

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Commissioners **Date:** May 2, 2008

Thru: LaDonna Castañuela, Chief Clerk
Glenn Shankle, Executive Director

From: David C. Schanbacher, P.E., Chief Engineer
Chief Engineer's Office

Docket No.: 2008-0334-RUL

Subject: Commission Approval for Proposed Rulemaking and SIP Revision
Chapter 101, General Air Quality Rules
Senate Bill 1672 Federal Clean Air Interstate Rule Revision
Rule Project No. 2007-053-101-EN

Reasons for the rule package:

To meet the requirements established by the United States Environmental Protection Agency (EPA) for the Clean Air Interstate Rule (CAIR) Phase II (2015 and thereafter) nitrogen oxides (NO_x) allocation submittal, Texas must submit a CAIR State Implementation Plan (SIP) revision to the EPA by early 2009. This will allow the EPA adequate time to review and approve the CAIR Phase II for Texas to use the NO_x allocation methodology specified in Senate Bill (SB) 1672, 80th Texas Legislature, Regular Session. In addition to the allocation issues relating to CAIR, the EPA has also revised the federal CAIR program five times since Texas adopted its initial CAIR SIP revision on July 12, 2006.

For Texas to submit an approvable CAIR SIP revision, the state and federal requirements need to be consistent with each other. If Texas does not submit a CAIR SIP revision that incorporates the federal revisions, the EPA would require Texas to use the EPA's model CAIR rule NO_x allocation methodology. The model CAIR rule's NO_x allocation methodology is substantially different than the methodology prescribed in SB 1672. Texas' NO_x allocation methodology for Phase I was approved by the EPA on July 30, 2007 (*72 Federal Register* 145).

In 2007, the 80th Texas Legislature passed SB 1672, allowing the TCEQ to incorporate revisions to the federal CAIR that the EPA finalized since the initial adoption of the CAIR SIP revision on July 12, 2006, as well as revisions to the NO_x allocation methodology. SB 1672 contains provisions relating to correcting the number of minimum periods specified for NO_x allocation adjustments that were directed by House Bill (HB) 2481 from the 79th Texas Legislature, Regular Session. HB 2481 revised the baseline of existing units by reviewing heat-input data every five years by using the three highest year's heat input data from the previous seven years. However, the seven year period did not provide adequate time to accommodate the EPA's requirement of providing allocations to them approximately four years in advance of the applicable control period. Therefore, the number of control periods was changed from seven to nine in SB 1672 and the allocation update was shifted from 2016 to 2018.

SB 1672 also omits the reference dates of the federal CAIR that were specified in HB 2481. This change will enable the commission to make subsequent changes as dictated by federal rule change for CAIR.

Re: Docket No. 2008-0334-RUL

- **Under what authority are we proposing these changes?**

Texas Water Code,

- §5.103, Rules; and
- §5.105, General Policy.

Texas Health and Safety Code,

- §382.002, Policy and Purpose;
- §382.011, General Powers and Duties;
- §382.012, State Air Control Plan;
- §382.014, Emission Inventory;
- §382.016, Monitoring Requirements; and
- §382.017, Rules;
- Act of May 10, 2007, 80th Legislature, 2007, SB 1672, §1 to be codified at §382.0173, Adoption of Rules Regarding Certain SIP Requirements and Standards of Performance for Certain Sources; and
- §382.054, Federal Operating Permit.

- **Is this rulemaking required by federal rule or state statute? Which ones?**

Yes - This rulemaking is required by both federal rule and state statute. The proposed rules would implement the CAIR trading program to meet the requirements of Federal Clean Air Act, §111. In addition, the proposed rulemaking implements the requirements of Texas Health and Safety Code, §382.0173, enacted under SB 1672 of the 80th Legislature, 2007.

- **Are there any legal deadlines by which these rules must be proposed, adopted, or effective?**

To meet the requirements established by the EPA for CAIR Phase II NO_x allocation submittal, Texas must submit a CAIR SIP revision to the EPA by early 2009. This will allow the EPA adequate time to review and approve the CAIR Phase II so that Texas may use the NO_x allocation methodology specified in SB 1672. The Phase II NO_x allocations must be submitted to the EPA by October 31, 2011.

- **What issue(s) or problem(s) are we trying to solve?**

The CAIR rule revision will incorporate federal rule changes and state statute changes that will allow Phase II of the CAIR program for Texas to be approved by the EPA

- **Why is it important that we do this rule package?**

It is important for Texas to have an approved CAIR SIP revision because this will allow the TCEQ to allocate CAIR NO_x allowance to EGUs for CAIR Phase II (2015 through thereafter), as directed by the Texas Health and Safety Code 382.0173.

- **Other important background or historical information.**

Texas' NO_x allocation methodology for Phase I was approved by the EPA on July 30, 2007 (72 FR 145).

Re: Docket No. 2008-0334-RUL

Scope of the rulemaking:

The rulemaking incorporates federal changes to CAIR and fulfills the requirements of SB 1672 by revising the minimum number of years from seven to nine to select the average of the three highest years from the first five control periods. The proposed revisions would also shift the initial baseline adjustment from the 2016 to 2018 control period. The proposed rules also removes the reference dates of the federal CAIR that were specified in the HB 2481, to allow the commission to make subsequent changes as directed by federal rule change for CAIR

- **Changes required by federal rule:**

- **Federal Implementation Plans (FIPs) for the Clean Air Interstate Rule: Automatic Withdrawal Provisions – 40 CFR Part 52 – Direct Final Rule
November 2, 2007 Federal Register**

The EPA took a direct final action to amend the FIPs for CAIR to provide for an automatic withdrawal of CAIR FIPs in a state upon the effective date of the EPA's approval of a full SIP revision meeting the CAIR requirements. All CAIR states are required to revise their SIPs to include control measures to reduce the emission of NO_x and/or SO₂. In this FIP rulemaking, the EPA stated it would withdraw the FIPs in a state in coordination with the full approval of the state's CAIR SIP. In this action, the EPA makes the FIP withdrawal for the state automatic upon approval of the full CAIR SIP revision. Note that the EPA has said that it will give partial approval if the SIP is approved after the EPA makes allowances under the FIP for the year; the SIP approval would be fully valid for the next year. The EPA believes that this will correct the deficiency that provided the basis for the EPA's promulgation of the FIPs. The direct final rule was effective on January 16, 2008.

- **Revisions to Definition of Cogeneration Unit (CAIR); CAIR Federal Implementation Plans; Clean Air Mercury Rule (CAMR); and Technical Corrections to CAIR, CAIR FIPs, CAMR, and the Acid Rain Program Rules – 40 CFR Parts 51, 60, 72, 78, 96, and 97**

October 19, 2007 Federal Register

The CAIR, CAIR FIP, and CAMR rule each include an exemption for cogeneration units that meet certain criteria. In light of information concerning biomass-fired cogeneration units that may not qualify for the exemption due to their particular combination of fuel and technical design characteristics, the EPA changed the cogeneration unit definition in CAIR, the CAIR model cap and trade rules, the CAIR FIPs, CAMR, and the CAMR model cap and trade rule. Specifically, the EPA revised the calculation methodology for the efficiency standard in the cogeneration unit to exclude energy input from biomass making it more likely for units co-firing biomass to be able to meet the efficiency standard and qualify for an exemption. Because the EPA predicts that this change will only affect a small number of relatively low emitting units, the revision will have little effect on the projected emissions reductions and the environmental benefits of these rules. This action also clarifies the term "total energy input" used in the efficiency calculation and makes minor technical corrections to CAIR, the CAIR FIPs, CAMR, and the Acid Rain Program rules. This rule revision was effective on November 19, 2007.

(An opinion was issued February 8, 2008, by the United States Court of Appeals, District of Columbia to vacate CAMR. Therefore, CAMR will be the subject of this rulemaking.)

Re: Docket No. 2008-0334-RUL

- **Clean Air Interstate Rule (CAIR) and CAIR Federal Implementation Plans; Corrections – 40 CFR Parts 51 and 97 Federal Register October 1, 2007**

The EPA made minor corrections to the CAIR to restore a phrase of regulatory text related to state annual emissions reporting requirements that was inadvertently deleted when the rule was amended in 2006. This rule also corrects typographical errors in the spellings of three states in the CAIR regulatory text and corrects a typographical error in a section citation in the CAIR FIP regulatory text. This rule revision was effective on October 1, 2007.

- **Clean Air Interstate Rule (CAIR) and Federal Implementation Plans for CAIR; Corrections – 40 CFR Parts 51, 96, and 97 Federal Register December 13, 2006**

The EPA made minor corrections to the CAIR and the FIPs for CAIR to clarify text that may potentially be misleading. This rule does not change any of CAIR or CAIR FIPs rule requirements or substantively change the rules in any way. This rule revision was effective on December 13, 2006.

- **Rulemaking on Section 126 Petition From North Carolina to Reduce Interstate Transport of Fine Particulate Matter and Ozone; Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone; Revisions to the Clean Air Interstate Rule; Revisions to the Acid Rain Program – CFR Parts 51, 52, 72, 73, 74, 78, 96, and 97 Federal Register April 28, 2006**

The EPA took action to address the interstate transport of emissions of NO_x and SO₂ that contribute significantly to nonattainment and maintenance problems with respect to the National Ambient Air Quality Standards (NAAQS) for PM_{2.5} and eight-hour ozone. As one part of this action, the EPA provided its final response to a petition submitted to the EPA by the State of North Carolina under Section 126 of the FCAA. The petitioner requested that the EPA find that SO₂ and/or NO_x emissions from EGUs in 13 states were significantly contributing to PM_{2.5} and/or eight-hour ozone nonattainment and maintenance problems in North Carolina and requested that the EPA establish control requirements to prohibit such significant contribution. The EPA denied the petition because, in this action, the EPA promulgated FIPs for all jurisdictions covered by the CAIR to address interstate transport.

The FIPs will regulate EGUs in the affected states and achieve the emissions reductions requirements established by the CAIR states that do not have approved SIPs to achieve the reductions. As the control requirements for the FIPs, the EPA adopted the model trading rules that the EPA provided in CAIR as a control option for states, with minor changes to account for federal rather than state implementation.

This action also revised the CAIR SIP model trading rules in order to address the interaction between the EPA-administered CAIR FIP trading programs being promulgated and the EPA-administered CAIR state trading programs that will be created by any state that elects to submit a SIP establishing such a trading program to meet the requirements of the CAIR. In addition, the EPA took final action on its reconsideration of the definition of “EGU” as it relates to solid waste incinerators.

This action also made revisions to the Acid Rain Program in order to make the administrative appeals procedures, which currently apply to final determinations by the

Re: Docket No. 2008-0334-RUL

Administrator under the EPA-administered CAIR state trading programs, also apply to the EPA-administered CAIR state trading programs, and also apply to the EPA-administered trading program under the FIP action. In addition, the EPA made certain minor revisions to the Acid Rain Program that will apply to all affected units.

The definition of CAIR EGU applicability has also been revised. CAIR applies to any EGU that is a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of November 15, 1990, or the startup of the unit's combustion chamber, a generator with nameplate capacity of more than 25 megawatt electrical (MWe) producing electricity for sale. For a unit that qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continues to qualify as a cogeneration unit, a cogeneration unit is a CAIR unit that serves at any time a generator with nameplate capacity of more than 25 MWe and supplies in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 megawatt hour (MWh), whichever is greater, to any utility power distribution system for sale. If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity but subsequently no longer qualifies as a cogeneration unit, the unit shall be subject to CAIR starting on the day the unit first no longer qualifies as a cogeneration unit. This action became effective on June 27, 2006.

- **Changes required by state statute:**
 - revise the baseline for determining CAIR NO_x allocations from seven to nine years as required by SB 1672
 - shift the initial control period to adjust baseline heat input from 2016 to 2018
- **Staff recommendations that are not expressly required by federal rule or state statute:**
 - for the 2016 and 2017 control periods, new units with five or more years of operation will move from new to existing and receive allowances from the existing allocation pool
 - beginning in the 2018 control period and for the control period every five years thereafter new units with five or more consecutive years of operation will receive allowances from the existing allocation pool

Impact on the regulated community:

- **Who will be affected?**

Electric utilities including investor-owned utilities, municipally owned utilities, independent power producers, electric cooperatives, and river authorities
- **Does it create a group of affected persons who were not affected previously? How?**

No
- **Will there be a fiscal impact? If so, estimate.**

No

Re: Docket No. 2008-0334-RUL

Impact on the public:

- **Who will be affected?**

The public would realize public health and environmental benefits based on the reductions in NO_x and SO₂ emissions. However, the public may experience increased electricity prices due to retail electric providers passing along incurred compliance costs. The EPA estimates retail electricity prices to increase 0.06 \$/kilowatt hour (kWh) in Texas by the year 2015 due to CAIR.

- **Does it create a group of affected persons who were not affected previously? How?**

No

- **Will there be a fiscal impact? If so, estimate.**

No

Impact on agency programs:

The proposed rules would primarily impact the Chief Engineer's Office; the Office of Permitting, Remediation, and Registration; the Office of Compliance and Enforcement; and the Office of Legal Services.

Stakeholder meetings:

- **Have any stakeholder meetings been held?** No
- **With whom?** N/A
- **What were the general sentiments?** N/A
- **Were any changes made in response to stakeholder concerns?** N/A

Policy issues:

- **What policy issues are affected?**

New units with five or more consecutive operating years will move from new to existing in 2016, 2017, and every five years thereafter beginning in 2018.

- **Are any policies that are not currently based on rule being made into a rule?**

Because of the legislative change in SB 1672, new units in the years 2016 and 2017 with five or more consecutive years of operation will roll into the existing allocation pool. This is consistent with how new units are handled for the 2015 control period under the federal CAIR program. However, beginning in 2018 each existing unit's baseline heat input will be revised based on the average of the highest three years from control periods one through five of the preceding nine control periods. In accordance with SB 1672, this baseline readjustment will happen every five years. During this five-year baseline readjustment, new units with five or more years of operation will be moved from a new

Re: Docket No. 2008-0334-RUL

unit to an existing unit. Therefore, the number of NO_x allowances would not fluctuate and would remain consistent for five years.

- **What are the consequences if this rulemaking is not approved to go forward?**

Texas will not have an approvable CAIR SIP for Phase II that begins in 2015 and therefore will not be able to allocate CAIR NO_x allowances as directed by SB 1672. The commission would also be out of compliance with the requirements of SB 1672.

- **Are there alternatives?** No

Potentially controversial matters:

The TCEQ was directed by HB 2481 to take all reasonable and appropriate steps to exclude the West Texas Region and El Paso Region from CAIR. The TCEQ submitted a Petition for Reconsideration to the EPA on July 11, 2005, requesting the exclusion of the West Texas Region and El Paso Region from CAIR. The EPA denied the TCEQ's Petition for Reconsideration on March 15, 2006. Entergy Corporation filed a Petition for Reconsideration to challenge how the EPA allocated NO_x and SO₂ allowances to states on the basis that Texas, Louisiana, and Mississippi did not receive a fair allocation. The City of Amarillo, El Paso Electric Company, Occidental Permian Ltd., and Southwestern Public Service Company dba Xcel Energy also filed a Petition for Reconsideration primarily regarding the exclusion of West Texas. Their petition was also denied on March 15, 2006; however, they chose to appeal to the United States District Court in Washington D.C. To date the court has not made a decision. There are also additional pending court challenges that could impact the finality of CAIR.

Key points in proposed rulemaking schedule:

- **Anticipated proposal date:** May 21, 2008
- **Anticipated *Texas Register* publication date:** June 6, 2008
- **Public hearing date (if any):** June 30, 2008, Fort Worth; July 1, 2008, Austin; and July 2, 2008, Houston
- **Public comment period:** May 27 – July 3, 2008
- **Anticipated adoption date:** October 2008

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Attachments

Commissioners

Page 8

May 2, 2008

Re: Docket No. 2008-0334-RUL

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