## BEFORE THE ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION

IN THE MATTER OF AMENDMENTS TO )	
REGULATION NO. 19, REGULATIONS OF THE )	
ARKANSAS PLAN OF IMPLEMENTATION )	
FOR AIR POLLUTION CONTROL )	DOCKET NO. 06-012-R

## RESPONSIVE SUMMARY FOR REGULATION NO. 19, REGULATIONS OF THE ARKANSAS PLAN OF IMPLEMENTATION FOR AIR POLLUTION CONTROL

Pursuant to A.C.A. § 8-4-202(d)(4)(C) and Regulation No. 8, Section 3.6.2(2), a responsive summary groups public comments into similar categories and explains why the Arkansas Pollution Control and Ecology Commission ("Commission") accepts or rejects the rationale for each category.

On October 27, 2006, the Arkansas Department of Environmental Quality (ADEQ) filed a Petition to Initiate Rulemaking to Amend Regulation No. 19, Regulations of the Arkansas Plan of Implementation for Air Pollution Control. Commissioner Bekki White conducted a public hearing on December 5, 2006. The following are comments and ADEQ responses.

Prepared by:

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y. West for

## REGULATION NO. 19 RESPONSIVENESS SUMMARY (June 22, 2007)

Comment 1 – Change section 19.1401 to incorporate by reference only 40 CFR Part 96, Subparts AAAA-HHHH. This change should also incorporate by reference the December 13, 2006, EPA changes to the CAIR NO<sub>x</sub> Ozone Season program.

**Response 1** – Accepted and changed as suggested.

Comment 2 – Commenter believes amending the first sentence of this section 19.1402 as follows improves the clarity of the provisions: "The Arkansas State trading budgets for annual allocations for CAIR  $NO_x$  Ozone Season allowances have been set by EPA as follows: for the control periods of 2009 through 2014, 11,515 tons per control period; and for the control periods for 2015 and beyond, 9,596 tons per control period." In the second sentence, commenter also recommends replacing the words "allocations issued" with the words "allowances allocated."

Response 2 – Accepted and changed as suggested

Comment 3 – Commenter believes that the timing provisions for determination and notification of the Administrator of the allowance allocations are inconsistent with the allocation procedures in Section 19.1404 and should be revised. The timing provisions in Section 19.1403 need to reflect the fact that a unit commencing operation on or after January 1, 2001, will eventually have its allocations calculated at the same time as units commencing operation before January 1, 2001, and should have the same allocation determination deadline as those units.

<u>Response 3</u> – This comment was addressed by removing the references to units that began operation on or after January 1, 2001, leaving only references to units with 5 years or less of data to establish a baseline.

Comment 4 — The commenter believes that section 19.1404 will be clearer if the introductory sentence "The baseline gross generation...for each  $NO_x$  Ozone Season will be:" is moved to the beginning of paragraph (A). The commenter also notes that this sentence uses the term "baseline gross generation", but paragraphs (B) and (C) use the term "baseline generation". The commenter suggests that whichever term Arkansas prefers should be used consistently in these provisions.

**Response 4** – Accepted and changed as suggested using "baseline gross generation".

<u>Comment 5</u> — Commenter believes that the allocation methodology, specifically the baseline gross electric generation as described in Section 19.1404(A), will not work as currently written because the period of time upon which allocations are based

overlaps the date by which such allocations must be received by EPA. Since the baseline generation window overlaps the required EPA allocation submittal deadline, Arkansas will not be able to submit allocations using the average of the three highest amounts of the unit's control period gross electrical output over the five years currently designated in these provisions.

One alternate approach to consider is to define baseline gross electric generation as the average of the three highest amounts of the unit's control period gross electrical output over the five consecutive years immediately preceding the year in which allocations are due to EPA. Using this approach, the 2012 allocations that are due to EPA in 2008 would be based on the generation window from 2003-2007; the 2013 allocations that are due to EPA in 2009 would be based on the generation window from 2004-2008; and future control periods would follow the same pattern. Note that using this approach would reduce the number of units that would be eligible for an allowance allocation under Section 19.1404(B), and increase both the number of units that would need to subscribe to the new unit set-aside under Section 19.1404(D) and the length of time they would subscribe. If Arkansas wants to use the 2000-2004 generation window for 2009-2011 allocations, the commenter recommends that the last sentence in Section 19.1404(B) be moved to Section 19.1404(A) since both address baselines for allowance allocations.

Finally, the last sentence of this paragraph refers to "total control period output" as a means of apportioning electric output of a generator. It is unclear what this phrase means and when such apportionment is to be done. The commenter notes that heat input is often used to apportion gross electric generation where more than one unit serves a single generator. If Arkansas decides to use heat input to apportion gross electric generation, this sentence should be modified to read "... provided that gross electrical output of a generator served by two or more units will be attributed to each unit in proportion to each unit's share of total control period heat input of such units for the year."

**Response 5** – Accepted and changed as suggested.

 $\underline{\text{Comment 6}}$  – All units without baseline generation obtain their allocations under Section 19.1404(D). The phrase "that commenced operation on or after January 1, 2001, and" is unnecessary and the commenter suggests that removal of the phrase would clarify this section.

<u>Response 6</u> – Mostly accepted and changed as suggested. ADEQ left the word "that" in the regulation for proper sentence structure and clarity.

 $\frac{Comment \ 7}{19.1404(D)(3)} \ be \ revised \ to \ use \ the \ term \ ''control \ period'' \ instead \ of \ ''calendar \ year''.$  Additionally in this same subsection, we recommend that the term \ ''exceed'' \ be changed to \ ''exceeding''.

**Response 7** – Accepted and changed as suggested.

Comment 8 – The cross-references in paragraph 19.1404(D)(4)(c) appear to be inconsistent with the rest of Section 19.1404. We recommend that Section 19.1404(D)(4)(c) be revised as follows: "If the amount of CAIR NO $_x$  Ozone Season allowances in the new unit set-aside for the control period is greater than or equal to the sum under paragraph (D)(4)(b) of this section, then the Department will allocate the amount of CAIR NO $_x$  Ozone Season allowances requested (as adjusted under paragraph (D)(4)(a) of this section) to each CAIR NO $_x$  Ozone Season unit covered by paragraph (D)(4)(a) of this section."

**Response 8** – Accepted and changed as suggested.

Comment 9 – Commenters expressed both support and opposition to using gross electric output on which to base allocations. Supporters said this approach encourages the continued improvement of heat rate and recognizes that a large proportion of an electric generating unit's auxiliary power requirement is for pollution control equipment. "The allocation of NO<sub>x</sub> allowances based on electric power output is a crucial and positive aspect of ADEO's proposed rules..." "The proposed rules properly support those facilities that have chosen to invest in new and efficient generating technology without guarantees of financial support by captive ratepayers, and ADEQ should resist efforts to weaken the positive impact of the proposed output-basis for allocations in favor of input-based mechanisms that reward continued inefficient use of fuel in power generation." Another commenter stated that allocating allowances based on electric output as opposed to the EPA model rule is not good for the majority of the state's ratepayers" Additionally, EPA's model rule promotes economic development in Arkansas. Further, "allocations made based on gross electric generation do not recognize the higher costs that coal-fired units will face in controlling NO<sub>x</sub> emissions. Furthermore it will encourage the continued operation of older, less efficient natural gas-fired units."

**Response 9** – Basing allocations on gross electric output, we believe, encourages energy efficiency at the electric generator level. The commenter objecting to electric output based allocations did not provide evidence to support the statement that the proposed rule will increase the amount ratepayers will have to pay for electricity. ADEQ believes that by allocating allowances based on electric output, facilities and units will be encouraged to operate efficiently. As newer plants come on-line, they are already required to invest in the best available emissions control technology. These costs are calculated in with the total price of a new plant. The proposed rule would not put undue financial hardship on these facilities. Under CAIR, facilities may choose to purchase and use such equipment or they may purchase allowances from other CAIR facilities. Those plants with NO<sub>x</sub> emissions that exceed their allocated allowances would need to purchase more credits or reduce emissions to be in compliance regardless of fuel type. ADEQ does not believe that the proposed allocation mechanism will encourage older natural gas-fired units to operate inefficiently or create more NO<sub>x</sub> emissions. Allocating allowances based on gross electric output would give an incentive to facilities to operate in the most fuel efficient manner while accounting for all fuel used. ADEQ believes that the efficient use of natural resources regardless of type is in the economic and environmental best interest for

Arkansans. ADEQ believes the proposed rule will promote efficient use of our natural resources.

**Comment 10** – Commenters expressed varying views on the fuel neutrality of the proposed rule. One commenter asks that the fuel neutrality of allocations be reconsidered. If EPA's model rule fuel weight factors are not used, the commenter requests that an allocation limit be placed on individual EGUs that is equal or lesser of Part 96.342 or the unit's maximum heat input multiplied by the permitted emission rate. Another commenter states that the proposed rule does not consider issues such as coal-fired EGUs will provide the majority of the emission reductions, that coalfired EGUs will correspondingly spend the lion's share of the capital investments needed for pollution control equipment, the future availability of economical energy in Arkansas, the electric reliability considerations associated with prudent fuel diversity as exemplified by the extremely high energy prices for oil and natural gas that resulted from the strong hurricane season of 2005, and the problematic scenarios of homeland security to be considered during times of high oil prices and the possible danger of oil or liquefied natural gas embargos. Another commenter supported the proposed rule as one that represents a forward-thinking CAIR model that promotes clean and efficient power generation through measures such as fuel neutral and output based allocations and allocations that are updated on an annual basis. Further, this commenter stated "Allocations based on fuel type creates an artificial signal that shields the true cost of emission reductions from sources that have the largest proportion of emissions."

Response 10 – ADEQ opted to propose a fuel-neutral approach so that no one fuel type or group of facilities has an advantage over others. The alternative provided by the commenter persists in the use of heat input values and therefore does not wholly base allocations on gross electrical output. The majority of NO<sub>x</sub> emissions reductions will likely come from those facilities with the highest NO<sub>x</sub> emissions so it makes sense that corresponding costs to reduce those emissions would come from those same sources with higher NO<sub>x</sub> emissions. Future availability and reliability of electric service in Arkansas should be minimally impacted by the proposed rule. The required reductions have been mandated by EPA and Arkansas is not proposing to further reduce NO<sub>x</sub> emissions from affected sources. This rulemaking cannot measurably off-set costs or concerns associated with homeland security, hurricanes, or other events. Allocating allowances using a fuel neutral method, allows for an equitable approach for all affected sources. The proposed fuel-neutral approach provides a level playing field by not providing a preference for one type of fuel over another.

Comment 11 – Comments were received expressing support for the proposed 5 year baseline period as well as expressing support for a shorter baseline period. Commenter states that the baseline should be changed so that it is updated every 3 years and the allocation lead time also be reduced to 3 years. If the commenter's recommendation is not adopted, the commenter supports the proposed set-aside process.

Response 11 – ADEQ believes that only 3 years of data may not be sufficient to create an accurate baseline. Further, the average of the best three of five years in the proposed rule allows for a more comprehensive representation of a plant's electric output. It allows for years in which electric demand may be unusually low or high due to climate, maintenance issues and other factors. The U.S. EPA requires that states report allocations four years prior to the control period for which they are to be used. Therefore any proposed rule with a lead time shorter than four years would not be approved by EPA.

Comment 12 – Several positive comments were received on the proposed rule as follows: The proposal to participate in the interstate cap and trade program will enable the Arkansas electric utilities to develop the most cost-effective compliance plans; a commenter supports redistributing unclaimed allowances from the new source set-aside to the "existing" unit allowance pool; and the rule should not be regressively modified in any way which precludes the newest and cleanest sources from receiving allowances on an equal basis as "existing" units under the program. A commenter also supports the proposed rule and recommends that it be adopted without further modification.

**Response 12** – ADEQ staff appreciate and acknowledge these supportive comments.

<u>Comment 13</u> – Commenter recommends a 5% new source set-aside for Phase II (in place of the proposed 3% new source set-aside for Phase II). Regulation changes that accomplish this were provided.

<u>Response 13</u> –Timing changes as a result of another comment will cause new units to draw allocations from the new-source set for a longer period of time. By increasing the new source set-aside for Phase II, we hope to relieve some of the demands on the new source set-aside. Comment is accepted and changed as suggested.

<u>Comment 14</u> – Commenter supports favorable treatment of Combined Heat and Power (CHP) and cogeneration plants based on their efficient use of fuel resources to generate electrical and thermal energy. Regulation changes that accomplish this were provided.

**Response 14** – While ADEQ recognizes that CHP units are very energy efficient, only one such plant exists in the state. Even with an incentive in this rulemaking, we believe the likelihood of additional CHP units being constructed in the state is very low. Consequently, no changes to the proposed rule are based on this comment.