look at available controls to conclude whether they are reasonably available for a specific source or source category. Furthermore, a State is to evaluate RACT for a source or source category by examining existing EPA guidance documents as well as other available information, e.g., EPA's BACT/RACT/LAER Clearinghouse, ACTs. RACT can change over time as new technology becomes available or the cost of existing technology adjusts. Today's RACT determination for a source category can be more stringent than a previous determination and thus controls previously considered "beyond RACT" could be considered RACT for sources now.

We disagree that the rules for cement kilns in the D/FW area will have a negligible value to the area's air quality planning. The rules should result in 9.7 tons per day (TPD) of reduction in NO_x emissions for the D/FW area, which is a significant improvement. See section 9 at 73 FR 39914 of our proposal. The EPA has reviewed the impact of emission reductions at the

cement kilns in the D/FW area and determined that such reductions are beneficial to reducing ozone levels in the D/FW nonattainment area especially in much of Tarrant and Parker Counties.

Today's action only concerns approving the nonsubstantive renumbering of the NOx cement kiln rules into the Texas SIP, and approving the substantive changes to the NOx cement kiln rules for Ellis County as meeting the Act's NOx RACT requirement. Therefore, any comments on the State's choices of control strategies in the D/FW area's attainment demonstration SIP are not relevant. In a separate proposed action published on July 14, 2008 at 73 FR 40203, EPA has taken comment on whether the cement kilns rule, in combination with the other State and Federal Measures, will result in attainment of the 1997 8-hour ozone NAAQS, and we will respond to Holcim's comments on these issues in a final action on that proposal. Additionally, we note that EPA is required to approve a SIP revision if it meets the Act's requirements, and cannot second guess the State's choices if the plan meets the minimum requirements of the Act. The Act assigns to the states initial and primary responsibility for formulating a plan to achieve the NAAQS. It is up to the State to prepare SIPs, which contain specific pollution control measures. The EPA is charged with evaluating the SIP revision submittal, and if it meets the minimum statutory criteria, the EPA must approve it. *Train v. NRDC*, 421 U.S. 60 (1975). It is not EPA's role to rule out the State's choice of components of its SIP submittal so long as the plan is adequate to meet the standards mandated by EPA. See *Train v NRDC* at 79-80, and see *Union Electric v EPA*, 427 U.S. 246 (1976). The EPA disapproves a SIP submittal only if it fails to meet the minimum statutory requirements. *Seabrook v. Costle*, 659 F.2d 1349 (5th Cir. 1981). A state may impose stricter limitations than the Act requires. See section 116 of the Act; *Union Electric* at 265.

Comment # 3: TXI states that Table 5, section 9 of EPA's proposal fails to mention the alternative NO_x control options allowed under the Texas 1-hour ozone NO_x SIP will be available to Ellis County cement kilns during the non-ozone season.

Response to Comment # 3: While Table 5, section 9 of EPA's proposal is factually correct, it does not specifically mention the alternative NO_x control option. TCEQ removed these options for cement kilns in Ellis County during the D/FW area's ozone season, EPA recognizes these compliance options are available during the non-ozone season (November 1st through the end-of February). For the other four counties, which are not a part of the D/FW 8-hour ozone nonattainment area, cement kilns NO_x alternative control options continue to remain in effect year round. See section 117.3110.

Comment # 4: TXI and Holcim commented that improvement in the D/FW ozone situation should come from mobile sources not the cement kilns.

Response to Comment #4: This comment is not relevant to today's action because this action solely reviews the Ellis County cement kiln rules for purposes of the NO_x RACT requirement of the Act. Holcim provided the same comment, however, on our proposed action to conditionally approve the D/FW 1997 8-hour ozone attainment demonstration SIP. We will address this comment in the final rulemaking action on that SIP. See the response to comment #2 of this document for more detail.

Comment # 5: TXI and Holcim expressed support for TCEQ not adopting the "high control" option for the Ellis County kilns, due to technical issues associated with the Selective Catalytic Reduction (SCR), and Low Temperature Oxidation (LoTO_x) technologies. They further claim that neither SCR nor LoTO_x technology constitutes RACT for the control of NO_x from the Midlothian Cement kilns.

Response to Comment #5: We agree that the current State-adopted level of NO_x control for cement kilns in the D/FW area meets the RACT requirement for these sources at this time.

We note, however, that air pollution control technology continues to advance and the State may need to consider additional NO_x controls at cement plants as it develops the SIP required for the 2008-revised ozone standard.

Comment # 6: TXI commented that the NO_x emission factors used in the source cap equation are possibly the lowest specifications adopted by a state agency in the United States because the selected emission specification for the preheater/precalciner kilns of 1.7 lb NO_x/ton of clinker represents a significant reduction from NO_x specification of 1.95 lb NO_x/ton of clinker that has been selected as BACT in recent permitting actions for new PH/PC kilns. Adoption of these very low NO_x emission specifications in the source cap equation is extremely aggressive.

Response to Comment #6: We agree that these levels are more aggressive than levels previously included in certain permits issued by the State. We have concluded that, at a minimum, these levels are consistent with RACT. While the commenter implies (but does not directly allege) that the levels are beyond RACT, the Act does not preclude the State from adopting controls that are more stringent than the minimum level required.

We note that this is not the first time TCEQ has adopted a rule in Chapter 117 to meet RACT that is more stringent than past permits' BACT decisions. We recognize that compliance with the levels in the Texas rules will require significant effort from the cement plant owners and operators.

Comment # 7: TXI and Holcim state that adoption of the source cap equation is inequitable and does not allow them to have a significant production increase. Holcim claims that over 60% of the total NO_x reductions anticipated from the source cap requirement will be from Holcim's two

kilns, despite the fact that there are eight other cement kilns operating in Ellis County. Holcim comments that TCEQ has unfairly targeted Holcim as a source of emission reductions in Ellis County. TXI finds the rule to be retroactive because the source cap is based upon the average production for 2003, 2004, and 2005. This figure allegedly does not include the increase in production allowed by a permit issued in late 2005. To meet the source cap, TXI may have to shutdown its wet kilns while operating its dry kiln.

Response to Comment #7: The primary role of the statutory RACT requirement is to impose controls upon existing facilities and equipment. RACT has been a requirement of the Act since 1977. Congress through the 1977 Clean Air Act Amendments imposed stricter minimum requirements by placing RACT limitations on nonattainment areas. CAA Section 172(b)(3), 42 U.S.C. 7502(b)(3) (1977). The use of the term “retroactive” by TXI is misleading in that the RACT controls will apply to TXI’s existing sources, but TXI is provided sufficient time to install the controls by a date well after TCEQ has promulgated the RACT regulations.

As discussed previously in response to comment #2 of this document, EPA cannot reject the State regulations because they may apply in an inequitable manner. While TXI alleges it may have to shut down some of its units to operate others, the Act does not preclude the State from adopting controls that are more stringent than the minimum level required. The Act gives the States exclusive control in selecting which sources to regulate and to what degree, and EPA does not have authority to second guess the State’s choices so long as the programs adopted meet the minimum statutory requirements. See *Union Electric v. EPA*, 427 U.S. 246 (1976).

Comment # 8: Holcim commented that the ERG cement kiln study cannot be relied upon by TCEQ to establish the NO_x controls imposed on the Ellis County cement kilns in the source cap rule. Holcim contends that the ERG cement kiln study is internally inconsistent, inaccurate in its

assessment of available NO_x control technologies for the Ellis County cement kilns, incomplete in that it did not fully analyze the impacts of kiln feedstocks on the viability of add-on NO_x control technologies or address other tasks included in the Scope of Work, and is unreliable as a basis for NO_x controls for the Ellis County kilns. It inaccurately estimates the level of reductions achievable using SNCR on some of the Ellis County kilns. Holcim commented that the ERG Final Report fails to include retrofitting costs such as new ID fans for all kilns necessary for utilizing SCR and LoTO_x systems. Holcim further claims that the limestone and raw materials used in Ellis County kilns are different from the limestone, and raw materials used by other plants in the world, and deficiencies in the ERG Report is not scientifically or factually valid, and is not a reliable basis for TCEQ's adoption of the Source Cap Rule or EPA's approval of TCEQ's SIP. Holcim also incorporates by reference the comments on the ERG Final Report that were submitted to the State.

Response to Comment # 8: As an initial matter, we note that we cannot second guess the State's conclusions, so long as our review determines that the rules developed meet the minimum statutory requirements. Holcim appears to be claiming that the rules are too stringent because they are based on a study with which Holcim finds fault. However, even if such claim were true, we cannot disapprove the rules when they meet the minimum statutory requirements for RACT. Any requirement beyond the basic RACT level of control is not a basis for EPA to disapprove the rule, as the CAA leaves the choice to the State to determine whether to go beyond the minimum statutory requirements of the Act.

The referenced study can be found in Appendix I of the D/FW 1997 8-hour ozone attainment demonstration SIP revision submittal and is available on the TCEQ's web site at www.tceq.state.tx.us/implementation/air/sip/BSA_settle.html. The ERG, Inc. prepared the

Report, and it is entitled “Assessment of NO_x Emissions Reduction Strategies for Cement Kilns - Ellis County: Final Report,” dated July 14, 2006. The State relied upon it as well as all other available documentation to determine what should be RACT for the cement kilns.

This Report was prepared because of a study conducted on behalf of TCEQ pursuant to an April 22, 2005, settlement agreement in a lawsuit brought against EPA by Blue Skies Alliance and others. The TCEQ, the Portland Cement Association, several counties, and others were permitted by the Court to intervene. The Portland Cement Association represented Holcim’s interests in the lawsuit. The Settlement Agreement was filed with the Federal District Court for the Northern District of Texas in June 2005.

Pursuant to paragraph A.3.b. of the Settlement Agreement entitled, “Cement Kiln Control Technology Study,” TCEQ was required to meet with Plaintiffs, EPA, and the Portland Cement Association to review and comment upon the proposed scope of work to contract with a consultant to perform a cement kiln study to evaluate the potential availability of new air pollution control technologies for cement kilns in the D/FW area. The proposed scope of work also was to include consideration of SCR and to evaluate and establish what type of controls may be technically and economically applied to the three cement plants in Ellis County. Holcim participated in the meetings on the proposed scope of work. The TCEQ’s choice of a contractor was required to be made with consultation with the Plaintiffs, EPA, and the Portland Cement Association. Holcim participated in the choice of contractor. Midway through the study’s progress, the contractor was required to identify to the Plaintiffs, EPA, and the Portland Cement Association, a list of cement kilns with advanced NO_x emission reduction technologies being analyzed as part of the study. Holcim received this information. TCEQ was required to establish channels of communication with the Parties for technical air quality issues and make a good faith

effort to address problems identified by the Parties. TCEQ also was required to meet with the Parties on other issues of interest and concern in the cement kiln matter. Holcim was involved in the communications and meetings with TCEQ, and provided comments on the Draft Report and the final. The EPA has not been provided with any legal document filed with the Federal District Court asserting that TCEQ failed to meet its legal obligations under the Settlement Agreement of making a good faith effort to address any problems identified by Holcim.

The ERG Report evaluated the applicability, availability, technical feasibility, and cost-effectiveness of NO_x control technologies for cement kilns located in the D/FW area beyond the requirements of the NO_x rules in the SIP at the time of the Report (i.e., rules adopted by the State in 2003 and approved by EPA at 69 FR 15681 (March 24, 2004)). The Report is consistent with EPA's ACT (2000) document, proposed New Source Performance Standard (NSPS) for Portland cement plants at 73 FR 34072 (June 16, 2008), and the BACT/RACT/LAER Clearinghouse.

Comment # 9: Holcim commented that for its two PH/PC kilns, the TCEQ proposed equation at section 117.3123(b) for calculating a NO_x source cap would establish an emission rate of 2.84 TPD of NO_x emissions per PH/PC kiln, with a plant-wide NO_x emission limit of 5.68 TPD (2.84 TPD x 2 kilns). In its comments to the State, Holcim alternatively proposed a plant-wide NO_x limit of 8.5 tons per day to be applied during the ozone season only. The TCEQ, however, adopted the equation at section 117.3123(b) for calculating a NO_x source cap that establishes a more stringent emission rate than Holcim had requested, without going through another round of public comment and hearing.

Response to Comment #9: Courts have consistently held that an agency is not required to start over with a new notice of proposed rulemaking, if the final rule is a "logical outgrowth" of the proposed rule. It is an established administrative law principle that after hearing all public

comments, the agency may end up substantially revising the original proposed rule. What is required is that the proposal notice should be sufficiently descriptive of the 'subjects and issues involved' so that interested parties may offer informed criticism and comments. See *Ethyl Corp. v. EPA*, 541 F.2d 1, 48 (D.C.Cir.1976). If the final rule is logically connected to the proposed rule, the public is considered to have had an adequate opportunity to make its views known. The State's proposal was clear that the issues were an appropriate emissions limitation, and a corresponding source cap equation. After the close of the public comment period, and upon review and evaluation of the submitted comments, the State merely expanded on prior information, and addressed alleged deficiencies in the pre-existing data. See *Rybachek v. EPA*, 904 F.2d 1276, 1286 (9th. Cir. 1990).

The resultant equation is in a format consistent with other equations in Chapter 117. The public was provided an ample opportunity to provide comments on the appropriateness of NO_x emissions limitations, and what would be the appropriate corresponding equation. An integral part of rulemaking is for the State to have the authority and discretion to revise its initial version of a proposed rule, consistent with the terms of its proposal, based on relevant information it receives during public comment period. It is not an uncommon practice for a state to issue a final rule that differs from the proposal based on the receipt of relevant information during its public comment period.

Comment # 10: TXI and Holcim comment that neither SCR nor LoTO_x technology constitutes RACT for the control of NO_x from the Ellis County cement kilns, and refer to their comments on the draft and final Report.

Response to Comment #10: We believe that these requirements in the State's rules meet the minimum level of control required for RACT rules and, as discussed previously, the issue of

whether the rules are more stringent than what is necessary to meet RACT is not pertinent for our review of the rules.

Comment # 11: Holcim commented that according to a “New Source Analysis and Technical Review” (Technical Review) in conjunction with Holcim’s PSD Permit No. 8996/PSD-TX-454M3, issued in 2005, the TCEQ technical staff stated that NO_x reductions using SNCR are “typically 20-40%.” Holcim continues that the Technical Review cited above; however, mentions that a kiln in Sweden, with a high baseline, had demonstrated 83% NO_x reduction. Therefore, the State’s NO_x cement kiln rule for Ellis County is too stringent because it assumes a control level greater than what was in the 2005 permit.

Response to Comment # 11: While Holcim accurately describes the conclusion reached as part of the 2005 permitting determination, additional information has become available since that time, as described in the 2006 Report, the documents supporting the EPA’s proposed NSPS, etc. This additional information illustrates that using SNCR with well-designed and properly operated process design, e.g., low-NO_x burners, Staged Combustion in the Calciner (SCC) mechanism, can achieve as high as 70% reductions. Air pollution control equipment can often achieve greater percent reduction with higher uncontrolled emission rates (high baseline). This means that if a kiln is already controlled with low-NO_x burners and SCC mechanism, then the percent reduction of NO_x with the addition of the SNCR from that kiln will be less.

Comment # 12: Holcim contends that it cannot meet the ozone season emission factor of 1.7 pounds of NO_x per ton of clinker produced. This emission factor is used by the TCEQ in the equation to establish a plant-wide NO_x emission source cap for each of the three cement kiln companies in Ellis County. 30 TAC 117.3123(b). Because it allegedly cannot meet this emission factor, Holcim claims it cannot meet the plant-wide NO_x emission source cap for its

PH/PC kilns. Holcim states that it repeatedly commented on the proposed emission factor to TCEQ during the rulemaking process, claiming that it cannot achieve this emission factor, despite its recent installation of SNCR and based upon testing of the SNCR. According to Holcim, testing for its kiln #2 showed it did not meet the 1.7 pounds NO_x/ton of clinker emission factor, but rather it met 1.95 lb NO_x/ton of clinker. Holcim claims the 1.95 emission factor was determined to be BACT in a recent air permit for kiln #2, and that TCEQ adopted the 1.7 pounds NO_x per ton of clinker emission factor without adequate justification. TCEQ did not adequately consider the technical practicability, and economic reasonableness of the limitations contained in the source cap rule. TCEQ did not adequately consider the reasonable availability of control technology for Holcim's kilns, and the emission limitations are not practically achievable using SNCR.

Response to Comment # 12: We believe that the State's rules meet the minimum level of control required for RACT rules and, as discussed previously, the issue of whether the rules are more stringent than what is necessary to meet RACT is not pertinent for our review of the rules. Further, the source cap does rule not mandate the type of control that a source must use.

The source cap includes a NO_x emission factor of 1.7 pound per ton of clinker for dry preheater-precalciner or precalciner kilns, and a NO_x emission factor of 3.4 pound per ton of clinker for wet kilns. According to TCEQ, emission levels of 1.7 pound per ton of clinker have been demonstrated on a dry preheater-precalciner or precalciner kiln in Ellis County without the addition of the SNCR or other controls considered as part of the cement kiln study. The commenter has two kilns, one of which is a dry preheater-precalciner kiln.

The information in EPA's proposed NSPS (73 FR 34072) indicates that an emission factor of 1.5 pound NO_x per ton of clinker produced is achievable and cost effective. In fact,

NOx emission factors of 1.62 to 1.97 pound NOx per ton of clinker produced have been demonstrated without adding SNCR.

The information in EPA's proposed NSPS (73 FR 34072) indicates that an emission factor of 1.95 pound NOx per ton of clinker produced can be achieved on average for approximately \$2,000 per ton of NOx reduced, and at the 1.5 lb/ton of clinker level for approximately \$2,100 per ton of NOx reduced.

The State estimated the cost effectiveness for SNCR presented in the cement kiln study to be \$1,400 to \$2,300 per ton on NOx.

We reviewed TCEQ's evaluation and find it to be sufficient to support a finding that the cement kilns requirements of 30 TAC Chapter 117 constitute RACT for the D/FW area.

Comment # 13: Holcim states that neither TCEQ nor EPA has conducted a proper source-specific RACT analysis for Holcim's cement kilns in Ellis County.

Response to Comment # 13: While a State can consider source-specific considerations when setting RACT levels of control, it is not obligated to do so. RACT is most often implemented through source category rules. In setting a source category rule for cement plants, TCEQ set a limit it believes, and EPA agrees, meets the statutory minimum for a RACT level of control at all of the affected cement manufacturers.

Comment # 14: Holcim asserts that there are other problems with the source cap provision of the rule which should prevent it from being used to set the NOx emission limitations: a) TCEQ's selection of the 2003-2005 time period to calculate a source's actual production is without any basis; b) TCEQ's source cap equation fails to take into account facility downtime; and c) TCEQ's source cap equation fails to take into account the need for alkali bypass at the Holcim facility.

Response to Comment # 14: As discussed previously, the comments are not relevant to determining that the rule at a minimum meets the RACT requirement of the Act.

This is not the first time TCEQ has used the three most recent year production or capacity data for equations in other parts of Chapter 117, and EPA has approved that approach as a part of the Texas SIP. The production information is the actual data reported by the sources to the TCEQ. The source cap equation takes into account facility downtime and operation by using the three years of actual production rates data reported to TCEQ. With regard to the alkali bypass issue; this comment is not relevant to our RACT review because, as noted previously, EPA cannot second guess the State's choices of control level as long as it meets the minimum level required to satisfy RACT.

This concludes our responses to the written comments we received during public comment period.

D. What sections of the May 30, 2007 submittal will become part of Texas SIP?

Table 1 below contains a summary list of the sections of 30 TAC, Chapter 117 that EPA is approving into the Texas SIP.

Table 1 - Section Numbers and Section Descriptions of 30 TAC, Chapter 117 Affected by the Cement Kilns Rule

| Section Number | Description |
|-----------------------|---------------------------|
| Section 117.3100 | Applicability. |
| Section 117.3101 | Cement Kilns Definitions. |
| Section 117.3103 | Exemptions. |
| Section 117.3110 | Emission Specifications. |

| Section Number | Description |
|-----------------------|---|
| Section 117.3120 | Source Cap. |
| Section 117.3123 | Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration Control Requirements. |
| Section 117.3140 | Continuous Demonstration of Compliance. |
| Section 117.3142 | Emission Testing and Monitoring for Eight-Hour Attainment Demonstration. |
| Section 117.3145 | Notification, Recordkeeping, and Reporting Requirements. |
| Section 117.9320 | Compliance Schedule for Cement Kilns. |

You can find complete TCEQ's rules and regulations at

<http://www.tceq.state.tx.us/rules/indxpdf.html>.

E. What sections of the May 30, 2007 submittal will not become a part of Texas SIP?

Per TCEQ's request the following sections, listed in Table 2 below, of the cement kilns rule will not become a part of EPA-approved Texas SIP. These sections mainly pertain to the control of ammonia, that is not a precursor to ozone, and are not required to be a part of the SIP.

Table 2 – Sections of Chapter 117 Not in EPA-approved Texas SIP

| Section Number | Explanation |
|---------------------------|---------------------------------------|
| 117.3123(f), and 117.3125 | Not a part of EPA-approved Texas SIP. |

Although the above sections of 30 TAC Chapter 117 are not to become a part of Texas SIP, they will continue to remain enforceable at the State level.

F. What Texas Counties will this rulemaking affect?

Table 3 below lists the five Texas Counties that will be affected by the cement kilns rule.

Table 3 – Texas Counties Affected by Cement Kiln Rulemaking of 2007

| Texas Counties | Explanation |
|---|----------------------|
| Bexar, Comal, Ellis, Hays, and McLennan | See section 117.3101 |

G. What are the NOx control emissions requirements that we approved for Texas under the 1-hour ozone SIP?

We approved the NOx control emission requirements for cement kilns at 69 FR 15681 published on March 26, 2004. See Table III of that document. We included that Table in the TSD prepared for our proposal.

H. What are the NOx control emissions requirements that we are approving for Texas under the 8-hour ozone SIP?

Ellis County is located within the D/FW 8-hour ozone nonattainment area. The ozone season for the D/FW area is March 1st through October 31st of each calendar year. See 40 CFR 58, Appendix D, Table D-3, and 40 CFR 81.39. For Ellis County, during the non-ozone season (November 1st through end-of-February of each calendar year), the cement kilns NOx control requirements that we approved at 69 FR 15681 will continue to remain in effect. However, during the ozone season, March 1st through October 31st of each calendar year, the cement kilns in Ellis County must comply with a source cap formula calculated and expressed in TPD of actual NOx emissions, per site, on a 30-day rolling average basis. See equation 117.3123(b). The following Table 4 contains a summary list of NOx control requirements for cement kilns under the 8-hour ozone SIP.

Table 4 – NOx Control Requirements for Cement Kilns Under the 8-Hour Ozone SIP

| Source | County | NOx emission Requirement | Citation |
|---|------------------------------|---|--------------------|
| Long wet kiln | Bexar, Comal, Hays, McLennan | 6.0 lb NOx/ton of clinker produced | 117.3110(a)(1)(A) |
| Long dry kiln | Bexar, Comal, Hays, McLennan | 5.1 lb NOx/ton clinker of produced. | 117. 3110(a)(2) |
| Preheater kiln | Bexar, Comal, Hays, McLennan | 3.8 lb NOx/ton of clinker produced. | 117. 3110(a)(3) |
| Precalciner or preheater-precincer kiln | Bexar, Comal, Hays, McLennan | 2.8 lb NOx/ton of clinker produced. | 117. 3110(a)(4) |
| Long wet kiln | Ellis | 4.0 lb NOx/ton of clinker produced, outside D/FW ozone season. | 117. 3110(a)(1)(B) |
| Preheater kiln | Ellis | 3.8 lb NOx/ton of clinker produced, outside D/FW ozone season. | 117. 3110(a)(3) |
| Long dry kiln | Ellis | 5.1 lb NOx/ton clinker of produced, outside D/FW ozone season. | 117. 3110(a)(2) |
| Precalciner or preheater-precincer kiln | Ellis | 2.8 lb NOx/ton of clinker produced, outside D/FW ozone season. | 117. 3110(a)(4) |
| Portland cement kiln | Ellis | During D/FW ozone season, 30-day rolling average, source cap equation 117.3123(b), with the 2003-2005 reported average annual clinker production, limit is equivalent to 1.7 lb NOx/ton of clinker produced for dry preheater-precincer or precincer kilns, or 3.4 lb NOx/ton of clinker produced for long wet kilns. | 117.3123(b) |

The cement kilns rule does not require or endorse a specific post combustion NOx control technology, and allows the owners or operators to choose their preferred method of compliance

as long as the source cap limit, per site, is being met. These NOx control requirements will result in a 9.7 TPD of NOx reduction from cement kilns in Ellis County. We have determined the above NOx control requirements for existing cement kilns in the D/FW area are consistent with the RACT requirements of the Act. Therefore, we are approving them into the Texas SIP as meeting the RACT requirement for the D/FW 8-hour ozone nonattainment area. See our TSD prepared in conjunction with this rulemaking action for more information.

I. What are the compliance schedules for NOx emissions from cement kilns that we are approving?

The compliance schedule for cement kilns located in Texas Counties of Bexar, Comal, Hays, and McLennan will continue to remain in effect as we approved it at 69 FR 15681. See Table IV of that document. We included that Table in our TSD prepared for the proposal.

The following Table 5 contains a summary of the NOx compliance schedule-related information for cement kilns in Ellis County. See section 117.9320(c) for more information.

Table 5 – NOx Compliance Schedules for Cement Kilns in Ellis County Under the 8-Hour Ozone SIP

| Source | Compliance Date | Additional Information | Citation |
|-----------------------------|---|---|-----------------|
| Cement Kilns – Ellis County | Comply with testing, monitoring, notification, recordkeeping, and reporting requirements as soon as practicable but no later than March 1 st , 2009. | 8-hour attainment demonstration requirement | 117.9320 |

We believe that including the compliance dates in the rule provides for enforceability and practicability of the NOx rule, and enhances the Texas SIP. The March 1st, 2009 compliance date for cement kilns in Ellis County is consistent with the implementation requirement set forth

in 40 CFR 51.912(a)(3). Therefore, we are approving them into Texas SIP, and as meeting the RACT requirement for the D/FW 8-hour ozone nonattainment area.

II. Final Action

Today, we are approving revisions to the 30 TAC Chapter 117 into the Texas SIP. In this rulemaking, we are approving the nonsubstantive renumbering of the cement kilns provisions of the May 30, 2007 submittal for cement kilns operating in Bexar, Comal, Ellis, Hays, and McLennan Counties of Texas. We are approving the substantive cement kilns provisions of the May 30, 2007 submittal for cement kilns operating in Ellis County as meeting the Act's RACT requirement for NO_x emissions from cement kilns operating in the D/FW 8-hour ozone nonattainment area. We are also making ministerial corrections to the table in 40 CFR 52.2270(c) entitled "EPA- Approved Regulations in the Texas SIP" to reflect our approval of certain revisions to 30 TAC 117 on December 3, 2008 (73 FR 73562). The ministerial corrections apply to table headings and entries for sections 117.323, 117.1110, 117.1205, 117.1210 and 117.2135 under Chapter 117 – Control of Air Pollution from Nitrogen Compounds.

III. Statutory and Executive Order Reviews:

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely

approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act;
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally

permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994);
and

- does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. section 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[FEDERAL REGISTER OFFICE: insert date 60 days from date of publication of this document in the Federal Register]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Nitrogen oxide, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: December 17, 2008

A handwritten signature in black ink, appearing to read "Richard E. Greene", written over a light gray rectangular background.

Richard E. Greene,
Regional Administrator,
Region 6

Part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52--[AMENDED]

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart SS - Texas

2. In § 52.2270 the entry for Chapter 117 – Control of Air Pollution from Nitrogen Compounds in the table in paragraph (c) is revised by:

a. Removing the entries for Sections 117.260, 117.261, 117.265, 117.273, 117.279, 117.283, and 117.524 under Subchapter E Division 2.

b. Adding the entries for Sections 117.3100, 117.3101, 117.3103, 117.3110, 117.3120, 117.3123, 117.3140, 117.3142, and 117.3145 under Subchapter E Division 2.

c. Adding the entry for Section 117.9320 under Subchapter H Division 1, immediately above Section 117.9340.

d. Revising the entry for the Section entitled “117.223” under Subchapter B Division 3 to read “117.323”.

e. Revising the entry for Section 117.1110 under Subchapter C Division 2.

f. Revising the entries for Sections 117.1205 and 117.1210 under Subchapter C Division

3.

g. Revising the entry for Section 117.2135 under Subchapter D Division 2.

h. Revising the heading immediately above Section 117.4200 entitled “Division 2 – Nitric Acid Manufacturing – Ozone Nonattainment Areas” under Subchapter F to read “Division 3 – Nitric Acid Manufacturing – General”.

i. Removing the heading entitled “Subchapter H – Administrative Provisions”

immediately following Section 117.9500.

The removals and additions read as follows:

§ 52.2270 Identification of plan.

* * * * *

(c) * * *

EPA-Approved Regulations in the Texas SIP

| State Citation | Title/Subject | State Approval/ Submittal Date | EPA Approval date | Explanation |
|---|---|--------------------------------|--|-------------------------|
| * * * * * | | | | |
| Chapter 117 – Control of Air Pollution from Nitrogen Compounds | | | | |
| * * * * * | | | | |
| Subchapter B – Combustion Control at Major Industrial, Commercial, and Institutional Sources in Ozone Nonattainment Areas | | | | |
| * * * * * | | | | |
| Division 3 – Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources | | | | |
| * * * * * | | | | |
| Section 117.323 | Source Cap. | 5/30/2007 | [Insert date of FR publication] [Insert FR page number where document begins] | |
| * * * * * | | | | |
| Subchapter C – Combustion Control at Major Utility Electric Generation Sources in ozone Nonattainment Areas | | | | |
| * * * * * | | | | |
| Division 2 – Dallas-Fort Worth Ozone Nonattainment Area Utility Electric Generation Sources | | | | |
| * * * * * | | | | |
| Section 117.1110 | Emission Specifications for Attainment Demonstration. | 5/30/2007 | [Insert date of FR publication] [Insert FR page number where document begins] | 117.1110(b) not in SIP. |
| * * * * * | | | | |
| Division 3 – Houston-Galveston-Brazoria Ozone Nonattainment Area Utility Electric Generation Sources | | | | |
| * * * * * | | | | |
| Section 117.1205 | Emission Specifications for Reasonably Available Control Technology (RACT). | 5/30/2007 | [Insert date of FR publication] [Insert FR page number where | |

| State Citation | Title/Subject | State Approval/ Submittal Date | EPA Approval date | Explanation |
|--|---|-----------------------------------|--|-------------------------|
| | | | document begins] | |
| Section 117.1210 | Emission Specifications for Attainment Demonstration. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | 117.1210(b) not in SIP. |
| * * * * * | | | | |
| Subchapter D — Combustion Control at Minor Sources in Ozone Nonattainment Areas | | | | |
| * * * * * | | | | |
| Division 2 — Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Minor Sources | | | | |
| * * * * * | | | | |
| Section 117.2135 | Monitoring, Notification, and Testing Requirements. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| * * * * * | | | | |
| Subchapter E — Multi-Region Combustion Control | | | | |
| * * * * * | | | | |
| Division 2 — Cement Kilns | | | | |
| Section 117.3100 | Applicability. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.3101 | Cement Kilns Definitions. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.3103 | Exemptions. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.3110 | Emission Specifications. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.3120 | Source Cap. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.3123 | Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration Control | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page | 117.3123(f) not in SIP. |

| State Citation | Title/Subject | State Approval/ Submittal Date | EPA Approval date | Explanation |
|--|--|-----------------------------------|--|-------------|
| | Requirements. | | number where document begins] | |
| Section 117.3140 | Continuous Demonstration of Compliance. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.3142 | Emission Testing and Monitoring for Eight-Hour Attainment Demonstration. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.3145 | Notification, Recordkeeping, and Reporting Requirements. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| * * * * * | | | | |
| Subchapter F — Acid Manufacturing | | | | |
| * * * * * | | | | |
| Division 3 — Nitric Acid Manufacturing – General | | | | |
| Section 117.4200 | Applicability. | 5/30/2007 | 12/3/2008, 73 FR 73562 | |
| * * * * * | | | | |
| Subchapter H – Administrative Provisions | | | | |
| Division 1 – Compliance Schedules | | | | |
| * * * * * | | | | |
| Section 117.9320 | Compliance Schedule for Cement Kilns. | 5/30/2007 | [Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins] | |
| Section 117.9340 | Compliance Schedule for East Texas Combustion. | 5/30/2007 | 12/3/2008, 73 FR 73562 | |
| Section 117.9500 | Compliance Schedule for Nitric Acid and Adipic Acid Manufacturing Sources. | 5/30/2007 | 12/3/2008, 73 FR 73562 | |
| Division 2 – Compliance Flexibility | | | | |
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