

**Northeast Texas Area Early Action Compact
Ozone State Implementation Plan Revision
Rule Log Number 2004-077-SIP-NR**

Early Action Compact SIP for Northeast Texas: Response to Comments

The commission received comments from the following entities: Northeast Texas Air Care (NETAC), WECAN, United States Environmental Protection Agency (EPA), and 2 individuals.

General

EPA expressed their appreciation for the TCEQ ensuring that the EAC SIPs and rules did not adversely affect the states nonattainment areas and their hope that this would continue.

The commission appreciates the commentors' support and concurs that it will continue to ensure that its SIPs and rules for nonattainment and EAC areas in Texas are complementary.

EPA suggested that the TCEQ and local areas may wish to track future regulation changes in surrounding areas to assess their impact on the EAC areas and ensure continued progress toward attainment.

The Protocol for Early Action Compacts, requires implementing “a continuing planning process that includes modeling updates and modeling assumption verification.” As part of this process the commission will evaluate future regulation changes in surrounding areas.

Northeast Texas SIP

NETAC expressed their support and appreciation of the EAC concept and the TCEQ's cooperation with areas in its implementation.

The commission appreciates the support for the EAC concept, and reaffirms its commitment to the EAC process and principles. The commission also looks forward to continued cooperation to achieve and maintain air quality in Northeast Texas.

EPA stated that further information is needed in the areas documenting how 1999 emissions for areas outside the local (Austin/San Antonio/NETAC) areas were adjusted to get 2007 emissions. For the NETAC modeling, some of the areas outside of the NETAC area appear to have utilized an EI from EPA Nonroad modeling that is actually a grown EI from the 1996 NEI. For all three areas, the area of the write-up dealing with what control levels were modeled in the Houston/Galveston/Brazoria Area (HGB) in 2007 needs to be better documented and the additional write-up should address if any adjusted inventories are being used in either the basecase or future case modeling.

The EAC areas developed their own base case and growth emissions files for its own local area, and shared those files with other areas. The commission provided 4-km, 12-km and 36-km emissions files for base case and future growth for areas outside of the EAC areas. The commenter is correct in that area source and nonroad mobile source emissions for areas

outside of NETAC and Texas were based on EPA's Heavy Duty Diesel rule modeling. A comparison of emissions for other states for 1999, 2002, and 2007 may be found in Tables 3-8, 3-17, and 3-26 of Appendix I. A comparison of the 2007 inventory to the 1999 inventory may be found in Table 7-8 of Appendix I. The emissions files outside of the EAC areas were the same as the emissions files being used for the HGB MCR at the time the EACs were developed.

Highly reactive VOC emissions for the Houston area were not adjusted. A sensitivity study based upon ozone modeling conducted to evaluate the impact of Houston emissions upon the Austin and San Antonio areas has shown little impact. Based upon that study no adjustments to Houston VOC emissions were made in either the base case or future case modeling.

EPA requested permits issued to two chemical plants, Eastman Chemical Company, Texas Operations and Huntsman Chemical, that will implement enforceable Leak Detection and Repair (LDAR) measures through permit requirements be included as part of the SIP documentation.

The TCEQ disagrees. Permits can be modified over time and including such a document in the SIP could require a complete SIP revision due to a minor wording change in a permit. The subject permits are on file at the TCEQ and are available to the public. The TCEQ permitting program itself is part of the SIP making these permits federally enforceable.

EPA requested some, but not all of the 1-hour ozone metrics and graphical analyses recommended in the 1991 UAM modeling guidance be included. They suggested it include 1-hour ozone statistics; scatter plots, and quantile-quantile plots for 1-hour ozone values for each monitor individually and for all the monitors in the NETAC area. Information on model performance for the monitors in the 4 km grid and 12 km grid should also be provided. EPA also requested movie animations (both 1-hour and 8-hour ozone) of the basecase and future case with controls.

EPA requested some, but not all of the analyses outlined in items numbered 1-5 starting on the bottom half of page 131 and ending at the top of page 132 of the DRAFT 1998 8-Hour Ozone Modeling Guidance Document be included in the SIP. These analyses should include bias calculations for each monitor, fractional bias calculations for each monitor, scatter plots for each monitor, and quantile-quantile plots of observed and predicted 8-hour daily maxima and fractional bias using (a) all data pairs, (b) spatially paired mean 8-hour daily maxima, and (c) temporally paired spatially averaged 8-hour daily maxima.

The commission will provide EPA additional information regarding performance characteristics of the modeling episode. The commission believes that the suite of performance measures chosen by the TCEQ and EAC areas reflect a body of evidence that satisfactorily demonstrates model performance. The commission is concerned that some performance measures suggested by the U.S. EPA may be inappropriate or of limited utility. Without sufficiently large monitoring networks, some of the statistical metrics recommended in the *draft* EPA modeling

guidance may suffer from problems such as bias or overly large variances. These tests also raise the possibility that modeling could produce apparently acceptable performance, but in reality the modeling might be producing the "right answer for the wrong reason." The commission believes that this issue could be of particular relevance for the Texas EAC areas which possess small numbers of monitors.

Additionally, EPA *draft* guidance is based on eight hour averaged ozone estimates. While this is consistent with the time period for the ozone NAAQS, eight hour averages smooth data and mask a number of critical performance issues (that would be apparent using one hour ozone averages) such as:

- location and timing of ozone peaks;
- the impact of source alignment;
- the impact of changes in wind direction;
- the influence of transport; and
- the background contribution to total ozone.

The commission hopes that the EPA's finalized modeling guidance will reflect the following characteristics:

- a limited number of practical tests;
- tests for which the purpose and expected outcome are clearly stated;
- tests which are relevant for areas with limited monitoring networks; and
- tests that examine location and timing of ozone peaks, source alignment, changes in wind direction, and the influence of transport and background ozone.

The TCEQ believes that these goals can be met by using a balanced mix of one hour performance metrics and focused, practical eight hour metrics.

EPA further requested tables including the modeled ozone levels be provided for the values for each day and each monitor for the data utilized in the calculation of RRFs. It might be helpful to include additional information for each monitor and each day for the time period that the maximum 8-hour occurs, the minimum, maximum, median, and mean 8-hour ozone of each array.

The TCEQ is not aware of any issue that would be resolved by additional metrics, such as time period of maximum 8-hour ozone occurrence, minimum, maximum, median, and mean ozone. Indeed, such additional information is not listed or discussed in the draft guidance. Without identifying a problem area or focus for the analysis, the commission does not believe there would be any added value in these additional statistical measures.

WECAN questioned the validity of the emissions inventory used for the Early Action Compact due to newspaper stories concerning local industries' fraudulent reporting. An individual requested an update on an investigation of allegations against American Power Company and Southwestern Electric Power Company for alleged violations of the Clean Air Act. Another individual expressed concern about accusations concerning the Knox Lee Power Plant burning industrial waste instead of approved fuel oil.

The commission is confident in the quality assurance process for the emissions inventory information submitted by companies in compliance with 30 TAC 101.10. The emissions inventory requirement is a self reporting requirement. The regulated entity's "responsible official" is primarily responsible to assure and then certify that the reported values accurately and completely account for all emissions at their site. The TCEQ reviews this company-submitted information and attempts to ensure completeness by cross checking that information with information held by other elements of the TCEQ air program. If a company fails to include emissions or sources of emissions, and the TCEQ quality assurance process does not recognize the omission, then the emission inventory will be incomplete. A failure to accurately and completely report emissions subjects the responsible official to enforcement actions. The incomplete emission inventory could result in additional control requirements for all all sources in the airshed.

There is an active case against American Power Company and Southwestern Electric Power Company. The case is still in the development stage. At this time, the recommendation is to pursue an administrative order against the company for alleged violations documented by the TCEQ during investigations conducted at the Welsh, H. W. Pirkey and Knox Lee Power Plants on May 25, July 22, and August 5, 2004, respectively. Because there is an active case under development, all the details concerning the case cannot be released. However, Notices of Enforcement were issued to the Welsh Power Plant on July 19, 2004, to the Knox Lee Plant on August 13, 2004, and the H.W. Pirkey Power Plant on August 30, 2004.