

JAN 10 2001

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF:

PROPOSED NEW 35 Ill. ADM. CODE 217, SUBPART U,	)	R01-17
NOX CONTROL AND TRADING PROGRAM FOR	)	(Rulemaking-Air)
SPECIFIED NOX GENERATING UNITS, SUBPART X,	)	
VOLUNTARY NOX EMISSIONS REDUCTION PROGRAM,	)	
AND AMENDMENTS TO 34 Ill. ADM. CODE 211	)	<i>fc. #6</i>

NOTICE OF FILING

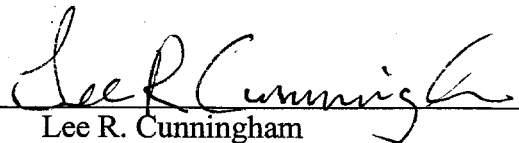
TO: Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph, Suite 11-500  
Chicago, IL 60601

Bobb A. Beauchamp, Esq.  
Hearing Officer  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph, Suite 11-500  
Chicago, IL 60601

SEE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board the COMMENTS OF ARCHER DANIELS MIDLAND COMPANY by ARCHER DANIELS MIDLAND COMPANY, a copy of which is herewith served upon you.

ARCHER DANIELS MIDLAND COMPANY

By:   
Lee R. Cunningham  
Corporate Environmental Counsel

DATED: January 9, 2001

4666 Faries Parkway  
Decatur, IL 62526  
217/424-4883

THIS FILING IS SUBMITTED ON RECYCLED PAPER

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

JAN 10 2001

STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF:

PROPOSED NEW 35 ILL. ADM. CODE )  
217.SUBPART U, NO<sub>x</sub> CONTROL AND )  
TRADING PROGRAM FOR SPECIFIED )  
NO<sub>x</sub> GENERATING UNITS, SUBPARTX )  
VOLUNTARY NO<sub>x</sub> EMISSIONS )  
REDUCTION PROGRAM, AND )  
AMENDMENTS TO 35 ILL. ADM. CODE )  
211 )

R01-17  
(Rulemaking – Air)

COMMENTS OF ARCHER DANIELS MIDLAND COMPANY

Archer Daniels Midland Co. (ADM) hereby submits the following comments for the Board's consideration in the above-captioned proceeding.

ADM is a major grain processing company with a large manufacturing complex in Decatur and a large ethanol plant in Peoria. The existing boilers at the Peoria plant are not large enough to be covered by the proposed NO<sub>x</sub> regulations. However, in the future, ADM may very well wish to add new boilers at this plant that would be affected by the proposed NO<sub>x</sub> regulations.

The Decatur cogeneration plant is a very large one by industrial boiler standards. Currently, ADM operates eight coal fired circulating fluidized bed (CFB) boilers and two natural gas fired boilers at the cogeneration plant. A ninth CFB boiler is due to start up later in 2001. The CFB boilers range in size from 492 mmbtu/hr to 1500 mmbtu/hr. CFB boilers 7, 8 & 9 are all post-1995 units and will receive no allowances under the proposed NO<sub>x</sub> rules except that boiler 9 will be eligible to receive allowances from the New Source Set Aside (NSSA). It should be noted that the NSSA would not provide sufficient allowances to cover CFB boiler 9 even if ADM were to receive the entire set aside and ADM would contribute about one third of the allowances in the NSSA. Further, ADM has a permit to build a tenth CFB boiler and a third gas fired boiler, neither of which would receive allowances other than perhaps through the NSSA.

CFB Boilers 7, 8 & 9 utilize selective non-catalytic reduction (SNCR) for NO<sub>x</sub> control. SNCR is basically the injection of ammonia into the boiler at a location where the temperature, residence time and turbulence are sufficient to cause the reduction of NO<sub>x</sub>. If these three factors are within a suitable range, SNCR can be a very effective control technique. Boilers 7 & 8 have an allowable emission rate of 0.12 lbs/mmbtu and can meet this limit reliably with the use of SNCR which they were designed to utilize. Boilers 1-6 have an allowable NO<sub>x</sub> emission limit of 0.42 lbs/mmbtu, which the boilers meet due to the inherently low NO<sub>x</sub> emitting characteristics of CFB boilers. The two gas fired boilers utilize low-NO<sub>x</sub> burners with flue gas recirculation to meet an allowable emission rate of 0.05 lbs/mmbtu.

In order to meet the limitation of the NOx SIPCALL, ADM would be required to either control boilers 1-6 sufficiently to be able to transfer allowances to boilers 7-9 or procure allowances from trading or other means provided by the rule. In order to comply, ADM plans to retrofit SNCR systems on boilers 1-6 to create allowances to transfer to boilers 7-9.

In negotiations with the Illinois EPA during the rule development, ADM determined that it would be theoretically possible to lower the emissions from boilers 1-6 to the degree necessary to free up sufficient allowances for boilers 7-9. This determination was based on the assumption that SNCR systems on boilers 1-6 would perform similarly to the systems on boilers 7 & 8. However, boilers 1-6 were not designed to accommodate SNCR systems. Therefore, the three critical factors for successful SNCR operation: temperature, residence time and turbulence would not likely be optimized. If the SNCR systems planned for boilers 1-6 did not operate in an optimal fashion, the plant would be unable to operate within its NOx allowances, particularly if boiler 10 were constructed.

In the event of a shortfall of allowances, ADM would be required to procure additional allowances from the trading program, by a direct transfer from another source or by utilization of Subpart X. Thus, it is critical to ADM that there would be sufficient allowances available in the trading program at reasonable prices and that Subpart X would provide a reasonable means by which to control an unaffected unit and create additional allowances to transfer to an affected unit. With the combination of these two key provisions, ADM would be able to resolve any shortfall in SNCR retrofit performance.

However, as it is presently written, Subpart X contains several provisions that render it unworkable as a practical matter. Moreover, the NOx trading market has proven to be very volatile. As these comments are being written, the price of a NOx allowance has reached an all time high of \$1725/ton from a low of \$350/ton. Further, as Illinois' huge number of nuclear units age and are retired, it is reasonable to expect that their generating capacity will largely be replaced by fossil fuel fired units. Thus, there will be more units competing for the same fixed quantity of emission allowances. This pressure will tend to drive allowance prices up even higher. Due to these factors, ADM believes it is critical that all possible flexibility be preserved for affected sources and that the Subpart X provisions be workable as a practical matter. One need only observe the near chaos in California's current energy market to imagine what could happen in Illinois when energy demand continues to increase and supply is unable to keep up.

Specifically, there are four provisions in Subpart X that are cause for concern:

1. The proposal limits Subpart X applicability to units that were permitted to operate prior to 1995 (Section 217.805(c)).
2. The proposal only provides credit for 80% of emissions reduced by a Subpart X unit (Section 217.825).

3. The proposal contains NOx cap provisions which may constrain the equitable use of a facility in the future (Section 217.835(a)(5)).
4. The enforcement provisions of Subpart X are unnecessary and will serve to provide a severe disincentive to the utilization of undemonstrated or experimental control technology and discourage sources from utilizing Subpart X (Section 217.865).

These four areas of concern are addressed below:

First, there is no apparent reason to limit Subpart X to pre 1995 units. During the 12/20/00 hearing, the Agency attempted to justify this exclusion on the basis that it was necessary to preserve the growth allowance. In ADM's case, the growth projection the Agency relied upon predicted negative growth whereas, since 1995, ADM's growth, on a NOx emissions basis, has been almost 33% and if boiler 10 is built, the growth will amount to almost 46%. If the success of the NOx control program is dependent upon the accuracy of the Agency's growth projections and the errors in this case are not offset elsewhere, some adjustments in the regulations may need to be made to the NOx regulations in the future. Subpart X, in its present form, requires 20% of any emission reductions to be retired for the benefit of air quality and imposes emission caps on all similar sources at a Subpart X facility. These two provisions potentially could achieve very significant emission reductions. Hence, it is difficult to understand the rationale for excluding post-1995 sources from Subpart X applicability.

Secondly, Subpart X should allow 100% of the reductions to be creditable. As is, a source will have to pay for the cost of NOx control equipment, the cost of CEM's and would be forced to accept an emission cap on other similar equipment. A low-NOx burner for a gas fired boiler could easily cost as much as \$100,000 installed, a CEM system could approach \$160,000 and the cost of an emission cap would depend upon the facility but could be very sizable. Because of these high costs, it will be very difficult to justify utilizing Subpart X even if 100% reduction credit is awarded.

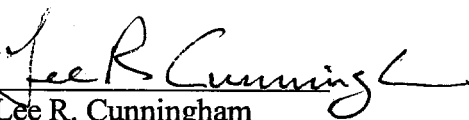
Third, the NOx cap provisions are unnecessary and in most cases, will be prohibitive. At ADM's Peoria plant, for example, there are currently nine operating boilers, six of which are already equipped with low-NOx burners. If ADM wished to control one of the uncontrolled gas fired boilers by adding a low-NOx burner to it, it could potentially receive as much as 30 allowances per ozone season. However, if the other eight boilers were capped at their historical utilization rates, the lost steam capacity could amount to as much as 260,000 lbs/hr or the equivalent of nearly two boilers' output. The Agency is apparently concerned that a Subpart X boiler would be preferentially operated less than an uncontrolled boiler and the desired emission reduction would not be realized. Absent any other considerations, boiler loading is determined by cost. The least cost units would be loaded preferentially. Among gas fired boilers, efficiency is the prime determinant of cost. Hence, an uncontrolled boiler would not necessarily be loaded preferentially to a boiler with NOx controls, making the Agency's concern unjustified. On the other hand,

the steam capacity lost due to a facility cap would, in most instances, make the use of Subpart X prohibitive.

Fourth, Subpart X dictates that the reductions achieved will be credited to the following ozone season's allowances. Thus, any source that failed to achieve the permitted emission reductions would simply be credited with fewer allowances the following season. This is sufficient incentive for a source to achieve its intended reductions. The penalties set forth in Section 217.865 are onerous and would be counterproductive. If, for example, a new control technology were introduced that had not yet been entirely demonstrated, a source might be willing to attempt to install the technology and perfect it. However, the penalties of 217.865 would have to be factored into this decision. First, the amount of reduction to include in the permit would have to be more conservatively estimated which would greatly affect the cost effectiveness of the control, i.e. the dollars per allowance credited. Secondly, it is typical of new technology that it requires some period of time to work the bugs out and optimize the system. Along the way, some malfunctions and outages may be incurred. Such problems will typically result in higher emissions meaning that less emissions credit is being produced. In addition to this, the extra time and effort to deal with a higher than usual number of operational problems raises the costs of operating the system. Many sources will be unwilling to risk capital in the attempt to perfect new technology in the absence of the possibility of further penalties being imposed by the Agency. However, with the additional penalties, it is very likely that the risk will not be worth the potential allowances. This will be counterproductive to the environment in the long run.

ADM hopes the Board finds these comments helpful and appreciates the opportunity to comment on this rulemaking.

Respectfully Submitted  
Archer Daniels Midland Co.

By:   
Lee R. Cunningham  
Corporate Environmental Counsel

RECEIVED  
CLERK'S OFFICE

JAN 10 2001

STATE OF ILLINOIS  
Pollution Control Board

STATE OF ILLINIOS        )  
                                  ) SS  
COUNTY OF MACON        )

PROOF OF SERVICE

I, the undersigned, on oath state that I have served on the date of January 9, 2001, the attached COMMENTS OF ARCHER DANIELS MIDLAND COMPANY by placing it with a courier for overnight delivery to the following persons:

- TO: Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph, Suite 11-500  
Chicago, IL 60601
  
- Bobb A. Beauchamp, Esq.  
Hearing Officer  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph, Suite 11-500  
Chicago, IL 60601

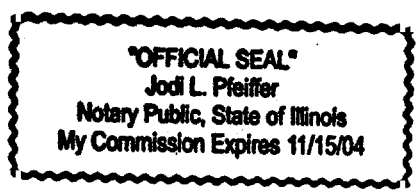
and to the attached Service List via First Class Mail from Decatur, Illinois on January 9, 2001.

SEE ATTACHED SERVICE LIST

*Tom Harton*

SUBSCRIBED AND SWORN TO BEFORE ME

This 9<sup>th</sup> day of January, 2001



*Jodi L. Pfeiffer*  
Notary Public

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