BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PROPOSED NEW 35 ILL.ADM.CODE PART 225	)	PCB R06-25
CONTROL OF EMISSIONS FROM	)	
LARGE COMBUSTION SOURCES	)	

DYNEGY AND MIDWEST GENERATION'S MOTION FOR LEAVE TO FILE QUESTIONS FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AT THE HEARING COMMENCING JUNE 12, 2006, INSTANTER

NOW COME Dynegy Midwest Generation, Inc., and Midwest Generation, LLC., ("Petitioners") by and through their attorneys, Schiff Hardin LLP, and move for leave to file instanter the attached Questions for the Illinois Environmental Protection Agency at the Hearing Commencing June 12, 2006. In support of their Motion, Petitioners state as follows:

1. Counsel for the Illinois Environmental Protection Agency ("Agency") contacted counsel for Petitioners, as well as counsel for other companies in the regulated community, on May 18, 2006, regarding a need to revise the testimony of Dr. James E. Staudt filed in late April 2006.

2. Questions based upon the Agency's earlier filed testimony, including Dr. Staudt's testimony, were due to be filed by May 19, 2006, pursuant to the Hearing Officer's May 4, 2006, Order.

3. Petitioners, Ameren Energy Generating Company, AmerenEnergy Resources Generating Company, Electric Energy Incorporated, and Kincaid, L.L.C. (collectively, "the regulated community") jointly filed an Emergency Motion requesting that the Hearing Officer suspend the date for the filing of questions based upon the Agency's testimony until such time as the regulated community could review Dr. Staudt's revised testimony to determine how those

revisions would impact the questions developed for other Agency witnesses in addition to the questions for Dr. Staudt.

4. Dr. Staudt's testimony is offered by the Agency to address the technological feasibility of the Agency's mercury proposal and related aspects of the proposal, including the cost of the technology. The regulated community views Dr. Staudt's testimony to be of central importance to the viability of the Agency's proposal. Indeed, his testimony is the lynchpin to many of the Agency's arguments in support of its proposal because some of the Agency's other witnesses depend directly upon Dr. Staudt's testimony in their own.

5. The Hearing Officer issued an Order early on May 19, 2006, allowing participants who wished to respond to the regulated community's Emergency Motion to do so by 1:00 p.m. on May 19 (HO Order 1). HO Order 1 also provided that the Hearing Officer would rule on the Emergency Motion by 3:30 p.m. on May 19.

6. At approximately 3:40 p.m., the regulated community was able to access the Hearing Officer's ruling on the Emergency Motion (HO Order 2) from the Board's website. Petitioners did not receive a copy of HO Order 2 electronically as provided in HO Order 1. In HO Order 2, the Hearing Officer denied the regulated community's motion to postpone their submission of questions for all witnesses until it could evaluate Dr. Staudt's revised testimony and ordered that questions to all witnesses other than Dr. Staudt be submitted on May 19. HO Order 2 allowed the questions directed to Dr. Staudt to be excluded from the group of questions due on May 19 and provided that questions for other Agency witnesses, as they are affected by Dr. Staudt's revised testimony, could be amended or withdrawn at hearing. A new date for submission of questions for Dr. Staudt will be determined during a pre-hearing conference call scheduled for 9:00 a.m. on May 24, 2006.

7. The Board's regulations provide that documents filed after 4:30 p.m. are considered to have been filed on the next business day. 35 Ill.Adm.Code § 101.300(b)(3).

8. Petitioners were not able to file their questions for the Agency prior to 4:30 p.m. on May 19. Only 50 minutes prior to the deadline that the questions were due to be filed was not sufficient time for Petitioners to review HO Order 2 and determine its implications and then to comply with HO Order 2 by deleting the questions for Dr. Staudt, completing the physical preparation of the questions, and filing them with the Board. Petitioners did not believe, on May 19, that it was necessary to point out the practical difficulties to the Hearing Officer of completing all of these tasks in less than one hour and are filing the questions on the first business day after HO Order 2.

9. Petitioners should not be required to submit questions that indicate an approach to their opposition to the rulemaking and then have to retract or supplement it because the Agency, at the eleventh hour, has had to revise critical testimony.

10. Petitioners have the impression that the Agency and perhaps the Board view Petitioner's Emergency Motion as a delay tactic. Petitioners aver that it was not and emphasize that it was the Agency's need to revise critical, pivotal testimony that triggered this latest chain of events. Petitioners were and are willing to file the balance of their questions within a reasonable timeframe, but 50 minutes does not comprise a reasonable timeframe.

11. The Agency is not prejudiced by the day's delay in receiving Petitioners' questions on May 22 rather than on May 19 (only the weekend intervened). Petitioners would be irreparably prejudiced if the Hearing Officer denies this Motion for Leave to File Instanter, if such denial would have the effect of precluding Petitioners from participating in the hearings commencing June 12.

WHEREFORE, for the reasons set forth above, Petitioners DYNEGY MIDWEST GENERATION, INC., and MIDWEST GENERATION, LLC, request that the Hearing Officer grant its Motion for Leave to File Questions for the Illinois Environmental Protection Agency at the Hearing Commencing June 12, 2006, Instanter.

Respectfully submitted,

DYNEGY MIDWEST GENERATION, INC. and
MIDWEST GENERATION, LLC,

by:

/s/ *Kathleen C. Bassi*

One of Their Attorneys

Dated: May 22, 2006

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DYNEGY AND MIDWEST GENERATION'S QUESTIONS FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AT THE HEARING COMMENCING JUNE 12, 2006

NOW COME Dynegy Midwest Generation, Inc., and Midwest Generation, LLC., by and through their attorneys, Schiff Hardin LLP, and submit the following questions based upon the Statement of Reasons, Technical Support Document ("TSD") and its Appendices ("App."), and the testimony submitted by the Illinois Environmental Protection Agency ("Agency" or "Illinois EPA") in this matter.

For Deborah Rice, PhD

1. Has Dr. Rice been retained by the Agency to provide testimony in this matter?
   a. When was she first contacted by the Agency concerning this rulemaking proceeding?
2. On page 3 of Dr. Rice's testimony ("T"), she refers to "cross-sectional" and "longitudinal" studies.
   a. What are "cross-sectional" studies?
   b. What are "longitudinal" studies?
3. What is the pathway for exposure to methylmercury for most Americans?
4. What is the pathway for exposure to methylmercury for most Illinois residents?
5. What causes are there for persons', particularly children's, auditory and visual impairment, memory deficits, decreases in IQ, deficits in visuospatial ability, and changes in motor function other than pre- or post-natal exposure to mercury?
6. At page 4 of her testimony, Dr. Rice states that "there is no evidence of a threshold below which there are no adverse effects."
   a. Is it Dr. Rice's opinion that there is no threshold for the developmental neurotoxic effects of methylmercury and that it is not safe to eat any fish containing any level of methylmercury regardless of the frequency of fish consumption?
   b. What effects would Dr. Rice expect to see in a population consuming fish with methylmercury tissue concentrations below 0.05 ppm?

c. How many meals per week would be required to cause these effects? That is, how much fish would a person have to consume in a week for these effects to occur?

d. Are these effects consistent with what researchers found in the Seychelle Islands?

e. Where are the Seychelles Islands located?

f. What is the source of the fish that the Seychelles populace consumes?

g. Does Dr. Rice consider the Seychelles Islands study to be well-conducted and valid?

h. Did the National Academy of Sciences conclude that the Seychelles study was well-conducted and valid?

i. According to the investigators in the Seychelles study, they evaluated 60 primary endpoints through age 9 and concluded that their data "do not support the hypothesis that there is a neurodevelopmental risk from prenatal [methylmercury] exposure resulting solely from ocean fish consumption." (*See* Myers *et al.* (2003), last sentence in abstract.) Is this correct?

j. In fact, didn't the children in the Seychelles study who were exposed to the most methylmercury perform better on tests of neurodevelopment than those who were exposed to less?

k. Did the Seychelles population consume more fish than is typically consumed by Illinois residents?

l. Are there other studies showing that the children of mothers who eat more fish do better on tests of neurodevelopment than do the children of mothers who eat less fish?

m. Is Dr. Rice familiar with the results of the study that Dr. Hibbeln of the National Institutes of Health reported based on a cohort of children in the United Kingdom?

i. In the UK study, didn't the children of mothers who ate more fish during pregnancy have higher IQs than the children of mothers who ate less, even though the mothers who ate more fish were exposed to more methylmercury?

ii. Is Dr. Rice familiar with the results of Daniels *et al.*, who studied the same group of children in the UK and found that increasing cord blood mercury levels were not associated with increased cognitive impairment but that increasing prenatal fish consumption was associated with improved cognition?

7. Dr. Rice states in her testimony at page 4 as follows: "In fact, there is evidence from both the Faroe Islands and New Zealand studies that the change in adverse effect in the child as a function of maternal methylmercury level may be greater at lower maternal methylmercury levels than at higher ones."

a. What does this mean?

b. Does this mean that the greater the exposure, the less likely there will be adverse effects?

c. Does it mean that there is a threshold after which there are no more deleterious effects?

8. In her testimony, Dr. Rice mentions the results of Oken, *et al.* Is it true that the authors concluded that the children they studied in Massachusetts scored higher in neurodevelopmental tests when their mothers had eaten more fish?

   a. Wasn't the authors' recommendation resulting from this study that pregnant women should eat more fish?

   b. What is the basis for Dr. Rice's conclusion on page 5 of her testimony that the hair mercury levels of the mothers in western Massachusetts are "typical of those in the U.S."?

   c. Does Dr. Rice have information regarding the relative consumption of freshwater v. ocean fish in Massachusetts?

      i. Does she have such information for California?

      ii. Does she have such information regarding Illinois?

      iii. Please provide any such information.

   d. Is a mother's hair mercury level a normal measurement taken in the delivery room or obstetrician's office?

   e. Have there been representative samples taken across the U.S. to confirm the statement quoted above in 8(b)?

   f. If so, then what are the results of the subsequent studies on those babies?

9. Dr. Rice refers to IQ decrements in her testimony:

   a. What is the benchmark for determining whether IQ has been decreased?

   b. Is there any disagreement among experts regarding what is IQ, how it should be measured, and how changes in IQ should be determined?

10. What is the relationship between mercury measured in a mother's or child's hair and mercury measured in umbilical cord blood?

11. At page 7 of her testimony, Dr. Rice states that "fetal blood has 70% more mercury than that of the mother."

    a. Does Dr. Rice agree that there is disagreement among toxicologists concerning this relationship between fetal and maternal mercury blood levels?

    b. Does Dr. Rice agree that this relationship may not be consistent?

12. Did Dr. Rice provide both deposition and trial testimony in the matter of *Public Media Center vs. Tri-Union Seafoods, LLC, et al.*, consolidated case Nos. CGC-01-402975 and CGC-04-432394, in the Superior Court of the State of California, City and County of San Francisco (the "Tri-Union Case")?

    a. What matters did Dr. Rice address in her testimony in the Tri-Union Case?

    b. Did Dr. Rice's testimony address whether there was a safe level of methylmercury consumption, what comprises a safe level of fish tissue methylmercury content, the health impacts from methylmercury exposure, whether she authored previous papers concerning the Faroe Islands study, the impact of PCB exposure in the Faroe Islands methylmercury study, and the appropriateness of federal and state fish advisories?

    c. On or about May 11, 2006, did the court enter or file a decision in the Tri-Union Case?

        i. Did the Tri-Union court reject Dr. Rice's testimony concerning methylmercury?

        ii. If so, why?

13. With respect to the United States Environmental Protection Agency's ("USEPA") RfD for methylmercury:

    a. Is the reference dose a measure of methylmercury exposure (e.g., consumed) rather than a measure of the concentration of methylmercury in the body?

    b. Is there a benchmark (or deleterious effect level) related to concentrations of methylmercury in the body at which certain impacts might be expected in a portion of the population?

    c. Has USEPA developed a benchmark (or deleterious effect level in the body) for methylmercury and, if so, what is the current benchmark?

    d. Did USEPA base its calculation of its RfD on a benchmark level of methylmercury in the body and, if so, what benchmark level was used?

    e. Please explain what is meant by Dr. Rice's statement at page 4 of her testimony that USEPA's RfD of 0.10 µg/kg/day is based upon "either the Faroe Islands study or the integrative analysis of all three studies."

14. Is USEPA's RfD related to the Boston Naming Test results in the Faroe Island study?

    a. If so, in what way?

15. Is there disagreement among experts regarding what is the appropriate RfD for methylmercury and the manner in which it should be calculated?

16. Have other federal and state agencies, agencies in other countries and domestic and international organizations developed different referenced doses ("RfDs") or similar values with respect to methylmercury?

    a. What study did the U.S. Agency for Toxic Substances and Disease Registry use as the basis for its minimal risk level for methylmercury?

i. What is that minimal risk level?

b. What study did the World Health Organization rely on to establish its tolerable daily intake threshold?

i. What is that tolerable daily intake threshold?

c. What study did the Dutch Environmental Protection Agency rely on to establish its tolerable daily intake threshold?

i. What is that tolerable daily intake threshold?

d. What study did the U.S. Food and Drug Administration rely on to establish its minimal risk level for methylmercury?

i. What is that level?

17. What study did the expert group convened by Toxicology Excellence in Risk Assessment rely on to establish its RfD?

18. At page 2 of her testimony Dr. Rice refers to mercury poisoning episodes in Japan and Iraq. Is it true that individual exposures in those two instances in some cases exceeded 200,000 micrograms of methylmercury?

19. Does Illinois EPA use USEPA's RfD in calculating fish advisories?

a. What is Illinois EPA's most stringent fish advisory (i.e., for consumption by the most sensitive populations)?

b. Is Dr. Rice aware of any states with more stringent fish advisories than Illinois'?

i. If so, what states?

ii. What is the most stringent advisory in those states?

c. Is Dr. Rice aware of any states that have issued less stringent fish advisories than Illinois?

i. If so, what states?

ii. What was the advisory?

d. Has USEPA issued a fish advisory?

e. Do the USEPA and the U.S. Food and Drug Administration ("FDA") advise the public that women can safely eat fish with low levels of methylmercury, including up to 12 ounces of canned light tuna every week?

f. Does Dr. Rice agree that state and federal fish advisories inform the public that certain amounts of fish may be safely consumed even if they contain methylmercury?

g. Is it true that USEPA's RfD addresses the amount of methylmercury that may be consumed every day for an entire life?

h. Is it also true that if an individual's average daily consumption of fish over a period of weeks or months is less than the RfD, that individual's consumption is considered by USEPA to be less than the RfD even if that individual on certain days during that period consumes more than the RfD?

20. With respect to PCBs, it appears from Dr. Rice's testimony, Appendix A ("App. A") to the TSD, and the references thereto that Dr. Rice has studied the developmental neurotoxic effects of PCBs in infant monkeys exposed through breast milk. Is that correct?

a. Does Dr. Rice agree that PCBs are an established neurotoxin?

b. Has USEPA issued a RfD for PCBs?

i. If so, what is that RfD?

ii. Has Illinois EPA issued fish advisories for PCBs?

c. How did the level of PCB exposure in the Faroe Islands compare to USEPA's RfD for PCBs?

d. How did the level of PCB exposure in the Faroe Islands compare to the level that produced effects in the infant monkeys that Dr. Rice experimented with?

e. Is it true that the mothers in the Faroe Islands mercury study had PCB concentrations in their bodies that were among the highest body concentrations in the world?

f. Is it correct that when the Faroe Islands study is adjusted for PCB exposure, the investigators in that study concluded that any correlation between methylmercury exposure and performance on the Boston Naming Test was not significant?

g. Did you co-author a paper in 2003 that found a correlation in the Faroe Islands study between prenatal PCB exposure and poor performance on the Boston Naming Test?

h. Is it possible that PCBs could have had an influence on the results of the Faroe Islands study by producing or contributing to developmental neurotoxicity?

21. Isn't it true that the women and children studied in the Faroe Islands study ate almost exclusively whale meat and/or whale blubber?

a. How much whale meat or whale blubber does the average American eat?

b. How much whale meat or whale blubber does the average Illinois resident eat?

22. Is it Dr. Rice's opinion that people should not eat fish because of the potential for exposure to methylmercury?

23. How do average mercury levels in Illinois fish that are typically consumed compare to average mercury levels of freshwater fish in other states that are typically consumed?

24. How do average mercury levels in Illinois fish that is typically consumed compare to average mercury levels of ocean fish that is typically consumed?

25. At page 6 of her testimony, Dr. Rice refers to a study involving dentists. Do dentists have higher or lower incident of heart disease than other American men exposed to mercury?

26. What factors cause heart disease in men?

    a. How many of these are mercury-related?

27. In her testimony, Dr. Rice indicates that there is an association between methylmercury and cardiovascular effects.

    a. Is there currently a level of uncertainty concerning any such association?

    b. Is Dr. Rice aware of any studies reporting an inverse association between fish consumption and cardiovascular effects; *i.e.*, fish consumption has a protective effect against cardiovascular disease?

    c. Are such results found in the Chicago Western Electric Study, in Japan, in the Nurses' Health Study, in the U.S. Physicians' Health Study?

28. How does the methylmercury reference dose of 0.10 μg/kg/day relate to cord blood concentrations of 5.8 μg/L?

29. What is the basis for Dr. Rice's statement at page 7 of her testimony that 16% of the U.S. female population of child-bearing age has blood levels of methylmercury greater than 3.4 μg/L?

30. Does Dr. Rice contend that there has been a reduction in IQ in the U.S. population over time?

    a. If so, what is the basis for that contention?

31. Is mercury a naturally occurring element?

    a. Was methylmercury present in fish from natural sources even prior to the industrial revolution?

    b. Is the methylation of mercury a natural process?

    c. Even without anthropogenic sources, would some level of methylmercury be present in the environment and in fish?

32. Does Dr. Rice have any economic degree or any training regarding economic analysis?

33. What is the basis for Dr. Rice's conclusions regarding lost earnings among women with mercury in their blood levels and their children? (App. A, p. 28)

    a. What is the basis for attributing $0.1-$6.5 billion in lost earnings to emissions of mercury from U.S. power plants?

        i. Is it not the case that U.S. power plants contribute only 1% to global mercury levels in the atmosphere?

        ii. What evidence does Dr. Rice rely upon to assume that emissions from U.S. power plants are deposited in the U.S., particularly in areas where citizens will eat fish to the levels that will result in negative impacts?

    b. Where are these women and children located?

    c. What other factors were considered in determining lost IQ and lost income?

34. One of the reports that Dr. Rice discusses in her report to Illinois EPA is that of Trasande *et al.*

    a. Are the authors of the Trasande report pediatricians?

    b. Are they economists?

c. Is Dr. Rice aware of corrections that the Trasande report authors must make following a critical analysis by USEPA's economists?

d. Is Dr. Rice aware that Trasande *et al.* must retract their initial conclusions and substantially lower their estimates of the cost of power plant mercury emissions?

35. At page 8 of her testimony Dr. Rice refers to a Department of Labor's survey of IQs and the impact of a 3% reduction in IQs. Is Dr. Rice aware of any study or report indicating that consumption of fish has caused a 3% or greater decline in IQ in Illinois residents?

36. Are there any peer-reviewed studies that definitively attribute in Illinois – or even the United States – neurological or physical impairment to consumption of methylmercury in freshwater fish?

37. What is the main source of methylmercury exposure in the U.S.?

38. Is demethylation of methylmercury in the body necessary for a toxic effect to occur? (App. A, p. 20)

39. Is Dr. Rice's conclusion that the risks of eating fish outweigh the benefits of ingesting omega-3 fatty acids supported by other experts?

a. If so, who? (App. A, p. 29)

For Jeffrey W. Sprague

1. Is Mr. Sprague the author of Section 3.0, or portions of that Section, in the TSD?
   a. If so, please identify which portions.
2. Is Mr. Sprague's testimony based upon his review of Dr. Rice's report (attached to the TSD) and testimony and the Michigan report cited at page 1 of his testimony?
3. What is Mr. Sprague's background in health-related fields?
4. Does Mr. Sprague have any formal training or degree as a toxicologist?
5. Does Mr. Sprague have any formal training in mercury methylation?
6. Does Mr. Sprague have any formal training in the health effects of exposure to methylmercury?
7. Does Mr. Sprague have any formal training in deposition modeling?
8. At page 2 of his testimony Mr. Sprague refers to "acute exposure incidents as well as evidence of low level exposures. . ." as a source for information regarding the symptoms and neurological effects of methylmercury poisoning.
   a. What historical acute exposure incidents, specifically, is Mr. Sprague referring to?
   b. What were the levels of methylmercury exposure in those acute exposure incidents?
   c. How do "acute exposure incidents" differ from "low level exposures"?
9. At page 2 of his testimony Mr. Sprague refers to studies in the Faroe Islands, New Zealand and the Seychelles Islands. Prior to this rulemaking matter, had Mr. Sprague ever analyzed or used these studies?
10. At page 2 of his testimony, Mr. Sprague states that these three studies have "yielded results that markedly contrast, but which are not discordant with respect to mercury

effects on IQ. An integrative analyses of these studies showed . . . ." With respect to these statements,

a. In what way did the results of the studies "markedly contrast"?

b. What is meant by the phrase "not discordant with respect to mercury effect . . ."?

   i. What is the basis for this statement?

c. What "integrative analyses" is Mr. Sprague referring to?

d. Does Mr. Sprague consider the Seychelles Islands study to be well-conducted and valid?

e. Did the National Academy of Sciences conclude that the Seychelles study was well-conducted and valid?

f. According to the Seychelles Island investigators, they evaluated 60 primary endpoints through age 9 and concluded that their data "do not support the hypothesis that there is a neurodevelopmental risk from prenatal [methylmercury] exposure resulting solely from ocean fish consumption." (*See* Myers *et al.* (2003), last sentence in abstract.) Is this correct?

g. Does Mr. Sprague contend that there is no safe exposure level for methylmercury?

   i. If so, what is the basis for this contention.

   ii. If not, what is the safe exposure level?

h. Did the Seychelles Island population at the time of the mercury study at that island consume more fish than is typically consumed in Illinois?

i. Are there studies showing that the children of mothers who eat more fish do better on tests of neurodevelopment than do the children of mothers who eat less fish?

11. With respect to the Faroe Islands study:

    a. Did the National Academy of Sciences ("Academy") consider potential confounding by postnatal exposure to PCBs from breast milk?

    b. Did the Academy committee include "co-exposure to other neurotoxicants (e.g., PCBs)" on its list of sources of uncertainty associated with the Faroe Islands study?

    c. Does USEPA have a RfD for PCBs?

    d. How did the level of PCB exposure in the Faroe Islands compare to USEPA's RfD for PCBs?

    e. How did the level of PCB exposure in the Faroes compare to the level that produced effects in the infant monkeys that Dr. Rice experimented with?

    f. Did significant exposure to PCBs occur in the Seychelles study?

    g. Is it possible that PCBs could have had an influence on the results of the Faroe Islands study by producing or contributing to developmental neurotoxicity?

12. At page 2 of his testimony Mr. Sprague states that mercury hair levels are associated with "incidences of myocardial infarction."

    a. Is there disagreement among experts concerning whether there is such an association?

    b. Is there uncertainty concerning whether there is any such association?

    c. Is Mr. Sprague aware of any studies reporting an inverse association between fish consumption and cardiovascular effects, *i.e.*, that fish consumption has a protective effect against cardiovascular disease?

d. Are such results found in the Chicago Western Electric Study, in Japan, in the Nurses' Health Study, in the U.S. Physicians' Health Study?

13. Mr. Sprague refers to a "reference dose" of "0.1 micrograms/kg/day" at page 3 of his testimony.

a. Is this USEPA's methylmercury reference dose?

b. Is it used by the Agency in calculating of fish advisories?

c. Is the reference dose a measure of an average exposure level per day over the period of a person's life that if not exceeded is unlikely to create deleterious effects?

14. In his testimony, Mr. Sprague refers to an estimate by the Center for Disease Control that "6% of women of childbearing age have blood mercury levels at or exceeding the reference dose."

a. Where are these women located?

b. Is this a reference to USEPA's reference dose?

c. How was USEPA's reference dose determined?

d. Is the reference dose a measure of exposure rather than a measure of concentration in the human body?

e. Is there a standard used to identify what concentration of methylmercury in the human body may cause deleterious effects in some portion of the population?

i. If so, what is the name of that standard?

ii. What is that standard?

iii. Is that standard exceeded by any portion of the population referred to in the CDC study?

For Ezra D. Hausman, Ph.D.

1. Please state the dates on which Dr. Hausman obtained the degrees listed in his prepared testimony.
2. Does Dr. Hausman have any other college or post-graduate degrees?
   a. If so, please describe the degrees and the dates obtained.
3. Does Dr. Hausman have any college or post-graduate degrees in economics?
   a. If so, please describe, with dates obtained.
4. Does Dr. Hausman have any formal training in economics?
   a. If so, please describe.
5. Dr. Hausman's prepared testimony lists two employers. Following graduation from college, has he been employed elsewhere?
   a. If so, please describe, including the employer, years of employment and nature of the employment.
6. When was Dr. Hausman retained by Illinois EPA to be a witness in this proceeding?
   a. What was the nature of the retention, *i.e.*, the scope of the work he was to perform?
   b. Is there a retention agreement between Illinois EPA and Dr. Hausman's employer or Dr. Hausman directly that includes a description of the scope of work?
   c. If so, please provide a copy of that agreement.
7. Did you rely on testimony or information prepared by Dr. Staudt?
   a. If so, please describe what information that was.
8. Did you rely on information contained in the TSD?
   a. If so, please identify what information you relied on.

b. To you knowledge, who prepared that information that is contained in the TSD?

For Jim Ross

1. Mr. Ross indicates that he is providing "background information and a broad overview" and that he requests that the TSD be incorporated into his testimony.
   a. Please identify the person or persons who prepared each chapter, or portions thereof, of the TSD by chapter or portion thereof.
   b. Please identify the person or persons on behalf of Illinois EPA who will testify to support each chapter, or portion thereof, of the TSD by chapter or portion thereof.
2. Before the Governor's announcement on January 5, 2006, did the Governor or his staff consult with Illinois EPA concerning the mercury proposal?
   a. If so, identify to the best of Mr. Ross' ability, with whom the Governor or his staff consulted, when the consultations took place, and what information he got from Illinois EPA.
3. To Mr. Ross' knowledge, prior to his announcement, did the Governor consult with anyone outside of government concerning the mercury proposal?
   a. If so, please identify with whom he consulted.
4. Mr. Ross indicates that at least 5 states have adopted programs beyond (*i.e.*, more stringent than) the Clean Air Mercury Rule ("CAMR").
   a. Please identify the states.
   b. How many states have adopted or have indicated they will adopt CAMR or substantially similar rules?
5. Because Illinois EPA has not tendered any witness from ICF, is Mr. Ross the appropriate person to question concerning the work ICF did for Illinois EPA?
   a. If not, is there any Agency witness to testify in support of the ICF work?

b. If so, who?

6. Please provide us or have ICF provide us with the following information utilized for or referred to in ICF's Analysis of the Proposed Illinois Mercury Rule, including Appendices, submitted as Exhibit C to the TSD (hereafter "ICF Report"):

a. The information and data used to derive Table 1-1 on page 3 of the ICF Report, including, but not limited to, unit specific data on existing and retrofit controls, fuel and coal types, generation levels, Btu's (heat inputs), emissions of mercury, SO_2 and NOx for both CAIR/CAMR and the Policy Case for the years 2009, 2015 and 2018.

b. Allowance prices for mercury, SO_2 and NOx used for CAIR/CAMR case.

c. The total and annualized compliance costs for the technologies deployed to meet CAIR/CAMR and the Illinois Proposed Rule ("Illinois Rule"), including as part of the annualized compliance costs, the level of allowance sales/purchases for CAIR/CAMR, all for the years 2009, 2015, and 2018.

d. The affected generation that incurs the annualized costs to meet CAIR/CAMR and the Illinois Rule.

e. Whether the source of the control assumptions and costs used in the analysis for ACI is from Documentation Supplement for EPA Modeling Applications (v.2.1.6) Using the Integrated Planning Model.

f. Whether the source of the FGD costs and assumption used in the analysis is from Documentation of EPA Modeling Applications (v.2.1) Using the Integrated Planning Model.

g. Any economic evaluation that demonstrates the least cost solution deploying FGDs early to meet the Illinois Rule.

h. The units receiving FGDs under CAIR/CAMR and under the Illinois Rule and the type of FGD, by unit.

i. The units receiving SCRs under CAIR/CAMR, by unit.

j. The prices of delivered coal by supply region and coal type to Illinois generators, in $/mmBtu, used in the analysis for 2009, 2015, and 2018.

k. Delivered gas prices to Illinois generators used in the analysis for 2009, 2015, and 2018.

l. On page 11, as to the units that will be retired, the generation costs for those units and the generation costs and wholesale electricity prices in 2009 and beyond that make these units "uneconomic."

m. The underlying factors for the changes in heat rates shown in Appendix C, Table C 2.8.

n. The source of and the information used to determine fuel assignments in Table 3.1 of Appendix C for Vermilion, Havana 9, Wood River 4 and 5, Hutsonville 5 and 6, Meredosia 5, and Edwards 1, 2 and 3.

o. If different than shown in Table 3.1, the fuel assignments used in the forecast of emissions for the Base Case (pre-CAIR) and CAIR/CAMR compliance from and after 2005.

p. With respect to the changes in mercury control costs, Table 3.2 of Appendix C, an explanation of these changes with regard to the IPM input assumptions.

7. Mr. Ross testifies that power plants are the largest source of anthropogenic mercury emission in the U.S.

   a. What percent are they of the total world-wide emissions of mercury, natural and anthropogenic?

   b. What percent are they of total mercury emissions in Illinois, natural and anthropogenic?

   c. What percent of Illinois mercury emissions are natural?

   d. What is the source of Mr. Ross' information or the basis for his conclusions?

8. Mr. Ross states on page 4 of his testimony that mercury that finds its way into aquatic systems "transforms into methylmercury." Is all mercury in aquatic systems transformed into methylmercury?

9. On page 5 of his testimony, Mr. Ross refers to "recent studies" indicating "as many as 10 percent" of U.S. children "have been exposed to excessive levels of mercury in the womb."

   a. Please identify the studies Mr. Ross is referring to.

   b. What does Mr. Ross mean by "exposed?"

   c. What were the "excessive levels"?

   d. How and by whom were they determined to be excessive?

10. Please describe all undergraduate and/or graduate college degrees Mr. Ross has obtained in medicine, toxicology, or public health.

11. On page 5 of his testimony, Mr. Ross refers to fish consumption advisories set when concentrations are above human health-based limits. Please identify and describe the following:

a. The limits you are referring to.

b. Who sets them.

c. How they are set.

d. Whether they contain a margin of safety.

e. What that margin of safety is if there is one.

12. Mr. Ross indicates that 1,034 miles of river and 8 lakes, consisting of 6,264 acres, are listed as impaired for mercury.

a. How many miles of river, including border rivers are there in Illinois?

b. How many lakes and lake acreage, including border lakes, are there in Illinois?

13. On page 6 of his testimony, Mr. Ross refers to "fish consumption literature." Please identify the literature and specifically which sources, if any, dealt with Illinois.

14. On page 6 of his testimony, Mr. Ross states, "The literature regarding anglers' consumption of their catch strongly suggests that a subset of these anglers have meal frequencies that exceed the state-wide fish consumption advisory for mercury, putting them well above the recommended rates for even fairly low levels of contamination."

a. Identify the subset of anglers you are referring to.

b. How many anglers are there in Illinois?

c. What percentage of the Illinois population do anglers comprise?

d. Identify how much fish these anglers would have to consume to be "well above" recommended rates.

e. Identify the types of sport-caught fish of this quantity in Illinois the anglers would have to catch and consume.

f. Identify which water bodies in Illinois contain the necessary types of fish with the requisite mercury content to cause this result.

g. Please provide a copy of the literature that is the source of Mr. Ross' conclusions.

15. What is the purpose of proposing a rule different from CAMR?

16. On page 9 of his testimony, Mr. Ross states that Illinois opposes emissions trading unless the EGUs can demonstrate that mercury hot spots are prevented.

a. Has Illinois EPA identified any hot spots in Illinois caused by Illinois power plant emissions?

b. If Mr. Ross answered the last question in the affirmative, please identify the hot spots and provide the data establishing the existence of such hot spots.

c. Has Illinois EPA undertaken any investigations or studies to identify hot spots?

d. If so, please describe those efforts and the results?

e. Describe how an EGU would demonstrate that mercury hot spots are prevented.

17. On page 10 of his testimony, Mr. Ross indicates that Illinois EPA requested that the Illinois Attorney General appeal the CAMR and she did. On what grounds or issues does Illinois EPA seek to challenge the CAMR?

18. Mr. Ross refers to the "so-called Section 9.10 report."

a. Did Mr. Ross have any involvement in the preparation of that report?

b. If so, please describe your involvement.

19. CAMR was promulgated in May 2005. Why did Illinois EPA wait about 8 months before holding discussions with stakeholders about an Illinois rule different from the CAMR?

20. Mr. Ross lists "several basic principles" in developing the Illinois rule, one of which is that the proposed rule "must be consistent with the Governor's proposal." Why must the proposed rule be consistent with the Governor's proposal?

21. Is it Illinois EPA's position that a 90% reduction in power plant emissions will result in a 90% reduction in the mercury content in largemouth bass?

22. Has Illinois EPA any data or performed any studies to demonstrate what reduction in the mercury content of largemouth bass in Illinois will result from the proposed rule?

    a. If so, please provide the results and copies of any data or reports of such studies.

23. Mr. Ross indicates that Illinois reviewed numerous studies of the monetized health benefits of mercury control.

    a. Please identify the studies to which you refer.

    b. Was the review you refer to performed for Illinois exclusively by Dr. Rice?

    c. If Mr. Ross answered the last question in the negative, please identify who else performed such review, what the scope of each such person's effort was, and provide any documentation resulting from such review.

24. Mr. Ross states on page 15 of his testimony that "[e]nsuring emission reductions take place in Illinois and at all locations where power plants exists [sic] should reduce local impacts and hot spots."

    a. What does Mr. Ross mean by "local impacts"?

    b. What does Mr. Ross mean by "hot spots"?

    c. What is the difference between a "local impact" and a "hot spot"?

    d. Which power plants in Illinois have the Agency identified as causing "local impacts" or "hot spots"?

e. Please identify the "local impact" and/or "hot spot" and provide the data supporting that determination.

f. What data or information does the Agency have to show that the Illinois Rule will ensure reduction of these "local impacts" and/or "hot spots"?

g. Please provide any data or information supporting that conclusion.

25. How does the Agency define "local" for purposes of mercury deposition?

For Sid Nelson, Jr.

1. Who prepared section 8.4.4.3 of the TSD?
2. Is it correct that the majority of the beneficial uses of fly ash generated by Illinois coal-fired electric generating units is in concrete and cement?
   a. What total volume of fly generated by Illinois coal-fired electric generating units is used in concrete each year on average?
   b. What total volume of fly ash generated by Illinois coal-fired electric generating units is used in cement each year on average?
3. Is it correct that the sale of fly ash for these uses (concrete and cement) has the potential to yield more revenue than the sale of fly ash for other uses?
4. Is it correct that the market for fly ash for concrete and cement is larger than the market for other uses?
5. What is the basis for the statement on page 136 of the TSD that "About 20% of the fly ash from U.S. coal fired power plants is sold to the cement industry"?
   a. Please define the term "cement industry" as used in this statement.
6. What requirements do ash marketers that sell fly ash produced in Illinois place on the fly ash that is being sold as a substitute for cement in concrete?
   a. What standard do ash marketers that sell fly ash produced in Illinois use for accepting fly ash with carbon in it that is being sold as a substitute for cement in concrete?
   b. What color requirements do ash marketers place on fly ash produced in Illinois that is being sold as a substitute for cement in concrete?

7. What requirements do ash marketers that sell fly ash produced in Illinois place on the fly ash that is being sold as an additive for cement?

   a. What standard do ash marketers that sell fly ash produced in Illinois use for accepting fly ash with carbon in it that is being sold as an additive for cement?

8. On page 5 of Mr. Nelson's testimony, he states that "with our particular technology, activated carbon injection, the slightest bit of plain activated carbon that gets into [the] fly ash generally makes the fly ash un-saleable" as a substitute for cement in concrete; is it Mr. Nelson's opinion that "plain" activated carbon injected upstream of the existing ESP or fabric filter will adversely effect the marketability of fly ash as a substitute for cement in concrete?

   a. Please define the term "plain" as that term is used in this statement.

   b. Is it correct that sorbent injection using "plain" activated carbon installed upstream of the existing ESP or fabric filter will increase the carbon content of fly ash?

   c. Is it correct that sorbent injection using "plain" activated carbon installed upstream of the existing ESP or fabric filter will darken the color of fly ash?

9. Is it correct that sorbent injection using "plain" activated carbon installed upstream of the existing ESP or fabric filter will result in an increase in the amount of fly ash generated in Illinois that will be disposed?

10. Please define the term "commercially available" as that term is used on page 3 of Mr. Nelson's testimony.

11. Please explain what Mr. Nelson meant by the statement on page 5 of his testimony that "[t]here is also a possibility of inorganic sorbents, non-carbon based sorbents, which a number of manufactures are testing."

    a. Please define the term "possibility" as that term is used in this statement?

    b. What is the status of the testing referenced in this statement?

12. On page 5 of Mr. Nelson's testimony, he states that B-PAC can "adversely affect the air entrainment admixtures that cause the problem with use of fly ash containing carbon in concrete."

    a. What is the basis for this statement?

    b. What are air entrainment admixtures used for?

    c. How does B-PAC adversely affect the air entrainment admixtures?

13. On page 5 of Mr. Nelson's testimony, he states that Sorbent Technologies Corporation is "going to be demonstrating this C-PAC product in just a few months at full-scale in a DOE program and the Crawford Plant of Midwest Generation in the Chicago area."

    a. Please define the term "demonstrated" as that term is used in this statement?

    b. What is the status of the demonstrations referenced in this statement and please identify when all demonstrations will be completed?

    c. What is the basis for Mr. Nelson's statement on page 5 of his testimony that the "injection rates" will be "capable [of] targeting 90% mercury removal or better?"

    d. When will the "extensive testing" of the concrete made from fly ash that has been impacted by C-PAC be performed. (*see* T p. 5)

For Marcia Willhite

1. Has Marcia Willhite published any articles or studies concerning mercury?

   a. If so, were any such articles or studies published in peer-reviewed journals?

2. Has Ms. Willhite ever conducted or prepared a TMDL study or report or personally identified a water as impaired under Section 303(d) of the Clean Water Act?

3. Does Ms. Willhite have any formal training or education regarding the mercury methylation process for mercury, mercury speciation, mercury deposition, or mercury health impacts?

   a. If so, please describe that formal training or education.

4. Did Ms. Willhite draft, or assist with drafting, any portion of the TSD in this rulemaking?

   a. If so, please identify the portions.

5. At page 1 of Ms. Willhite's testimony she states as follows: "Arguably, if the fish that are caught are not safe to eat, the 'fishable' goal is not being met." With respect to this statement:

   a. What does the term "arguably" mean in this sentence, and has the Agency ever taken the position that the "fishable" standard is satisfied even if the fish "caught are not safe to eat"?

   b. What is the "fishable goal"?

   c. How does the Agency determine whether "fish caught are not safe to eat" for purposes of this analyses?

   d. Is the "goal" stated in this sentence different from the "beneficial use" goals described in the next paragraph of her testimony?

e. If so, what are the different statutory and regulatory bases for those two sets of goals?

6. At page 1 of Ms. Willhite's testimony she refers to a "water quality standard of 0.12 micrograms per liter of water for protection of human health due to the accumulation of mercury in fish tissue." With respect to this statement:

a. The Agency's TSD at page 50 states the standard to "address the potential for mercury to bioaccumulate in fish tissue" is "0.012 micrograms per liter total mercury." Is the TSD referring to the same water quality standard?

i. If so, which numeric standard is correct (0.012 or 0.12 micrograms per liter)?

b. Is the Illinois water quality standard related to protection of human health the most stringent water quality standard with respect to mercury?

c. Is the presence of mercury in fish tissue the only health concern with respect to mercury in Illinois waters?

i. If not, please identify any other health concerns and any Illinois waters in which such concerns exist.

7. At page 2 of Ms. Willhite's testimony, she states as follows: "Only those water bodies where fish tissue data have been collected and analysis shows mercury levels of concern are identified as impaired." With respect to this statement:

a. Please confirm that the presence of mercury in the water column or sediment is not and has not been used by the Agency to identify or list any waterbody as impaired under Section 303(d) of the Clean Water Act.

b. What is the "level of concern"?

c. How is the "level of concern" calculated?

d. Who calculates the "level of concern"?

e. Please describe the various forms of mercury that may be emitted from coal-fired EGUS.

f. Please explain whether the mercury referenced in this sentence includes all forms of mercury or a only specific form of mercury.

i. If the latter, please identify the specific form of mercury referenced.

g. In setting the "level of concern," does the Agency assume that all of the mercury detected in fish tissue is methylmercury?

i. If so, what is the basis for this assumption?

ii. Is the Agency aware of any study or data that suggest that this assumption is incorrect?

8. What percentage of total mercury in water is deposited in or absorbed by sediments, remains in the water column, or is reemitted?

9. Of the total mercury in sediments, what percentage is methylated?

10. Please describe the methylation process?

11. Is the rate of methylation the same in different lakes and streams?

a. If not, please identify the factors that cause different methylation rates.

12. What parameters affect methylation in sediments?

13. Please describe the transfer rate of methylmercury from sediments to predatory fish (including percentage of transfer for each trophic level).

14. In the first full paragraph at the page 2 of Ms. Willhite's testimony, she states that a TMDL "must consider all potential sources of pollutants, whether point or nonpoint. It

also takes into account a margin of safety, which reflects scientific uncertainty, as well as the effects of seasonal variation." With respect to these statements:

a. Must a TMDL analysis include the impact, if any, due to air emissions and wastewater discharges from other states or countries, including any impact of mercury emissions from other states?

b. Must a waterbody in the State of Illinois be listed as impaired if fish tissues levels exceed applicable standards for mercury if such exceedance is due to discharges or emissions from other states or countries?

c. Has the Agency performed any analysis to determine the amount of mercury deposited in Illinois due to air emissions generated in other states or countries?

   i. If so, what were the results of such analysis and were such results reflected in any writings?

   ii. If so, please provide a copy of the written results.

d. Has the Agency performed any analyses of the contribution of mercury emissions or discharges in other states or countries to the presence of mercury in the sediments, waters, and fish in the State of Illinois?

   i. If so, what were the results of such analyses?

   ii. Were such analyses reflected in any writings?

   iii. If so, please provide a copy of the written results.

e. Please explain what is meant by the phrase "margin of safety" and describe how it is calculated.

15. In the second full paragraph at page 2 of Ms. Willhite's testimony, she states that when "a waterbody is 'not supporting' the fish consumption use, then that waterbody is identified as impaired and is placed on the 303(d) list."

    a. What does "fish consumption use" mean?

    b. With respect to mercury, is the "not supporting" fish consumption use the only basis upon which the Agency has listed water bodies in the State of Illinois as impaired?

    c. If not, please identify all other circumstances under which the Agency has listed a water body as impaired with respect to mercury.

    d. What concentration of mercury (or methylmercury) in fish tissues demonstrates that a "waterbody is 'not supporting' the fish consumption use"?

    e. Has this number changed over time?

    f. When did it last change?

16. In that same paragraph, Ms. Willhite states that the "statewide advisory is based on methylmercury being found routinely at levels of concern in predator fish tissues collected from throughout the state." With respect to this statement:

    a. Have the fish tissue samples collected by the Agency been analyzed for methylmercury, as opposed to total mercury or some other form of mercury?

    b. If those samples have not been specifically analyzed for methylmercury, does the Agency make any assumption about the percent of the mercury detected that is methylmercury?

    c. If so, what assumption?

    d. What does "routinely" mean?

e. How many lakes, rivers, and streams in Illinois have not been sampled for fish tissue mercury levels?

f. Has the frequency of water and fish tissue (mercury) sampling by the Agency changed over time?

g. If so, please describe:

i. What changes have occurred,

ii. When,

iii. And why each change occurred.

17. Has USEPA ever raised any concern or issue with respect to the manner or method by which the Agency has sampled or analyzed water, sediment or fish tissue for mercury or any form of mercury?

a. If so, please describe the following:

i. The issue or concern that was raised,

ii. When it was raised,

iii. The samples and results that were affected,

iv. The manner in which such samples and results were affected,

v. And what steps, if any, were taken by the Agency to correct or address the concern or issue.

18. In the third full paragraph on page 2 of Ms. Willhite's testimony, she states that according to the "latest (2004) Illinois list of impaired waters, there are 61 river segments (1034 miles) and 8 lakes (6264 acres) that have mercury listed as a potential cause of impairment due to restrictions on fish consumption." With respect to this statement:

a. How many total river segments and miles of river are there in the State of Illinois?

b. How many lakes and acres of lakes are there in the State of Illinois?

c. Do Figures 4.3, 4.4, and 7.1 in the TSD provide information concerning locations of fish tissue sampling and water quality sampling in Illinois?

d. Who prepared Figures 4.3, 4.4, and 7.1 of the TSD?

e. What is the source of information in these figures?

f. Please describe these figures (4.3, 4.4, and 7.1) and what information is provided on these figures.

g. What portion of these impaired rivers and lakes are also listed as impaired or potentially impaired due to the presence (1) of PCBs, (2) other non-mercury contaminants, or (3) any other cause?

h. The Agency's TSD at page 51 notes various non-point sources that may impact water quality.

    i. Has the Agency identified non-point sources, other than emissions from electric generating units, that are actual or potential non-point sources of mercury in Illinois?

    ii. If so, which of these non-point sources contribute or have contributed to the mercury present in the waters listed as impaired for mercury by the Agency?

i. Page 68 of the TSD states that of the 137 facilities with mercury point source discharges in the State of Illinois, "89 facilities fell in six major watersheds, which contained waterbodies listed as potentially impaired due to mercury in the 2004 303(d) report."

    i. Which impaired river segments receive such mercury discharges?

ii. How many of the 61 river segments identified as impaired or potentially impaired due to mercury receive, or may receive, discharges from these 89 facilities?

iii. How many of the 137 point source discharges of mercury identified by the Agency discharge into Illinois lakes that have been identified as impaired or potentially impaired due to mercury?

j. Are any waters in the State of Illinois listed as impaired or potentially impaired due to mercury for any reason other than "impairment due to restrictions on fish consumption"?

k. What is the current level of mercury in the sediment in the waters listed as impaired due to mercury?

i. Will that mercury in sediment continue to yield methylmercury in fish tissue for years into the future even if all new discharges or emissions of mercury to the water were to terminate?

l. What percentage and number of Illinois water bodies have been and are currently subject to (i) fish tissue sampling, (ii) water column sampling, and (iii) sediment sampling by the Agency?

m. Do any of these impaired rivers and lakes have catch-and-release requirements or fish possession limits?

i. If so, which waterbodies?

ii. What are the applicable requirements or limits?

19. At the top of page 3 of Ms. Willhite's testimony, she refers to an analysis of the "amount of reduction in fish tissue levels of mercury that would be needed to get below advisory

levels, i.e., what is the 'target' for eliminating the impairment." Is this the same analysis referred to and described at pages 62-64 of the TSD?

20. In that paragraph at the top of page 3 of her testimony, Ms. Willhite refers to "fish data collected statewide over the last 20 years."

a. Is that data comprised of the total of 815 samples collected between May 17, 1985, and November 11, 2004, referred to at page 61 of the TSD?

b. Is that the total number of fish tissue samples analyzed for mercury concentrations or levels by the Agency during that period of time?

c. Is that data publicly available?

d. Is it available on a USEPA website?

e. Does that set of 815 samples include 397 largemouth bass samples, with the remainder comprised of samples from other fish?

f. Does the analysis referred to in this paragraph of Ms. Willhite's testimony relate only to largemouth bass samples, not the more than 400 samples related to other fish?

g. Have additional fish tissue samples been collected in 2005 and 2006?

21. Of the 397 largemouth bass samples included in this analysis, how many also contained PCBs or other contaminants above applicable fish advisory levels?

22. Has the Agency identified as "impaired" under Section 303(d) of the Clean Water Act any lakes, rivers, or other waters based on the presence of PCBs or other contaminants, excluding mercury, in fish tissue, water, or sediment? If so:

a. Please identify each such impaired water.

b. Please identify the contaminant that caused the water to be identified as impaired.

23. Describe how Ms. Willhite concluded that a "90% reduction in fish tissue levels of mercury is required for unlimited consumption by childbearing age women and children under 15 years of age . . ." including the following:

    a. Whether she assumed that the 141 samples that were non-detect with respect to mercury contained mercury at the level of 0.05 mg/kg,

    b. The mathematical formula used to generate this conclusion,

    c. And whether this conclusion relates only to the top 5% of largemouth bass with regard to mercury concentrations.

24. How large of a reduction in sources of inorganic mercury to water bodies would be needed to achieve this 90% reduction of methylmercury in fish tissues?

25. What are the natural sources of mercury to waters in the State of Illinois and to fish in such waters?

    a. What is extent of the contribution of such natural sources to mercury levels in such waters and fish?

26. In the first full paragraph on page 3 of her testimony, Ms. Willhite asserts that 0.05 mg/kg is "the highest acceptable level of mercury in fish tissue for unlimited consumption."

    a. What does "acceptable level" mean?

    b. Does this same standard apply in other states and countries?

    c. Is it true that exceeding this level will not definitely result in mercury poisoning?

    d. Table 4.2 of the Agency's TSD refers to this number as an advisory due to "Mercury," whereas Table 4.3 refers to this same number as an advisory for

"Methylmercury." Do the numbers in Tables 4.2 and 4.3 apply to mercury or methylmercury?

e. We understand that the values in Tables 4.2 and 4.3 of the TSD were calculated from USEPA's methylmercury reference dose of 0.0001 mg/kg/day. Please explain how the values in Tables 4.2 and 4.3 were generated from that reference dose.

f. Does the Agency believe that USEPA's reference dose is adequately protective of human health?

   i. If not, please explain why not.

g. Is it correct that Table 4.2 of the TSD indicates that the most sensitive population ("Women of Child-bearing Age and Children under 15 Years Old") is advised that they may safely eat one meal every other month of fish with tissue methylmercury concentrations as high as 1.89 ppm?

h. Is it also correct that the remainder of the population is advised that it may safely eat one meal per month of fish with tissue concentrations of methylmercury as high as 2.82 ppm?

i. Is it also correct that the highest mercury fish tissue concentration found by the Agency in its sampling of fish in Illinois has been 1.4 ppm?

j. Is it correct that there has been only one other Agency fish tissue sample above 1 ppm?

   i. If so, please describe that acceptable level and its applicability.

   ii. Also, please identify the lakes, rivers, and other waters in Illinois in which fish tissue samples exceed that level.

27. How many meals per year comprises "unlimited consumption" for purposes of Illinois fish advisories?

28. Is the 0.05 mg/kg numeric standard applicable to all forms of mercury present in fish tissue, or is that numeric standard limited to the amount of methylmercury in fish tissue?

29. Is the 0.05 mg/kg numeric standard applicable only to children under the age of 15 and women of child-bearing age?

30. What is the trend, if any, in concentrations of mercury in waterbodies in the U.S. and in Illinois since the 1970s?

31. In her testimony Ms. Willhite cites both Florida and Massachusetts studies.

    a. When were those studies conducted?

    b. Who conducted them?

    c. What reports were generated related to these studies?

    d. Please provide copies of the reports related to these studies.

32. In the Massachusetts study, did all lakes studied show decreased methylmercury concentrations in fish?

33. With respect to the Massachusetts study, Ms. Willhite states that following air emission reductions of "approximately 90%," ". . . levels of mercury in yellow perch and largemouth bass declined by 32% and 25% respectively." Did the same number of lakes show declines for both species?

34. Did the Massachusetts study show any lakes with increases in methylmercury levels in fish?

35. Did the Massachusetts Department of Environmental Protection determine that their air emission reduction efforts were sufficient to reduce methylmercury concentrations in fish to the level that TMDLs and public fish advisories would no longer be necessary?

36. Does the Florida study that is mentioned in the TSD and in Ms. Willhite's testimony rely heavily on modeling for making predictions?

37. What were the caveats and cautions in this Florida report regarding the predictions the authors of the report were making?

38. Do all of the data for largemouth bass shown in the Florida study support the modeling results of a 1:1 relationship between reduced inorganic mercury emissions and reduced methylmercury concentrations in fish?

    a. If so, how?

39. How many different sites were sampled in the Florida study?

40. At how many of those Florida sites did mercury levels increase or show no change?

41. Are site-specific factors relevant to determine whether or not and to what extent reducing local anthropogenic mercury emissions will result in reductions in methylmercury concentrations in local fish species?

42. Were the emission reductions at issue in either the Florida or Massachusetts study from electric generating units?

43. What were the sources of reduced air mercury emissions in those studies?

44. What is the percentage of total and anthropogenic emissions of mercury in Florida and Massachusetts from coal-fired power plants?

45. In the second full paragraph on page 3 of Ms. Willhite's testimony she states that "several of the lakes in Illinois that are listed for fish consumption impairment due to mercury,

and that have the highest fish tissue levels of mercury detected in the state, have no point source discharge into the water at all." With respect to this statement:

a. What lakes is she referring to?

b. What point source dischargers historically, and what non-point sources currently or historically, discharge or discharged to these lakes?

c. What are the contributions of natural mercury sources and out-of-state man-made sources to mercury levels in these waters and in fish in these waters?

46. In the last full paragraph on page 3 of her testimony, Ms. Willhite states that "other states that have drafted TMDLs on mercury-impaired waters (i.e., Georgia, Minnesota , Maryland) have allocated a high percentage as coming from atmospheric deposition." With respect to this statement:

a. What is the basis for this statement, including what documents, studies or reports is Ms. Willhite relying upon?

b. What were the identified sources of this atmospheric deposition?

c. How much of this deposition was attributed by Georgia, Minnesota, and Maryland, respectively, to sources in other states and countries?

d. Is the Agency aware of states that have drafted TMDLs for impaired waters that have not allocated a high percentage to atmospheric deposition?

i. If so, which states?

ii. Why?

47. In the summary on page 4 of her testimony, Ms. Willhite says that that "[a]tmospheric deposition of mercury can be an important source of loading to impaired waters and

Illinois emission sources may contribute a notable portion of deposition within Illinois." With respect to this statement:

a. What are the factors impacting whether and to what extent mercury entering a waterbody will ultimately end up in fish tissue?

b. What does the term "notable" mean?

c. What is the basis for her conclusion that a "notable portion of deposition within Illinois" may come from Illinois emission sources?

d. Has the Agency modeled or caused to be modeled mercury deposition in Illinois by Illinois sources?

   i. If so, over what period?

   ii. What were the results?

   iii. Who performed the modeling, the Agency itself or some other entity?

e. What is the extent of "loading to impaired waters" from Illinois emission sources?

   i. What studies and reports support this contention?

   ii. Please provide copies of any such studies or reports.

48. The Agency's TSD, at page 73, states that "the lakes where the ambient mercury levels were higher than the [water quality standard] are not the lakes with specific fish consumption advisories (i.e., not listed as impaired)."

a. Of the 52 stream samples and 32 lake samples cited on this page of the TSD, were samples from only three streams and only two lakes above the water quality standard for mercury?

b. Which lakes and streams were above the standard?

c. Are the locations of these two lakes and three streams identified on Figures 4.3 and 4.2, respectively?

49. At page 69, the TSD states that the "statewide average of all point source discharges of mercury (0.02229791 ton per year) was only 0.745% of the base year total emissions of mercury (2.99466 tons per year) in Illinois." With respect to this statement:

a. What is the "base year" used in these calculations?

b. What air emission sources were included in the calculation of air emissions?

50. In her testimony summary, Ms. Willhite also states that "[f]ailure to control particular units that significantly contribute to local deposition means that source of loading will remain and elevated levels of mercury in fish tissue will continue." With respect to this statement:

a. What "particular units" in Illinois "significantly contribute to local deposition"?

b. What is the evidence of such contribution by these units?

c. What specific fish population is being referred to in this statement?

51. How many currently identified impaired waterbodies in Illinois would no longer be impaired if the Illinois mercury rule proposal is adopted?

a. When would such waterbodies no longer be considered impaired?

b. Which waterbodies would no longer be impaired?

c. Would the failure of neighboring states to adopt a rule similar to Illinois' mercury proposal change Ms. Willhite's answers to these questions?

d. Please explain the basis for Ms. Willhite's answers.

52. How many currently identified impaired waterbodies in Illinois would no longer be impaired if the CAMR is adopted in Illinois?

a. When would such waterbodies no longer be considered impaired?

b. Which waterbodies would no longer be impaired?

c. Please explain the basis for Ms. Willhite's answers.

53. At page 61, the TSD states that "TMDLS are complicated. The mechanisms controlling mercury accumulation in fish tissue are variable and difficult to model, resulting in questionable results. Finally, state water programs are challenged in addressing atmospheric loading of mercury, which has been shown to be a dominant contributor to many waters, because the sources may be outside the watershed, state or nation." With respect to these statements:

a. What is a "dominant contributor"?

b. What are the "mechanisms" that control the accumulation of mercury in fish tissue?

c. Has the Agency performed any study, or is it aware of any study, concerning these mechanisms in Illinois waters?

d. Why are these "mechanisms" difficult to model"?

e. Why are results "questionable"?

f. What models are available to assess these "mechanisms"?

g. Has the Agency used any of those models to support its proposed mercury rule?

For Thomas C. Hornshaw PhD

1. Are Asian carp present in Illinois waters?
2. Are they destructive to Illinois waters?
3. Are they displacing native fish?
   a. If so, which ones?
4. Are they eaten by Illinois fishermen?
   a. Are they sold for human consumption?
   b. If so, in what proportion?
5. Did the number of commercial fishermen in Illinois drop from the mid-1970s to 1995?
   a. What was the extent and cause of the decrease from the mid-1970s through 1995?
6. Were fewer fish caught in Illinois waterbodies in 1995 and sold in the commercial market than in 1979?
   a. What was the reduction in number of fish and pounds of fish sold?
7. What were the number of fishing licenses issued in Illinois for each of 1985, 1990, 1995, 2000 and 2005?
8. Has Dr. Hornshaw published any ecological or human health risk assessment studies in any peer reviewed publication?
9. Did Dr. Hornshaw draft or assist with drafting any portion of the TSD?
   a. If so, which portion?
10. Are the duties, authorities, powers and procedures of the Illinois Fish Contaminant Monitoring Program ("FCMP") set forth or described in any statute or regulation?
    a. If so, please identify that statute or regulation.

11. Do the decisions and determinations of the FCMP, such as fish tissue mercury levels that trigger fish consumption advisories, have the force of law in Illinois, or are they merely guidance to the public?

    a. If the Agency contends that any such decisions or determinations do have the force of law, please describe the basis for that contention.

12. Is there any public involvement in the decision-making process used by the FCMP?

    a. If so, please describe that involvement.

13. Are the decisions of the FCMP subject to any peer review by persons or entities other than the agencies that are part of the FCMP?

    a. If so, please identity such persons and entities and describe the peer review process.

14. At page 1 of Dr. Hornshaw's testimony he states, "I am familiar with the fish contaminant data generated by FCMP, and maintain a database of these laboratory results." With respect to this statement:

    a. Is this database publicly available?

        i. If so, how may it be accessed?

        ii. Is this data available on a USEPA website?

    b. How many total sample results are contained or reflected in this database?

    c. During what period of time were these results collected?

    d. What information is provided in this database with respect to each sample?

    e. Does this database contain all fish contaminant data for the State of Illinois?

        i. If not, what data is not included in that database?

        ii. How can that data be accessed by the public?

f. What other data, such as water column or sediment sample data, is contained in this database?

g. Has fish sampling frequency changed over time?

h. Have the analytical methods for analyzing fish tissue changed over time?

i. What percentage and number of Illinois waterbodies are and have been subject to (i) fish tissue sampling, (ii) water column sampling, and (iii) sediment sampling?

15. An April 2006 report by the Illinois Public Interest Research Group entitled "Risky Fishing: Power Plant Mercury Pollution and Illinois Sport Fish" (the "PIRG Report") thanks Tom Hornshaw for his "substantial assistance." What assistance did Dr. Hornshaw provide?

16. The PIRG report asserts that its Appendix C contains FMCP data for 804 fish samples between 1985 and 2004.

a. Is this the entire collection of FMCP fish sampled data during this period?

b. Does Appendix C accurately set forth that data?

c. Was additional fish tissue sampling conducted in 2005 and 2006?

i. If so, are that data and related results available?

d. Have fish tissue samples not been collected from any Illinois lakes, rivers, or streams? (That is, are there any Illinois lakes, rivers, or streams where fish tissue has not been collected and sampled?)

i. If so, which ones?

17. An Illinois Department of Public Health document entitled "Facts About Illinois' Methylmercury Advisory," available on that agency's website, states that "methylmercury levels detected in predator sport fish have remained about the same . . ."

over time. Does the Agency agree that the FMCP fish tissue samples show steady levels of fish tissue mercury concentrations over time?

18. The PIRG Report asserts that the "special advisory" trigger applies to river and lakes where fish tissue samples show mercury concentrations above 0.23 ppm. With respect to this statement:

    a. What is a "special advisory"?

    b. Is PIRG's assertion that the "special advisory" is triggered above 0.23 ppm correct?

    c. Is it correct that an Illinois water is listed as impaired under Section 303(d) of the Clean Water Act only if the fish tissue sample results show concentrations of 0.23 ppm or greater?

    d. How was 0.23 ppm calculated?

    e. What does that number represent?

    f. Who calculated it?

    g. When?

19. Do the analyses used by the Agency to test for mercury in fish tissue report total mercury concentration rather than methylmercury concentrations?

    a. Is there any research or study showing that the same fish tissue may have greater concentrations of total mercury than methylmercury?

    b. If so, what research or study?

20. Dr. Hornshaw's testimony at page 2 refers to a "Protocol for Uniform Great Lakes Sport Fish Consumption Advisory," a 1989 "Memorandum of Agreement," and "policy determinations adopted by the FCMP over time." With respect to these references:

a. The Protocol appears to address appropriate fish advisory levels for PCBs. How is the process and methodology set forth in this document applied to mercury?

   i. Is there any similar document that specifically addresses mercury?

b. With respect to the "policy determinations":

   i. Are they in writing?

   ii. Who makes them?

   iii. How are these determinations made?

   iv. Are they publicly available?

c. The MOA at page G-1 lists action levels for a number of substances but omits mercury and methylmercury. Why were mercury and methylmercury omitted?

d. The MOA sets forth various quality control protocols. Has USEPA ever questioned or raised concerns about the method used by the State of Illinois to sample or analyze fish tissue, water or sediment for mercury or methylmercury?

   i. If so, what concerns or questions were raised?

   ii. When

   iii. How were such questions or concerns addressed?

21. At page 3 of his testimony, Dr. Hornshaw states that the "MOA specifies the use of the U.S. Food & Drug Administration's Action Levels as criteria for determining the need for advisories. However, the process developed in the Protocol has been used to replace the FDA Criteria for Polychlorinated biphenyl (PCBs), Mercury and Chlordane. The Protocol determines a Health Protection Value (HPV) for a contaminant, which is then used with five assumed meal frequencies: Unlimited (225 meals/year); One meal/week (52 meals/year); One meal/month (12 meals/year); One meal/two months (6 meals/year);

and Do not eat (0 meals/year), to calculate the level of contaminant in fish that will not result in exceeding the HPV at each meal frequency." With respect to these statements:

a. The MOA contained no action level for mercury or methylmercury. What process, if any, was used to determine fish advisory levels for mercury or methylmercury prior to the 1993 Protocol?

b. This testimony indicates that the HPV is for "Mercury." Is the HPV used for fish advisories related to mercury or methylmercury?

c. What is the HPV for mercury or methylmercury?

d. The Protocol specifically addresses PCBs but does not appear to expressly set a process to determine the HPV for mercury. How does the State of Illinois determine the HPV for mercury or methylmercury, as the case may be?

e. What quantity of fish comprises a "meal" for purposes of the fish advisories?

   i. What is the basis for that quantity?

f. Is the Agency aware of any other state or federal agency, including USEPA, that assumes a lower quantity of fish is consumed at each fish meal for purposes of setting fish advisories?

22. In the bottom paragraph on page 3, the testimony asserts that the "HPVs currently used by the FCMP for methylmercury are derived from USEPA criteria."

a. Please describe this derivation.

b. This paragraph indicates that the Agency uses USEPA's RfD to determine the applicable HPV. Does the Agency agree that USEPA's RfD is protective of human health?

c. Table 4.3 at Page 58 of the TSD appears to list various fish advisory levels in Illinois. What is the quantity of a fish meal assumed in this table?

i. What is the basis for that quantity?

d. Does USEPA use a different quantity of assumed consumption for each meal to identify a fish advisory level of 0.3 ppm?

e. Table 4.3 assumes an HPV of 0.1 µg/kg/d for sensitive populations and 0.3 µg/kg/d for other populations.

i. Does the 0.1 µg/kg/d HPV correspond to USEPA's RfD for methylmercury?

ii. How is the 0.3 µg/kg/d standard derived?

f. Do other federal and state agencies use and publish different HPVs or reference doses?

g. Are any of those HPVs or reference doses less stringent?

23. Has the state issued a fish advisory based on the presence of PCBs in fish tissue?

a. If so, what is the basis of that fish advisory?

b. What waterbodies are covered by that advisory?

24. When was the general statewide mercury fish advisory issued in Illinois?

a. Is it correct that the statewide mercury fish advisory does not mean that all sampled fish are above the numeric mercury fish advisory levels?

25. Dr. Hornshaw's testimony at page 3 states that in the past the "FCMP relied on a criterion for mercury in sport fish of 0.5 mg/kg developed by the Illinois Department of Public Health, with samples exceeding the criterion given 'Do not eat' advice and samples below the criterion placed in the 'Unlimited' category."

a. When did specific fish advisories move from these two categories to the five categories set forth in Table 4.3 in the Agency's TSD?

b. Why were the two categories moved to the five categories?

26. If mercury levels in fish tissue were reduced below the current Illinois numeric fish advisory levels for mercury, would all of the fish advisories in the State of Illinois be lifted?

a. If not, why not?

b. Which waters would remain subject to fish advisories?

27. Does the Agency agree that exposure to methylmercury through fish consumption can be reduced significantly by eating younger, smaller fish and by trimming fat from fish before cooking?

28. Is it correct that the Illinois Department of Public Health continues to recommend that Illinois residents eat fish?

29. With respect to non-anglers living in Illinois, what percentage of their fish intake is comprised of fish from waters outside of the state of Illinois, including the oceans?

30. Is it correct that USEPA has developed a fish advisory criterion of 0.3 ppm based on its current reference dose, an assumed body weight of 70 kg, and assumed fish consumption of about 17.5 grams per day?

31. Does the Agency contend that adoption of the Illinois mercury rule proposal will result in fewer fish exceeding fish advisory standards than if only CAMR is implemented in Illinois?

a. How many fewer fish will exceed the fish advisory standard?

b. Please explain the basis for your answers.

32. In his testimony at page 4, Dr. Hornshaw refers to a study by NFCS, noting that the study found that the rate of fish consumption in the general population of the NFCS study was "12 g/d (19 meals/year)." He refers to another of only female "consumers" using data from the NFCS study and a USDA study. Of the reported average numbers of meals per week, how many of the meals were of ocean fish or shell fish as compared to freshwater fish or shell fish?

33. At page 5 of his testimony, Dr. Hornshaw refers to fish consumption studies in California and Michigan of anglers.

    a. Please explain why these studies are relevant to Illinois anglers.

    b. Is there any reason to believe that Illinois anglers may have different consumption patterns?

    c. Why hasn't Illinois collected the same type of information?

    d. Are there any subsistence fishermen in Illinois?

    e. If so, please identify and provide the number of such fishermen?

34. At page 5 of his testimony, Dr. Hornshaw states that the "review of fish consumption literature provides convincing evidence that sport anglers may consume amounts of sport-caught fish that could allow them and their families to exceed health-based limits for chemical contaminants in their catch." With respect to this statement:

    a. Is this conclusion based on the presence of different kinds of contaminants in fish, including PCBs?

    b. Does the Agency agree that exceeding any such "limit" may, but will not necessarily, cause a health impact?

35. Is it correct that at least some other states have less rigorous fish advisory action levels than the 0.05 ppm "unlimited" fish consumption level in Illinois, including Minnesota and Texas?

    a. What other states have less stringent fish advisory action levels?

36. Is it correct that the average fish tissue mercury level in Illinois is lower than the average fish tissue mercury level in at least 75% of the other states?

For Richard Ayres

1. Does Mr. Ayres have any formal training or degree as an economist, engineer, toxicologist or medical doctor?

2. At page 7 of his testimony, Mr. Ayres states that there are "[f]indings suggesting that the emissions from coal-fired power plants are limiting the personal and economic futures of a substantial number of kids being born in Illinois. . . ." With respect to this statement,

   a. What does the term "substantial" mean?

      i. What is the basis for that number?

   b. What "findings" is Mr. Ayres referring to?

   c. What is the basis for the assertion that "personal and economic futures" are limited?

For Gerald Keeler

1. Mr. Keeler states in his testimony that "Illinois coal-fired power plants are the largest source of man-made mercury emissions in the State. . . . "
   a. How large are these emissions compared to natural mercury emissions?
   b. How large are these emissions compared to the total amount of mercury emitted in Illinois?
   c. How large are these emissions compared to global levels of mercury emissions from all sources?
2. What country has the largest mercury emissions from coal burning?
3. Is mercury a global problem?
4. Does all of the mercury emitted by Illinois coal-fired power plants end up in Illinois?
5. Does some of the mercury in Illinois' water bodies come from outside of Illinois?
   a. How much?
6. In Dr. Keeler's testimony, he mentioned that "source contributions from . . . motor vehicle emissions sources were important in Detroit." Would it be reasonable to suppose they would be similarly important in Illinois?
7. Would Dr. Keeler consider the Steubenville, Ohio, study site to be representative of conditions across the country?
   a. Representative of conditions anywhere in Illinois?
   b. If so, where?
8. In the Steubenville study, was there any attempt made to relate deposition of inorganic mercury from anthropogenic sources to methylmercury concentrations in fish?

9. Do different types of emissions sources for mercury have different mercury deposition patterns?

10. Do different types of sources emit different species of mercury?

11. Is the mercury deposition pattern for incinerators different than it is for coal-fired EGUs?

    a. In what ways are they different?

    b. What elements or facts influence or cause these differences?

12. Not all inorganic mercury deposited to waterbodies from the atmosphere becomes methylated. Is that correct?

13. Some of the mercury deposited into waterbodies is reemitted. Is that correct?

14. The amount of methylation that can occur in a waterbody depends on site-specific conditions. Is that correct?

15. Demethylation can also occur. Is that correct?

16. Is it possible to accurately predict the amount of methylmercury that will be found in a fish based on atmospheric deposition of inorganic mercury to the waterbody that the fish lives in?

General Questions

1. Has the Agency assessed, or is it aware of any assessment regarding, what portion of mercury deposition in the State of Illinois is due to sources within the State of Illinois?
   a. If so, please describe each such assessment and the related results.
2. Has the Agency assessed, or is it aware of any assessment regarding, what portion, if any, of the mercury present in tissue of fish in the State of Illinois is due to mercury emissions in the State of Illinois as opposed to in other states or countries?
   a. If so, please describe all such assessments and the related results.
   b. If so, please provide copies of all documentation of such assessments and results.
3. With the closing of the Northwest and Robbins Incinerators, what was the effect on mercury deposition in Illinois?
   a. How did the Agency make its determination regarding the effect on mercury deposition?
4. What is the operating status of the medical waste incinerator in or slightly east of Clinton, Illinois?
   a. Is the Agency monitoring ambient mercury in the vicinity of that incinerator?
   b. What are the results of the monitoring?
5. What are the water quality and fish tissue levels for mercury in Clinton Lake?
   a. What type of bottom does Clinton Lake have?
   b. What is the typical ambient water temperature in Clinton Lake?
   c. Would Clinton Lake be a likely spot for mercury methylation?
   d. What is the mercury content of fish in Clinton Lake?

6. What are the water quality and fish tissue levels for mercury in Lake Springfield where there is a coal-fired power plant burning bituminous coal right on the shores?
   a. What type of bottom does Lake Springfield have?
   b. What is the typical ambient water temperature in Lake Springfield?
   c. Would Lake Springfield be a likely spot for mercury methylation?
   d. What is the mercury content of fish in Lake Springfield?
7. What are the water quality and fish tissue levels for mercury in Lake Sangchris?
   a. What type of bottom does Lake Sangchris have?
   b. What is the typical ambient water temperature in Lake Sangchris?
   c. Would Lake Sangchris be a likely spot for mercury methylation?
   d. What is the mercury content of fish in Lake Sangchris?
8. What are the water quality and fish tissue levels for mercury in Baldwin Lake?
   a. What type of bottom does Baldwin Lake have?
   b. What is the typical ambient water temperature in Baldwin Lake?
   c. Would Baldwin Lake be a likely spot for mercury methylation?
   d. What is the mercury content of fish in Baldwin Lake?
9. On page 107 of the TSD, Table 7.1 omits Wood River and two of the Will County units. Why were these units omitted?
10. How does the size of the ESP at Yates, discussed on page 134 of the TSD, compare to the ESPs in Illinois?
11. Has Sorbent Technologies tested its products in operations in different seasons and different climates and for long periods of time equating to permanent use?

12. Does the Agency assume only the installation of ACI in its cost estimates of the control options available on page 147 of the TSD?

13. On page 157 of the TSD, the Agency states that allowances purchased under CAMR from out-of-state sources that have excess allowances would "have a cost reflecting at least the cost of implementing control technology."

    a. What is the basis of this statement?

    b. Is the generally-held theories relative to emissions trading the following: that sources would not buy allowances for purposes of compliance unless either (1) they had an unforeseen event occur requiring additional allowances or (2) the cost of allowances is cheaper than the cost of controlling?

14. Which are the "must run" and "blackstart" units?

15. How does the Agency compare or offset the economic impacts of the closure of some plants to the claimed gains from the installation and operation of new equipment?

    a. Wouldn't installation of control equipment be only temporary employment at a given plant?

16. Section 225.265 of the proposed rule requires that daily coal sampling commence 30 days in advance of when the activity is actually necessary to determine coal mercury content for purposes of compliance.

    a. What is the ASTM requirement to provide representative daily samples?

    b. Is it the Agency's belief that one 2-lb grab sample per day will be sufficient to demonstrate compliance?

    c. Why is it necessary to commence daily coal sampling a month before the program begins?

d. What equipment would be necessary to conduct this sampling?

e. What is the cost of this equipment?

f. How many EGUs currently have this equipment in place?

17. Section 225.295 of the proposed rule states that the Agency will retain the mercury allowances and will instruct USEPA to permanently retire them.

a. How does Illinois EPA expect to demonstrate compliance with the emissions cap applicable to Illinois in the CAMR?

b. If the state does not comply with the cap, what happens? How will USEPA enforce the cap?

c. How can Illinois EPA assure that USEPA will not take the global approach it takes in other areas, *e.g.*, assuming noncompliance for the entire ozone season if an EGU does not hold sufficient allowances at the end of the season under the NOx SIP Call? That is, how can Illinois EPA assure the regulated community that USEPA will not pursue enforcement against each of the affected EGUs if the state does not comply with the emissions cap?

18. Please provide examples of the calculations for Section 225.230(d).

19. At pages 5-6 of Mr. Romaine's testimony, he states that Section 225.230(b) provides that the compliance method can be changed at a source on a month-to-month basis if the company chooses to do so. In order to do this, the source would have to maintain records of both types of compliance so it could provide the 12-month rolling data necessary to demonstration compliance. Theoretically, a source could be out of compliance relying on one method during a month but in compliance if it relied on the other method.

a. Would the data demonstrating noncompliance under a method that is not used for purposes of compliance for a particular month be credible evidence of noncompliance?

b. Conversely, would evidence of compliance in a given month be credible evidence if, for some reason, such as in an Averaging Demonstration among the non-related companies, the data reported to the Agency indicated noncompliance?

Respectfully submitted,

DYNEGY MIDWEST GENERATION, INC. and
MIDWEST GENERATION, LLC,

by:

/s/ *Kathleen C. Bassi*

One of Their Attorneys

Dated: May 22, 2006

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PROPOSED NEW 35 ILL.ADM.CODE PART 225	)	PCB R06-25
CONTROL OF EMISSIONS FROM	)	Rulemaking - Air
LARGE COMBUSTION SOURCES	)	

NOTICE OF FILING

To:

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PLEASE TAKE NOTICE that we have today filed with the Office of the Clerk of the Pollution Control Board DYNEGY AND MIDWEST GENERATION'S MOTION FOR LEAVE TO FILE QUESTIONS FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AT THE HEARING COMMENCING JUNE 12, 2006, INSTANTER and DYNEGY AND MIDWEST GENERATION'S QUESTIONS FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AT THE HEARING COMMENCING JUNE 12, 2006, copies of which are herewith served upon you.

/s/ *Kathleen C. Bassi*
Kathleen C. Bassi

Dated: May 22, 2006

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CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 22[d] day of May, 2006, I have served electronically the attached DYNEGY AND MIDWEST GENERATION'S MOTION FOR LEAVE TO FILE QUESTIONS FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AT THE HEARING COMMENCING JUNE 12, 2006, INSTANTER and DYNEGY AND MIDWEST GENERATION'S QUESTIONS FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AT THE HEARING COMMENCING JUNE 12, 2006, upon the following persons:

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and electronically and by first-class mail with postage thereon fully prepaid and affixed to the following persons:

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