

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	R09-10
AMENDMENTS TO 35 ILL. ADM.)	
CODE 225: CONTROL OF EMISSIONS)	(Rulemaking – Air)
FROM LARGE COMBUSTION SOURCES)	

NOTICE

TO: John Therriault, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St., 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 TESTIMONY OF KEVIN MATTISON, DAVID BLOOMBERG, RORY DAVIS and JIM ROSS and the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S FIRST ERRATA SHEET TO ITS PROPOSAL TO AMEND 35 ILL. ADM. CODE 225 of the Illinois Environmental Protection Agency a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: 
 Charles E. Matoesian
 Assistant Counsel
 Division of Legal Counsel

DATED: December 3, 2008

1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
217.782.5544
217.782.9143 (TDD)

**THIS FILING IS SUBMITTED
ON RECYCLED PAPER**

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
)	R2009 - 010
PROPOSED REVISIONS TO 35 ILL.ADM.)	(Rulemaking – Air)
CODE PART 225, CONTROL OF)	
EMISSIONS FROM LARGE COMBUSTION)	
SOURCES (MERCURY))	

TESTIMONY OF KEVIN J. MATTISON

My name is Kevin Mattison. I am an Environmental Protection Specialist IV for the Illinois Environmental Protection Agency, acting as the source emissions test specialist in the Compliance Section within the Division of Air Pollution Control. I have been at the Agency in this capacity for approximately fifteen years. My academic credentials include a Bachelor of Science degree in ceramic engineering from the University of Illinois at Champaign-Urbana.

I have also completed numerous environmental courses over the years, including USEPA's Air Pollution Training Institute courses on source sampling (also known as emissions testing or stack testing) and continuous emissions monitoring systems (CEMS), visible emission instructor workshop, and courses on specific methodologies such as dioxin/furan and mercury (Mercury Measurement in Combustion Flue Gases Short Course). Additionally, I attended a USEPA sponsored workshop for mercury monitoring, "Mercury Monitoring Training," presented by the Clean Air Market Programs. I have also provided training on air pollution emission testing issues to industry personnel and environmental consultants.

Among my duties, I develop, explain, interpret, and apply technical criteria, policies, and regulations relating to source emissions monitoring and testing; coordinate source monitoring and testing activities with other sections within the Bureau; assist the general public in the application of engineering standards and procedures in the design of source emissions monitoring and testing programs; review and evaluate engineering documents; serve as the primary technical staff expert in the areas of source emissions monitoring and testing; witness source emissions testing and assist those performing such tests; implement and evaluate source emissions monitoring and testing policies and procedures; perform in-depth analysis of complex

source emissions test protocols; determine compatibility with applicable requirements; and conduct Agency smoke school training for the Agency, governmental agencies, industry plant personnel, and the general public.

I am here today to provide testimony and to answer questions that might arise primarily regarding the portions of the Illinois EPA's proposed revisions to the Illinois mercury rule incorporating the previously referenced requirements of 40 CFR Part 75 and the new proposed alternative emissions testing.

Methods for Monitoring Mercury – Feasibility and Reasonableness

The methods for monitoring mercury from EGUs were previously determined by the Illinois Pollution Control Board (“Board”) during the initial mercury rulemaking to be valid, technically feasible, and economically reasonable, and they remain so today. The costs and feasibility of monitoring were researched and considered by USEPA prior to the promulgation of CAMR and found to be both reasonable and feasible.

The vacatur of CAMR on the grounds of USEPA's regulatory approach does not invalidate the technical or economic assessments that were conducted regarding mercury monitoring. However, most of the mercury monitoring requirements referenced in USEPA's Part 75 were part of the CAMR vacatur and thus are no longer valid. Therefore, Illinois EPA is proposing to add Appendix B and the Exhibits to Appendix B to the Illinois mercury rule to incorporate the relevant monitoring requirements that had previously been in USEPA's Part 75. For the most part, the requirements in proposed Appendix B and the Exhibits to Appendix B now being added to the Illinois mercury rule are identical to the requirements of Part 75, with a few exceptions; the main exceptions are the elimination of requirements for a bias adjustment factor and missing data substitution, both of which are addressed in more detail within David Bloomberg's testimony. Otherwise, the intent was to move the previously relied-upon Part 75 requirements of CAMR into the Illinois regulations.

Alternative Emissions Testing

In addition to moving the previous CAMR Part 75 requirements into the Illinois mercury rule, Illinois EPA is also proposing amendments to provide a greater degree of flexibility and potentially lower cost in mercury monitoring, specifically the Periodic Emissions Testing Alternative Requirements.

This alternative, interim plan, which would be in place for three years, requires quarterly emissions testing of sources in lieu of the proposed reconstituted Part 75 monitoring requirements that have been added to the proposed rule. These emissions testing provisions provide sources an alternative method for demonstrating compliance with Illinois mercury emission standards while still ensuring a high level of integrity in regards to compliance verification. While CEMS were required under CAMR, the Illinois EPA believes that with the vacatur of CAMR, it is appropriate to allow this alternative in the early stage of the Illinois mercury rule in order to provide sources with another approach to compliance determination, as some sources have expressed concerns about the use of CEMS.

The Periodic Emissions Testing Alternative Requirements, proposed as amendments at 35 Ill. Adm. Code Section 225.239, can be performed using existing approved USEPA test methods (Ontario Hydro Method and USEPA Method 29, 30A, and 30B) for measuring mercury in an emissions test of a coal-fired EGU, and thus have already been determined to be technically feasible. Affected sources may determine which method of emissions determination will best address their particular situations.

Technical Feasibility of Alternative Testing

The Ontario Hydro Method and EPA Methods 29, 30A, and 30B were approved by USEPA for initial certification and relative accuracy test audits ("RATA") of Part 75 monitoring equipment, and are considered to be accurate methods for the measurement of mercury from coal-fired EGU stacks. Emissions tests are to be conducted while monitoring source operational parameters to ensure that measurements accurately represent mercury emissions for the time interval that the

test will be used to demonstrate compliance. These operational parameters will be submitted to Illinois EPA in a Continuous Parameter Monitoring Plan prior to the test as prescribed in the proposed amendments at 35 Ill. Adm. Code Subsection 225.239(f)(4). The source must then continue to monitor these same parameters and operate the EGU in a manner consistent with the Continuous Parameter Monitoring Plan for the duration of the compliance interval. This will ensure that the source continues to operate consistent with the operational conditions under which compliance was demonstrated, thus providing assurance that the source maintains ongoing compliance.

Alternative testing – USEPA Method 29

USEPA Method 29, "Determination of Metals Emissions from Stationary Sources," is an EPA Method for determining antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), nickel (Ni), phosphorus (P), selenium (Se), silver (Ag), thallium (Tl), and zinc (Zn) emissions from stationary sources. It has been an approved method for measuring metal emissions from stationary sources since 1996, and is codified at 40 CFR Part 60 Appendix A (incorporated by reference in 35 Ill. Adm. Code Section 225.140).

Alternative Testing – USEPA Methods 30A and 30B

USEPA approved two alternative methods for measuring mercury in a stack test of a stationary source, in response to comments to USEPA objecting to the Ontario Hydro Method being used for RATA tests of mercury monitors. These two methods are Method 30A, "Determination of Total Vapor Phase Mercury Emissions from Stationary Sources (Instrumental Analyzer Procedure)," and Method 30B, "Use of Sorbent Traps to Measure Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources." These two methods were approved as alternatives because both the Ontario Hydro Method and Method 29 are wet chemistry methods, and the Ontario Hydro Method is considered to be accurate, but complex. Both methods, 30A and 30B, were approved by the USEPA for the measurement of mercury emissions from stationary sources in 2007, and are codified at 40 CFR Part 60 Appendix A-8 (incorporated by reference in 35 Ill. Adm. Code Section 225.140).

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
) R2009 - 010
PROPOSED REVISIONS TO 35 ILL.ADM.) (Rulemaking – Air)
CODE PART 225, CONTROL OF)
EMISSIONS FROM LARGE COMBUSTION)
SOURCES (MERCURY))

TESTIMONY OF DAVID E. BLOOMBERG

Good afternoon. My name is David E. Bloomberg. I am employed by the Illinois Environmental Protection Agency (Illinois EPA) as the Compliance Unit Manager in the Compliance Section within the Division of Air Pollution Control. I have been at the Agency in this capacity for approximately four and a half years, and was previously an Environmental Protection Engineer in the Air Quality Planning Section for twelve and a half years. My academic credentials include a Bachelor of Science degree in ceramic engineering from the University of Illinois at Champaign-Urbana, as well as completion of all graduate coursework required for a Master's degree in the same field.

I have also completed numerous environmental courses over the years, including the United States Environmental Protection Agency's (USEPA's) Air Pollution Training Institute courses on source sampling (also known as emissions testing or stack testing) and continuous emissions monitoring systems (CEMS). I have also provided training on air pollution compliance issues to industry personnel and environmental consultants.

Among my duties, I supervise the Bureau of Air staff who review emissions tests and CEMS tests, and I sign off on all such reviews before they are finalized. I also supervise the staff reviewing other source documents, such as exceedance, semi-annual, and annual compliance reports. In addition, I participate in decisions regarding enforcement of the Board's air pollution regulations and oversee the process of sending out Violation Notices and related activities.

In my 17 years with the Illinois EPA, I have been involved in designing, writing, implementing, and enforcing a wide variety of air pollution regulations, including those for mercury, NOx trading, the Clean Air Interstate Rule (CAIR), the Emissions Reduction Market System (ERMS), and several industry-specific rules.

I am here today to provide testimony and to answer questions that might arise primarily regarding the portions of the Illinois EPA's proposed rule changes for compliance demonstrations, the Multi-Pollutant Standard (MPS) and Combined Pollutant Standard (CPS), and the elimination of the bias adjustment factor and missing data procedures.

Compliance Demonstrations for CEMS

The Illinois Mercury Rule, like the vacated Clean Air Mercury Rule (CAMR) before it, requires submittal of electronic data to USEPA and the Illinois EPA. USEPA has assured states in general, and the Illinois EPA specifically, that they will provide the support for receipt and quality assurance of that data at a level equal to that which would have been provided under the CAMR. In the unlikely event, however, that USEPA cannot provide that support, USEPA has stated that Illinois and other states will be able to obtain the same support through a vendor utilizing the same software and infrastructure that USEPA plans to use and that was developed in anticipation of CAMR.

All foreseeable efforts have been made by the Illinois EPA in these proposed revisions to ensure that reporting protocols are consistent with those anticipated under CAMR for sources utilizing CEMS monitoring and reporting. However, if unforeseen circumstances cause USEPA and the planned designee to both be unable to receive mercury monitoring data in the proper format, the proposed rule modifications include provisions allowing the Illinois EPA to specify a different format for data reporting, thus giving additional flexibility and reassurance to sources while ensuring that Illinois EPA receives the necessary data.

Compliance Demonstrations for Emissions Testing

Sources opting to demonstrate compliance with Illinois' mercury emissions standards using the Periodic Emissions Testing Alternative Requirements will report emissions test results, parametric monitoring data during the emissions tests, and parametric monitoring data from the reporting period to the Illinois EPA. This data will be used to determine whether the source is complying with the 90% mercury removal standard or the 0.0080 lbs/GWh output-based standard. This proposed optional alternative provides additional flexibility to sources while not modifying the Illinois mercury emission standards during the three-year interval that the alternative is available.

Sources using the emissions testing alternative must operate the EGU and all associated relevant controls in a manner similar to that under which the unit was tested and compliance was demonstrated. To ensure such operations, sources will be required to submit a Continuous Parameter Monitoring Plan with their protocol to describe how they will accomplish this requirement. The proposal also contains recordkeeping and reporting requirements that further ensure proper operations in this regard.

MPS and CPS

Minimal technical changes are being proposed to the MPS and the CPS. Those that are included are focused on adding flexibility consistent with the rest of the rulemaking and are mostly focused on the changes necessary to deal with the vacatur of CAMR.

One such addition is that, for a three-year period, sources complying by use of the MPS or CPS may choose a version of the alternative emissions testing rather than the use of

CEMS. More detailed technical information on such testing is contained in Mr. Mattison's testimony. However, it should be noted that a primary reason for the necessity of emissions testing for MPS and CPS sources if they are not using CEMS is that while they are not required to meet the control or emissions standards of 90% or 0.0080 lb Hg/GWh, there is a need for a method by which the source and the Illinois EPA can ensure that mercury controls are being operating in an optimum manner, as required by the rule, and consistent with the expected control levels. A test showing a low level of mercury control could reveal inadvertent changes at a source that would not otherwise be identified, indicate that the sorbent is not being injecting in the optimum manner, suggest that that an unsatisfactory sorbent is being used, or show that the quality of the sorbent being used has decreased.

In addition to the changes related to the vacatur of CAMR, additional flexibility is also being added for sources in the MPS and CPS. Both the MPS and CPS contain lists of approved sorbents and sorbent manufacturers, along with a method by which sources can demonstrate that another sorbent gets similar or better effectiveness for control of mercury and thus can be approved for use. Two such sorbents have been approved by the Illinois EPA for use at several Illinois sources, and thus the Illinois EPA is taking this opportunity to add them in this rulemaking. The two sorbents are Calgon Carbon's FLUEPAC MC Plus and Calgon Carbon's FLUEPAC CF Plus, the second of which is proposed in the Agency's First Errata Sheet.

It should be noted that for all approved sorbents, sources must follow Section 225.233(c)(2) or 225.294(g), which state, "the EGU must inject halogenated activated carbon in an optimum manner." This is further clarified in the rules as including "The use of an injection system designed for effective absorption of mercury, considering the configuration of the EGU and its ductwork."

As such, injecting in an optimum manner should include consideration of the placement of the injection lance. For example, some sorbents have been shown through testing to get a much higher level of control (around 90%) when injected upstream of the preheater as opposed to downstream of the preheater. In such a situation, injection upstream is clearly "optimum" in comparison to injecting downstream, and absent other data to justify downstream injection, the source would need to inject upstream of the preheater to be in compliance with the regulations.

An objective of injecting the sorbent in an optimum manner is to attempt to obtain mercury control consistent with the mercury rule's standard, or around 90%. Indeed, Jim Staudt, a consultant, provided data and information at the original Illinois Mercury Rulemaking that most mercury control systems at Illinois EGUs injecting at the default sorbent rates listed in the MPS and CPS should be able to obtain at or near 90% control of mercury emissions.

Bias Adjustment Factor

The Illinois EPA is proposing to delete references to the bias adjustment factor (BAF) for mercury monitoring. The BAF was originally promulgated in 40 CFR Part 75, Appendix A, Section 7.6, and was vacated along with CAMR. It was intended to ensure that CEMS did not record mercury readings lower than emissions measured by a reference method. The BAF was intended to account for underestimation of mercury emissions from a CEMS that failed a bias test, resulting in higher reported emissions.

While conservatively reporting higher emissions was necessary when CAMR and its associated federal trading and monitoring regulations were in force, the BAF is unnecessary in the current situation. After considering the situation after the CAMR vacatur, the Illinois EPA did not include the BAF in the new regulatory language that was taken from Part 75, and struck references to the BAF where it might have appeared in the previously-promulgated Illinois Mercury Rule.

Missing Data Procedures

The Illinois EPA is also proposing to delete references to missing data substitution procedures. These procedures are used when monitors are offline to produce a conservative estimate of mercury emissions during that period, and were included to ensure that affected sources would operate their CEMS with the least possible down time in order to generate a complete record of a source's mass mercury emissions. This kind of procedure is frequently a requirement of rules that involve a trading program, and like the BAF, were included in the Illinois Mercury Rule to maintain consistency with CAMR and the relied-upon monitoring provisions therein. However, in the Illinois command and control rule with the CAMR vacatur, such procedures are unnecessary.

As a replacement to the missing data procedures, the Illinois EPA is proposing a monitor availability requirement, similar to that found in other non-trading rules that require CEMS. The 75% uptime requirement proposed has been found to be achievable by USEPA and is comparable to the level of monitor availability for mercury monitoring of new sources required by 40 CFR 60.49Da(p)(4)(i). This requirement was discussed with stakeholders prior to the filing of the Agency's proposal. Furthermore, if a situation should arise where the owner or operator of a source foresees monitor uptime of less than 75% for a quarter, they may make use of the emissions testing alternative for that quarter.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
)	R2009 - 010
PROPOSED REVISIONS TO 35 ILL.ADM.)	(Rulemaking – Air)
CODE PART 225, CONTROL OF)	
EMISSIONS FROM LARGE COMBUSTION)	
SOURCES (MERCURY))	

TESTIMONY OF RORY A. DAVIS

My name is Rory Davis. I am an Environmental Protection Engineer in the Air Quality Planning Section, Air Pollution Control Division of the Illinois Environmental Protection Agency’s (“Illinois EPA” or “Agency”) Bureau of Air. I have been employed by the Agency in the Air Quality Planning Section for over three years. Prior to that, I worked at the Illinois Department of Transportation for four years as an Engineering Technician. I have a Bachelor of Science degree in Computational Physics, as well as a Bachelor of Science degree in Mathematics from Illinois State University. I also have a Masters degree in Engineering from the University of Illinois at Chicago. My graduate studies consisted of an interdisciplinary program involving coursework from the Chemical Engineering and Mechanical Engineering fields with a concentration on Environmental Engineering.

In my current position with the Agency, my duties include providing technical support for regulatory proposals. In regard to the revisions to the Illinois mercury rule proposed at this proceeding, my duties included assisting in drafting revised language for the rule and composing the technical support document. I will be providing testimony regarding the proposed amendments to the rule, specifically the economic reasonableness of the revisions.

Economic Impacts of the Proposed Revisions

Following the vacatur of the federal Clean Air Mercury Rule (“CAMR”), Illinois EPA began efforts to draft amendments to the Illinois mercury rule. The purpose of the revision was to reestablish monitoring provisions from CAMR that were relied upon by Illinois EPA in its initial mercury rule proposal, adopted by the Illinois Pollution Control Board (“Board”) in January of 2007. Other revisions were included in the current amendment proposal to address differences

between the Illinois mercury rule and the vacated CAMR, which are discussed in the testimony of other witnesses. Still other revisions were included in the proposal in order to provide affected sources more flexibility in their monitoring and compliance demonstration strategies. These revisions include the extension of the effective date of monitoring requirements from January 1 to July 1 in 2009, and the inclusion of a stack testing option for compliance demonstration. The economic impact of these revisions should be minimal in most cases, and could possibly have a positive economic impact for some affected sources. The Illinois EPA considers all the proposed revisions to be economically reasonable.

Economic Impact of the Bias Adjustment Factor and Missing Data Procedure Removal

The omission of the Bias Adjustment Factor and the missing data procedures should have no negative economic impact on any source affected by the Illinois mercury rule. David Bloomberg's testimony discusses the technical aspects of these proposed changes. Economically, the omission of these two provisions will not have any impact on affected sources beyond that already contemplated in the adopted Illinois mercury rule.

Economic Impact of the Reconstitution of CAMR Monitoring Provisions

In its efforts to reconstitute the monitoring provisions of CAMR that were relied upon in the Illinois mercury rule, Illinois has proposed amendments to enable sources to continue with the monitoring plans initially formulated for the adopted Illinois mercury rule before the vacatur of CAMR. As discussed in Kevin Mattison's testimony, the proposed amendments were drafted to avoid significant changes in requirements for monitoring, reporting, or recordkeeping for sources that desired to continue in their original monitoring strategy. In addition, the proposed revisions include a change of the effective date of monitoring requirements, from January 1 to July 1 of 2009, to mitigate the effects of uncertainty about the requirements in the interim, or delays in the implementation of monitoring plans that may have occurred. This change will have either no economic impact or a small positive impact for affected sources.

As stated and discussed in the technical support document for the proposed amendments, the adopted Illinois mercury rule and its requirements, including the monitoring provisions that have been reconstituted in the amendments, were considered economically reasonable at the time of

its adoption. Illinois EPA has addressed a number of issues in the proposed amendments in order to avoid any further economic impact beyond the cost to affected sources imposed by the previously adopted rule. Accordingly, the adopted Illinois mercury rule, along with the proposed amendments, remains an economically reasonable measure for the control of mercury emissions from coal-fired electrical generating units.

Economic Impact of the Alternative Stack Testing Provisions

In order to provide an added degree of flexibility in compliance demonstration for affected sources, Illinois EPA has included in the proposed amendments provisions for stack testing in lieu of continuous emissions monitors ("CEMS"). The stack testing provisions, discussed in great technical detail within Kevin Mattison's testimony, are considered to be an alternative and additional option for sources that may find stack testing to be a lower cost option, and as such, the Agency has not performed a detailed cost analysis for stack testing. A figure of approximately \$50,000 per test was given in the technical support document as an estimate for the cost of stack testing; however, it will be left to the individual sources to determine whether it may be a lower cost option based upon their own technical and economic analysis at any specific unit.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
)	R2009 - 010
PROPOSED REVISIONS TO 35 ILL.ADM.)	(Rulemaking – Air)
CODE PART 225, CONTROL OF)	
EMISSIONS FROM LARGE COMBUSTION)	
SOURCES (MERCURY))	

TESTIMONY OF JIM ROSS

Qualifications

My name is Jim Ross and I am here today representing the Illinois Environmental Protection Agency (Illinois EPA) where I am the Division of Air Pollution Control Manager in the Bureau of Air.

I have a Bachelors of Science Degree in Mechanical Engineering from Southern Illinois University at Carbondale. I have completed numerous environmental courses over the years including the study of emissions and controls of each of the criteria air pollutants, many hazardous air pollutants, as well as several courses on the background and implementation of environmental regulations. I have also provided training on air pollution permitting and regulations to Illinois EPA and United States Environmental Protection Agency (USEPA) staff, persons from industry, environmental consulting firms, environmental organizations, and the general public.

In my current position as Division Manager, I supervise a large staff of over 150 engineers, specialists, and administrative support personnel in developing, monitoring, and enforcing State and Federal air pollution control requirements. I am also an Illinois EPA Duty Officer which requires me to be on call 24 hours a day, seven days a week during several periods throughout the year. In this capacity, I am responsible for ensuring Illinois EPA's response to emergency

incidents anywhere in the State, especially those involving hazardous materials, oil spills, natural disasters, and issues of homeland security.

In my 20 years with the Illinois EPA, I have been involved with detailed review of Illinois' industrial processes and their emissions of air pollutants and the measures and controls used to mitigate these emissions. This review has included on-site visits to a wide-variety of processes, including steel mills, large chemical plants, refineries, and coal-fired power plants. I have helped develop and implement several major programs and rules since their inception including the Clean Air Act Permit Program (CAAPP) and Illinois' volatile organic material trading program for the greater Chicago area, i.e., the Emissions Reduction Market System. As Permit Section Manager, I oversaw the permitting of over 6,000 facilities in the State. I was deeply involved in the CAAPP permitting of Illinois' 22 coal-fired power plants, including representing the Illinois EPA at several public hearings on the proposed permits. Furthermore, I have overseen the Illinois EPA's efforts in the development of several rulemaking efforts, including the Illinois mercury rule.

My testimony will provide background information and a broad overview of the revisions being proposed to the Illinois mercury rule. I would like to note that the Illinois EPA performed significant outreach to stakeholders on the proposed revisions, including holding a stakeholder outreach meeting on July 22, 2008 where we presented information on the proposed rule revisions, requested feedback on issues, and held a question and answer session. We also provided interested parties regular mail and e-mail addresses to allow submittal of comments and questions that were answered at the stakeholder meeting. In addition, we repeatedly offered to meet with any stakeholders in smaller groups to discuss the rule and related issues, and in fact held several such meetings.

Introduction

On January 5, 2006, Illinois Governor Rod Blagojevich announced an aggressive proposal to reduce mercury emissions from Illinois' coal-fired power plants by 90 percent beginning mid 2009. After nearly a full year of stakeholder meetings, contested public hearings, rulemaking procedural processes, and lengthy negotiations, the Illinois mercury rule (i.e., 35 Ill. Adm. Code Part 225 Subpart B) was unanimously approved by both the Illinois Pollution Control Board and the Joint Committee on Administrative Rules. The Illinois mercury rule became effective on December 21, 2006. This rule requires coal-fired power plants in Illinois to achieve greater reductions of mercury and achieve these reductions more quickly than that proposed in May 2005 by the USEPA under the federal Clean Air Mercury Rule (CAMR).

On February 8, 2008, the United States Court of Appeals for the District of Columbia Circuit vacated the USEPA CAMR. This court action raised concerns regarding the status of certain federal provisions in 40 CFR Part 75 (Part 75) dealing with the monitoring of mercury emissions. Due to the incorporation of several of these federal mercury monitoring provisions into the Illinois mercury rule and given the current uncertainty surrounding these provisions, the Illinois EPA has determined that a revision to the Illinois mercury rule is appropriate.

Proposed Revisions

The proposed revisions are extremely limited in scope and do not include any revisions to the emission and control standards themselves. The primary focus of the proposed revisions is on the methods used to measure mercury emissions for the demonstration of compliance with the emissions and control requirements. Mercury monitoring via a continuous emissions monitoring system (CEMS) will continue to be an option for measuring mercury emissions. The proposed revisions also add stack testing as an alternative method to monitoring. This will provide sources with flexibility in their methods used to measure mercury emissions for compliance demonstrations. Further proposed amendments to the rule include the addition of two approved sorbents for use in mercury control, reconstituting the provisions of Part 225 Subpart F (i.e., Combined Pollutant Standard) into Part 225 Subpart B, and the replacement of specific citation to the Clean Air Interstate Rule (CAIR) with citation to any trading program. The last revision is needed due to the July 11, 2008 vacatur of CAIR and the uncertainty on what the citation would

be to any future trading program for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) allowances. The Illinois EPA considers these last few amendments as "housekeeping" measures.

Continuous Emissions Monitoring

The Illinois EPA continues to support CEMS for measuring emissions of mercury from electric generating units (EGUs) for demonstrating compliance with the Illinois mercury rule. CEMS were deemed by the USEPA to be a technically feasible and economically reasonable method of measuring mercury emissions while promulgating CAMR, and these same methods were incorporated into the Illinois mercury rule. The Illinois EPA has received assurances from USEPA of their support for such an approach, as well as assurances that the level of support given to state agencies for mercury monitoring provisions will be equal to that which was intended for monitoring under CAMR.

Previously, the Illinois mercury rule incorporated federal Part 75 by reference. The proposed amendments include the appropriate provisions of Part 75 monitoring requirements, with noted changes. Such changes include the removal of provisions that were appropriate only with the existence of a national mercury trading program and a state-by-state emissions cap (e.g., bias adjustment factor, missing data substitution).

Stack Testing Alternative

Stack testing provides a measure of flexibility and certainty for sources in demonstrating compliance and therefore is being proposed as a temporary means to demonstrate compliance during this time of uncertainty. This additional flexibility is also appropriate as Illinois is no longer required to demonstrate compliance with a mercury emissions cap for purposes of CAMR. The Illinois EPA has broad historic knowledge and experience with the use of stack testing for emissions measurement and compliance demonstrations. Quarterly stack testing, along with the monitoring of source operating parameters, will provide sources an alternative to CEMS monitoring of mercury emissions for a three-year period. The Illinois EPA anticipates that during this three-year window new federal regulations will prescribe monitoring provisions

for mercury emissions and that the Illinois EPA will either adopt, or otherwise allow the use of, those provisions to demonstrate compliance with the Illinois mercury rule going forward.

Approved Sorbents

The Illinois mercury rule includes a list of approved sorbent manufacturers whose sorbents have been tested and demonstrated to achieve a high level of mercury control as of the time of the rulemaking process. The rule also allows the use of any other halogenated activated carbon or sorbent that has demonstrated similar or better effectiveness for control of mercury emissions. Since the promulgation of the Illinois mercury rule Calgon Carbon has demonstrated to the Illinois EPA that two of their sorbents obtain a similar or better level of control in comparison to the approved sorbents. As a result, it is proposed that Calgon Carbon's sorbents be included as approved sorbents for mercury control.

Combined Pollutant Standard

The Combined Pollutant Standard (CPS) was negotiated between the Illinois EPA and Midwest Generation during the original mercury rulemaking process. Similar to the Multi-Pollutant Standard currently contained in the Illinois mercury rule, the CPS allows flexibility in complying with the mercury provisions in exchange for SO₂ reductions, NO_x reductions, and other considerations agreed to by the parties. The desire at the time when agreement was reached between the parties was to include the CPS in the Illinois mercury rule, however, the rule was in the final stages of adoption and therefore it was inappropriate at that time to reopen the rule for inclusion of the CPS. The CPS was subsequently included in Illinois' CAIR. Consistent with the original desire and determination that the more appropriate place for the CPS was in the Illinois mercury rule, it is proposed that the CPS now be removed from CAIR and included in the Illinois mercury rule.

Summary

Limited revisions to the Illinois mercury rule are appropriate in light of the vacatur of CAMR. The proposed revisions are focused on the methods allowed to measure mercury emissions for demonstration of compliance. The proposed revisions do not include any change to the emissions and control requirements for mercury emissions and therefore the level of mercury control required by the rule is not affected. Aside from providing additional flexibility to sources for compliance purposes, these proposed amendments represent little substantive change from the implementation of the Illinois mercury rule prior to the vacatur of CAMR.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
PROPOSED AMENDMENTS TO) R09-10
35 ILL. ADM. CODE 225) (Rulemaking – Air)
CONTROL OF EMISSIONS FROM)
LARGE COMBUSTION SOURCES)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S FIRST ERRATA SHEET TO ITS PROPOSAL TO AMEND 35 ILL. ADM. CODE 225

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA"), by and through its attorney Charles E. Matoesian, and submits this First Errata Sheet to its proposal to amend 35 Ill. Adm. Code 225. The Illinois EPA proposes the following amendments to the text of the rules submitted in its proposal to the Board dated October 2, 2008:

1. *Amend Section 225.265(a)(1) to make a minor clarification. Language was added to describe the frequency of required coal analysis. However, in an earlier sentence in the paragraph several necessary alterations were missed. In addition, a comment from a regulated source suggested the addition of language to address situations when a boiler has not operated over a given time period and asked for clarification about how to handle the testing of multiple coal samples. Accordingly, the Illinois EPA is suggesting the following additions and deletions.*
 - 1) Perform ~~daily~~-sampling of the coal combusted in the EGU for mercury content. The owner or operator of such EGU must collect a minimum of one 2-lb. grab sample ~~per day of operation~~ from the belt feeders anywhere between the crusher house or breaker building and the boiler, according to the schedule below. The sample must be taken in a manner that provides a representative mercury content for the coal burned on that day. EGUs complying by means of Section 225.233 or Sections 225.291 through 225.299 of this Subpart must perform such coal sampling at least once per month unless the boiler did not operate or combust coal at all during that month; EGUs complying by means of the emissions testing, monitoring, and recordkeeping requirements under Section 225.239 must perform such coal sampling according to the schedule provided in Section 225.239(e)(3) of this Subpart; all other EGUs subject to this requirement must perform

such coal sampling on a daily basis when the boiler is operating and combusting coal. If multiple samples are tested, the owner or operator must average those tests to arrive at the final mercury content for that time period.

2. *Section 225.239(e)(3) needs to be modified for reasons similar to 1. Language must be added to describe the frequency of required coal analysis. Accordingly, the Illinois EPA is suggesting the following addition.*

- 3) For units complying with the control efficiency standard of subsection (b)(1)(B) or (b)(2)(B) of this Section, the owner or operator must perform coal sampling as follows:
 - A) in accordance with Section 225.265 of this Subpart at least once during each day of testing; and
 - B) in accordance with Section 225.265 of this Subpart, once each month in those months when emissions testing is not performed unless the boiler did not operate or combust coal at all during that month;

3. *In Section 225.290(d)(2)(F), data substitution is no longer required. Accordingly, the Illinois EPA is suggesting the following deletions.*

- F) Any deviations, ~~data substitutions,~~ or exceptions each month and discussion of the reasons for such deviations; ~~data substitutions,~~ or exceptions.

4. *Recently, the Agency has learned of a new sorbent that meets the criteria for use in the Illinois Mercury Rule. Accordingly, the Illinois EPA suggests adding Calgon Carbon's FLUEPAC CF Plus to Section 225.233(c)(2)(B), the list of acceptable sorbents. This will add even greater flexibility for sources seeking to comply with the rule.*

- B) The injection of halogenated activated carbon manufactured by Alstom, Norit, or Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, or Calgon Carbon's FLUEPAC MC Plus, or the injection of any other halogenated activated carbon or sorbent that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions; and

5. *Recently, the Agency has learned of a new sorbent that meets the criteria for use in the Illinois Mercury Rule. Accordingly, the Illinois EPA suggests adding Calgon Carbon's FLUEPAC CF Plus to Section 225.234(b)(2), the list of acceptable sorbents. This will add even greater flexibility for sources seeking to comply with the rule.*

- 2) The owner or operator of the EGU is injecting halogenated activated carbon in an optimum manner for control of mercury emissions, which must include injection of Alstom, Norit, Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, Calgon Carbon's FLUEPAC MC Plus, or other halogenated activated carbon that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions, at least at the following rates set forth in subsections (b)(2)(A) through (b)(2)(D) of this Section, unless other provisions for injection of halogenated activated carbon are established in a federally enforceable operating permit issued for the EGU, using an injection system designed for effective absorption of mercury, considering the configuration of the EGU and its ductwork. For the purposes of this subsection (b)(2), the flue gas flow rate must be determined for the point of sorbent injection (provided, however, that this flow rate may be assumed to be identical to the stack flow rate if the gas temperatures at the point of injection and the stack are normally within 100° F) or may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.

6. *Recently, the Agency has learned of a new sorbent that meets the criteria for use in the Illinois Mercury Rule. Accordingly, the Illinois EPA suggests adding Calgon Carbon's FLUEPAC CF Plus to Section 225.238(b)(2), the list of acceptable sorbents. This will add even greater flexibility for sources seeking to comply with the rule.*

- 2) For an EGU for which injection of a sorbent or other mercury control technique is required pursuant to subsection (b)(1) of this Section, the owner or operator of the EGU is injecting sorbent or other mercury control technique in an optimum manner for control of mercury emissions, which must include injection of Alstom, Norit, Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, Calgon Carbon's FLUEPAC MC Plus, or other sorbent or other mercury control technique that the owner or operator of the EGU demonstrates to have similar or better effectiveness for control of mercury emissions, at least at the rate set forth in the appropriate of subsections (b)(2)(A) through (b)(2)(C) of this

Section, unless other provisions for injection of sorbent or other mercury control technique are established in a federally enforceable operating permit issued for the EGU, with an injection system designed for effective absorption of mercury. For the purposes of this subsection (b)(2), the flue gas flow rate must be determined for the point of sorbent injection or other mercury control technique (provided, however, that this flow rate may be assumed to be identical to the stack flow rate if the gas temperatures at the point of injection and the stack are normally within 100° F), or the flow rate may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.

7. *Recently, the Agency has learned of a new sorbent that meets the criteria for use in the Illinois Mercury Rule. Accordingly, the Illinois EPA suggests adding Calgon Carbon's FLUEPAC CF Plus to Section 225.294(g)(2), the list of acceptable sorbents. This will add even greater flexibility for sources seeking to comply with the rule.*

- 2) The injection of halogenated activated carbon manufactured by Alstom, Norit, or Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, or Calgon Carbon's FLUEPAC MC Plus, or the injection of any other halogenated activated carbon or sorbent that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions; and

8. *Amend Section 6.1.2 of Exhibit A to Appendix B of Part 225 to add a citation that was inadvertently omitted from the original proposal.*

6.1.2 Requirements for Air Emission Testing Bodies

(a) On and after January 1, 2009, any Air Emission Testing Body (AETB) conducting relative accuracy test audits of CEMS and sorbent trap monitoring systems under Part 225, Subpart B, must conform to the requirements of ASTM D7036-04 pursuant to 40 CFR Part 75 Appendix A Section 6.1.2 (incorporated by reference under Section 225.140). This Section is not applicable to daily operation, daily calibration error checks, daily flow interference checks, quarterly linearity checks or routine maintenance of CEMS.

(b) The AETB must provide to the affected source(s) certification that the AETB operates in conformance with, and that data submitted to the Agency has been collected in accordance with, the requirements of ASTM D7036-04 pursuant to 40 CFR Part 75 Appendix A Section 6.1.2 (incorporated by reference under Section

225.140). This certification may be provided in the form of:

(1) A certificate of accreditation of relevant scope issued by a recognized, national accreditation body; or

(2) A letter of certification signed by a member of the senior management staff of the AETB.

(c) The AETB must either provide a Qualified Individual on-site to conduct or must oversee all relative accuracy testing carried out by the AETB as required in ASTM D7036-04 pursuant to 40 CFR Part 75 Appendix A Section 6.1.2 (incorporated by reference under Section 225.140). The Qualified Individual must provide the affected source(s) with copies of the qualification credentials relevant to the scope of the testing conducted.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY



Charles E. Matoesian
Assistant Counsel
Division of Legal Counsel

Date: December 3, 2008

1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
217.782.5544
217.782.9143 (TDD)

Electronic Filing - Received, Clerk's Office, December 2, 2008
R09-10 Service List

Tim Fox, Hearing Officer
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St., Suite 11-500
Chicago, IL 60601-3218

Matthew Dunn, Chief
Division of Environmental Enforcement
Office of the Attorney General
69 West Washington St., Suite 1800
Chicago, IL 60602

Virginia Yang
Deputy Legal Counsel
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702

Christopher W. Newcomb
Karaganis, White & Magel, Ltd.
414 N. Orleans St., Suite 810
Chicago, IL 60610

Bill S. Forcade
Katherine M. Rahill
Jenner & Block
One IBM Plaza, 40th Floor
Chicago, IL 60611

Karin T. O'Connell
Gould & Ratner
222 N. LaSalle St., Suite 800
Chicago, IL 60601

Stephen J. Bonebrake
Kathleen C. Bassi
Joshua R. More
Glenna L. Gilbert
Schiff Hardin, LLP
6600 Sears Tower
233 S. Wacker Dr.
Chicago, IL 60606

Faith E. Bugel
Howard A. Learner
Meleah Geertsma
Environmental Law and Policy Center
35 E. Wacker Dr., Suite 1300
Chicago, IL 60601

Keith I. Harley
Chicago Legal Clinic, Inc.
205 W. Monroe St., 4th Floor
Chicago, IL 60606

James W. Ingram, Senior Corp. Counsel
Dynegy Midwest Generation, Inc.
1000 Louisiana, Suite 5800
Houston, TX 77002

David Reiser
McGuire Woods, LLP
77 W. Wacker Dr., Suite 4100
Chicago, IL 60601

Daniel McDevitt
Midwest Generation
440 S. LaSalle St., Suite 3500
Chicago, IL 60605

Dianna Tickner
Mary Frontczak
Prairie State Generating Co., LLC
701 Market St., Suite 781
St. Louis, MO 63101

S. David Farris
City of Springfield, Office of Public Works
201 East Lake Shore Dr.
Springfield, IL 62757

Steve Frenkel
Office of the Governor
100 W. Randolph St., Suite 16-100
Chicago, IL 60601