1	ILLINOIS POLLUTION CONTROL BOARD June 12, 2006
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3	IN THE MATTER OF ) )
4	PROPOSED NEW 35 ILL ADM. CODE) R06-25 225 CONTROL OF EMISSIONS FROM) (Rulemaking - Air) LARGE COMBUSTION SOURCES )
5	(MERCURY) )
б	TESTIMONY OF JIM ROSS
7	
8	BEFORE MARIE E. TIPSORD HEARING OFFICER
9	The testimony of Jim Ross, a witness
10	called in the rulemaking proceeding before the Illinois
11	Pollution Control Board taken on June 12, 2006, at 9:00 a.m., at the offices of the Environmental Protection
12	Agency, Springfield, Illinois, before Holly A. Schmid, Notary Public and Certified Shorthand Reporter, CSR No. 084-98-254587 for the State of Illinois.
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1	A P P E A R A N C E S
2	MEMBERS OF THE ILLINOIS POLLUTION CONTROL BOARD: Ms. Marie E. Tipsord, Hearing Officer;
3	Dr. G. Tanner Girard, Board Member; Ms. Andrea S. Moore, Board Member;
4	Mr. Anand Rao, Board Staff; Mr. Thomas Johnson, Board Staff;
5	Mr. Tim Fox, Board Staff; Mr. Nicholas Melas, Board Staff;
6	Ms. Alisa Liu, Board Staff.
7	COUNSEL FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
8	Mr. Charles Matoesian;
9	Ms. Gina Roccaforte; Mr. John Kim;
10	Mr. Richard Ayres;
11	COUNSEL FROM SCHIFF-HARDEN
12	Ms. Kathleen Bassi; Mr. Stephen Bonebrake;
13	Mr. Sheldon Zabel; Mr. Jim Ingram, Dynegy, Inc.
14	
15	COUNSEL FROM JENNER & BLOCK Mr. Bill Forcade; Ms. Katherine Rahill.
16	COUNSEL FROM McGUIRE-WOODS:
17	Mr. James Harrington; Mr. David Rieser;
18	COUNSEL FROM THE ENVIRONMENTAL LAW AND POLICY CENTER
19	Ms. Faith Bugel;
20	COUNSEL FROM THE CHICAGO LEGAL CLINIC Mr. Keith Harley
21	Mr. Keith hariey
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1		EXHIBITS	
2	IDENTIFICATION		PG.
3	Exhibit No. 1:		17
4	Exhibit No. 2:		28
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everyone ready? I'm going to try this without the microphone. If you can't hear me, let me know and I will turn the microphone on. I'm not known as a quiet person, so I think you probably won't have too much difficulty hearing me in the back, but if you do, let me know.

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8 Good afternoon. My name is Marie 9 Tipsord, and I've been appointed by the Board to serve 10 as hearing officer in this proceeding entitled in the 11 matter of Proposed new 35 Ill Admin. Code 225, control 12 of emissions from large combustion sources, mercury. 13 The docket No. is R06-25.

To my left is Dr. Tanner Girard, and to my right is Andrea Moore, the board members assigned to this matter. Also present are board members Thomas Johnson, which is down here, and Nicholas Melas down on this end.

19 In addition, to Andrea Moore's right 20 is Tim Fox, her attorney and assistant to Dr. Girard's 21 left Anand Rao with our technical unit. Alisa Lieu will 22 be joining us tomorrow from our technical unit, and she 23 and Anand will be taking turns throughout these 24 proceedings.

In addition, with us today is Connie Newman. Connie is over here near the door. Connie is here to help answer any questions from the media. We also have Aaron Connelly who is I think in the back of the room, and John Knittle, who is attorney assistant to Tom Johnson.

7 Today's hearing is the first day of 8 several, during which the Illinois Environmental 9 Protection Agency will present witnesses and answer questions concerning the proposal filed with the Board. 10 11 We will proceed day to day, until the Agency is through, or until Friday June 23, whichever occurs first. 12 We will convene at 9 a.m. starting tomorrow morning, and 13 14 proceed, until close to five p.m. each day. Some days 15 may be a little longer; some days may be a little 16 shorter.

17 Since Thursday is a scheduled board 18 meeting day, we will begin at 9 a.m. recess at 10:30, 19 and come back after lunch around one o'clock. The board 20 meeting is a video conference meeting, so the Board members simply have to go upstairs to the video 21 22 conference room to hold the board meeting. 23 During breaks, I'm available to answer 24 any procedural question. You may also direct procedural

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questions to Mr. Fox or Aaron Connelly. Any members of 1 2 the press, as I said, should speak to Connie Newman. I 3 want to emphasize that the board and staff cannot 4 discuss the substance of the proposal off the record, 5 nor can we discuss any substance at issue. Substantive 6 items should be raised during the hearing. If you are 7 not sure whether or not your issue is a substantive 8 issue, please ask me and we can also place your issue on 9 the record.

I do have one minor housekeeping 10 11 matter to discuss. The clerk's office has added to 12 COOL, the clerk's office on-line, a docket No. R06-25. 13 This was opened because the volume of comments being 14 filed. They were slowing down the COOL system, and 15 making it difficult to find motions, testimony and 16 prefiled questions on the docketing sheets. We received 17 over 7,000 comments so far in this rulemaking, and this 18 is the first rulemaking with this volume of comments 19 since the advent of COOL. The clerk's office felt that 20 this was the best way to maintain the electronic record. All public comments will be documented 21 in the PC docket number, rather than RO6-25. I want to 22 23 emphasize this is an electronic recordkeeping method. It 24 has nothing to do with how the comments are reviewed,

how they will be looked at by the Board, or how they are
 physically maintained in our office.

At this point in time, we are in the process of docketing, approximately, 7,000 postcards and E-mails that we received. That will take some time for them all to get in, but once they are in, you will be able to see them on-line. At any time before that, you are more than welcome to come into the Board's office and inspect any of the public comments onsite.

As I indicated earlier, this is first 10 11 hearing to be held in this proceeding. The purpose of 12 today's hearing is to hear the prefiled testimony of the Illinois Environmental Protection Agency, and to allow 13 14 anyone who wishes to ask questions of the Agency to do 15 so. The prefiled testimony will be taken as if read and entered as an exhibit. I understand the Agency wants to 16 17 give a brief overview, and then we will proceed with 18 questions. We will start with prefiled questions, and I 19 will allow follow-up to the questions by anyone.

I repeat, anyone may ask a question. However, you must raise your hand and wait for me to acknowledge you. After I have acknowledged you, please state your name and who you represent before you begin your questions. Please speak one at a time. If you are

speaking over each other, the court reporter will not be able to get your questions on the record, and I would note, if we're having problems with projection or people being heard, there is a microphone up here that people can approach to ask questions.

6 Please note that any question asked by 7 a board member or staff are intended to help build a 8 complete record for the board's decision, and not to 9 express any preconceived notion or bias by the board or 10 staff.

11 At the side of the room, there are 12 sign-up sheets for notice and service lists. If you wish to be on the service list, you will receive all 13 14 pleadings and prefiled testimony in this proceeding. In 15 addition, you must serve all your filings on the person 16 on the service list. As I noted in my May 16, 2006, 17 hearing officer order, with the advent of COOL, if you 18 are filing a public comment and not on the service list, 19 you need not serve that comment on the service list. If 20 you wish to be on the notice list, you will receive all board and hearing officer orders in the rulemaking. If 21 22 you have any questions about which list you wish to be 23 on, please see me at a break. You may also sign up on either list on COOL. 24

At this time, Dr. Girard, is there 1 2 anything you would like to add? 3 DR. GIRARD: Good afternoon, everyone. 4 On behalf of the Board, I welcome everyone to this hearing as we consider limiting mercury emissions from 5 6 coal-fired electrical generating units. We look forward 7 to the testimony and questions that will help us write the best rule possible. Thank you. 8 9 MADAM HEARING OFFICER: Ms. Moore, is there anything you would like to add? 10 11 MS. MOORE: No. MADAM HEARING OFFICER: With that, 12 let's begin. Are there any questions on how we are 13 14 going to proceed before we begin? Okay. Then I will 15 turn it over to the Agency. 16 MR. KIM: Thank you. Good afternoon. 17 My name is John Kim. I am the managing attorney of the 18 Air Regulatory Unit within the Illinois EPA Division of 19 Legal Counsel. Representing the agency today, along 20 with me, are Gina Roccaforte, assistant counsel, and Charles Matoesian, assistant counsel. On our panel 21 22 today we have Jim Ross, who is the manager of the 23 Division of Air Pollution Control, the Bureau of Air. Mr. Ross will be making a short introduction in just a 24

moment and Richard Ayres, who is a principal with the 1 2 Ayers Law Group. Mr. Ayres is assisting the Agency in 3 the presentation of the rule. 4 I had a couple quick matters to address. Mr. Ross will be the first witness for the 5 6 Agency, and I would like to request that his testimony 7 be admitted as if read, his prefiled testimony, a copy 8 of which has been produced. At this time could we have. 9 MADAM HEARING OFFICER: At this time, could we have Mr. Ross sworn? 10 11 (At which point in the proceedings, 12 James Ross was sworn in by the court reporter.) 13 MADAM HEARING OFFICER: Is there any 14 objection to entering Mr. Ross' testimony as an exhibit? 15 MR. ZABEL: Madam Hearing Officer, I 16 will reserve objections, until the cross, please. 17 MADAM HEARING OFFICER: Objections to 18 the --19 MR. ZABEL: Qualifications. I want to 20 see his qualifications to make some of the statements he's made, and I can't do that, until I cross-examine 21 22 him. 23 MADAM HEARING OFFICER: So you don't want me to enter this as an exhibit at this time? 24

MR. ZABEL: I'm not waiving my right 1 2 to object, Ms. Hearing officer. 3 MADAM HEARING OFFICER: Okay. Then we won't enter it as an exhibit at this time. 4 5 MR. KIM: At the conclusion of 6 Mr. Ross' testimony, we'll accept the motion. Mr. Ross 7 will be, again, making a short presentation. After that point, he will then address the Introduction and 8 9 Background sections that were presented in the Agency's 10 Technical Support Document, or TSD. We had previously 11 identified, through some hearing officer orders, the 12 order in which we intended to present witness testimony. I can run through that again quickly, if you would like. 13 14 The testimony that we are going to present is keyed off 15 the sections of the TSD, so in order, we would be doing 16 sections 1 and 2 of the TSD, which are the Introduction 17 and Background sections. That testimony will be 18 provided by Jim Ross. 19 MADAM HEARING OFFICER: Excuse me, 20 Mr. Kim. They are unable to hear in the back of the 21 room. 22 MR. KIM: I will speak up, yes. 23 MADAM HEARING OFFICER: Speak up or 24 move the microphone closer.

MR. KIM: Should I turn it on? 1 2 MADAM HEARING OFFICER: Turn it on. 3 There we go. MR. KIM: And I have a cold, so I 4 apologize. After Sections 1 and 2 will be Section 3, 5 6 which is the Impacts on Human Health. Those questions 7 will be addressed by Dr. Deborah Rice and Jeff Sprague. Following that, will be Section 4 of 8 9 the TSD, which addresses mercury-impaired water. Those 10 questions will be answered by Marcia Willhite and Tom 11 Hornshaw. 12 Next, will be Section 5 of the TSD, Deposition of Mercury. Those questions will be 13 14 addressed by Dr. Jerry Keeler and Marcia Willhite. 15 Next, will be Section 6 of the TSD, 16 which addresses regulatory activities. Those questions 17 will be answered by Richard Ayers and Jim Ross. Next, 18 will be Section 7 of the TSD, which addresses Illinois 19 mercury emissions standards. Those questions will be 20 addressed by Jim Ross and Chris Romaine. Next, will be Section 8 of the TSD, 21 concerning technical feasibility. Those questions will 22 23 be addressed by Dr. Jim Stout, Chris Romaine, Jim Ross, Sid Nelson and David Forter. 24

Next, will be Section 9 of the TSD 1 2 concerning economic modeling. Those questions will be 3 addressed by Dr. Ezra Hauzman, Jim Ross, and Rob Kaleel. Finally, Section 10 of the TSD 4 5 concerns other relevant issues. That testimony will be 6 addressed, or those questions will be addressed by 7 Dr. Ezra Hauzman, Jim Ross, Rob, Kaleel, Dr. Jim Stout 8 and Chris Romaine, and I believe that in, at least, one of the hearing officers' orders, you indicated that --9 and I assume this will hold true for, both, this hearing 10 11 and the next hearing, when the participants present 12 their case, that the parties would try and observe some flexibility, in terms of availability of outside 13 14 witnesses that maybe have certain schedule limitations 15 and so forth. 16 We have tried to tailor our experts 17 and our testimony so we won't have a problem, but I just 18 wanted to bring that up as something that we'll be 19 trying keep track of. 20 MADAM HEARING OFFICER: Thank you. MR. KIM. The last thing I was going 21 to address before Mr. Ross speaks was the request, I 22 23 believe, again, in one of the hearing officers' orders 24 in which the request was made that the Illinois EPA tie

to provisions of the TSD to the relevant sections of the 1 2 proposed rule. We have reviewed the Technical Support 3 Document and the proposed rule, and what we have found 4 is that they don't mesh up exactly that way. The 5 Technical Support Document is intended to be a 6 supporting document that is supposed to provide 7 background, among other things, as to how the rule came 8 to be, so it does not track section by section. That 9 said, we have tried to link up certain sections of the rule to certain sections of the TSD, and what we would 10 11 then state is that Section 225.230 through 225.237 and 12 Section 225.265 contain the mercury emissions standard requirements that are, generally, addressed by Sections 13 14 7 and 8 of the TSD. And sections 225.200 through 15 225.220 contain general requirements, and Sections 16 225.263, 225.270 and 225.290 pertain to monitoring 17 recordkeeping , and reporting of mercury emissions. 18 Again, that was the best tie in that 19 we could make. If there are no other questions, then I 20 believe Mr. Ross will be making a short presentation. After which, he will address questions we believe that 21 22 the set of questions that were provided to us that best 23 addressed the Introduction and Background sections of 24 the TSD were the questions submitted by Dynegy to

Mr. Ross. In the end, we will address all questions. 1 2 However, those questions, in particular, seemed to be 3 getting more towards the policy reasons why the rule 4 came to pass, or came to be, and so forth. So what we would suggest is that Mr. Ross will address the Dynegy 5 6 questions, and then following his answer, and any 7 follow-up questions, we would move to the next set of 8 questioning and answering, which would be by Dr. Rice 9 and Jeff Sprague.

MADAM HEARING OFFICER: Before we do 10 11 this, though, I'm actually going to go back for a second 12 to the issue of whether or not to admit the testimony as if read as an exhibit, and I'm going to go ahead and 13 14 admit that as Exhibit 1 over your objection, Mr. Zabel, 15 understanding, of course, that you may question the 16 qualifications and the findings in the testimony as part 17 of your cross-examination, but I think, to make the 18 record clearer, and in order to keep things sort of in 19 order, we do need to go ahead and admit his testimony. 20 Otherwise there's really not much for you to 21 cross-examine on.

22 MR. ZABEL: That's fine, Madam Hearing 23 Officer. We can cross-examine on it, if you wish to do 24 it that way. I may move to strike portions of it at the

1 conclusion of the cross-examination.

2	MADAM HEARING OFFICER: We will
3	certainly address any of those types of motions at the
4	time, but I think, for cleanliness of the record, it's
5	probably more appropriate to admit it as an exhibit at
6	this time, so we all know what we are looking at when
7	the questions and answers start flowing from Mr. Ross.
8	So I am going to admit that as Exhibit No. 1.
9	(Exhibit No. 1 was admitted.)
10	MR. KIM: Thank you. Again, as I
11	noted, Mr. Ross will be speaking today, but he will be
12	speaking later on in the hearing addressing other
13	sections of the TSD. He has a wide range of subject
14	matters he is addressing.
15	MADAM HEARING OFFICER: Mr. Ross, go
16	ahead.
17	MR. ROSS: Hello, everybody. I am
18	Mr. Ross. My name is Jim Ross, and I'm the manager of
19	the Division of Air Pollution Control here at the
20	Illinois EPA. I plan to give a brief overview of the
21	background of the proposed mercury rule, quickly go over
22	the rule, itself, and then touch on what we are hoping
23	to accomplish.
24	I would like, of course, to thank the

members of the Illinois Pollution Control Board for 1 2 allowing us to give this brief presentation. We feel it 3 is an important first step to frame the context of why 4 we are here, and the Board has asked us to keep this presentation short, and I intend to honor that request. 5 6 I know we are all anxious to get 7 started, and many of us are anxious to get finished, but 8 there are some strong opinions on this rule. We would 9 like to begin by saying that the Illinois EPA recognizes the vital role that our power plants play in supplying 10 11 power to Illinois customers, as well as jobs, and other economic benefits to Illinois citizens. In regulating 12 13 the power industry, we always keep this in mind, and in 14 no way, do we ever seek to impose unreasonable standards 15 that will create undue hardships on the power sector or 16 other related industries.

17 The issue surrounding the proposed 18 mercury rule are complicated, and solutions and 19 compromises were not readily obtained, and so there is 20 no doubt that the rule in its present form remains controversial. There are different viewpoints and 21 perspectives on the level of reductions needed and on 22 23 how best to achieve them. However, I am confident when 24 I say that I believe we have done our best to propose a

1 cost-effective and flexible rule.

2 To begin, I believe nearly everyone 3 agrees that mercury contamination is a serious issue and 4 simply put --5 MADAM HEARING OFFICER: Excuse me, 6 Mr. Ross. Since you are starting on Powerpoint, I think 7 if we want to move around. 8 MR. ROSS: There are handouts 9 available. They can follow along, if they choose. It looks like most of them picked one up. 10 11 Again, mercury is a persistent 12 bioaccumulative toxin that presents a serious threat to 13 the health and welfare of the citizens of Illinois and 14 nationwide. It is important to understand how mercury 15 emissions sources affect the environment and pose a 16 risk. Some key points on mercury are, it is released 17 into the atmosphere from man-made sources since 18 coal-fired power plants. Mercury contaminates the 19 environment locally and many miles away. Emissions are 20 transferred to the earth's surface via wet or dry deposition processes. In aquatic systems, mercury 21 transforms into methylmercury. Methylmercury 22 23 bioaccumulates in fish tissues, wildlife and humans, and humans and wildlife are contaminated from eating 24

1 contaminated fish.

2	A key concept to come away from this
3	slide is that we are seeking to reduce mercury air
4	emissions. In other words, to reduce the methylmercury
5	levels in the fish. This slide merely illustrates the
б	key concept of the previous slide, and that is air
7	mercury emissions find their way into the water where
8	they are transformed into methylmercury and contaminate
9	the fish, which, in turn, contaminate those who catch
10	and eat them.
11	Focusing in on how mercury impacts
12	humans fish and other wildlife that eat fish, unborn
13	children, infants and young children are at greatest
14	risk. Mercury is a particular concern for pregnant
15	women and women of childbearing age who become pregnant.
16	Fetal exposure is linked to lower IQ and other
17	detrimental effects. Mercury is linked to adverse
18	cardiovascular effects in men, and mercury contamination
19	is not limited to humans. Eagles, hawks, loon, chicks,
20	foxes, raccoons, oppossums and otters are just some of
21	the few wildlife animals that feed on the contaminated
22	fish. This slide contains a significant fact summed up
23	in one sentence, and that is "There is a statewide fish
24	consumption advisory for all predator fish for all

Illinois waters due to mercury." A profound statement
 in that it says no water bodies and no species of
 predatory fish in Illinois is known to be unaffected by
 mercury contamination. Clearly, mercury contamination
 is a statewide problem.

6 This slide gives some examples of 7 adopted legislation and implemented programs to reduce 8 mercury emissions in Illinois, including the regulation 9 of hazardous air pollutants, such as combustion of hospital and medical infectious waste, which resulted in 10 the shutdown of all, but 12 of 98 incinerators at 11 12 hospitals in Illinois. Illinois prohibits the sale of mercury-electrical switches and relays and restricts 13 14 mercury-containing scientific equipment in schools. 15 Mercury -- or Illinois helps schools properly dispose of 16 mercury waste, and the EPA takes part in the collection 17 of mercury-containing products as part of household 18 hazardous waste collections. 19 In as recently as April 24 of this 20 year the governor signed the Mercury Switch Removal Act. The point to emphasize here on this slide is that 21 22 Illinois is taking numerous measures to reduce mercury

23 in the state, and these are just a few.

24 Yet, despite all the numerous steps

taken, Illinois, currently, does not have any 1 2 regulations to address mercury emissions from coal-fired 3 power plants, and as the slide shows, coal-fired power 4 plants constitutes the largest source of man-made mercury emissions in Illinois. Obviously, it is a 5 6 logical step that we take measures to reduce -- to 7 control these emissions. 8 There have been steps taken on a 9 national level to control mercury power plant emissions, but they have been contentious, as I will briefly 10 11 expand. A very quick review of the tangled and 12 controversial history behind how to regulate mercury is shown on this slide. It starts with Illinois is a known 13 14 HAP. HAPs are regulated, typically, regulated vie

MACTS, acronym for Maximum Achievable Control TechnologyStandard.

17 However, special review was given for 18 power plants. U.S. EPA decided that no MACT was 19 appropriate or necessary, and instead, went with a 20 cap-and-trade program, known as CAMR, the Clean Air Mercury Rule. Illinois EPA rejected this approach and 21 22 Illinois proposed its own mercury reduction rule, which 23 is the subject of these hearings. Oversimplified, but a more thorough explanation is provided in a Technical 24

1 Support Document and testimony.

2	Why did Illinois object to the federal
3	CAMR? The quick answer is because it did not satisfy
4	some of the key answers that Illinois established for
5	mercury control. These principles are we must protect
б	human health, fish, wildlife, and the environment to the
7	greatest extent reasonably possible. We must reduce
8	mercury as quickly as possible in a cost-effective
9	manner. We must consider the latest control technology
10	that has been shown effective and can reasonably be
11	employed in a cost-effective manner across the full
12	fleet of Illinois power plants and coal types.
13	Continuing with the principles, we
14	must ensure mercury reductions occur, both, in Illinois,
15	and at every power plant in Illinois to address local
16	impacts. We need to provide compliance flexibility to
17	assist in widespread compliance and help reduce costs.
18	We must be consistent with the governor's proposal to
19	reduce mercury emissions in Illinois by 90 percent, and
20	any rule should be fuel neutral without favoring coal
21	from any particular region of the country, and we do
22	this by common standard for different coal types.
23	There have been key developments over
24	the last few years in mercury control technology, and

the first bullet point here emphasizes that. 1 In 2 particular, there has been the arrival of halogenated 3 sorbents for use in activated carbon injection systems, which is also referred to as Halogenated ACI. This 4 technology dramatically reduces the cost of high levels 5 6 of mercury reduction from sources using western 7 sub-bituminous coal, which many sources in Illinois do. 8 This is a significant development as 9 U.S. EPA proceeded with their rule on the belief that high levels of mercury control were more costly, and 10 11 more difficult to obtain for sources burning western sub-bituminous coal, a premise that is no longer true, 12 and one apparent flaw in the federal CAMR rule. 13 The 14 final bullet point here is that we expect the trend of 15 improved performance at lower cost to continue. 16 As a result of Illinois's objections 17 to CAMR, and consistent with its mercury control 18 principles, and armed with the knowledge that mercury 19 control technology has made advancements, the governor 20 announced his proposal for mercury control on January 35 of this year. To quote the governor, "Mercury emissions 21 hurt the environment, and can cause serious physical 22 23 harm to children. The new federal mercury regulations 24 don't go far enough in protecting the public from what

know are very dangerous emissions. That's why we are 1 2 proposing much stronger regulations here in Illinois to 3 make sure people can safely enjoy our air and water and 4 the fish from our rivers and lakes." I will give a brief overview of what the rule requires. It is broken 5 6 into two phases, with the first phase being less 7 stringent than Phase two. The proposed rule applies to 8 21 coal-fired power plants here in Illinois. Phase one is, as shown here, the key date is July 1, 2009. By 9 this date, all power plants in Illinois must be 10 11 controlling mercury. 12 The two key components of Phase one 13 are system-wide requirements and plant-wide 14 requirements. First, all systems must be in compliance 15 with either a 90 percent mercury reduction or an output 16 base limit. The second component of Phase one requires 17 that all plants reduce mercury by, at least, 75 percent 18 or an equivalent output basis of 0.02 pounds of mercury

20 Phase two, the key date here is 21 December 31, 2012. By this date, every single power 22 plant in Illinois must be in compliance with, either a 23 90 percent reduction of mercury, or the equivalent 24 output base standard. There are no exceptions, no more

per gigowatt hour.

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system-wide average, but can still do internal 1 2 plant-wide average. The additional rule of provisions 3 that provide flexibility are the first bullet point 4 here, the Temporary Technology Base Standard. We have 5 recently proposed to amend this rule to include an 6 extension that provides extra time for some units that 7 have installed mercury control, but are still unable to 8 comply with the numerical standards of the rule. We call this provision the Temporary Technology Base 9 Standard. 10

The final bullet point is for plant shutdowns. Illinois designed the proposed rule, so that EGU's targeted for or permanent shutdown or replacement within a relatively short time frame after the initial compliance date of the rule are not required to comply with the control requirements, and are likewise, excluded from compliance calculations.

I would like to emphasize that we took measures to minimize any adverse economic impacts from the proposed rule. In particular, we sought to minimize adverse impacts on jobs, the power sector, and impacts to consumer electric rates. We did this through focusing our efforts on basing the rule on cost-effective controls and providing substantial rule

flexibility. There is data supporting societal benefits 1 2 of mercury control that must be weighed against the cost 3 of the rule. Such benefits include a decrease in lost 4 wages due to lower IQ's, as well as reduced costs associated with increased education and medical care of 5 6 the mentally impaired. Benefits would also include 7 lower costs associated with the reduction in 8 cardiovascular disease.

9 What are we expecting, as far as the rules of the proposed mercury rule? What would be the 10 11 fruit of our efforts? We expect a significant reduction in mercury emissions and deposition. There should be 12 lower methylmercury levels in Illinois waters and fish 13 14 tissues; that fish caught in Illinois waters are safer 15 to eat. Potential health benefits include improvement 16 to IQ and less cardiovascular disease, and finally, we 17 expect job support in areas of pollution control, 18 tourism and recreational fishing and the Illinois coal 19 industry.

In closing, I have highlighted what I believe to be the critical aspects to keep in mind as we move forward through this hearing; that is, that mercury control is needed for the health and welfare of Illinois citizens and the environment; that power plants are the

largest source of man-made mercury emissions in 1 2 Illinois. Technology has advanced since the federal 3 CAMR. We can do more quicker. The Illinois proposed 4 rule is based on sound principles. We believe cost-effective control, plus rule of flexibility results 5 6 in an economically reasonable rule. 7 It will likely be argued that we 8 should just do CAMR, but the technology allows us to do 9 more and do it quicker. We strongly urge the Board to adopt the proposed rule. Again, I would like to thank 10 11 the Board for letting us give this brief presentation, 12 and hopefully, this will have proven somewhat useful in keeping a focus on the big picture as we proceed forward 13 14 through the details. Thanks again. 15 MADAM HEARING OFFICER: Thank you, 16 Mr. Ross. If there's no objection, I'm going to admit 17 the slide presentation, Powerpoint presentation, as 18 Exhibit No. 2. 19 MR. ZABEL: Same objection, Madam 20 Hearing Officer. MADAM HEARING OFFICER: Okay. We will 21 admit it as Exhibit No. 2 over the objection. 22 23 (Exhibit No. 2 was admitted.) 24 MR. KIM: At this time, Madam Hearing

Officer, we would like to proceed with Mr. Ross' answer 1 2 and questions, and again, to address Sections 1 and 2 of 3 the TSD, which is the Introduction and Background of the 4 rule, Mr. Ross will be answering, at this time, the 5 questions posed to him by Dynegy. 6 MADAM HEARING OFFICER: Mr. Ross, if 7 you would identify the question that you're answering, both, by number, and at this point, we'll go forward 8 9 with the question from Dynegy. 10 MR. ROSS: It's question No. 1 --11 MADAM HEARING OFFICER: Excuse me. 12 Mr. Zabel? 13 MR. ZABEL: If I may ask Mr. Kim a 14 question, I'm a little concerned about Mr. Ross' 15 testimony, and I think, as Mr. Kim identified, he 16 covered some five or six chapters in the Technical 17 Support Document. The questions that were submitted, if 18 I might make the record clear on behalf of, both, Dynegy 19 and Midwest Generation, cover the things that are 20 covered in Mr. Ross' prepared testimony, which is some six chapters or seven chapters. Are we doing them 21 22 separately or are we only answering the questions today 23 that pertain to Chapters 1 and 2, or is he covering the entire spectrum of his prepared testimony? 24

MR. KIM: Mr. Ross will answer all of 1 2 the Dynegy and Midwest Generation questions today. Just 3 for shorthand purposes -- and I stand corrected. I will 4 refer to it as Dynegy. As Mr. Zabel notes, there are some questions within that set that goes beyond the 5 6 scope of Sections 1 and 2. Those will either possibly 7 be answered by reference that they might be put off, 8 until the later part of the questioning or that they may 9 be answered, and all of our witnesses have I think, 10 maybe, one or two questions here and there that maybe 11 would be better answered by somebody else. If those questions come up, we will identify those, but again, 12 the reason we chose the Dynegy questions were, of all 13 14 the questions that were presented to the Agency, those 15 seemed to be the broadest and touching on the most 16 subjects that related to the background and 17 introduction. Again, the point being all questions that 18 are presented that have been presented to us will be 19 answered. It's just -- we apologize again to sort of 20 break it up a little bit, but we thought that was the cleanest way to do that. 21

22 MR. ZABEL: That goes to my issue and 23 my objection, Madam Hearing Officer, because, if you 24 look at Mr. Ross' testimony, he has to be in an expert

in about 12 different fields, and now on all of them or
 take them chapter at a time. That was my concern. We
 can proceed and we'll see how -- I don't have a solution
 to my problem, quite frankly.

5 MR. KIM: Mr. Ross has not been 6 offered as an expert witness. Mr. Ross has been offered 7 to provide testimony in his role, which he has 8 identified as a division manager of the Bureau of Air. 9 If there are any questions that go as to the nature of the answer, I think those can be addressed, but I guess 10 11 I'm not sure of the objection since he hasn't been offered up as an expert. 12

MR. ZABEL: That's exactly my point. 13 14 He's testifying under oath, but what's been presented is 15 a pretrial brief. It's not expert testimony. It's not 16 -- need not be presented under oath. It could be 17 presented as a pretrial or post trial brief. He's 18 talking about all these fields. He's making statements 19 as to medical effects, as to aquatic chemistry as to 20 recreational benefits, none of which he is qualified for, quite frankly, but it's under oath and it's given 21 as testimony. It should be a pretrial brief or post 22 23 trial brief. That's my concern with admitting it as 24 sworn testimony.

MADAM HEARING OFFICER: I would just 1 2 note that this is a rulemaking and anything relevant and 3 not repetitive is admitted. I would also note that you 4 refer to briefs. We don't have briefs in rulemakings. 5 We have comment. I think that I understand your 6 concerns about his being offered as an expert. Mr. Kim 7 has indicated he is not an expert, and we will certainly 8 listen to your challenges, and I ask you to please bring 9 those up as they come along. Mr. Ross, go ahead. MR. ROSS: This is question No. 1, and 10 11 it reads, "Mr. Ross indicates that he is providing 12 background information in a broad overview, and that he requests that the TSD be incorporated into his 13 14 testimony. Please identify the person, or persons, who 15 prepared each chapter or portions thereof of the TSD by 16 chapter, or a portion thereof." And the answer is, in 17 general, the Agency's TSD was a collaborative effort 18 between numerous Agency personnel and several experts 19 retained by the Agency to assist with the proposed 20 mercury rule. I would estimate over 20 persons were involved. In an effort to answer the questions, I have 21 22 attempted to identify the primary contributor to each 23 section of the TSD. However, it needs to be noted that 24 any particular portion of the TSD may have been written

by someone other than the person identified. Sections 1
 and 2, "Introduction and Background" were written by Joe
 Uy.

4 MR. KIM: Spell the name. MR. ROSS: U-Y. Section 3, "Impacts 5 6 on Human Health was written by Jeff Sprague; Section 4, 7 "Mercury Impaired Water" was written by Marcia Willhite 8 and Tom Hornshaw; Section 5, "Deposition of Mercury" was 9 written by Marcia Willhite and Rob Kaleel; Section 6, "Regulatory Activities" was written by Joe Uy; Section 10 11 7, "Illinois Mercury Emissions Standards" was written by Jim Ross and Chris Romaine; Section 8, "Technical 12 Feasibility" was written by Dr. Jim Stout, Chris 13 14 Romaine, Jim Ross and Blaine Kingsley; Section 9, 15 "Economic Modeling" was written by Jim Ross and Rob 16 Kaleel; Section 10, "Other Relevant Issues" was written 17 by Jim Ross, Rory Davis, Rob Kaleel, Dr. Jim Stout and 18 Chris Romaine. Part B of that question is, "Please 19 identify the person, or persons, on behalf of Illinois 20 EPA which will testify to support each chapter, or a portion thereof, of the TSD by chapter, or portion 21 thereof," and the answer is Sections 1 and 2, 22 23 "Introduction and Background," Jim Ross; Section 3, "Impacts on Human Health," Dr. Rice and Jeff Sprague; 24

Section 4, "Mercury Impaired Water," Marcia Willhite, 1 2 Tom Hornshaw and Dr. Keeler; Section 5, "Deposition of 3 Mercury," Dr. Keeler, Marcia Willhite and Rob Kaleel; 4 Section 6, "Regulatory Activities," Dick Ayers and Jim 5 Ross; Section 7, "Illinois Mercury Emissions Standards, 6 Jim Ross and Chris Romaine; Section 8, "Technical 7 Feasibility," Dr. Stout, Chris Romaine, Jim Ross, Sid 8 Nelson and Dave Forter; Section 9, "Economic Modeling," Ezra Hauzman, Jim Ross and Rob Kaleel; Section 10, 9 "Other Relevant Issues," Ezra Hauzman, Jim Ross, Rob 10 11 Kaleel, Dr. Stout and Chris Romaine. That concludes 12 question one.

Question 2, "Before the governor's 13 14 announcement on January 5, 2006, did the governor, or 15 his staff, consult with Illinois EPA concerning the 16 mercury proposal?" The answer is yes. The governor's 17 staff consulted with us many times prior to the January 18 5 announcement. Part A of that question is, "If so, 19 identify, to the best of Mr. Ross' ability, with whom 20 the governor, or his staff, consulted, when the consultations took place and what information he got 21 22 from Illinois EPA." The answer is Agency personnel and 23 personnel from the governor's office had numerous 24 consultations regarding mercury emissions and options

for mercury control between the period of October, 2005, 1 2 and the January 5 announcement by the governor. They 3 were most commonly done via conference call, although 4 there were a few face-to-face meetings. The 5 consultations included the following Agency personnel: 6 Doug Scott, the director; Laurel Kroack, the Bureau of 7 Energy; myself; Chris Romaine, Utilities Unit Manager. 8 From the governor's office, the primary contact was 9 Steven Frankel. He's the governor's senior policy development advisor, Environment and Energy, and Bradley 10 11 Tuss, the deputy governor of Illinois. Other parties 12 included, depending on the occasion, Jim Snider of Indec Energy, Diane Tickner with Peabody, also known as 13 14 Prairie State. Howard Lerner, Environmental Law and 15 Policy Center. Bill Hobeck, Department of Commerce of 16 Economic Opportunity, and Mousaad Rastam-Abadi of the 17 Illinois State Geological Survey of the University of 18 Illinois. 19 MADAM HEARING OFFICER: Mr. Ross, 20 could you spell that name, please? MR. ROSS: M-O-U-S-A-A-D, R-A-S-T-A-M 21 22 dash Abadi, A-B-A-D-I. The governor's office received 23 information on mercury emissions options for mercury control and the potential impacts of the various options 24

1 from us here at the Illinois EPA.

2	Question 3, "To Mr. Ross' knowledge,
3	prior to his announcement, did the governor consult with
4	anyone outside of government concerning the mercury
5	proposal?" And I do not know if the governor,
б	personally, consulted with anyone outside of government
7	concerning the mercury proposal. Part A of that
8	question, "If so, please identify with whom he
9	consulted." Again, I have no idea on that.
10	Question 4: "Mr. Ross indicates that,
11	at least, five states have adopted programs beyond that
12	is more stringent than the Clean Air Mercury Rule.
13	Please identify the states." Five states are
14	Mississippi, Connecticut, New Jersey, Wisconsin and
15	Michigan. Several others have proposed going beyond the
16	CAMR. Part B is, "How many states have adopted, or have
17	indicated they will adopt CAMR or substantially similar
18	rules." I do not know the number of other states that
19	are planning to adopt CAMR or something similar. I have
20	heard estimates of up to two-thirds are not adopting
21	CAMR.
22	MADAM HEARING OFFICER: Mr. Ross,
23	before you proceed, where the other states, particularly

Connecticut, in table 6.2 on page 91 of the TSD, you

24

have 90 percent control or .06 pounds per trillion BTU. 1 2 MR. ROSS: What page was that? 3 MADAM HEARING OFFICER: Page 91 of the TSD. This is -- I believe there's a typo on the table. 4 5 On Connecticut, would you just please check that. MR. ROSS: Yes. 6 7 MR. KIM: I thought now was a good 8 time to get that in. 9 MR. ROSS: We will check that. 10 MADAM HEARING OFFICER: Thank you. MS. BASSI: When are we doing 11 12 follow-up questions? 13 MADAM HEARING OFFICER: Whenever you have one. He's zooming. I just wondered. 14 MADAM HEARING OFFICER: I've been 15 16 keeping an eye. Like I said, raise your hand and let me 17 know. 18 MS. BASSI: Is Howard Lerner employed 19 by the State? 20 MR. ROSS: No. He is not. 21 MADAM HEARING OFFICER: Ms. Bassi --22 MS. BASSI: I'm sorry. I'm Kathleen Bassi with Schiff-Harden, and my question is, is Howard 23 Lerner employed by the State? 24

MR. ROSS: No, he is not. 1 2 MS. BASSI: So then the Question No. 3 3, "Is anyone outside of Government concerning the 4 mercury proposal?" You said, "Don't know"? 5 MR. ROSS: I don't know if the 6 governor -- the question seems to indicate whom did the governor, himself, consult with. His staff. 7 MS. BASSI: Okay. 8 9 MR. ROSS: I just made that distinction, but yes, his staff, certainly, consulted 10 with people outside of --11 12 MADAM HEARING OFFICER: Mr. Zabel? 13 MR. ZABEL: In that case, Mr. Ross, 14 can you identify who they were, to your knowledge. MR. ROSS: I believe I have. Howard 15 16 Lerner. 17 MR. ZABEL: Anyone else? 18 MR. ROSS: I believe Masood Ambadi --19 I guess he is employed by the State. Jim Snider is not. 20 Diane Tickner is not. MR. ZABEL: Maybe I missed the name, 21 Mr. Ross. Was there anyone representing an electric 22 23 generating unit company? 24 MR. ROSS: Diane Tickner is with

1 Peabody.

2 MR. ZABEL: Has Peabody operated any 3 electric generated unit, to your knowledge? MR. ROSS: Operated, no. They have 4 5 been issued an instruction permit to build two large EGU's in Illinois and likewise with Jim Snider of Indec. 6 MR. ZABEL: I'm sorry? 7 8 MR. ROSS: Jim Snider of Indec Energy. 9 MR. ZABEL: Do they operate any? 10 MR. ROSS: No. They have an instruction permit to build. 11 MADAM HEARING OFFICER: Go ahead. 12 13 MR. ZABEL: I might as well continue. 14 In the next question, you indicated one amount in your testimony and the TSD was more than that. When did you 15 16 make that distinction, Mr. Ross? 17 MR. ROSS: I believe the question only 18 asked for five. 19 MR. ZABEL: That's because that's what 20 your testimony stated. MR. KIM: Could you refer to which 21 page of the TSD? 22 23 MR. ZABEL: Page 30. 24 MADAM HEARING OFFICER: Of the

1 testimony?

2 MR. ZABEL: Yes, ma'am. 3 MADAM HEARING OFFICER: Page three in the Introduction, at least five states adopted mercury 4 5 reduction programs, the last paragraph on page 3. 6 MR. ZABEL: Correct. The TSD lists 7 seven. Why did you -- did you intend to leave out two Mr. Ross? 8 9 MR. ROSS: I picked five. The question asked for five. 10 11 MR. ZABEL: I understand that you 12 picked five. I can read that in your testimony. The 13 question is why did you leave out two and which ones? 14 MR. ROSS: Because it only asked for five, so I provided five and moved on to the next 15 16 question. 17 MR. ZABEL: I'm talking about your 18 testimony. I'm sorry. Maybe my question wasn't clear. 19 You state in your testimony there were five states, but 20 your TSD, which you're a witness, supposably supporting, lists seven. I want to know why you left out two and 21 22 which two. MR. KIM: Could you identify which 23 page of the TSD you are referring two? 24

MR. ZABEL: 6.2, page 91. 1 2 MR. ROSS: I'm not quite sure. I will 3 have to go back and review that. 4 MR. ZABEL: Looking at the table on 5 page 91, Mr. Ross, the Wisconsin standard would you 6 characterize as being more lenient than the proposed Illinois standard? 7 MR. ROSS: Yes, I would. 8 9 MR. ZABEL: The North Carolina standard, same question Mr. Ross. 10 11 MR. ROSS: Yes, I would. 12 MR. ZABEL: The Massachusetts 13 standard? 14 MR. ROSS: That's difficult to say. 15 It has an earlier compliance date, initially, of January 16 1, 2008. It actually looks more stringent. 17 MR. ZABEL: Why do you conclude that 18 it's more stringent? 19 MR. ROSS: It declares 95 percent by 20 10/1/2012. 21 MR. ZABEL: In its first phase? 22 MR. ROSS: In its first phase, it 23 requires -- maybe in the first phase, the date is sooner, but the reductions required do not bear as great 24

1 as those of the Illinois rule.

2 MR. ZABEL: The Minnesota standard. 3 MR. ROSS: But again, these are just the general parameters of the rule. I would have to 4 actually go back and do a thorough review of the rule to 5 6 answer that. 7 MR. ZABEL: You characterize in your 8 own testimony that five are more stringent, and I think 9 we have already done three that aren't. MR. ROSS: More stringent than CAMR. 10 11 I don't believe they are more stringent than the Illinois rule. 12 MR. ZABEL: You think these are all 13 14 more stringent than CAMR? 15 MR. ROSS: Than what CAMR requires of these states, yes. I do believe that's true. 16 17 MADAM HEARING OFFICER: Anything 18 further? I believe we're on question No. 5, Mr. Ross. MR. ROSS: Question No. 5: "Because 19 20 Illinois EPA has not tendered any witness from ICS, is Mr. Ross the appropriate person to question concerning 21 22 the work ICF did for Illinois EPA?" In part, but the 23 primary person designated for answering questions on the ICF modeling is Ezra Hauzman of Synapse. I am available 24

to answer some questions on the modeling, such as 1 2 information supplied to ICF and other background type 3 issues. A says, "If not, is there any Agency witness to testify in support of the ICF work?" Ezra Hauzman will 4 5 be the person addressing the issues regarding the ICF 6 modeling. 7 MADAM HEARING OFFICER: Mr. Zabel has a 8 follow-up. 9 MR. ZABEL: Mr. Hauzman would be supporting the ICF work? 10 MR. ROSS: I don't know if he will be 11 12 supporting it. He will be testifying regarding any ICF 13 questions, issues. MR. ZABEL: Just for clarification, 14 15 for my sake, I have questions on some of the tables in 16 Chapter 8. Are you or Dr. Hauzman the appropriate 17 witness to pursue those questions with? 18 MR. ROSS: It would depend on the 19 specific question, but in general, I would say 20 Dr. Hauzman. 21 MR. ZABEL: Thank you. 22 MR. ROSS: "If so, who?" Ezra Hauzman 23 from Synapse. Question 6: Extensive question says, "Please provide us, or have ICF provide us with the 24

following information utilized for or referred to in 1 2 ICF's analysis of the proposed Illinois mercury rule, 3 including appendices submitted as Exhibit C to the TSD 4 here after I S report. It has A, B, C, D, E, F, G, all 5 the way through P, and these questions request specific 6 technical information on the economic modeling performed 7 by ICF. This request is extensive, and many of these 8 questions may be answered by review of the information 9 of files that the Agency obtained from ICF upon completion of the modeling that we stated several times 10 11 during the stakeholder meetings that all information that was supplied to us by ICF, and that is in the 12 13 Agency's possession is available through the Freedom of 14 Information Act. In fact, several parties have 15 submitted such a FOIA request, and we have supplied all 16 the information that we have in our possession, and I 17 would suggest that that be done in this case, and that 18 information be reviewed for answers to these specific 19 questions. ICF is no longer retained by the Agency at 20 this time, and any information that would not be part of what we currently have in our possession we would likely 21 need to pay a fee to ICF, but we certainly do have 22 23 extensive information available that was supplied to 24 ICF, and we can supply that through a FOIA request.

1	MADAM HEARING OFFICER: Mr. Zabel?
2	MR. ZABEL: I'm not clear. Is the
3	information you're referring to, was it filed as part of
4	the record in this case?
5	MR. ROSS: I believe much of it was
6	filed as part of the record. I'm not sure of the entire
7	contents of what ICF supplied us with. A lot of it is
8	background information, parts files. I'm uncertain if
9	all that was provided as part or the record. I would
10	have to go back and check on that.
11	MR. ZABEL: The reason I ask, Madam
12	Hearing Officer, I'm not that good an economic
13	modelist drummed up these questions, as you might well
14	imagine. Our consultants want to run checks on the
15	modeling work that was done by ICF, and they need these
16	inputs. We will look at the record, and we will make a
17	request, if need be, but my concern is I can't replicate
18	their modeling and that he results if I can't get their
19	inputs, and if ICF is no longer retained by the Agency,
20	I'm not sure they are going to be available. If some of
21	this is missing in the record , will it be possible to
22	obtain it?
23	MADAM HEARING OFFICER: Mr. Ross, if I
24	may, I understand that the Agency has things available

through FOIA, but since this request has been made and 1 2 these questions have been made, I think it's a little 3 unreasonable to expect people out of FOIA that they shouldn't be part of this record: I think that the 4 5 Agency needs to check and be sure that the economic data 6 is in this record, and if it's not, they need to provide 7 it. 8 MR. ROSS: Okay. 9 MR. ZABEL: Thank you, Madam Hearing Officer. I think it's unnecessary to go through all the 10 11 sub parts, Mr. Ross. I didn't expect you were inclined to do it, anyway. 12 13 MADAM HEARING OFFICER: I would assume 14 you would want to reserve the right to re-question 15 after --16 MR. ZABEL: Well, it remains the 17 question that Mr. Ross has, in part, answered. There's 18 no one from ICF to ask those questions of, apparently, 19 but we'll deal with that issue as it arises. 20 MADAM HEARING OFFICER: Thank you. MR. ROSS: Question 7: "Mr. Ross 21 22 testifies that power plants are the largest source of 23 anthropogenic mercury emissions in the U.S. What percent are they of the total worldwide emissions of mercury, 24

natural and anthropogenic?" I believe U.S EPA has 1 2 stated in its report to Congress entitled "Utility Air 3 Toxic Study" that they there are, approximately, one percent of all mercury emissions worldwide. 4 5 MR. ZABEL: I will fault myself for 6 asking a compound question, but I'm not sure what your 7 answer is. Are Illinois emissions one percent or U.S. 8 power plant emissions one percent? 9 MR. ROSS: I believe the question is U.S. or -- yeah, it's asking -- the answer is for all 10 11 U.S. power plants. 12 MR. ZABEL: We'll get to Illinois later. 13 14 MR. ROSS: Right. "What percent are 15 they of total mercury emissions in Illinois, natural and anthropogenic?" And I believe we do not have that 16 17 number. We do have data from the national emissions 18 inventory that is much as 70 percent of Illinois's 19 man-made or anthropogenic mercury emissions are from 20 coal-fired utilities, and in the U.S. 44 percent of anthropogenic emissions are attributed to utility 21 boilers. "What percent of the Illinois mercury 22 23 emissions are natural?" We do not have that number, but 24 we are trying to obtain it.

MR. BONEBRAKE: Steven Bonebrake with 1 2 Schiff-Harden. I have a follow-up question. What --3 you just mentioned that you were trying to get some 4 data. What efforts are the Agency taking to obtain the 5 date you just mentioned? 6 MR. ROSS: I spoke with a few staff 7 and they are trying to get it, looking, calling people 8 and checking documents researching. 9 MR. ROSS: Question D: "What is the source of Mr. Ross' information or the basis for his 10 11 conclusions?" And U.S. EPA is the source of the numbers 12 I provided. "Mr. Ross states on page 4 of his testimony that mercury that finds its way into aquatic systems 13 14 `transforms into methylmercury.' Is all mercury in 15 aquatic systems transformed into methylmercury?" And I 16 do not know the transformation process. It's 17 complicated and not well understood. We certainly 18 believe enough that it is transformed to result in high 19 levels of contamination. 20 MR. BONEBRAKE: What do you mean by "complicated"? 21 22 MR. ROSS: It's a detailed chemistry, 23 and we have experts here that can probably answer that question better than I that will be testifying later. 24

MR. BONEBRAKE: Who will those experts 1 2 be, Mr. Ross? 3 MR. ROSS: I believe the appropriate 4 person to speak on that may be Dr. Keeler, or perhaps 5 Marcia Willhite, but we'll go back and review and see 6 who the appropriate person is. "On page 5 of his 7 testimony, Mr. Ross refers to recent studies indicating 8 as many as 10 percent of U.S. children have been exposed 9 to excessive levels of mercury in the womb. Please identify the studies Mr. Ross is referring to." The 10 10 11 percent value cited is based upon CDC's 1999 National 12 Health and Nutrition Examination Survey known as NHANES of young children age one through five years and women 13 14 of childbearing age of 16 to 49 years as compared to a 15 National Research Counsel Toxicological Review. The CDC 16 reports that preliminary estimates show that, 17 approximately, 10 percent of women have mercury levels 18 within one-tenth of potentially hazardous levels. 19 MR. ZABEL: The 10 percent value --20 MR. ROSS: The 10 percent value cited is based upon CDC's 1999 National Health and Nutrition 21 22 Examination Survey, NHANES, of young children aged one 23 through five years and women of childbearing age 16 24 through 49 years as compared to a National Research

Counsel Toxicological Review. The CDC reports that 1 2 preliminary estimates show that, approximately, 10 3 percent of women have mercury levels within one-tenth of 4 potentially hazardous levels. 5 MR. ROSS: I believe Questions B, C 6 and D are perhaps best answered --7 MADAM HEARING OFFICER: Go ahead, 8 Mr. Bonebrake. 9 MR. BONEBRAKE: I'm sorry, a follow-up. You mentioned potential hazardous level. What is the 10 11 potential hazardous level you mentioned in the prior 12 answer, Mr. Ross? 13 MR. ROSS: I'm not sure. We would 14 have to go back and find that. Our expert -- we do have 15 an expert here that will be testifying on the health 16 effects of mercury and who has vast experience in this 17 area. It's Dr. Rice, so perhaps she's the more 18 appropriate person to answer that question and B, C and 19 D. 20 MADAM HEARING OFFICER: Mr. Harrington? 21 22 MR. HARRINGTON: Just for 23 clarification, you said within 10 percent of the hazardous level? Am I correct, Mr. Ross? I'm trying to 24

1 understand what that statement means. 2 MR. ROSS: It shows that, 3 "Approximately, 10 percent of women have mercury levels 4 within one-tenth of potentially hazardous materials, and 5 that's a quote. 6 MADAM HEARING OFFICER: You need to 7 identify yourself. 8 MR. HARRINGTON: James Harrington with 9 McGuire Woods for Ameren. In other words, their limits 10 are one-tenth of the hazardous level. Is that what 11 you're saying. 12 MR. ROSS: That's the way it reads. 13 That is correct. 14 MR. ZABEL: Mr. Ross, what are you reading from? 15 16 MR. ROSS: This is a quote from the 17 CDC report. 18 MR. ZABEL: I see. Page number? 19 MR. ROSS: I do not have the page 20 number. 21 MR. ZABEL: As the follow-up that 22 one-tenth of 10 percent, if I understood you right, how many are in Illinois? 23 24 MR. ROSS: I do not know the answer to

1 that.

5

2		MR. ZABEL:	Do you kno	w if there's a	
3	geographic even	distribution	across the	country of tha	t
4	number?				

MR. ROSS: No, I do not.

6 MADAM HEARING OFFICER: Can Mr. Ross I 7 note that this question is extremely similar and almost 8 identical to the question asked by Prairie State, their 9 question No. 1, so at this time, I would like to know if 10 you could finish addressing the second part of their question which is -- and I will read it to you. I don't 11 12 like taking these out of order, but I like to keep them 13 together for purposes of the record. They state -- it's 14 question No. 1 for Jim Ross, "On page five of your 15 testimony, you state that `As many as 10 percent of the 16 children in the U.S. have been exposed to excessive 17 levels of mercury in the womb.' "What studies are you 18 referring to?" And I believe he answered that question. 19 "Please explain the discrepancy between your 10 percent 20 value and the six percent value in other Illinois EPA women Jeffrey Spraque cites on page three of his 21 22 testimony." And I apologize for taking these out of the 23 order, but for purposes of the record, it might work better to keep them together. 24

MR. THOMPSON: Which question is that? 1 2 MADAM HEARING OFFICER: Prairie State. 3 And I apologize. That's my short form. I don't have the name in front of me. Page two. It's the first 4 5 question for Jim Ross. 6 MR. ROSS: The answer is that the value I cited was from CDC's 1999 National Health and 7 8 Nutrition Examination Survey and the value cited by 9 Mr. Sprague is actually a more recent survey, and it's for the period in-between 1999 to 2002. Therefore, the 10 11 different years of data collection underlie the contrast 12 in percentages. 13 MADAM HEARING OFFICER: Thank you. 14 Excuse me, Mr. Bonebrake. 15 MR. BONEBRAKE: Another follow-up, 16 Mr. Ross. If I understood, then, your collective 17 answers correctly, what you're saying is, in your 18 testimony, which is quoted in Question 9 regarding 19 excessive levels, your understanding of excessive levels 20 was a level which was within one-tenth of potentially hazardous levels. 21 22 MADAM HEARING OFFICER: We can't hear 23 you in the back. Could you repeat the question? 24 MR. BONEBRAKE: Mr. Ross, in Question

No. 9, we pulled some of your testimony. We quote some 1 2 of your testimony, and that testimony was quote --3 includes the phrase "Excessive levels." Do you see 4 that, Mr. Ross? 5 MR. ROSS: Yes. 6 MR. BONEBRAKE: If I understood your 7 testimony correctly, your view of excessive level, then, is a level which is within one-tenth of potential 8 9 hazardous levels? 10 MR. ROSS: I believe that's the 11 question asked in C and -- B, C and D. I would defer to 12 Dr. Rice to answer. She's the expert in this area. "Question 10: Please describe all undergraduate and/or 13 14 graduate college degrees Mr. Ross has obtained in 15 medicine toxicology or public health," and I have no 16 such degrees. "No. 11: On page five of his testimony, 17 Mr. Ross refers to fish consumption advisories set when 18 concentrations are above human health-based limits. 19 Please identify and describe the following." Then 20 there's a list of A, B, C, D, E, and I believe Tom Hornshaw is the expert in this area, and I would defer 21 those questions to him. 22 23 DR. HORNSHAW: Do you want me to 24 answer those now?

MADAM HEARING OFFICER: It's up to 1 2 Mr. Kim. 3 MR. KIM: That's fine if -- yeah, if 4 he doesn't mind. That's fine. 5 MADAM HEARING OFFICER: Is that --6 would you like Mr. Hornshaw to address those now or 7 would you prefer to wait, until --8 MR. BONEBRAKE: As long as we have the 9 right to reserve follow-up with respect to the related 10 questions that were in our prefiled questions, I have no 11 objection to Mr. Hornshaw addressing this particular set 12 of questions now. MADAM HEARING OFFICER: Absolutely. 13 14 Swear Dr. Hornshaw in. 15 (At which point, Dr. Thomas Hornshaw 16 was sworn in by the court reporter.) 17 MR. KIM: Before Mr. Hornshaw begins, 18 I just want to know in the instances where Mr. Ross or 19 any other witness states that somebody else might be 20 better situated to answer the questions, we have identified all those and set those aside, so they are 21 22 not just being thrown to the Netherlands. We will be 23 answering those questions. 24 MADAM HEARING OFFICER: Thank you.

DR. HORNSHAW: The limits that 1 2 Mr. Ross is referring to are the levels of concern for 3 each of the four meal frequencies that are listed in Tables 4, 2 and 43 I believe for the Technical Support 4 5 Document. 6 MADAM HEARING OFFICER: Could you 7 repeat that, please? Could you repeat that, please? DR. HORNSHAW: The limits that 8 9 Mr. Ross is referring to are the different levels of 10 concern for each of the four meal frequencies that are 11 listed in the tables in Section 4 of the Technical Support Document. "Who sets them?" The Illinois Fish 12 Contaminant Monitoring Program, which is a joint effort 13 14 of this Agency, as well as the Departments of Public 15 Health, Natural Resources, and Agriculture. "How are they set?" These are discussed in some detail in my 16 17 responses, and I will go through those later when it 18 comes up my turn. "Will they contain a margin of 19 safety?" Yes. There's an uncertain factor of 10 in the 20 U.S. EPA references those that forms the basis for all of these limits. "What margin of safety is there?" 21 22 Ten. 23 MR. ZABEL: Follow up, if I may? MADAM HEARING OFFICER: Sure. 24

MR. ZABEL: Mr. Ross, in his 1 2 Powerpoint presentation, indicated that there's an 3 advisory for all water bodies in Illinois. Is that 4 correct? 5 DR. HORNSHAW: That's correct. That 6 does not pertain to Lake Michigan. The Lake Michigan 7 advisories are given PCB's because they result in more stringent restrictions or as stringent restrictions as 8 9 those that would be based on mercury. The rest of the 10 inland waters are all under advisory. MR. ZABEL: Would Mr. Hornshaw be the 11 12 appropriate person to explain to us how it got to that 13 statewide fish advisory? DR. HORNSHAW: Yes. I cover that in 14 15 the response that I will be given to the questions asked of me. 16 17 MR. BONEBRAKE: One other related 18 question and I will try to speak up. Mr. Zabel just 19 asked you a question regarding the statewide fish advisory. Are there also water body specific 20 advisories? 21 22 DR. HORNSHAW: For mercury? 23 MR. BONEBRAKE: For mercury. 24 DR. HORNSHAW: Yes. They are called

special mercury advisories, and I will be testifying to 1 2 that, too. 3 MR. BONEBRAKE: How is it their 4 derivation, generally, differ from the derivation of the 5 statewide fish advisory? 6 DR. HORNSHAW: The special mercury 7 advisory is a different list that, specifically, lists 8 the water bodies where results are consistently higher 9 than one meal per week levels that we see in most of the fish around the state, so they require a more 10 11 restrictive advisory for women of childbearing age and children under 15, as well as advisories for the 12 non-sensitive population. 13 MR. BONEBRAKE: I will have some follow 14 15 up later on when Mr. Hornshaw is testifying. 16 MADAM HEARING OFFICER: Thank you. 17 MR. ROSS: No. 12: "Mr. Ross 18 indicates that 1,034 miles of river and eight lakes 19 consisting of 6,264 acres are listed as impaired from 20 mercury." Question A and B I believe are best answered by Marcia Willhite, and will be answering these 21 22 questions as part of her testimony. I believe this 23 question is very similar to a question that was directly asked of her. Do you want her to answer that now? 24

MR. KIM: If we could just continue on 1 2 with Mr. Ross because Ms. Willhite will be speaking very 3 shortly. 4 MADAM HEARING OFFICER: Okay. 5 MR. ROSS: 13: "On page six of his 6 testimony, Mr. Ross refers to fish consumption 7 literature. Please identify the literature, and 8 specifically, which sources, if any, dealt with 9 Illinois." I believe Tom Hornshaw is the appropriate 10 person. 11 DR. HORNSHAW: The literature are 12 cited in my prefiled testimony. The one that, specifically, refers to Illinois is a publication by 13 14 Pellettieri, et al., 1996, Employees of the Illinois 15 Natural History Survey who do annual surveys of 16 lake-front anglers in Chicago and Chicago land. 17 MR. BONEBRAKE: Has the Pellettieri, 18 if I pronounced that correctly, a study that you 19 mentioned, been submitted to the Board? MR. KIM: We'll look into it and see 20 if it was submitted. 21 22 DR. HORNSHAW I'm not sure if it's submitted there or not. I know we submitted the 23 California EPA study, but I don't know if we submitted 24

1 that, as well.

2 MR. ZABEL: Maybe this is more 3 appropriate because you're the one who testified. Does 4 the report indicate how many people in Illinois eat more 5 fish meals per week? 6 DR. HORNSHAW: As I stated in my 7 testimony, there are no surveys of how many fish meals Illinois anglers eat, either by DNR or by Natural 8 9 History Survey. That's never been done. 10 MR. ZABEL: Has the Agency made any 11 attempt to develop that data? 12 DR. HORNSHAW: No. 13 MADAM HEARING OFFICER: Mr. Ross? 14 MR. ROSS: Question 14: "On page six 15 of his testimony, Mr. Ross states the literature 16 regarding anglers' consumption of their catch strongly 17 suggests that a subset of these anglers have meal 18 frequencies that exceed the statewide fish consumption 19 advisory for mercury putting them well above the 20 recommended rates for even fairly low levels of contamination." Then there's a series of questions, A 21 22 through G, which I believe Dr. Hornshaw is the 23 appropriate person to answer. 24 DR. HORNSHAW: A through E are

discussed in some detail in my prefiled testimony. 1 The 2 subset of anglers or several that are cited in my 3 testimony that eat a lot more than a meal per week based 4 on national studies, as well as studies of people who are actually anglers. Question B: "How many anglers 5 6 are there in Illinois?" That can't be answered with any 7 accuracy. Illinois DNR has told me that, for the past 8 several years, they have sold over 700,000 licenses, but 9 licenses are not required of children under either 16 or 17, as well as members of the armed services on 10 11 active-duty status in Illinois, so we can't give you an accurate answer on that. "What percentage of the 12 Illinois population do anglers comprise?" At least, 13 14 greater than 5 percent, again, understanding that we 15 can't identify all of the anglers. "Identify how much 16 fish tissue of these anglers would have to consume do be 17 well above recommended rates," and that would be well 18 above one meal per week, which is the statewide 19 advisory. "Identify the types of sport-caught fish of 20 this quantity in Illinois that anglers would have to catch and consume," or as I testified, the advisory is 21 22 of predator fish, only.

23 MADAM HEARING OFFICER: Mr. Bonebrake24 first.

MR. BONEBRAKE: The 700,000 licensees 1 2 that you mentioned, is that an advocate number or annual 3 number? 4 DR. HORNSHAW: That's annually. 5 MADAM HEARING OFFICER: Mr. Harrington? 6 MR. HARRINGTON: The question I 7 believe concerned the subset of anglers that have meal frequencies that exceed the statewide fish consumption 8 9 advisory. Are you saying that the 700,000 people who 10 have fishing licenses exceeded the once-per-week 11 advisory? 12 DR. HORNSHAW: I'm saying a subset of 13 those do based on national surveys, as well as surveys 14 of anglers that have been done in Michigan and 15 California. 16 MR. HARRINGTON: Sorry. I was 17 confused. I thought you were saying all of them did. I 18 thought the record should be clear. 19 DR. HORNSHAW: Not all of them are 20 that the lucky. MADAM HEARING OFFICER: Mr. Zabel? 21 22 MR. ZABEL: We don't know what the 23 size of the subset is. Is that correct, Dr. Hornshaw? 24 DR. HORNSHAW: Unless we can believe

what the national surveys say. Some of them go as high 1 2 as 300 meals per year. 3 MR. ZABEL: Do you know where that subset of population was found? 4 5 DR. HORNSHAW: In Illinois? MR. ZABEL: Anywhere in the country it 6 7 was a national survey? 8 DR. HORNSHAW: I couldn't point to a 9 specific instance. 10 MR. ZABEL: On Question E, you said predator fish. Would largemouth bass be one of those. 11 DR. HORNSHAW: Yes, all of the black 12 13 basses. MR. ZABEL: How many of these would a 14 fisherman have to eat per week? One? 15 16 DR. HORNSHAW: Would have to eat? I 17 don't follow the question. 18 MR. ZABEL: To receive whatever the 19 exposure limit is. 20 DR. HORNSHAW: More than one. 21 MR. ZABEL: How many? 22 DR. HORNSHAW: More than one meal per 23 week. 24 MR. ZABEL: No; no, but how many fish

1 is what I'm after.

2 DR. HORNSHAW: I'm not following your 3 question. MR. ZABEL: A fisherman goes out and 4 5 catches a largemouth bass. It weighs a couple pounds. I'm not a fisherman, so forgive me. It weighs a couple 6 7 pounds, I assume. He's not going to eat it all because it's full of bone and skin. 8 9 DR. HORNSHAW: The assumption behind 10 all our advisories is eight ounces of uncooked fish, half a pound. 11 12 MR. ZABEL: Is that what one would get 13 in the yield of a typical largemouth bass caught in Illinois? 14 15 DR. HORNSHAW: Some are about two 16 pounds -- somewhat above one pound to yield a half a 17 pound of fillet. 18 MR. ZABEL: Do we know how many of 19 these fisherman that catch, say, one- to two-pound 20 largemouth bass per week all yearlong? DR. HORNSHAW: I don't know if DNR has 21 22 those statistics or not. 23 MADAM HEARING OFFICER: Mr. Harrington. 24

MR. HARRINGTON: My understanding from 1 2 bass fisherman is that a substantial portion in every 3 catch is thrown back, caught for sport, and they want 4 them there to catch them again, correct? 5 DR. HORNSHAW: That's correct. 6 MR. HARRINGTON: Do you know what 7 percentage of largemouth bass are actually caught and consumed in Illinois? 8 9 DR. HORNSHAW: Again, I can't answer that because we have never asked those questions. 10 11 MADAM HEARING OFFICER: Mr. Bonebrake? 12 MR. BONEBRAKE: A related question, 13 Mr. Hornshaw. Of the fishable lakes and streams in 14 Illinois, do you know how many are catch-and-release 15 streams and lakes? 16 DR. HORNSHAW: I couldn't answer that, 17 either. 18 MR. BONEBRAKE: Are there some release 19 -- catch-and-release lakes and streams? 20 DR. HORNSHAW: By law, yes. Lake Michigan is, by law, for all black basses. 21 22 MR. BONEBRAKE: Do you know other 23 examples of catch-and-release lakes and streams in Illinois? 24

1	DR. HORNSHAW: Not off the top of my
2	head.
3	MR. BONEBRAKE: Do you believe there
4	are some, Mr. Hornshaw?
5	DR. HORNSHAW: I believe so, yes.
б	MADAM HEARING OFFICER: I think we are
7	ready for Mr. Ross. Oh, sorry.
8	MR. BONEBRAKE: Just so the record is
9	clear, there are some related questions that were
10	directed, specifically, to Mr. Hornshaw, and I'm not
11	attempting to get into all the follow-up that might be
12	related to those questions, so I would reserve the
13	opportunity, if I may, to ask some related follow-up
14	when we get to Mr. Hornshaw's testimony.
15	MADAM HEARING OFFICER: Absolutely.
16	DR. HORNSHAW: Back to Question F,
17	"Identify which water bodies in Illinois contain the
18	necessary types of fish for the requisite .3 content to
19	accomplish this result." I couldn't identify them all.
20	Based on the data that the Fish Contamination Program
21	looked at when we issued this one meal per week
22	statewide advisory, some are between two-thirds and
23	three-quarters of the waters had fish that fell into the
24	one meal per week or one meal per month category that we

were looking at, at that time, so the answer is most of 1 2 them. 3 MR. ZABEL: Follow-up. When you say you had fish that fell into the category, do you mean 4 5 fish types? 6 DR. HORNSHAW: Yes, predators. 7 MR. ZABEL: The bass and whatever the 8 other predators may be. 9 DR. HORNSHAW: Bass; walleyes; flathead catfish, all the different striped basses. 10 11 MR. ZABEL: You say two-thirds to 12 three-quarters of the water bodies have those types of 13 fish, correct? DR. HORNSHAW: Have fish that fall 14 above the lowest level of concern for issuing statewide 15 16 advisory. 17 MR. ZABEL: By fish type. 18 DR. HORNSHAW: Fish type I couldn't 19 answer that question. 20 MR. ZABEL: I'm sorry. That question was unclear. What I'm trying to get at, Dr. Hornshaw --21 22 let me cut through -- were all of these two-thirds to 23 three-quarter water bodies have fish taken from them and tested for mercury? 24

DR. HORNSHAW: Yes. These are hard 1 2 data. 3 MR. ZABEL: Each of those water bodies 4 in the state? You said two-thirds to three quarters of 5 all water bodies in the state? 6 DR. HORNSHAW: Correct, that we had 7 tested. 8 MR. ZABEL: What percentage of the 9 total number of water bodies is that? 10 DR. HORNSHAW: As I testified --11 answer in my questions later, there's no real way of 12 answering that because ponds and other private water bodies are not eligible for testing by the Fish 13 14 Contamination Program. MR. ZABEL: Is it over half of the 15 16 water bodies in the state that people might fish in? 17 DR. HORNSHAW: Again, I couldn't 18 answer that because I don't know how many ponds are in 19 Illinois. 20 MR. ZABEL: I'm probably getting into the questions for Dr. Hornshaw's testimony, and I will 21 22 reserve them. Thank you, Doctor. 23 MADAM HEARING OFFICER: Mr. Bonebrake? MR. BONEBRAKE: If I may. I had one 24

other clarifying question. It's hard to resist. You 1 2 used the phrase, I think, "lowest level of concern" when 3 you were speaking about the statewide advisory, if I 4 heard you correctly. 5 DR. HORNSHAW: That's correct. 6 MR. BONEBRAKE: What is the lowest level of concern? 7 DR. HORNSHAW: .06 milligrams per 8 9 kilogram, .05 milligrams per kilogram is the upper limit 10 of the unlimited consumption advisory, and the answer to G: "Please provide a copy of the literature that is the 11 12 source of Mr. Ross' conclusions," and I think we have already discussed this. I think we have already 13 14 provided the California EPA Bible of fish Consumption, and there's another one that I think we have to track 15 16 down, yet. 17 MADAM HEARING OFFICER: Okay --18 MR. ZABEL: Not quite. 19 DR. HORNSHAW: Almost. 20 MR. ZABEL: These are really your conclusions, not Mr. Ross' aren't they? 21 22 DR. HORNSHAW: Yes, they are. 23 MR. ZABEL: Thank you. 24 MR. RIESER: David Rieser with McGuire

Woods on behalf of Ameren. Dr. Hornshaw, you talk about 1 2 the hard data. That is the hard data from the 3 Department of Natural Resources sampling? 4 DR. HORNSHAW: Yes. At the time, we 5 were in deliberation about what to do with mercury after 6 we had decided to change from the Department of Public 7 Health's criteria value of .5 milligrams per kilogram to 8 use the risk base value that we calculated. I gathered 9 all the data we had on predator fish up to that --10 actually, all the data in the country for predators and 11 a few other key species to figure out what, if anything, 12 we could say about the levels of mercury in fish across 13 the state, and when we looked at largemouth bass, 14 walleyes, even white bass, it became pretty evident that 15 greater than half of all the water bodies that we looked 16 at -- and like I said, most of it, two-thirds to 17 three-quarters had fish in them that exceeded the .05 18 criteria for all you can eat, so with that kind of data, 19 all we could do is issue a statewide advisory, one meal 20 per week. MR. RIESER: We'll get into these 21 22 issues when we cross-examine you on your other

24 raw data, raw fish data, has that been provided to the

testimony, but the main question I want to ask is this,

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Board as part of the Agency's --1 2 DR. HORNSHAW: No, it hasn't. 3 MR. RIESER: Would it be possible for 4 the Agency to provide that? 5 DR. HORNSHAW: Yes. MR. RIESER: I would ask that it be 6 7 provided, please, and are the deliberations of the committee that you're on, are those deliberations 8 9 recorded? 10 DR. HORNSHAW: No. 11 MR. RIESER: Are there reports 12 prepared by the committee when they make their 13 decisions? DR. HORNSHAW: No. 14 MR. RIESER: In what way are the 15 16 committee decisions announced? 17 DR. HORNSHAW: Statewide press release 18 from the Department of Public Health, as well as pages 19 in the Illinois Department of Natural Resources' fishing 20 information. 21 MR. RIESER: Thank you. 22 DR. HORNSHAW: Anything else? 23 MADAM HEARING OFFICER: Then I believe, Mr. Ross, Question 15. 24

MR. ROSS: "What is the purpose of 1 2 proposing a rule different from CAMR?" We have 3 thoroughly documented in the TSD why we feel CAMR is not 4 appropriate and that more should and can be done. Some of the key points that CAMR does not go far enough, fast 5 6 enough, new developments in mercury control have 7 significantly reduced the costs, and increased the 8 effectiveness of these controls, and we expect this 9 trend of improved controls and reduced costs to continue, and CAMR is a trading rule, and therefore, 10 11 does not ensure that mercury reductions will occur in 12 Illinois, and at every power plant in Illinois, and CAMR is flawed in that it treats coals differently resulting 13 14 in unfair treatment to sources that burn bituminous 15 coal, potentially unfair treatment. And CAMR is not 16 consistent with the governor's proposal. 17 MADAM HEARING OFFICER: Mr. Harrington? 18 MR. HARRINGTON: This is a follow-up, 19 and also, if I may, some questions on the Powerpoint 20 that opened today's presentation, but let me see if I got this correct. Is, essentially, the underpinning of 21 22 the EPA's position that there is presently available a 23 low cost, time-efficient method of controlling mercury that can be installed for a short period of time, which 24

would achieve the limits of the rule? 1 2 MR. ROSS: For some cases, across many 3 of the power plants in Illinois, that is correct. Dr. Staudt is the primary expert in that area and he 4 5 will be testifying to that. 6 MR. HARRINGTON: Is anyone, other than 7 Dr. Staudt going to testify to that. MR. ROSS: He will be the primary 8 9 person testifying on that. There will be others 10 available to answer some questions that he may not have been involved in, some policy questions, per se. 11 12 MR. HARRINGTON: Basically, the policy decisions -- the policy decision was, based on his 13 14 testimony, that the 90 percent removal be achieved in, 15 essentially, in three years using halogenated carbon 16 injection for existing particular controls. Is that 17 correct, for the original proposal? 18 MR. ROSS: No. That's not correct. 19 MR. HARRINGTON: That's not correct. MR. ROSS: No. 20 MR. HARRINGTON: What is incorrect 21 22 about it? MR. ROSS: I believe we made the 23 decision to do 90 percent mercury control before 24

Dr. Staudt was retained. However, we did review some of 1 2 his research and writing that he had performed for U.S. 3 EPA. 4 MR. HARRINGTON: What was the 5 technical basis that IEPA relied upon to achieve that 90 6 percent control before you talked to Dr. Staudt? 7 MR. ROSS: Research, discussions with 8 experts, discussions with other state agencies, 9 discussions with as I mentioned experts. We talked with 10 many people who were involved with developing mercury 11 control policies, speaking with staff of ALAPCO 12 representatives, many things. 13 MR. HARRINGTON: What control do you 14 achieve, 90 percent control in three years before you 15 retained Dr. Stout? What was the control 16 configurations? 17 MR. ROSS: The rule doesn't mandate 18 any specific type of control. It sets a standard where 19 the ultimate decision on how you comply with that 20 standard is up to the power plants, themselves, so the answer is not as simple as we determined that one single 21 control to be applied across all power plants in 22 Illinois. There is no one-size-fits-all. 23 24 MR. HARRINGTON: Had you concluded,

prior to retaining Dr. Staudt, that all the power plants 1 2 in Illinois could achieve 30 percent control by 2000 --3 December 31, 2009? Did you make that conclusion? 4 MR. ROSS: To a large part, yes, but we also concluded that we would need to build some 5 6 flexibility into the rule. 7 MR. HARRINGTON: The original proposed rule was 90 percent for all plants by 2009. Is that 8 9 correct? MR. ROSS: No. It's 90 percent 10 11 control on a system-wide basis by 2009, plant wide, minimum of 75 percent by mid 2009. 12 MR. HARRINGTON: We'll come back to 13 14 that. There's some confusion in the record about that 15 point, but was there a technical decision made that 16 those limits were, in fact, achievable, and was that 17 decision based on any specific technologies? 18 MR. ROSS: Well, again, I think you're 19 repeating that there was some specific technology that could obtain 90 percent, and we did not make that 20 determination that there was any one technology. 21 Instead, we made a determination that we wanted 90 22 23 percent mercury control in Illinois, and that how a company would comply with that rule would be up to them. 24

MR. HARRINGTON: Are you saying that 1 2 you did not know of any technology that would achieve 90 3 percent removal in some or all of the Illinois facilities? 4 MR. ROSS: No. I believe our research 5 6 indicated that there were several technologies that were 7 capable of achieving 90 percent or better. 8 MR. HARRINGTON: What were they. 9 MR. ROSS: Well, Dr. Staudt will answer a lot of those questions when it comes his turn 10 11 to testify. 12 MR. HARRINGTON: The question is what were they? What had you concluded at the time you 13 14 reached the conclusion that you could impose a 90 15 percent rule? 16 MR. KIM: I believe he's answered the 17 same question several times and he's indicated that, as 18 to specific technologies, Dr. Staudt would discuss those 19 in his testimony. I understand the gist of 20 Mr. Harrington's testimony, but I believe Mr. Ross has answered that to the best he can. 21 22 MR. HARRINGTON: I don't believe he's 23 answered it at all. He hasn't listed one technology that the Agency considered. He said several were 24

considered. I asked what they were. He did not answer
 them.

3 MR. KIM: He stated that Mr. Staudt --4 Dr. Staudt would answer those questions, and be able to 5 discuss that in more detail during his testimony. 6 MADAM HEARING OFFICER: Why don't you 7 move on for now with the right to re-address those 8 questions with --9 MR. HARRINGTON: Dr. Staudt cannot answer the question of what the Agency considered when 10 11 it came to the conclusion that 90 percent was achievable 12 because he was not retained at that point. That's the testimony of this witness. 13 14 MR. ROSS: There are many technologies 15 that we identified that were capable of achieving 90 16 percent control, such as halogenated ACI systems on 17 those units that have a cold side ESP and firing 18 sub-bituminous coal. There are units firing Illinois 19 coal that have a scrubber SCR and an ESP, or capable of 20 reaching that level of reduction. Fluidized bed boilers with fabric filters are capable of reaching that level 21 of reduction, but again, I was more in the policy line. 22 23 I was not a technical expert, so to say, so Dr. Staudt could probably address specific control technologies 24

that are capable of achieving that level of reduction, 1 2 but those were a few that we identified prior to 3 bringing -- retaining his services that could reach a level of 90 percent reduction. 4 5 MADAM HEARING OFFICER: Does that 6 answer your question, Mr. Harrington? 7 MR. HARRINGTON: Yes, that portion of 8 it. I have some additional questions as follow-up on 9 that point. 10 MR. ZABEL: I'm confused of the 11 sequence of the process now, Mr. Ross. When did the 12 Agency -- temporally, when did the Agency decide on a 90 13 percent standard? 14 MR. ROSS: The exact day, I do not 15 know. It was prior to the governor's announcement. 16 MR. ZABEL: You indicated in your 17 earlier testimony the Agency met with the governor in I 18 believe October of `05. Are you getting legal advice 19 from Mr. Ayres? 20 MR. ROSS: Pardon? MR. ZABEL: I'm wondering, are you 21 getting legal advice from Mr. Ayres? 22 23 MR. KIM: Unless there's an objection, he's just asking a question of --24

MR. ZABEL: I don't mind that at all, 1 2 Mr. Kim, but it would seem to me -- I don't believe 3 Mr. Ayres had been retained at that time, either, so I don't know how he can help in answering the question. 4 MR. ROSS: I don't know the exact date 5 6 that we decided a 90 percent control was appropriate, but it was prior to the governor's announcement. 7 8 MR. ZABEL: Was it after you started 9 meeting with the governor in October? MR. ROSS: Yes, and before his 10 11 announcement. In that period, we decided, that's 12 correct. 13 MR. ZABEL: Before you hired 14 Dr. Staudt? 15 MR. ROSS: Yes. MR. ZABEL: Before you had the ICF 16 17 work done? 18 MR. ROSS: We had a preliminary 19 modeling done. We done two sets of modeling for the 20 Illinois Mercury Rule. We modeled a 90 percent reduction by 2009 prior to the January 5 announcement, 21 which showed that -- which gave us an indication of what 22 23 cost was to the power sector and to consumer electric 24 rates, the impact to consumer electric rates, so there

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was some preliminary ICF modeling.

2 MR. ZABEL: That's not in the exhibit, 3 is it? MR. ROSS: I don't believe we placed 4 that in the record. We discussed it in the stakeholder 5 6 meetings a couple times. I believe some people did 7 FOIA. We offered to provide it to anyone who wanted it 8 at one of the stakeholder meetings, and I think one or 9 two parties did FOIA, and we did supply them with that 10 information. 11 MR. ZABEL: The first stakeholder meeting was January of this year? 12 MR. ROSS: Yes. 13 14 MR. ZABEL: The Agency had already 15 decided on a 90 percent standard at that point? 16 MR. ROSS: Yes. 17 MR. ZABEL: It was represented at that 18 meeting that that was a non-negotiable item of the 19 rulemaking. Is that correct? 20 MR. ROSS: I can't recall that. I think we did say there were certain parameters of the 21 rule that were non-negotiable. The 90 percent I believe 22 23 was one of them, and the dates, to the best of my recollection. We said that those were pretty well set, 24

2 MR. ZABEL: You mean "pretty well set" 3 do you mean non-negotiable? Is that how they were 4 represented? 5 MR. ROSS: I don't know if that was 6 the exact phrase used. I can't recall. 7 MR. ZABEL: And the no trading, was 8 that non-negotiable item in the first or in the stake ---

that we had little leeway on those.

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9 MR. ROSS: I believe that was one of 10 the items we said was set, that did not think it was 11 appropriate for Illinois.

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 MR. ZABEL: Were there any others?

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 MR. ROSS: I can't recall. To the

 14
 best of my recollection, those were the parameters we

 15
 said were set.

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 MADAM HEARING OFFICER: Mr. Bonebrake?

17MR. BONEBRAKE: When did the Agency18start investigating whether the 90 percent reduction19rate was achievable?

20 MR. ROSS: Well, I came over in 21 October of last year, and that was already discussion at 22 that time of a 90 percent reduction, so it may have been 23 prior that, but to the best of my knowledge, at least, 24 as early as October of 2005.

MR. BONEBRAKE: To your knowledge, as 1 2 of October of 2005, who within the Agency was having 3 those discussions? MR. ROSS: I believe -- the bureau 4 chief, Laurel Kroack, was having some discussions to 5 that effect, to the best of my knowledge. 6 7 MR. BONEBRAKE: I think you also 8 mentioned that, at some point, the Agency reached the 9 conclusion that flexibility was required. Do you recall that testimony? 10 11 MR. ROSS: Yes. 12 MR. BONEBRAKE: Was that flexibility 13 with respect to types of pollution controls? 14 MR. ROSS: That was one of the 15 flexibility items, that we would not mandate any 16 specific control configuration, but instead, would set 17 standards in how companies achieve those standards. The 18 ultimate decision would be up to them. That is correct. 19 MR. BONEBRAKE: Why was it, Mr. Ross, 20 if the Agency reached the conclusion that these flexibility were necessary? 21 22 MR. ROSS: I believe we had reached 23 the general understanding that the rule was aggressive, was seeking substantial mercury reductions, and we 24

wanted to reduce the economic impact as much as 1 2 possible, and the goal of any rule is widespread 3 compliance, so we wanted to ensure that the rule would result in a more widespread compliance, so the more 4 5 flexibility you can build into a rule, yet, still obtain 6 the goals, that is, the emission reductions you are 7 seeking, the better. 8 MADAM HEARING OFFICER: Mr. Harrington? 9 MR. HARRINGTON: Further follow-up, basically, in your summary today, and previously, 10 11 cost-effective control, plus rule flexibility is economically reasonable referring to your proposed 12 13 regulation. Is that correct? 14 MR. ROSS: That's correct. 15 MR. HARRINGTON: And to determine if 16 it's cost-effective, you had to examine some of the 17 technologies we have talked about in determining that 18 they would allow the industry to meet the limits of the 19 proposed rule. Is that correct? 20 MR. ROSS: That is correct. MR. HARRINGTON: So the technology you 21 22 have testified to and laid out in the proposal in the 23 Technical Support Document and various testimony are -correct me if I'm wrong -- halogenated carbon 24

injections, in particular, sub-bituminous coals. Is 1 2 that correct? 3 MR. ROSS: That's one of the 4 technologies, yes. 5 MR. HARRINGTON: The second technology 6 I believe you talked about is for hot side ESP's, the 7 halogenated activated carbon injection. That's another technology. Is that correct? 8 9 MR. ROSS: That's correct. 10 MR. HARRINGTON: And the third is that bituminous coals, flue-gas desulfurization, selective 11 12 catalytic reduction. Were there any other technologies 13 you are considering in reaching the conclusions? MR. ROSS: Well, I mentioned fluidized 14 15 bed boilers with fabric filter. We looked at other 16 technologies. This is a developing technology. 17 MR. HARRINGTON: But when you are 18 reaching your conclusion on economic reasonableness, 19 those were, essentially, the technologies you looked at. 20 Is that correct? MR. ROSS: I think we probably 21 22 targeted the main ones. Without doing some review, I 23 can't say those were the only technologies we looked at. We looked at --24

MR. HARRINGTON: They are the primary 1 2 technologies discussed in the outreach meetings and the 3 testimony and TSD, correct? There's others that are mentioned as possibilities, but these are the main ones? 4 MR. ROSS: Sitting right here without 5 that information in front of me, I believe that's 6 7 accurate. 8 MR. HARRINGTON: And the essential 9 part of that is for the sub-bituminous fired units and halogenated carbon injection prior to ESP's is a very 10 11 cost-effective technology. Is that correct? That's an essential part of your analysis? 12 13 MR. ROSS: Ross I believe that's 14 correct. 15 MR. HARRINGTON: That technology was 16 proven in this proceeding not to be applicable to the 17 majority of the facilities in Illinois to achieve the 18 limits you proposed that effect your economic analysis. MR. ROSS: Well, I believe there were 19 20 optimization techniques for that type of technology, and again, I would say the rule does not mandate any certain 21 22 technology. 23 MR. HARRINGTON: I believe your 24 estimated cost for that, capital cost, was, roughly, \$2

million dollars in installation. Is that correct? Give 1 2 or take a little, depending on installation. 3 MR. ROSS: I think for, like, a 500 4 megawatt plant, that sounds about right. MR. HARRINGTON: If the costs, capital 5 6 costs, to achieve compliance for the rule were 10 times 7 that amount, would that affect your economic analysis? MR. ROSS: I don't know. 8 9 MR. HARRINGTON: If it were 20 times that amount, would it affect your economic analysis? 10 11 MR. ROSS: I think it would certainly 12 make us re-evaluate. 13 MR. HARRINGTON: How about 30 times 14 that amount? 15 MR. ROSS: Yeah. That's getting up there, but hypothetical. 16 17 MR. HARRINGTON: It is a hypothetical, 18 depending on the evidence that comes out in the 19 proceeding, so 20 or 30 times would require you to 20 re-evaluate the cost-effectiveness of this analysis. Is that correct? 21 22 MR. ROSS: That's accurate. 23 MR. ZABEL: One very brief on something Mr. Harrington asked. You mentioned fluidized 24

bed combusters. Are those considered by the Agency as a 1 2 retrofit technology? MR. ROSS: I don't believe so. 3 MR. HARRINGTON: If it was established 4 5 in this proceeding that to install technology required 6 to achieve this limit actually would take substantially 7 more than three years on an industry-wide basis, would that change your conclusion as to the viability of this 8 9 rule? 10 MR. ROSS: I think it would require us 11 to go back and re-evaluate. 12 MR. HARRINGTON: One final question, 13 did the Agency ever actually draft a rule that would 14 have simply adopted CAMR in Illinois? MR. ROSS: I believe we had drafted 15 16 several options in preliminary draft form, so we may 17 very well have. 18 MR. HARRINGTON: Are those options 19 available? 20 MR. ROSS: At this time? 21 MR. HARRINGTON: Yes. 22 MR. ROSS: I don't believe so. I 23 believe we are proceeding forward with the current version of the proposed rule. 24

MR. HARRINGTON: One moment. There's 1 2 some additional questions that will be appropriate once 3 the Board acts on the proposed amendments. I'm trying 4 to address my present questions, so I assume I can reserve those questions, until there's some action on 5 6 the proposed amendments? 7 MADAM HEARING OFFICER: Absolutely. 8 MR. HARRINGTON: Thank you. 9 MADAM HEARING OFFICER: Mr. Bonebrake, do you have a follow-up? 10 11 MR. BONEBRAKE: I did have one additional follow-up. Mr. Ross, I believe in your 12 13 testimony you were referring to mercury control 14 technologies as developing technologies. Do you mean by 15 that phrase "developing technologies"?. 16 MR. ROSS: I think I referred to that 17 there's been recent advances, and that trend is expected 18 to continue. 19 MR. BONEBRAKE: When you use the term 20 "developing technologies" do you mean not yet commercially demonstrated? 21 22 MR. ROSS: I didn't make that 23 distinction, no. 24 MR. BONEBRAKE: What do you mean, then,

1 by "developing"?

2	MR. ROSS: Well, the mercury controls
3	continue to get better all the time. I mean, it could
4	be existing control technology that has improved
5	somehow, like we had existing activated carbon injection
6	systems, which got better through a change in sorbents,
7	with the introduction of halogenated sorbents, so you
8	could say that was an existing control system that was
9	improved, so the technology continues to advance, and
10	the mercury controls continue to become more effective,
11	not only in reducing mercury emissions, but more
12	cost-effective, as well.
13	MADAM HEARING OFFICER: Mr. Zabel?
14	MR. ZABEL: In answering the Question
15	10 on CAMR, you indicated one of the reasons the Agency
16	did not go that way was the improved effectiveness of
17	controls. Is that correct?
18	MR. ROSS: Well, I think what I said
19	was CAMR does not go far enough, fast enough, and that
20	with the advent of improved controls, we believe we can
21	go farther faster.
22	MR. ZABEL: Is it the Agency's
23	position to install controls for the sake of controls?
24	MR. ROSS: No.

MR. ZABEL: Is it the Agency's 1 2 position, then, that the improved effectiveness will 3 result in the decline in the mercury content of fish in the state of Illinois? 4 5 MR. ROSS: Could you repeat that, 6 please? 7 MR. ZABEL: Could the reporter read it 8 back, please? 9 (At which point, the previous question was read by the court reporter.) 10 MR. ROSS: Yes. I believe that is our 11 position, and that is actually a question that I think 12 13 is asked later. 14 MR. ZABEL: Are you the witness that will testify to that or is it someone else? 15 16 MR. ROSS: I think we have someone 17 else. Experts in that area will be testifying. 18 MR. ZABEL: Who will that be? MR. ROSS: I think Dr. Keeler will be 19 20 one of those and Dr. Staudt. Well, the mercury levels in fish would decline? 21 22 MR. ZABEL: I recall earlier in your testimony you indicated the objective was to reduce the 23 mercury content in fish that would be consumed by 24

people, so I'm asking if you have a witness that is 1 2 going to make that connection. 3 MR. ROSS: Yeah. I think that it 4 would probably be Marcia Willhite or Tom Hornshaw, the 5 experts in the mercury content of fish. 6 MR. ZABEL: But they will make the 7 connection --8 MR. ROSS: I think it's our position 9 that -- I mean, we've developed a link we feel between 10 mercury emissions and methylmercury content in fish, so 11 any reductions in mercury emissions we believe there will be a corresponding reduction in the methylmercury 12 13 levels in fish. 14 MR. ZABEL: One for one? 15 MR. ROSS: I don't think we're taking 16 that position, no. 17 MADAM HEARING OFFICER: Mr. Bonebrake? 18 MR. BONEBRAKE: You mentioned 19 "developed a link," Mr. Ross. What link is it you're 20 referring to? MR. ROSS: That mercury emissions 21 22 deposit locally, potentially, and mercury emissions that 23 occur in Illinois, Illinois mercury emission sources will deposit, to some degree, in Illinois, which 24

contributes to the methylmercury levels in fish and 1 2 therefore, when you have a rule which tackles the 3 emissions of mercury from power plants, there should be a corresponding reduction in the methylmercury levels of 4 5 fish. MR. BONEBRAKE: When you say "to some 6 7 degree," what do you mean? MR. ROSS: I don't think we have 8 9 sought to quantify that amount. 10 MR. BONEBRAKE: Has the Agency sought 11 to quantify the amount by which mercury levels in fish 12 tissue would reduce as a result of the proposed Illinois 13 rule? 14 MR. ROSS: No, we have not. MADAM HEARING OFFICER: Yes. 15 16 MS. TICKNER: Diane Tickner from 17 Prairie State Generating Company. Has Illinois EPA done 18 any depositional studies to determine what mercury 19 released from power plants in Illinois actually stays in 20 Illinois? MR. ROSS: I believe we've initiated 21 22 some studies, but we have not completed them, and that 23 again, is a question that is asked later. 24 MADAM HEARING OFFICER: Mr. Forcade?

Identify yourself for the record and go ahead. 1 2 MR. FORCADE: My name is bill Forcade 3 from Jenner & Block representing Dominion Kinkade. Mr. Ross, there are a series of questions asked of you 4 5 earlier relating to the Agency's thought processes. I 6 think it was in October, which was prior to the 7 retention of all of the witnesses here you were 8 describing the process by which the Agency shows the 90 9 percent reduction standard. If I recall correctly, you 10 made the statement that the goal was widespread 11 compliance. Was that correct? 12 MR. ROSS: I stated that as a goal. 13 Whether it was during the context of that conversation, 14 I'm not certain, but yes, that is a goal, widespread 15 compliance of the rule. 16 MR. FORCADE: Would I be safe in 17 assume tag widespread compliance is something less than 18 total compliance? 19 MR. ROSS: I think our goal is total 20 compliance. MR. FORCADE: If you're goal was total 21 22 compliance, had the Agency identified a particular 23 technology, which would allow each individual coal-fired power unit in the state of Illinois to achieve the 90 24

percent reduction or other reductions required for the 1 2 rules. MR. KIM: Again, this question has 3 4 been asked as far as whether or not any specific 5 technology was associated with the rule, itself, and I believe Mr. Ross has answered that question several 6 7 times I think. MADAM HEARING OFFICER: I do think 8 9 we're coming back around to the same thing. 10 Mr. Bonebrake and Mr. Rieser. MR. BONEBRAKE: You mentioned I believe 11 12 the Agency initiated studies regarding mercury 13 deposition. Is that correct? 14 MR. ROSS: That's correct. MR. BONEBRAKE: When were those studies 15 16 initiated? 17 MR. ROSS: I don't know the answer to 18 that. 19 MR. BONEBRAKE: Who is conducting those 20 studies? 21 MR. ROSS: I don't know the answer to 22 that. 23 MR. BONEBRAKE: What is the status of 24 those studies?

MR. ROSS: They are not yet completed. 1 2 MR. BONEBRAKE: What is the expected 3 completion date? 4 MR. ROSS: I do not know the answer to 5 that. 6 MR. BONEBRAKE: Who, within the 7 Agency, do you think, Mr. Ross, would know the answer to the questions I just raised with you? 8 9 MR. ROSS: I think Marcia Willhite would be the person to ask that of. 10 11 MADAM HEARING OFFICER: Mr. Rieser, do 12 you have follow-up? MR. RIESER: Mr. Bonebrake asked the 13 14 right question. MADAM HEARING OFFICER: Let's take a 15 16 short break. It's been a couple of hours, already. We 17 are making good progress. 10 minutes. 18 (At which point in the proceedings, 19 the meeting was adjourned for 10 minutes.) 20 MADAM HEARING OFFICER: Let's go back on the record. Mr. Ross, I believe we're at Question 21 22 16. 23 MR. ROSS: Question 16: "On page nine of his testimony, Mr. Ross states that `Illinois opposes 24

emissions trading, unless the EGU's can demonstrate that 1 2 mercury hot spots are presented.' Has Illinois EPA 3 identified any hot spots in Illinois caused by Illinois 4 power plant emissions?" The answer to that is, no, we 5 have not. We have seen some RIMSAT (phonetic) modeling 6 and monitoring data. However --7 MADAM HEARING OFFICER: Excuse me, Mr. 8 Ross. You are going to have to move that closer to you. 9 They can't hear you in the back at all. MR. ROSS: The answer to 16 is no. We 10 11 have not identified any specific mercury hot spots 12 caused by Illinois power plant emissions in Illinois. 13 B: "If Mr. Ross answered the last question in the 14 affirmative, please answer the hot spots and provide the 15 data establishing the existence of such hot spots," and 16 I did not answer the last question in the affirmative. 17 "Has Illinois EPA undertaken any investigations or study 18 to identify hot spots?" As I mentioned earlier, we did 19 initiate some deposition modeling in late 2005, but we 20 did not complete this study. And D, "If so, please describe those efforts and the results," and the study 21 has not been completed. 22

23 MADAM HEARING OFFICER: Before we do24 that, actually, you know what, go ahead, Mr. Rieser.

1 We'll start with you.

3specific question which you did answer, "Has Illinois4identified any hot spots in Illinois caused by Illinois5power plant emissions?" And your answer was no. If I6can reframe that question slightly, has Illinois7identified any hot spots in Illinois caused by any power8plant emissions?9MR. ROSS: No, we have not.10MR. RIESER: Thank you.11MADAM HEARING OFFICER: Ms. Bassi?12MS. BASSI: You said that you13initiated some deposition modeling in late 2005, but is14it not completed or you just stopped the contractor15stopped the modeling?16MR. ROSS: I'm not sure. As I17mentioned earlier, I'm going to have to defer to Marcia18Willhite on that.19MS. BASSI: Okay. Okay.20MADAM HEARING OFFICER: Mr. Ross,21Prairie State asked a similar question. This question,22No. 4, on page two of their prefiled questions, I will23just read it to you again. I apologize for taking this24out of order, but since it's about hot spots, "At	2	MR. RIESER: The question of 16-A,
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various places in your testimony, you talk about mercury 1 2 hot spots. Has Illinois defined what is meant when the 3 term `hot spot' is used, and are you using that the same 4 definition as U.S. EPA used in the CAMR rulemaking?" MR. ROSS: Well, in general, when we 5 6 use the term "hot spots" we are referring to areas of 7 high mercury concentrations, or in the context of a 8 trading program, an area where a mercury emissions 9 source would avoid mercury reductions through aspects of the trading program, such as the purchase of allowances, 10 11 or the banking of allowances to forego reductions to the 12 later years. MADAM HEARING OFFICER: And the rest of 13 14 that question, I believe you have already addressed is 15 "What specific hot spots have been identified in 16 Illinois, and if hot spots have been identified, what 17 evidence is there that they are the result of coal-fired 18 plant emissions?" and I think you have already addressed 19 that. 20 MR. RIESER: That question was asked a little bit differently, so if it's possible, if I could 21 22 get an answer to that, it would be great. 23 MR. ROSS: You are saying that the Prairie State question was asked a little bit 24

1 differently?

2	MR. RIESER: Yes, I just don't have it
3	in front of me, either.
4	MADAM HEARING OFFICER: The Prairie
5	State question was, "What specific hot spots have been
6	identified in Illinois? And if they have been
7	identified, what evidence is there that they are the
8	result of coal-fired power plant emissions? Have there
9	been any identified in Illinois?
10	MR. ROSS: No.
11	MR. RIESER: I have a follow-up. In
12	responding to the question about how a hot spot is
13	defined, you had two very different definitions, so I
14	want to take each one in turn. The first one was they
15	are areas of high mercury concentration, and let me ask
16	how you define "high mercury concentration."
17	MR. ROSS: Well, the context in which
18	we're using it would be on a deposition modeling map,
19	per se, areas of high mercury concentrations are
20	typically identified as red areas on deposition modeling
21	maps, so that's one context how we're using it.
22	MR. RIESER: Are there other contexts
23	in terms of how you're using it?
24	MR. ROSS: In terms of a cap-and-trade

1 program.

2	MR. RIESER: Let's set that aside.
3	Now, is there a quantity number associated, in your
4	mind, with what constitutes an area of high mercury
5	concentration?
6	No, not in my mind, I'm not an
7	expert on modeling.
8	MR. RIESER: Thank you. Now, on the
9	second part, you refer to the second part of it had
10	to do with define a hot spot in terms of the impact of
11	the cap-and-trade program, and I think you said that a
12	hot spot would be defined as an area associated with the
13	power plant and you are going to have to correct me
14	if I didn't get this right an area associated with
15	the power plant that it purchases emission allowances.
16	Is that correct?
17	MR. ROSS: They would avoid reductions
18	under a cap-and-trade program through the purchase or
19	banking of allowances.
20	MR. RIESER: What, physically, would
21	represent would be the area where the hot spot is
22	located? The plant, itself, or something else?
23	MR. ROSS: Nearby, surrounding area.
24	I don't think there is a defined distance.

MR. RIESER: Is there any 1 2 quantification of the amount of mercury deposited that 3 would be associated with such a hot spot? 4 MR. ROSS: Not to my knowledge, but I am not an expert in this area. Probably -- certainly, 5 6 in the context of deposition modeling in hot spots and 7 how that's used and defined, I would think Dr. Keeler 8 would be the appropriate person to discuss this with. 9 MR. RIESER: It's accurate, isn't it, 10 that the deposition modeling would be based purely on 11 modeling meteorology and the emissions of the power plants? It wouldn't be the administrative concept of 12 whether those plants purchased emissions. Isn't that 13 14 correct? 15 MR. ROSS: That's correct. 16 MR. RIESER: So I'm still trying to 17 figure out why the plant that purchased emissions 18 credits under a legally-allowed program would constitute 19 a high --20 MR. ROSS: I'm just giving the context in how we use the term in testimony and in the TSD. 21 MR. RIESER: When you say "we use the 22 23 term," does that refer to testimony by the Agency or testimony by other witnesses? 24

MR. ROSS: Pardon? It's probably 1 2 testimony by the Agency. I'm not certain if it was -- I 3 would have to review, to be honest with you. 4 MR. RIESER: Thank you. MADAM HEARING OFFICER: Mr. Harley? 5 6 Could you identify yourself for the record, please. 7 MR. HARLEY: For the record, Keith Harley, attorney for the Chicago Legal Clinic on behalf 8 9 of Illinois Public Industry Research Group and 10 Environment in Illinois (phonetic). Mr. Ross, can a 11 waterway constitute a hot spot? 12 MR. ROSS: Certainly, a waterway could 13 be an area of high mercury concentrations. 14 MR. HARLEY: Couldn't a waterway where 15 a specific mercury advisory been issued constitute a hot 16 spot? 17 MR. ROSS: I believe in the context in 18 which we have used the term, yes. 19 MR. HARLEY: Could a waterway containing fish with high levels of methylmercury 20 constitute a hot spot? 21 22 MR. ROSS: In the context of which we 23 use the term, yes. 24 MR. HARLEY: Thank you, Mr. Ross.

MADAM HEARING OFFICER: Ms. Bassi, you 1 2 are next, I believe. 3 MS. BASSI: Have we gotten to 16-E, 4 yet? 5 MADAM HEARING OFFICER: Yes, we did. 6 MS. BASSI: What was the answer to 16-E? 7 MR. ROSS: Well, we did not identify 8 9 any areas of hot spots, so I did not answer the previous 10 question in the affirmative. MS. BASSI: No, E, as in Edward. 11 12 MR. ROSS: I'm sorry. "Describe how 13 an EGU would demonstrate that mercury hot spots are 14 prevented." I believe that an EGU could demonstrate 15 that they have reduced mercury emissions, and the Agency 16 could potentially consider this as an effort to prevent 17 and reduce local impacts, or hot spots. 18 MS. BASSI: Thank you. So if a power 19 plant reduced mercury emissions, but still bought 20 allowances in a cap-and-trade program, would you -would there or would there not be a hot spot? 21 22 MR. ROSS: Given two different 23 definitions here. 24 MS. BASSI: No. They go together.

What I'm doing is combining your definitions. 1 2 MR. ROSS: I don't think I have 3 combined them, so I understand you're combining them, but an area of high mercury concentration in a 4 deposition modeling map -- you asked if in a 5 6 cap-and-trade program, if an emissions source is 7 reducing mercury emissions, have they demonstrated that 8 they are preventing hot spots? I would say, to some 9 degree, they have demonstrated that they have taken 10 steps to address the hot spot, yes. If they are 11 reducing mercury emissions in the context in which we used it, they would be avoiding mercury reductions 12 13 through the purchase of allowances. 14 MS. BASSI: If they have reduced 15 mercury emissions, they have control technology 16 installed at whatever it is, and they are reducing 17 mercury emissions, perhaps, even using the control 18 technology that the Agency has acknowledged in this 19 whole process, but they were still participating in a 20 trading program and bought allowances for the federal reason, or whatever, or sold allowances, would that fall 21 22 into your definition of a hot spot?

23 MR. ROSS: Well, you're saying our
24 definition. We have picked up the term and I guess

continued using it, as we have seen others use it. And 1 2 yes, if they purchased allowances and avoided emissions 3 reductions at that particular power plant, then, yes, that would constitute a hot spot, in one sense of the 4 5 definition. Not definition, how the term is used. I 6 don't think there is a formal definition of the term 7 "hot spot," at least, none that I'm aware of. 8 MS. BASSI: You have defined it 9 differently than I have always thought that it was used. Your first definition about elevated levels of mercury 10 11 in a geographical area --12 MR. ROSS: Right. MS. BASSI: Was how I had always heard 13 14 the term defined. Defining it as not reducing mercury 15 emissions, regardless of what measurements of mercury 16 there might be around, I've never heard defined that 17 way. 18 MR. KIM: I'm not sure if that's a 19 question or if it's a statement. MS. BASSI: It's trying to get to 20 exactly what definition are we talking about here, and 21 22 it seems to me that there are two, and what one will we 23 going to use? 24 MR. KIM: I think Mr. Ross has

answered the question as best he can. 1 2 MS. BASSI: Both? 3 MR. KIM: Through his answer and through his responding to your hypothetical. I think 4 5 he's answered as best he can. 6 MR. ROSS: I don't think we are giving 7 a regulatory definition of hot spot. It's just identifying how we have seen the term used. 8 9 MADAM HEARING OFFICER: Mr. Zabel? MR. ZABEL: I don't mean to belabor 10 11 this. The term "hot spot" has a majoritive connotation. I want to make sure how the Agency is using it. 12 Mr. Ross, hypothetically, if the State does not adopt 13 14 any kind of mercury standard and CAMR goes into effect, 15 will the Agency characterize every plant, every unit in 16 the state as a hot spot if it buys allowances? 17 MR. KIM: Would it be possible for 18 Mr. Zabel to hold his question off just a few questions? 19 Down the road, there are more specific, pointed 20 questions to Mr. Ross concerning his definition of hot spots, so if we could maybe hold those off, until we 21 answer that question, and I'm, specifically, looking at 22 23 Question 24, so if we could maybe work our way up to this. We will be going through all this discussion 24

1 again.

2 MR. ZABEL: We'll come back to these 3 questions because he's now given two definitions of hot 4 spots. 5 MR. KIM: Could we continue on with 6 the other questions because we're going to have to 7 answer Question 24, anyway. 8 MR. ZABEL: I will ask him now or I 9 will ask him later. I will happily wait. 10 MADAM HEARING OFFICER: We'll move on 11 at this point. We'll come back to those. 12 MR. ROSS: No. 17: "On page 10 of his testimony, Mr. Ross indicates that Illinois EPA 13 14 requested that the Illinois attorney general appeal the 15 CAMR and she did. On what grounds or issues does the 16 Illinois EPA seek to challenge the CAMR? 17 MR. KIM: I guess I don't know if it's 18 a question or objection, per se, but there are several 19 questions that are presented to witnesses and this 20 happens to be I guess the first we are coming to where lay witnesses are asked of their opinion or 21 22 interpretation of legal proceedings, and it seems to me that it's irrelevant what Mr. Ross' understanding of --23 or well, he's being asked to define legal grounds and 24

legal issues, and I don't think Mr. Ross, who is not an 1 2 attorney, should be put into that position. I think any 3 answer he gives would be irrelevant. If there's a 4 question about what the lawsuit says or contains, I think review of that lawsuit would be sufficient, and 5 6 certainly more instructive than Mr. Ross' attempting to 7 answer legal questions. 8 MR. ZABEL: Madam Hearing Officer, if 9 I may? 10 MADAM HEARING OFFICER: Yes. 11 MR. ZABEL: I checked the court record 12 the day before in the D.C. Court of Appeals where that appeal is pending because Petitioners are required to 13 14 file a non-binding statement of issues with the court. 15 Unfortunately, the nature of the proceeding, appealing 16 CAMR, the attorney general has not yet been required to 17 file that non-binding statement, at least, as of 18 yesterday, or Friday, I'm sorry. My concern is that the 19 attorney general is, apparently, representing the 20 Illinois EPA in that proceeding. I wish to know what issues the Illinois EPA has asked its counsel to appeal. 21 He states in his testimony a number of things he found 22 23 wrong with CAMR. Are those the things that he is asking 24 the attorney general to appeal? Is it other issues? Is

it those and others and that's the point of the
 question.

3 MR. KIM: Again, that's all the more 4 reason why this witness should not be put in a position of attempting -- especially, if there's nothing -- I was 5 6 thinking of something else, different case. If no 7 formal challenge or petition has been filed, again, it's 8 completely irrelevant what Mr. Ross' understanding is of 9 what the attorney general's office will be doing at some point in time, if and when they do that. 10 11 MR. ZABEL: Is the attorney general 12 his counsel or not in that case? Is she appealing on behalf of the Agency or independent office? 13 14 MR. KIM: I believe he said there is 15 no lawsuit. 16 MR. ZABEL: No; no. You 17 misunderstood. The lawsuit has been filed. The appeals 18 by 13 states or something is pending in the United 19 States Court of Appeals in the District of Columbia. I 20 don't have the case number with me, but I can get it, if you like it, Mr. Kim. What has not been filed is the 21 non-binding statement of issues for the appeal. It has 22 23 not been filed because re-hearing was granted. The court deferred those filings, until the re-hearing was 24

completed. I suspect they will now set a schedule for 1 2 those filings, but the attorney general being the 3 Agency's attorney in that case, normally, a client tells his counsel what his interest is, and what his issues 4 are. I'm asking what the Agency told the attorney 5 6 general. 7 MR. KIM: Without getting into the unique relationship between the attorney general's 8 9 office and the Illinois EPA --10 MR. ZABEL: I will stipulate to that, 11 Mr. Kim. 12 MR. KIM: You are asking this witness to testify about something that has not been filed. He 13 14 is not going to be in a position to do that. The only 15 person that can testify as to what grounds or issues the 16 attorney general's office is going to pursue is going to 17 be the attorney general. The Illinois EPA, as you 18 noted, doesn't have the authority to do that. Only the 19 attorney general's office does. 20 MADAM HEARING OFFICER: I'm ready to rule. 21 22 MR. HARLEY: If the statement of 23 reason is not of public record at this point, and if the attorney general is acting as the attorney for the 24

1 Illinois EPA, the conversations are subject to

2 attorney-client privilege, and I ask that you would take 3 that into account as to whether or --4 MADAM HEARING OFFICER: I appreciate 5 that, Mr. Harley. I appreciate the attorney-client

6 privilege, and I appreciate your arguments, Mr. Kim, but 7 the fact of the matter is Mr. Ross testified that this 8 lawsuit has been filed. He testified on page 10 and 11 of his testimony. The question is "On what grounds or 9 issues does the Illinois EPA seek to challenge CAMR?" 10 11 If Mr. Ross can't answer that question, that's fine, but he did testify to this, so your argument that he's not 12 an attorney sort of loses weight when he's the one that 13 14 presented the information, and honestly, I don't know if 15 it's been in press releases or further in here, but I do 16 know that there's been -- there's a lot of public 17 information about the lawsuit, and I thought there was 18 more information within the testimony from the Agency on 19 this, so, with all due respect, I believe that Mr. Zabel 20 is correct that Mr. Ross has opened himself to this question, and he should answer to the best of his 21 22 knowledge on what grounds the EPA seeks to appeal CAMR. 23 MR. KIM: I think, with that qualification, that's fine. 24

MR. ROSS: To the best of my 1 2 knowledge, Illinois believes that the provisions of the 3 Clean Air Act require that U.S. EPA implement MACT for 4 controlling mercury emissions under Section 112 of the 5 Clean Air Act. Furthermore, the standards of 6 performance of mercury in the CAMR are more relaxed for 7 sub-bituminous units than for bituminous units, thereby 8 disadvantaging those that use Illinois coal, which is, 9 in large part, bituminous. In addition, by coordinating the first phase emission caps in CAMR with the Clean Air 10 11 Interstate rule, or CAIR, emissions cap, the CAMR does not require any additional mercury controls, 12 specifically, designed to address hazardous 13 14 air-polluting emissions. Instead, Phase 1 of CAMR 15 relies on the coal benefit reductions under CAIR. This 16 being the case, Illinois could not see a significant 17 mercury reduction for many years since, both, CAIR and 18 CAMR are trading programs that allow the purchase of 19 emission credits in place of actual reductions. As a 20 result of these noted deficiencies in CAMR, the Illinois EPA requested that the attorney general file a petition 21 22 for review regarding CAMR on its behalf. 23 MADAM HEARING OFFICER: Ms. Bassi, a

24 follow-up?

MS. BASSI: If Illinois had pursued 1 2 the CAMR route, rather than the route that it has 3 chosen, would Illinois have had flexibility under CAMR 4 to establish its own allocation methodology? 5 MR. ROSS: Yes, we would have. 6 MS. BASSI: Does -- and through this 7 allocation methodology, would Illinois have had the 8 flexibility to address the issue that you raised 9 regarding the difference in treatment of sub-bituminous and bituminous coal? 10 MR. ROSS: Well, first, let me qualify 11 the first answer. We would have, to the degree that 12 U.S. EPA would accept it. They still need to review and 13 14 accept our CAMR program, and so, to some extent, we 15 would have been able to remedy that. I'm uncertain, if 16 we would have had to have discussions with U.S. EPA on 17 our proposed allocation method, the determination would 18 be made of what we were proposing was acceptable. 19 MS. BASSI: The CAMR requires merely 20 that the State comply with certain elements that are described in the rule and meet the emissions budget. Is 21 22 that correct? 23 MR. ROSS: That's correct. MS. BASSI: Okay. And the CAMR 24

provides for certain areas of flexibility, correct? 1 2 MR. ROSS: That's correct. 3 MS. BASSI: And the area of flexibility the major area of flexibility, at least, is 4 5 the allocation methodology? 6 MR. ROSS: That's correct. 7 MS. BASSI: What is "allocation methodology"? I mean, just define "allocation 8 9 methodology." 10 MR. ROSS: Well you're given a budget, 11 and within the confines of that budget, you determine the allowances, how they are distributed to each of the 12 units covered under the regulation, being CAMR in this 13 14 aspect. 15 MS. BASSI: Does the CAMR provide any 16 restrictions on how a state distributes its allowances 17 under its methodology, so long as it is within the 18 parameters of the types of sources that CAMR addresses? 19 MR. ROSS: I'm not certain to the 20 answer of that. MS. BASSI: I will clarify. The CAMR 21 addresses only coal-fired -- I think there is 22 23 co-generation units included, but generally, coal-fired power plants of a certain size, certain minimum size? 24

MR. ROSS: 25 megawatts. 1 2 MS. BASSI: Correct. Does the CAMR 3 restrict the State, in any way, in how it would distribute its budget among the coal-fired power plants 4 that are subject to the CAMR under the federal rules? 5 6 MR. ROSS: I would have to review 7 that. I believe they gave broad discretion to the 8 State. Whether it's complete discretion, I'm not 9 certain. I mean, they still have the ability to come in and say what we are doing is unacceptable. They review 10 11 the allocation methodology. CAMR, in total, would need to be reviewed by the U.S. EPA, and they would make a 12 determination whether what we are doing is acceptable. 13 14 They would be concerned with the integrity of CAMR, so 15 I'm certain there are some inherent restrictions on how 16 you allocate allowances. 17 MR. ZABEL: You testified, Mr. Ross, 18 that, if they used -- if the State used a different 19 allocation method, they would have to discuss it with 20 EPA. Is that correct? MR. ROSS: It would have to be 21 approved, eventually, by U.S. EPA. We, historically, 22 23 have discussed these matters with the U.S. EPA prior to submitting them, so that they don't get out of hand 24

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1 rejected.
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2 MR. ZABEL: And the current proposal 3 of the Agency has no allocation method. Is that 4 correct? 5 MR. ROSS: That's correct. It's not a 6 trading program. 7 MR. ZABEL: Does it have a cap in it? MR. ROSS: It has no cap in it. 8 9 MR. ZABEL: Have you discussed that 10 with U.S. EPA? 11 MR. ROSS: Yes, we have. 12 MR. ZABEL: What was the result of 13 those discussions? MR. ROSS: They are ongoing. 14 MR. ZABEL: They are ongoing, so you 15 would continue them, presumably, if a rule is adopted? 16 17 MR. ROSS: Pardon? 18 MR. ZABEL: You would continue such discussions, if a rule is adopted? 19 20 MR. ROSS: If a conclusion wasn't reached by them. 21 22 MR. ZABEL: I see, but at this point in time, U.S. EPA has not concluded the proposal is 23 acceptable. Is that correct? 24

MR. ROSS: The discussions are 1 2 ongoing. 3 MR. ZABEL: You mentioned, also, in 4 response that CAMR utilized the co-benefits of CAIR. 5 Does the Illinois EPA object to co-benefits? MR. ROSS: No, we do not. 6 7 MR. ZABEL: So a source that might comply with CAIR early and get emission -- mercury 8 9 emission reductions could use those under your rule, 10 could they not? MR. ROSS: Yes, they could. 11 12 MR. ZABEL: So you don't object to 13 co-benefits. 14 MR. ROSS: Absolutely not. MR. ZABEL: Then what was the problem 15 16 with CAIR? I missed it. 17 MR. ROSS: The problem with CAIR? 18 MR. ZABEL: The problem with the 19 co-benefits of CAIR being utilized by U.S. EPA for 20 compliance? 21 MR. ROSS: I don't think I have 22 indicated that there was a problem. MR. ZABEL: We'll look at the 23 24 transcript. Thank you.

MADAM HEARING OFFICER: Mr. Rieser? 1 2 MR. RIESER: You testified with 3 respect to the appeal here in discussion we had earlier that Illinois EPA was seeking -- let me make sure I get 4 this right -- seeking for the U.S. EPA to issue a MACT 5 6 standard rather than the CAMR role being issued. Is 7 that correct? MR. ROSS: That's correct. 8 9 MR. RIESER: And Illinois EPA, if I recall, submitted a variety of comments in the various 10 11 regulatory proceedings where the U.S. EPA was considering a MACT standard and -- is that correct? 12 13 MR. ROSS: That's correct. 14 MR. RIESER: Is it correct that the 15 MACT standard that would -- that the Illinois EPA sought 16 in those comments would have required 80 percent control 17 of mercury? 18 MR. ROSS: I don't know the answer to 19 that. 20 MR. RIESER: Thank you. MADAM HEARING OFFICER: Let's move on. 21 22 MR. ROSS: I believe we were on 23 question 18. "Mr. Ross refers to the so-called Section 9/10 report. Did Mr. Ross have any involvement in the 24

preparation of that report?" My involvement was 1 2 indirect, and I did not write any portion of the report. 3 Limited involvement. "If so, please describe your 4 involvement." During the period that the 9/10 report was being written and finalized, I was either a manager 5 6 of the Clean Air Act Permit Program or acting manager of 7 the permit section. On several occasions, the permit 8 section gathered information to be used in the report, and that was, essentially, the extent of my involvement. 9 19: "CAMR was promulgated in May, 2005. Why did 10 11 Illinois EPA wait about eight months before holding discussions with stakeholders about an Illinois rule 12 different from CAMR?" Once federal direction was clear, 13 14 which only occurred upon promulgation of CAMR. Illinois 15 used the following months to continue its research on 16 mercury and to further develop its mercury control 17 strategy. 18 MADAM HEARING OFFICER: Mr. Zabel? 19 MR. ZABEL: In 2004, didn't you make 20 the same comments on the proposal that you now objected to on the final rule? 21 MR. ROSS: I'm aware of a letter that 22

23 our director wrote in comments to U.S. EPA regarding the24 CAMR. I would have to go back and review that. I

didn't review anything prior to this hearing. That was 1 2 one thing I came across. I would have to re-familiarize 3 myself with that. 4 MADAM HEARING OFFICER: Mr. Bonebrake? 5 MR. BONEBRAKE: You mentioned that 6 during those intervening months IEPA did further 7 research. What specific research did IEPA do? 8 MR. ROSS: We spoke with numerous 9 experts, vendors, looked at numerous documents, Michigan 10 Utility Report, U.S. EPA data. We held numerous 11 discussions, not only with experts on policy and on 12 mercury controls, but vendors who provided mercury 13 controls, numerous things, held numerous meetings, 14 conference calls. 15 MR. BONEBRAKE: Wouldn't when you say 16 "meetings," do you mean internal meetings? 17 MR. ROSS: Internal meetings and 18 external. 19 MR. BONEBRAKE: Do you recall, 20 approximately, when all these efforts began? MR. ROSS: I know they have been 21 ongoing for years. I came back over to the Bureau of 22 Air in October of 2005, and they were an ongoing effort 23 24 at that time.

MR. ZABEL: I guess it may relate back 1 2 to an earlier answer you gave where you mentioned you 3 talked to Peabody who had a permit to construct, and I believe, Prairie State. In either of those sets of 4 5 discussions, did you talk to any of the companies that 6 actually operate existing units? 7 MR. ROSS: I am not aware of any such discussions, but that doesn't necessarily mean that they 8 9 did not occur. I did not participate in all the 10 discussions that were held. 11 MR. ZABEL: But to your knowledge, the 12 Agency did not consult with a single entity that 13 operates in existing coal-fired unit in this state? 14 MR. KIM: We're getting repetitive. 15 He's asked the question. He's answered it. 16 MADAM HEARING OFFICER: Mr. Harley? 17 MR. HARLEY: To your knowledge, is 18 there any legal obligation that Illinois EPA has to 19 consult with any stakeholder in developing a rulemaking 20 proposal? 21 MR. ROSS: To my knowledge, no. 22 MR. HARLEY: You did conduct 23 stakeholder meetings prior to submitting your rulemaking proposal to the Pollution Control Board. Is that 24

1 correct? 2 MR. ROSS: Yes. We conducted a number 3 of stakeholder meetings. 4 MR. HARLEY can you tell me, 5 approximately, how many stakeholder meetings you 6 conducted? 7 MR. ROSS: I believe five or six. MR. HARLEY: Were utility company 8 9 representatives of those companies invited to those 10 stakeholder meetings prior to the submission of the rulemaking proposal to the Illinois Pollution Control 11 12 Board? 13 MR. ROSS: Yes. They were invited and welcomed in those meetings. 14 MR. HARLEY: Is it fair to 15 16 characterize the participation in those stakeholder 17 meeting as active participation in your opinion? MR. ROSS: No. I would not 18 19 characterize it as active. 20 MR. HARLEY: Why wouldn't you characterize it as active participation even though you 21 22 held these stakeholder meetings and invited them to 23 participate? 24 MR. ROSS: I believe we received a

number of questions from them in clarification and some 1 2 useful comments on wording of the rule. However, we had 3 asked for more input from the power companies, say, on issues like the temporary technology base standard, on 4 5 potential options for flexibility and other matters, and 6 I would say that we had very limited input on those matters from the utilities. 7 8 MR. HARLEY: Thank you. 9 MADAM HEARING OFFICER: Mr. Zabel? 10 MR. ZABEL: This is a rehash, 11 Mr. Ross, but just to be clear, those meetings you are 12 talking about started in January of this year? 13 MR. ROSS: Yes, they did. 14 MR. ZABEL: Those are the ones in 15 which the Agency took the position on certain elements being non-negotiable? 16 17 MR. ROSS: You used the term 18 "non-negotiable." 19 MR. ZABEL: I will accept some synonym, if you would like. 20 MR. ROSS: Yes. We identified certain 21 22 components of the rule, pretty well established. 23 MR. ZABEL: By "pretty well established, " what do you mean? 24

MR. ROSS: That it would be difficult 1 2 to sway us on those components. 3 MR. ZABEL: And those were all on the table before you met with any of the companies that 4 5 currently operate EGU's in this state. Is that correct? 6 MR. ROSS: I'm not sure what you mean 7 by "those were on the table before." 8 MR. ZABEL: The first meeting with 9 entities that operate EGU's that you are aware of 10 occurred in January? MR. ROSS: Yes. 11 12 MR. ZABEL: At that point in time, the 13 ability to persuade the Agency, if I may use sort of 14 your phrase, Mr. Ross, on certain elements of the proposal would have been, at least, difficult. Is that 15 16 correct? 17 MR. ROSS: Yes. 18 MADAM HEARING OFFICER: Mr. Rieser? 19 MR. RIESER: Just to follow up on 20 Mr. Zabel's point, those elements included the 90 percent control level and the time frame for achieving 21 22 the 90 percent control level. Is that correct? 23 MR. ROSS: That's correct. 24 MR. ZABEL: And if no trading, if I

1 might add.

2	MR. ROSS: That's correct.
3	MADAM HEARING OFFICER: I think we are
4	ready to move on.
5	MR. ROSS: No. 20: "Mr. Ross Lists
6	several basic principles in developing the Illinois
7	rule, one of which is that the proposed rule must be
8	consistent with the governor's proposal. Why must the
9	proposed rule be consistent with the governor's
10	proposal?" The governor stated in his proposal that
11	Illinois will seek to achieve a certain level of
12	reduction in a specified time frame, and as a state
13	Agency under the direction of the governor, it is the
14	Illinois EPA's responsibility to implement the terms of
15	the governor's proposal. 21: "Is it Illinois EPA's
16	position that 90 percent reduction in power plant
17	emissions will result in a 90 percent reduction in
18	mercury content in largemouth bass?" I believe we have
19	previously answered that question, that, no, that is not
20	our position. We are simply seeking the greatest level
21	of mercury emissions that are reasonably possible in
22	line with our stated
23	MADAM HEARING OFFICER: Mr. Bonebrake?

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MR. BONEBRAKE: Let me follow up with

that. What is "reasonably possible" in terms of 1 2 reasonably possible in terms of reduction --3 MR. ROSS: "Reasonably possible" is a 4 judgment, a policy call. We stated our principles. We've done several economic modeling reviews, and it's a 5 6 policy call. 7 MR. BONEBRAKE: My question may have 8 been a little bit different. Let me try to re-frame it. 9 I think you said -- and correct me if I'm wrong -- that it is not EPA's -- IEPA's position that a 90 percent 10 11 reduction in power plant reduction will result in a 90 percent reduction in the mercury state in largemouth 12 bass. 13 14 MR. ROSS: Correct. That is not our 15 position. 16 MR. BONEBRAKE: Has IEPA identified a 17 level of reduction that would occur as a result of the 18 proposed rule, if, in fact, implemented? 19 MR. ROSS: No, we have not. 20 MR. ZABEL: Does the Agency have any evidence that any reduction in the mercury content of 21 22 fish in Illinois will occur as a result of the rule? MR. ROSS: Well, we believe there is a 23 weight of evidence that will demonstrate that reductions 24

will occur, and our experts will be testifying to that. 1 2 MR. ZABEL: When you said -- maybe I 3 didn't ask the correct question, but if should achieve reasonably possible reductions in emissions, is that 4 5 irrespective of the environmental impact or benefit of 6 those reductions? 7 MR. ROSS: No. I think the 8 environmental impact is part of the total picture. 9 MR. ZABEL: But you haven't quantified it. 10 11 MR. ROSS: No. We have not quantified it. 12 13 MR. ZABEL: So you have no idea what 14 that benefit is. Is that correct? 15 MR. ROSS: It's a judgment. We've 16 identified certain benefits that we believe will occur 17 as a result of the proposed rule. 18 MR. ZABEL: Which benefits are those? 19 MR. ROSS: Societal benefits. We went over those. Potential benefits impact to the fishing 20 industry, impacts potential to the Illinois coal 21 22 industry that may occur. Other benefits, and our 23 experts will be testifying to some of the benefits that could potentially occur as a result of the rule. 24

MR. ZABEL: I guess that's the word 1 2 that troubles me is the word "potential" Mr. Ross. I'm not sure what you mean by it. I will ask a question. 3 Has any of it been quantified? 4 5 MR. ROSS: There are several studies 6 that sought to quantify the benefits of mercury 7 reduction, and we identified those in the Technical 8 Support Document, the Harvard/NESCAUM study, Trasande, 9 et al., U.S. EPA has done its own studies. Dr. Rice will be speaking to some of the societal benefits that 10 11 could potentially occur as a result of the mercury 12 reductions we are seeking. 13 MR. ZABEL: None of those are Illinois specific, are they? 14 MR. ROSS: Define "Illinois specific." 15 16 MR. ZABEL: Reduction of emissions 17 from Illinois power plants as proposed in this 18 rulemaking for the benefits to methylmercury content in fish in Illinois. 19 20 MR. ROSS: Certainly, Illinois will benefit. We haven't polled out the specific benefits 21 22 that Illinois will expect do see. 23 MR. ZABEL: You are assuming, then? MR. ROSS: I would say we have 24

concluded that benefits will occur. 1 2 MR. ZABEL: Without any 3 Illinois-specific data. 4 MR. ROSS: Again, a weight of 5 evidence. 6 MR. ZABEL: Let me take one of your 7 benefit examples, which was fishing, I believe you said, 8 of tourism, fisherman coming to Illinois. Has anyone of 9 the Agency asked any fisherman anywhere in one of the surrounding states that he would come to Illinois if we 10 11 adopt a more stringent standard for CAMR? 12 MR. KIM: Mr. Ross has answered that we have not conducted anything specific. He stated his 13 14 answer that it's a belief. There's a weight of evidence 15 that other people are going to ask. We can spin 16 hypotheticals all day. "Have you done this? Have you 17 done this?" And the answer is no every single time. It 18 goes back to the same answer he's just given. 19 MR. ZABEL: I can't asking anything 20 hypothetical because I haven't got any data to go on. MR. KIM: You asked about specific 21 test data, and he tried to answer that question. I 22 23 believe he answered the question, and I think that you can ask the same question any number of different ways. 24

MR. ZABEL: He says it's his belief. 1 2 Let me ask it as his belief. Mr. Ross, do you believe a 3 fisherman in Missouri is going to change his fishing habits because we adopt this mercury standard? 4 5 MR. KIM: Well, that's irrelevant. MR. ZABEL: No, it isn't. It's 6 7 exactly what he claims. 8 MR. KIM: Mr. Ross is here to testify 9 on behalf of the Agency in support of this rule. Whether or not Mr. Ross, Jim Ross, believes a fisherman 10 11 in Missouri is going to something or other is not 12 germane. MR. ZABEL: It says in his testimony 13 14 that the Agency believes tourism will increase. 15 Fisherman will come to Illinois because we are adopting 16 mercury standards. I am perfectly content to have him 17 answer the belief of the Agency, rather than himself to 18 my question. 19 MR. KIM: I believe that's the answer 20 to the question. MR. ZABEL: That the Agency believes a 21 fisherman in Missouri will say, "Illinois as adopted a 22 mercury standard. I'm going to go catch those fish"? 23 MR. KIM: Mr. Zabel just quoted -- and 24

I'm assuming you're correct -- from Mr. Ross' testimony 1 2 on the Agency's belief. He can ask what that is, but if 3 he answers the testimony, he answers the testimony. We 4 are just doing the same questions over and over again. MR. ZABEL: As I said before, I'm not 5 6 a fisherman. Maybe they will do that. I have no 7 further questions on that. 8 MADAM HEARING OFFICER: Mr. Harley? 9 MR. HARLEY: Mr. Ross, is it your understanding that Illinois has the authority to address 10 11 potential threats to human health in the environment through regulation? 12 13 MR. ROSS: Yes. That's my 14 understanding. 15 MR. HARLEY: To ask this in a slightly 16 different way, Mr. Ross, does Illinois EPA have to wait 17 until there is an actual harm to an individual, to a 18 community, or to an ecosystem? Do you have to wait, 19 until there's an actual harm to develop regulations? 20 MR. ROSS: I do not believe so. MR. HARLEY: Thank you, Mr. Ross. 21 22 MR. BONEBRAKE: Just a couple follow-up 23 clarifications. I think you mentioned the Trasande, the NESCAUM and the U.S. EPA studies. Is that right? 24

MR. ROSS: That's correct. 1 2 MR. BONEBRAKE: None of those three 3 studies quantify any benefits associated with Illinois' proposed rule. Is that correct? 4 5 MR. ROSS: I don't believe they, 6 specifically, quantify. They looked at Illinois' rule, and took that into account and reached conclusions in 7 their studies, that's correct. 8 9 MR. BONEBRAKE: I'm sorry. Did you say "they"? Who is the "they" in that answer, Mr. Ross? 10 MR. ROSS: Authors of the studies. 11 12 MR. BONEBRAKE: So your testimony, 13 Mr. Ross, is that the authors of the NESCAUM and Trasande and U.S. EPA studies on benefits were looking 14 at the benefits of the Illinois proposed rule? 15 16 MR. ROSS: I believe they were looking 17 at the benefits of mercury reductions. 18 MR. BONEBRAKE: They were not, 19 specifically, looking at any benefits associated with 20 the Illinois rules. Is that correct? MR. ROSS: They were looking at 21 benefits. Certainly, reductions in Illinois were 22 considered I would think. 23 24 MR. BONEBRAKE: But none of those

study authors were looking at the specific issue of what 1 2 benefits would flow from the adoption of the specific 3 Illinois proposal? MR. ROSS: No, I don't believe. 4 MADAM HEARING OFFICER: Anything 5 6 further? Move on. 7 MR. ROSS: "Has Illinois EPA any data 8 or performed any studies to demonstrate what reduction 9 in the mercury content of largemouth bass in Illinois will result from the proposed rule?" No. We have not 10 11 conducted any such studies. The second part of that is, "If so," but we answered it in the negative. 12 13 MADAM HEARING OFFICER: Mr. Bonebrake? 14 MR. BONEBRAKE: I'm sorry, Mr. Ross, 15 but I think you just answered a part of that question. 16 The question refers to, both, any data or any studies, 17 and I think your answer referred to no studies. Can I 18 assume from your testimony that there is no such data? 19 MR. ROSS: Not that I'm aware of. 20 MR. ZABEL: Just to be clear, there's none under way, as well? 21 22 MR. ROSS: Not that I'm aware. 23 MR. ROSS: 23: "Mr. Ross indicates Illinois reviewed numerous studies of the monetized 24

health benefits of mercury control. Please identify the 1 2 studies to which you refer." I have listed three. 3 Dr. Rice also performed such a study, and she will be testifying in that regard later as an expert. 4 5 MS. BASSI: What are the --MR. ROSS: U.S. EPA; Harvard/NESCAUM; 6 7 Trasande, and then Dr. Rice. 8 MR. BONEBRAKE: Just so the record is 9 clear, you are indicating, Mr. Ross, that Dr. Rice performed a study that's independent of the three other 10 11 studies? 12 MR. ROSS: I think she performed a review of existing data, existing studies. I don't 13 14 believe she conducted any independent study, so to 15 speak. 16 MR. BONEBRAKE: Can I ask you to speak 17 up a little bit? You are traveling off. 18 MR. ROSS: I do not believe she 19 performed an independent study. She performed a review of many studies, even some studies -- I'm certain --20 outside of these three. 21 22 MR. BONEBRAKE: Thank you. 23 MR. ROSS: "Was the review you referred to performed for Illinois exclusively by 24

Dr. Rice?" No. We reviewed these studies, also, if 1 2 that's the what the question is asking. C: "If 3 Mr. Ross answered the last question in the negative, 4 please identify who else performed such review, what the 5 scope of each person's effort was, and provide any 6 documentation resulting from such review." Several 7 Agency staff assisted in these reviews, including 8 myself, Jeff Sprague, Rory Davis and Dr. Rice. We 9 retained to assist us in reviewing those studies and the results of these reviews I believe are in the context of 10 11 the TSD, and Dr. Rice will be testifying to that. I 12 believe she submitted testimony in that regard, and will be testifying at this hearing. No. 24: "Mr. Ross 13 14 states on page 15 of his testimony that ensuring 15 emission reductions takes place in Illinois and at all 16 locations where power plants exist should reduce local 17 impacts and hot spots. What does Mr. Ross mean by 18 "local impacts"? And we use the term to refer to the 19 effect or impact the emissions from a source, a mercury 20 emissions source, has on its nearby or local 21 environment. When we say an emissions source has a 22 local impact, we are simply saying it has an effect or 23 an impact on the nearby or local environment. "What 24 does Mr. Ross mean by "hot spots"? Do you want me to go

1 over that again?

2	MADAM HEARING OFFICER: I think it
3	might help to clarify things if you would, again, state
4	your definition or the definition or how you understand
5	the term to be used in the testimony of the Agency, and
6	then we will get back into the question.
7	MR. ROSS: I believe we have seen the
8	term used two independent ways. One is that it defines
9	areas that show up on America redeposition maps as areas
10	of high mercury concentrations and the other context in
11	which we have seen it used is in the area of
12	cap-and-trade programs, where reductions are less likely
13	to occur due to allowances being purchased or use of
14	bank allowances in order to avoid or delay mercury
15	reductions.
16	MADAM HEARING OFFICER: Mr. Zabel?
17	MR. ZABEL: Taking the three subparts
18	together, Mr. Ross. The first one you say "nearby on
19	local impacts." What do you mean by "nearby"?
20	MR. ROSS: In the general vicinity. I
21	don't think we defined a distance.
22	MR. ZABEL: Fifty kilometers?
23	MR. ROSS: I think, when we say
24	"nearby," we are referring to nearby water bodies, in

1 particular.

2 MR. ZABEL: So if there no nearby 3 water bodies, there would be no local impact? MR. ROSS: Without a formal definition 4 5 of "local impact," which I'm not aware that there is, 6 it's hard to say. 7 MR. ZABEL: It's your term. What did 8 you mean by it? 9 MR. ROSS: I don't think it is our 10 term. We have seen it used in literature. We have 11 simply carried forth the general jargon that is used to 12 discuss mercury emissions from sources and the effect 13 that they have on the nearby environment. It's referred 14 to as "local impacts." MR. ZABEL: You used it in your 15 16 testimony, Mr. Ross. I'm really not particularly 17 concerned what others meant by it. What did you mean by 18 it? 19 MR. ROSS: I have defined what I mean 20 by it. MR. ZABEL: So if there's no water 21 body, there's no impact, back to my original question. 22 MR. ROSS: No. I don't think that's 23 the case. I think the environment, in general. 24

MR. ZABEL: There's no adverse 1 2 environmental impact from the deposition, I assume is 3 what you're referring to. Is that a local impact? 4 MR. ROSS: Say that again. 5 MR. ZABEL: There's no adverse 6 environmental impact. You're talking about emissions, 7 but I assume you're really talking about deposition. MR. KIM: I don't think the question 8 9 is clear. 10 MADAM HEARING OFFICER: I don't think 11 the question is, either. 12 MR. ZABEL: I'm having trouble 13 understanding the statement, myself, but I will try to 14 clarify it, Madam Hearing Officer. You refer -- to 15 quote from your testimony is that, "Ensuring emission 16 reductions take place in Illinois at all locations where 17 power plants exist should reduce local impacts and hot 18 spots. We are going to reduce emissions." What is the 19 local impact going to reduce? 20 MR. ROSS: When we say we reduce emissions to address local impacts, impacts are 21 22 deposition that can occur as a result of those emission 23 sources on their nearby surrounding environment. It could be land, water. 24

MR. ZABEL: Is it the deposition, 1 2 itself? 3 MR. ROSS: No. The local impacts are 4 the effect. Those emissions have on their surrounding 5 environment. 6 MR. ZABEL: By "effect" earlier in 7 your testimony you meant -- you referred to methylization of the mercury in water bodies and its 8 9 uptake through the food chain. Is that the local impact for which you are referring to? 10 11 MR. ROSS: Our primary concern in 12 going forward with this rule is the methylmercury 13 content in fish, so that would be a focus. You could 14 say that the a local impact is what occurs from these 15 emission sources that we are focused on, but I think you're trying to distinguish it as the sole local 16 17 impact, and that is not the case, but it is a primary 18 impact from these emission sources that we are looking 19 at, looking to address with this rule. 20 MR. ZABEL: What is the secondary impact, MR. Ross? 21 22 MR. KIM: This line of questioning 23 Mr. Ross has answered this as best he can. He's stated that is a term of jargon. It's not, specifically, 24

defined. We can talk about subjective terms all day 1 2 long, but he's answered the question. The remaining 3 questions, they are getting irrelevant. They are 4 getting way off the topic. 5 MADAM HEARING OFFICER: Well, I think 6 that Mr. Ross has stated that a primary concern is the 7 methylmercury, but he did imply there were others, and I do think it's a legitimate question as to what other 8 9 impacts he might consider. 10 MR. ROSS: One example would be power 11 plants don't only emit mercury. They emit particular 12 human matter, NOx, SO2. Those could potentially have impacts on a local environment, nearby community, and 13 14 also, in the context of mercury, deposition of emissions could occur on land. There could be runoff from the 15 16 land into nearby water bodies, which would result, 17 eventually or would contribute we believe to the problem 18 of high mercury levels in fish. 19 MR. ZABEL: We're back to the 20 methylization and uptake through fish, aren't we? MR. ROSS: That is part of the 21 22 process. 23 MR. ZABEL: But that's the primary concern you said. What's the secondary? 24

MADAM HEARING OFFICER: I think he just 1 2 identified secondary ones. I think we need to move on. 3 MR. ZABEL: Local impacts to which you referred the same as your first definition of hot spots. 4 MR. ROSS: No. Local impacts -- they 5 6 are related. I mean, local impacts -- the impact an 7 emission source has on its environment could show up on 8 a mercury deposition map as an area of high mercury 9 concentration, which is in the realm of how we define hot spots, or how we've used the terms and seen others 10 11 use it. 12 MR. ZABEL: So your first definition is where a deposition map shows a high mercury impact 13 14 from a specific source? 15 MR. KIM: Those questions are 16 extremely repetitive. 17 MR. ZABEL: The hearing officer asked 18 me to hold these. I would have asked these all on 19 Question 16. 20 MADAM HEARING OFFICER: He did say he had additional questions on hot spots. 21 22 MR. KIM: I have no problem with that, 23 but he asked that question earlier. Mr. Ross answered that question earlier. I'm not saying it was wrong for 24

him to wait. I'm just saying these questions are 1 2 repetitive in nature. Go ahead and answer this one, 3 Mr. Ross. 4 MR. ZABEL: I believe the question 5 was, Mr. Ross, your first definition of "hot spot" is a 6 spot in which a deposition matter shows a high mercury 7 impact from the specific source? MR. ROSS: Area of high mercury 8 9 concentration, correct. 10 MR. ZABEL: From a specific source? 11 MR. ROSS: Not necessarily from a 12 specific source, but. 13 MR. ZABEL: So it could be regionally sources that caused it? 14 MR. ROSS: Well, there could be 15 16 numerous sources contributing to this hot spot. 17 MR. ZABEL: I guess my question is are 18 they local sources? National sources? International 19 sources? Take your pick. 20 MR. ROSS: All of them could 21 contribute. 22 MR. ZABEL: It could be a hot spot, irrespective of what the source is? 23 24 MR. ROSS: Potentially.

MR. ZABEL: Is it a hot spot, based on 1 2 the deposition map, irrespective of the environmental 3 impact of that amount of deposition? 4 MR. ROSS: Say that again. 5 MR. ZABEL: Mercury does not 6 necessarily methylate, does it? 7 MR. ROSS: I know that mercury does 8 methylate. What percentage of -- I think we have been 9 through that. It's a complicated process. I don't 10 think I'm the expert to testify on what percentage of the mercury that finds it way into the water bodies 11 12 methylates. 13 MR. ZABEL: I understand that, but I'm 14 not asking what percentage. I'm asking you if it's your 15 understanding that mercury -- the deposit of mercury, 16 deposition of mercury, does not necessarily result in 17 its being 100 percent converted into methylmercury? 18 MR. ROSS: Correct. 19 MR. ZABEL: So there could be a 20 deposition map that showed a hot spot, your term? 21 MR. ROSS: Right. 22 MR. ZABEL: Without an environmental 23 impact in the, at least, to the extent of methylation? 24 MR. ROSS: No environmental impact.

MR. ZABEL: Assume the mercury is 1 2 leaked into the soil in some fashion, never enters the 3 food chain. MR. ROSS: Right. 4 MR. ZABEL: No environmental impact, 5 6 at least, not your primary one? 7 MR. ROSS: Right. The way you've characterize it, that's correct, that mercury would not 8 9 enter the water body, and would not methylate and find its way in fish, correct. 10 MR. ZABEL: But that would still be a 11 hot spot, under your definition, the first definition? 12 13 MR. ROSS: If the modeling that was 14 conducted picked that up, picked up the dry deposition 15 or wet deposition, the concentration in the soil, then, 16 yeah, that could potentially contribute to the area on 17 the map showing the high concentration, correct. 18 MR. ZABEL: The deposition map will 19 show a red spot I think was your term, irrespective of 20 where in the world it is whether it's a water body or soil or desert. 21 22 MR. ROSS: Most of the maps I have 23 seen, yes, they show high areas of high mercury 24 concentration.

MR. ZABEL: I believe this is a 1 2 question earlier asked. A hot spot could be a water 3 body, could it not? 4 MR. ROSS: Yes. 5 MR. ZABEL: But a water body could 6 have a high mercury reading without it being a hot spot, could it not? 7 8 Α. Potentially. 9 MADAM HEARING OFFICER: Mr. Harley? 10 MR. HARLEY: Is it your understanding that Illinois can regulate one source category or air 11 pollutants, but not others? 12 13 MR. ROSS: Yes. That's my 14 understanding. MR. HARLEY: So Illinois, in its 15 16 discretion, could regulate electric generating units as 17 a source of mercury, but not other sources of mercury. 18 Is that correct? 19 MR. ROSS: That's correct. 20 MADAM HEARING OFFICER: Mr. Zabel? MR. ZABEL: I'm not sure what the 21 22 follow-up to that was. I think we established that a 23 water would could have high mercury high methylmercury reading without showing up on a deposition map as a hot 24

1 spot. 2 MR. ROSS: Potentially, yes. 3 MR. ZABEL: It could be from runoff. It could be from upstream sources. It could be from all 4 5 kinds of things, could it not? 6 Α. Yes. Vice versa, it's also true -- could it not 7 Ο. be that a deposition map would show a hot spot in the 8 9 middle of a water body, but for whatever the chemistry 10 of that water body is, it doesn't have high methylmercury levels. Is that possible, as well, in 11 12 your understanding? 13 Α. I'm not certain. To be honest, that 14 sounds like a question for an expert. 15 Ο. Which expert would that be, just to be 16 clear? 17 Α. I would think Dr. Keeler would probably be 18 the appropriate person to answer. 19 Q. He's the deposition expert. 20 Α. Right. 21 MADAM HEARING OFFICER: Mr. Bonebrake? 22 MR. BONEBRAKE: Your testimony that's quoted in Question No. 24, Mr. Ross, refers to your view 23 that mercury emission reductions in Illinois should 24

reduce local impacts in spots we already talked about 1 2 the fact that IEPA, as I understand from your testimony, 3 has not conducted a study, has not completed, at least, 4 a study that would identify the amount of reduction in 5 mercury deposition or in fish tissue what would result 6 from the Illinois rule, so the question before you is 7 what is the basis for your statement that emission 8 reductions from power plants should reduce local impacts 9 in hot spots?

10 Α. Well, there are monitoring studies and our 11 experts will be testifying to this. As I mentioned 12 previously, there's a weight of evidence that we will present, and Dr. Keeler, in particular, but he has 13 14 conducted a Steubenville study on the Ohio River Valley, 15 which we believe indicates power plants contribute as 16 much as -- or can deposit as much as 70 percent of their 17 emissions locally. There are also studies that have 18 been conducted in Massachusetts and Florida where they 19 have taken steps to regulate mercury emission sources, 20 and they have seen reductions in mercury levels in fish, and there's been a recent study I believe in 21 Pennsylvania. We haven't had a chance to review this 22 23 one. I have only read some blurbs on it, but apparently, the Department of Environmental Regulation, 24

whatever Pennsylvania is equivalent to us, has financed 1 2 a study that, over a period of I believe eight years, 3 they have shown some reduction in mercury content in fish, methylmercury content. It's a deposition 4 statement, but again, our experts will be testifying a 5 6 lot on this. This is not my area of expertise. We will 7 be presenting a general weight of evidence that we 8 believe control of mercury emissions from power plants 9 will reduce mercury in Illinois, and correspondingly, have a positive impact on the methylmercury that we find 10 11 in fish. 12 MR. BONEBRAKE: The Pennsylvania study that you mentioned, is that referred to in anyone's 13 14 testimony on behalf of EPA or in the TSD? 15 MR. ROSS: No, it is not. I believe 16 that is a more recent study that has come to our 17 attention subsequent of the publishing of the Technical 18 Support Document. 19 MR. BONEBRAKE: The Massachusetts 20 study that you referred to, do you recall, Mr. Ross, if the emission sources at issue in that study from which 21 22 there were emission reductions were incinerators and waste combusters, as opposed to EGU's? 23 24 MR. ROSS: Yes, they were.

MR. BONEBRAKE: Do you have an 1 2 understanding as to whether that distinction between 3 sources has an impact on deposition? MR. ROSS: I believe it does have an 4 5 impact on deposition, but again, I think that's an area 6 best addressed by our experts. 7 MR. BONEBRAKE: What is your understanding, though, sir, of that distinction or 8 9 difference? 10 MR. ROSS: That there are differences. 11 MR. BONEBRAKE: Do you have any 12 knowledge of those differences? 13 MR. ROSS: Well, I know that incinerators and combusters, medical waste incinerators 14 15 tend to emit a different kind of mercury. I know, 16 certainly, that their stacks are lower. There's some 17 other differences. Again, I would -- I am not the 18 expert in that area. 19 MR. BONEBRAKE: Is it your 20 understanding that those differences would lead to an increase of local impacts from incinerators and waste 21 22 combusters as compared to EGU's? 23 MR. ROSS: I can't speak to that. MR. BONEBRAKE: Do you recall, 24

Mr. Ross, if the Florida study that you mentioned also
 addressed reductions in mercury emissions from
 incinerators?

4 MR. ROSS: Incinerators, that's 5 correct, and I believe you will find the studies are 6 limited to that. I don't think we have good data on the 7 effect reducing power plant emissions will have on the 8 methylmercury content, actual data, like you are seeing 9 with how the regulatory impact that reduction from these 10 incinerators had on methylmercury content on fish, so I think those studies will follow the implementation of 11 12 many of these mercury reduction programs.

13 MR. BONEBRAKE: I'm sorry. Did you 14 say we do not have good data with respect to linking 15 reductions from EGU's and local impacts? Is that what 16 you said?

MR. ROSS: I said I'm not aware of any
similar studies that correspond to the Massachusetts and
Florida studies, or the Pennsylvania.

20 MR. BONEBRAKE: When you say "similar 21 studies," do you mean with respect to the EGU's,

22 specifically?

23 MR. ROSS: Right.

24 MR. ZABEL: Looking back at Question

16, but first, you say there's a deposition study 1 2 underway by the Agency? 3 MR. ROSS: I say we initiated one, but 4 we did not complete it. 5 MR. ZABEL: It's not ongoing? 6 MR. ROSS: I'm not sure of the 7 specifics of the study. I have said a couple times that Marcia Willhite will address that. 8 9 MR. ZABEL: Those questions will be 10 addressed to Ms. Willhite? 11 MR. ROSS: Yes. 12 MR. ZABEL: The other thing, your testimony says, on page 9, "Illinois EPA opposes 13 14 emission trading of mercury allowances, unless the units involved in trading can demonstrate that mercury hot 15 16 spots are prevented. Your rule doesn't allow for such a 17 demonstration, does it? 18 MR. ROSS: I think our rule addresses 19 one definition that I have provided you of hot spots, 20 and that is, it not being a trading program, there cannot be any avoidance of mercury reduction at every 21 22 power plant in Illinois. You cannot purchase or bank allowances in a rule that does not allow trading. 23 24 MR. ZABEL: Maybe I misunderstood your

statement on page 9, Mr. Ross. As I read it, it seemed 1 2 to be saying that if you, a source, demonstrates that 3 you don't cause a hot spot, you could have trading, but 4 now what you're telling me is, by your definition of hot 5 spot, that could never be true. Is that correct? No 6 demonstration would be possible because I would be 7 trading, therefore, I would be creating a hot spot. Is 8 that what you're saying? 9 MR. KIM: Could you identify again 10 what page? 11 MR. ZABEL: Page nine, fourth bullet. 12 MR. ROSS: I think that you cannot demonstrate that you are avoiding hot spots in the 13 14 trading program, unless the trading program would not 15 allow purchases or banking of allowances. 16 MR. ZABEL: So if I had a source 17 that -- well, can't demonstrate your definition of hot 18 spot, but if I could demonstrate that this source caused 19 no localized adverse environmental impacts, I still 20 couldn't participate in the trading program because of the way you identify hot spots, correct? 21 MADAM HEARING OFFICER: Mr. Zabel, let 22 23 me make it clear for the record that the point you are speaking of is a summary of the Illinois EPA comments to 24

the U.S. EPA about the U.S. EPA proposal, so the idea of 1 2 cap and trade, or of trading is not -- Mr. Ross was not 3 testifying as to trading under the proposal, but rather pointing out the problems that he saw with the U.S. EPA 4 rule, and I think your questioning is a little 5 6 misleading in that it sort of implies that there might 7 have been a consideration of trading in Illinois in this proposal. There is no -- and correct me if I'm wrong --8 9 there is no provision for trading in the proposal as 10 proposed. 11 MR. ROSS: That's correct. 12 MADAM HEARING OFFICER: So this comment is to the U.S. EPA, and stating, specifically, 13 14 the Agency's problem with trading -- any trading under 15 the U.S. EPA? 16 MR. ROSS: That is the context in 17 which that statement was made. 18 MADAM HEARING OFFICER: I just wanted 19 to clarify that because you are asking questions along 20 the lines that sort of lead everybody to believe that we are talking about trading under this proposal. 21 22 MR. ZABEL: I certainly didn't mean to 23 imply that. What I meant to imply was this question 24 seems to suggest that the Agency's position trading is

1 our right, if you can demonstrate that a hot spot will 2 not occur. My question is, if that's their position, 3 what don't they have a provision for that in the current rule? That was the point of my question. Why is there 4 no opportunity to make that demonstration, if that was 5 6 their objection to the U.S. EPA's trading program? When 7 you define, Madam Hearing Officer, hot spots in such a 8 circular fashion, then I understand why you end up 9 there. MADAM HEARING OFFICER: I got your 10 11 question. Let's avoid the editorializing, unless you 12 want me to swear you in. MR. ZABEL: No. I would rather that 13 14 not happen. 15 MADAM HEARING OFFICER: Thank you. 16 Mr. Ross, can you answer the question? 17 MR. ROSS: Well, I think he's focusing 18 on we've kind of given two different definitions or two 19 different ways we have used the term "hot spots" and in 20 the first way we have used the term, I think that's correct as an area of high mercury concentration. What 21 22 you're saying is, if you could demonstrate that your 23 source did not contribute to an area of high mercury 24 concentration, you wouldn't need to reduce emissions.

But in the second context of how we use "hot spots," any 1 2 trading program that allows purchasing or banking of 3 allowances we're saying is unacceptable, and I believe 4 that's the comment we're making to U.S. EPA. MR. ZABEL: What I guess I'm trying to 5 6 understand, Mr. Ross, in light of the words in this 7 bullet for U.S. EPA why it's unacceptable, if a source can make the demonstration under your first definition. 8 9 MR. ROSS: Well, you can't make the demonstration under the second context in which it's 10 11 used. 12 MR. ZABEL: I will grant you that, but if the first definition shows that it doesn't cause a 13 14 hot spot, and I don't have to reduce my emissions or 15 only have to reduce them to CAIR --16 MR. ROSS: The Illinois rule doesn't 17 allow it. 18 MR. ZABEL: That was the question. 19 Thank you. 20 MADAM HEARING OFFICER: Ms. Bassi? MS. BASSI: Still on the same topic, 21 in the trading program, is it not true that there can be 22 23 participants in the trading program who are not EGU's? 24 MR. ROSS: That's correct.

MS. BASSI: Meaning like a broker or 1 2 person on the street who might want to buy and sell 3 allowances? 4 MR. ROSS: That's correct. 5 MS. BASSI: So the -- whether one 6 emits has nothing to do with one's participation in the 7 trading program, emits mercury? 8 MR. ROSS: To some degree. I mean, if 9 you are subject to the rule, you must participate, but 10 others are eligible to participate. 11 MS. BASSI: Thank you. If a party, 12 then, was not an EGU, but was participating in the 13 trading program, and sold allowances, under your 14 definition, arguably that person is a hot spot. 15 MR. KIM: Is that a question? 16 MS. BASSI: Is that true? Thank you. 17 MR. ROSS: That's not how we are using 18 the term. 19 MS. BASSI: Let me ask a different 20 question. If an EGU were participating in the trading program, but did not purchase allowances because this 21 22 particular EGU was controlled and had excess, had 23 controlled its emissions to a point where it had more allowances than it emitted. 24

MR. ROSS: Okay. 1 2 MS. BASSI: Would that EGU comprise a 3 hot spot? MR. ROSS: I think under one context 4 of how -- if they chose to bank emissions, then they 5 6 could bank those, and they could overcontrol in some of 7 the initial years, but then undercontrol in some following years, and they could, potentially -- that 8 9 could result in a hot spot, if they undercontrol emissions during following years, and we're getting 10 11 pretty hypothetical here, but yeah, I mean, 12 theoretically, they would overcontrol, to a certain degree. In subsequent years, they could undercontrol a 13 14 substantial amount and avoid mercury reductions for 15 those years which could result in an area of high 16 mercury concentration since there is no mercury control 17 occurring to a required regulatory standard, which is 18 not possible under the Illinois rule. 19 MS. BASSI: If there is a floor, for example, a required control standard --20 MR. ROSS: Correct. 21 22 MS. BASSI: -- and the source sold 23 allowances, or the source banked allowances, or the 24 source even participated in making money on the mercury

1	market by buying and selling allowances, but the source								
2	was meeting an emissions limitation floor that was								
3	established by the regulatory authority, does that								
4	create a hot spot?								
5	MR. ROSS: I would say, to the extent								
6	that they are meeting that floor, they are addressing								
7	hot spots.								
8	MS. BASSI: Thank you.								
9	MADAM HEARING OFFICER: Mr. Harley.								
10	MR. HARLEY: Madam Hearing Officer, I								
11	think we are going to have a hard enough time getting								
12	through the Agency's presentation talking about the								
13	proposal that it has properly put before the Board, and								
14	all of the conversation about a proposal that has been								
15	chosen not to be put before the Board, I just don't see								
16	the value in it. There are, undoubtedly, a range of								
17	regulatory options that are before the Agency. We could								
18	spend several months talking about them in a speculative								
19	or abstract way, but there is a proposal now before the								
20	Board and talking about cap and trade or a variety of								
21	other options, I don't see the value in.								
22	MADAM HEARING OFFICER: Mr. Zabel.								
23	MR. ZABEL: Yeah. I think circuit								
24	court in this county answered that. This is a procedure								

under Section 27, not under 28.5. The Board can write 1 2 any rule it wants. The Board is not constrained by the 3 Agency's proposal. Therefore, alternative approaches to 4 the regulation of mercury of which cap and trade, a floor with a cap and trade, straight CAMR, are all fair 5 6 game for this Board to hear evidence about, both, from us on direct, from them on direct or cross. It is 7 8 perfectly appropriate under a Section 27 proceeding. 9 MADAM HEARING OFFICER: Mr. Harrington. MR. HARRINGTON: Yes. Some of the 10 11 things that are being raised here were raised in the 12 public hearings, and will be raised further as we go 13 forward. I suppose we could postpone questions and come 14 back to them, but the issues that are going to be in 15 front of the Board as to what rule should be adopted. 16 One clear option, for example, that was put in front of 17 the Agency in public hearings was adopting CAMR, and the 18 Illinois rule, something like it, so that people could 19 sell credits out of state, but not buy them in state. 20 Not that I'm, personally, proposing that to the Board or saying my client would, but it's one of the options that 21 is available to be discussed. I think these options 22 23 should all be before the Board before we are done and 24 how we get there is up to the Hearing Officer to decide,

1 but I think these questions are relevant.

2 MR. HARLEY: Under Rule 27, any person 3 can submit a rulemaking before the Board. Utility companies can submit a proposal for rulemaking before 4 5 the Board which proposed a cap and trade program. They 6 chose not to do that. What we have before us is a 7 proposal the Agency has put forward. I'm not asking for 8 you to make a decision on this now. It's a complicated 9 issue, obviously, but I do question whether or not there is any value, whatsoever, in getting too far a field 10 11 from what has been put before the Board in the 12 appropriate process. MADAM HEARING OFFICER: Briefly, Ms. 13 14 Bassi and then Mr. Rieser, and then I'm not going to 15 rule on this this afternoon, but I will let you all get 16 your points on the record, and I know Mr. Kim has been 17 objecting to asked and answered and relevance, and we 18 may continue with this, but Ms. Bassi, go ahead. 19 MS. BASSI: Without limiting the 20 comments or the arguments of any of my colleagues here, I would point out that a number of our questions on this 21 topic have been aimed at the second portion of the 22 23 definition of "hot spot," which is that where allowances would be used and to avoid or delay control, so it is on 24

topic. It is part of what Illinois EPA has expressed as
 its definition of hot spot.

3 MR. RIESER: Yeah, I guess this would 4 bring the thing full circle because this is what Mr. 5 Zabel said or else I am is that, as a rulemaking, the 6 Board is the one who makes the decisions. Anyone can 7 propose a rule, but it's up to the Board to make the 8 decision in terms of what the rule should say, and it's part of the hearing to hear the alternatives, and part 9 of the purpose of the process is to make the original 10 11 proposal better. Evaluate the proposal to see what it's pluses and minuses are and maybe there are things that 12 can be improved. Maybe there are things that can be 13 14 changed. That's all part of this process, and to say we 15 can't talk about it solely because the Agency has made a 16 specific proposal strikes me as very contrary to what 17 the Board is about and what this process is about. 18 MADAM HEARING OFFICER: Mr. Kim, did 19 you have anything you want to add? 20 MR. KIM: Very short. The only thing I was going to say is make I believe Mr. Harley's point 21 is and if it's not, I apologize. The point is there's 22 23 nothing -- I think that that's correct. The Board 24 should be open to alternative options, if that's what

they decide they want to pursue, but I think 1 2 Mr. Harley's point was during the questioning of the 3 Agency's witnesses, it's really -- we have our -- we 4 have identified the means and bounds of our proposal and 5 that's what we're answering questions on. I think if 6 there are options, and certainly, it sounds like they 7 have some ideas of options which they want to propose. 8 There's nothing wrong with that. I would imagine that 9 would take up some portion of their time when they are presenting their testimony, but to ask a lot of 10 11 hypotheticals that are not based on the rule that we have proposed of our witnesses, does I think -- and I 12 think this is what Mr. Harley was getting at -- seems to 13 14 be a poor use of our witnesses' time. They certainly 15 are able to pitch alternatives and I'm sure that they 16 probably will, and if they decide to do that, then we'll 17 have questions of them, but I assume the point was, if 18 we keep the speculative questions to the Agency's 19 witness to a minimum, and focus on what we have and ask 20 them about our proposal, I think that's what's 21 appropriate.

22 MADAM HEARING OFFICER: I would just 23 note that hypotheticals are a way of life in rulemaking 24 because, eventually, the Board will write the order and

opinion that says how we will interpret the rule that we 1 2 adopt, and so they are a way of life in rulemaking. I 3 will continue to hear objections on relevance and 4 repetition as they come up. 5 MR. KIM: I avoided any speculative 6 objections. 7 MADAM HEARING OFFICER: So I will rule 8 on them as they come up, and I encourage anybody if you 9 feel like it's repetitive, or if you feel like it's irrelevant, to raise that objection as it comes up, and 10 11 I will rule on them then. Of course, any ruling that you don't like from me you are free to appeal to the 12 Board. I was going to get through that with a straight 13 14 face, Mr. Harrington. Anything else on hot spots? 15 MR. RIESER: My recollection -- and 16 it's obviously been a while now -- is that when you 17 testified about the Agency's decision before the U.S. 18 EPA that -- again, correct me if I'm wrong -- but you 19 were saying that the Agency was against a cap and trade 20 program to the extent it allowed trading, to the extent that it allowed EGU's sources to bank emissions to 21 22 purchase emission credits to not install controls. Is 23 that correct? MR. ROSS: I think that characterizes 24

1 it correctly.

2	MR. RIESER: Has that always been the								
3	Agency's position with respect to mercury?								
4	MR. ROSS: To the best of my								
5	knowledge, yes.								
6	MR. RIESER: So the Agency hasn't								
7	proposed to the U.S. EPA that they allow they								
8	establish a cap and trade program, only if hot spots are								
9	protected?								
10	MR. ROSS: I can't say for certain on								
11	that.								
12	MADAM HEARING OFFICER: I think we are								
13	ready to move on.								
14	MR. ROSS: I'm not sure where we are.								
15	MR. ROSS: 20: "How does the Agency								
16	define `local,' and we did discuss that and								
17	`nearby.'" Again, we haven't established any distances								
18	or we went through that.								
19	MR. BONEBRAKE: I don't know that we								
20	had an answer to 24-D.								
21	MADAM HEARING OFFICER: "Have you								
22	identified any local impacts or hot spots which power								
23	plants have caused?" 24-D.								
24	MR. ROSS: I think we did kind of								

discuss that. All power plants in Illinois have an 1 2 impact on their local environment, to some degree, and 3 since coal-fired power plants emit mercury, and mercury 4 can be deposited locally, then, to that extent, they have a local impact, and as far as causing hot spots, I 5 6 think we have discussed that extensively. 7 MADAM HEARING OFFICER: Mr. Rieser. 8 MR. RIESER: What quantification of that local impact does the Agency have? 9 MR. ROSS: We have not made specific 10 11 studies on that. We talked about that. What we have we 12 feel is a weight of evidence that we feel demonstrates that coal-fired power plants do, in fact, deposit some 13 14 of the mercury that they emit locally, thereby having a 15 local impact or an effect on the nearby environment, 16 which we have addressed, at length, could -- environment 17 encompasses nearby water bodies, land. 18 MR. RIESER: Is the impact limited to 19 the deposition? 20 MADAM HEARING OFFICER: I think that's been asked and answered. And the answer was no, not 21 just deposition. It was other things. 22 23 MR. ROSS: Does that conclude that set 24 of comments or questions?

MR. ZABEL: If you have your 1 2 testimony, Mr. Ross, could you look at page 12 for me, 3 please. This is not the Agency's comments to the U.S. EPA. This is their statement of what their rule is, 4 Madam Hearing Officer, just so the record is clear, and 5 6 the forth bullet says, "Must ensure that the required 7 mercury reductions occur, both, in Illinois and in every power plant in Illinois to address local impacts." Is 8 9 90 percent essential to address local impacts? MR. ROSS: 90 percent was what we 10 11 decided on to address local impacts. 12 MR. ZABEL: I'm aware of what you decided on. That wasn't the question. The question is, 13 14 is it necessary to address local impacts? 15 MR. ROSS: I believe our take on it is 16 that it's reasonable. 17 MR. ZABEL: Why is it reasonable? 18 MR. ROSS: Because we weighed the cost 19 of the rule, the impacts against the societal benefits, the risk. To weigh risk, you make a judgment, a policy 20 call. There are many people involved in this decision, 21 weigh the cost of the rule against the benefits, and 22 23 we've determined that 90 percent is a reasonable rule. 24 MR. ZABEL: Without ever quantifying

the impact of a single power plant in the state? 1 2 MR. ROSS: With the principles to 3 guide us that we should reduce mercury to the greatest extent that is reasonably possible. 4 5 MR. ZABEL: Irrespective of the 6 benefits of the --MR. ROSS: I think that is benefit 7 that you reduce mercury to the greatest extent possible, 8 9 and therefore, you maximize the chance that the benefits will be to the greatest extent possible. 10 MR. ZABEL: So it's reduction for its 11 12 own sake? 13 MR. ROSS: It's reduction. MADAM HEARING OFFICER: I don't think 14 we need to answer that. I do think that's --15 16 MR. ZABEL: I will withdraw the 17 question. 18 MADAM HEARING OFFICER: I think that's 19 all. Could you identify yourself for the record. 20 MS. BUGEL: Faith Bugel, B-U-G-E-L, representing Environmental Law and Policy Center. 21 22 Mr. Ross, could you just tell me, again, on page 34 of 23 the Technical Support Document, what percentage of Illinois and of the mercury emissions come from 24

coal-fired utilities? 1 2 MR. ROSS: Roughly, 71 percent. 3 MS. BUGEL: And you also testified as to the Steubenville study. What percentage did that 4 5 study show being deposited locally? 6 MR. ROSS: Roughly, 70 percent I believe. 7 8 MS. BUGEL: Is it appropriate for the 9 Illinois EPA to regulate to prevent the export of harms? 10 MR. ROSS: Yes, I believe so. MS. BUGEL: Does the Steubenville 11 12 study show that, approximately, 30 percent can be 13 exported regionally, not locally? MR. ROSS: I believe that is one 14 15 conclusion you can reach that if 70 percent can be 16 deposited locally then the remaining 30 percent could be 17 deposited elsewhere. 18 MS. BUGEL: Is it possible that some 19 mercury emissions from Illinois coal-fired power plants 20 are deposited outside of the state? 21 MR. ROSS: Yes. 22 MS. BUGEL: Isn't possible that those are contributing to hot spots outside of the state? 23 24 MR. ROSS: As we have defined hot

1 spots, yes.

2 MS. BUGEL: Is it appropriate for 3 Illinois to regulate mercury emissions with a concern for what Illinois mercury emissions might be doing to 4 5 hurt and harm in other places outside of the state? 6 MR. ROSS: That is concern, yes. 7 MS. BUGEL: Is it possible that Illinois mercury emissions from coal-fired power plants 8 9 in Illinois are contributing to mercury deposition in the whole Great Lakes region? 10 11 MR. ROSS: That is possible, yes. 12 MS. BUGEL: It's appropriate for 13 Illinois EPA to regulate to alleviate and prevent some 14 of that deposition and the resulting impacts, harm on wildlife and human health in the whole Great Lakes 15 16 region? 17 MR. ROSS: We believe so, yes. 18 MS. BUGEL: Thank you. I have no 19 further questions. 20 MR. RIESER: I was going to -- I understand that there's experts, particularly, 21 22 Dr. Keeler who will talk about what's been referred to 23 as the Steubenville study, but I think it's come up and I think we need to address it, and you testified about 24

it. We need to address that a little bit. First of 1 2 all, is there -- what is the Steubenville study? Is 3 there an actual study that's been published that people 4 can read? 5 MR. ROSS: The Steubenville study was 6 commissioned by the U.S. EPA I believe, and I believe 7 it's undergoing peer review at this juncture, but Dr. Keeler was directly involved in that study, so he is 8 9 the appropriate person to discuss it. 10 MR. RIESER: Am I correct in saying that the actual results in that study that go into that 11 study have not been published for the public? 12 13 MR. ROSS: I believe that is the case, 14 yes. 15 MR. RIESER: Do you know whether 16 anyone at the Illinois EPA saw the data or an 17 unpublished version of the report? 18 MR. ROSS: They have been presented to 19 us. MR. RIESER: Have they been presented 20 to you in the form of Powerpoint or the actual 21 22 unpublished part? 23 MR. ROSS: The form of a Powerpoint 24 presentation.

MR. RIESER: Is that similar to the 1 2 Powerpoint presentation that Dr. Keeler presented at 3 the LADCO conference? 4 MR. ROSS: Yes. 5 MR. RIESER: Is it the same one? 6 MR. ROSS: Yes. 7 MR. RIESER: Do you know whether the 8 study in Steubenville correlates directly with the U.S. 9 EPA air modeling that was performed in support of the 10 CAMR rule? 11 MR. ROSS: I know that Dr. Keeler addresses that in his presentation or he was asked the 12 question, at least, at the LADCO mercury conference 13 14 where that was discussed the relationship and I guess 15 the -- what he feels are some inherent problems with the 16 modeling that was done for U.S. EPA in support of CAMR. 17 MR. RIESER: If it's documented that 18 the results of the Steubenville -- what's been called 19 the Steubenville study, although there's an actual 20 study, have been -- or consistent with the U.S. EPA modeling, does that change any of your answers to the 21 questions that you were just asked? 22 23 MR. ROSS: If the Steubenville study 24 in the U.S. EPA -- are you saying the modeling

1 discredits the Steubenville study?

2 MR. RIESER: No. I'm asking if the 3 modeling, as it predicts the results of the Steubenville study, would that change -- if the modeling actually 4 predicts the results that were found in Steubenville, 5 6 would that change anything that you said? 7 MR. ROSS: I don't believe so. I would have to review it in context. It would probably take 8 9 some review. I would probably have to review that. 10 MADAM HEARING OFFICER: 11 Mr. Harrington? 12 MR. HARRINGTON: Just a follow-up on the recent series of questions. Referring to page 34 of 13 14 the Technical Support Document, it lists the 15 anthropogenic source of mercury emissions. I'm correct 16 that refers only to air emissions. Is that correct? 17 MR. ROSS: That's my understanding. 18 MR. RIESER: It doesn't take into 19 account emissions from treatment works, storm runoff, any water sources or any soil sources, only air 20 emissions? 21 22 MR. ROSS: I believe it's based on air emissions, but I mean, it could be double-counting storm 23 runoff. It could be initially an air emission that 24

makes it's deposit on the ground and shows up again in 1 2 storm runoff. 3 MR. HARRINGTON: But there are other sources of mercury in the environment and the 4 5 waterways --6 MR. ROSS: Absolutely. MR. HARRINGTON: Other than air 7 emissions that may be significant, correct? 8 9 MR. ROSS: That's correct. 10 MR. HARRINGTON: They are not accounted for in this study. Just for clarification. 11 12 That's all I'm asking. 13 MR. ROSS: Yes. 14 MADAM HEARING OFFICER: Mr. Harley. 15 MR. HARLEY: You previously testified 16 that the Illinois, in your understanding, can regulate 17 one source category of an air pollutant, but not others. 18 Is that correct? 19 MR. ROSS: That's correct. 20 MR. HARLEY: Is it your understanding that Illinois can regulate one source category of a 21 22 pollutant without regulating every source of that pollutant, regardless of median? 23 24 MR. ROSS: That's correct.

MADAM HEARING OFFICER: Anything 1 2 further? 3 MR. BONEBRAKE: You were asked a series of is-it-possible questions. Is it also possible, 4 5 Mr. Ross, that mercury emissions from other states are 6 being deposited in Illinois? 7 MR. ROSS: Yes. 8 MR. BONEBRAKE: Is it also possible 9 that mercury emissions from other states are being 10 absorbed into fish tissue, into fish in Illinois? 11 MR. ROSS: Yes. 12 MR. BONEBRAKE: Is it also possible 13 mercury emissions from other states are causing hot 14 spots in Illinois? 15 MR. ROSS: Yes. 16 MR. HARRINGTON: This is not a 17 question. My understanding is the Agency does not wish 18 to address additional questions that have been submitted for Mr. Ross at this time, and wishes to go to another 19 20 subject and come back to them. 21 MR. KIM: That's correct. 22 MR. HARRINGTON: Therefore, I 23 submitted questions that were in the format to the Agency because, recognizing how they get pushed back and 24

forth between witnesses, naturally, I thought one set of 1 2 questions might work better. I might have been wrong. 3 My understanding is those will be taken later and we can 4 follow up with those later? 5 MADAM HEARING OFFICER: That's correct. 6 MR. ROSS: I will be here every day of 7 the hearing, so I'm available any time to answer 8 questions. 9 MR. HARRINGTON: I didn't want the record to close before we made sure that was clear. 10 11 MADAM HEARING OFFICER: Anything 12 further? Mr. Forcade. 13 MR. FORCADE: I think, just for some 14 scheduling purposes, it might be nice to have the 15 Agency's current thinking --MADAM HEARING OFFICER: They gave that 16 17 at the beginning of the hearing. 18 MR. RIESER: Has it changed any, Mr. 19 Kim? 20 MR. KIM: It may be possible -- we still intend I guess first thing tomorrow morning to 21 22 present Dr. Deborah Rice and Jeff Sprague to address 23 impacts on human health. Depending on how that questioning goes, our -- the next two witnesses were 24

intended to be Marcia Willhite and Tom Hornshaw, and 1 2 following, them Dr. Keeler and Marcia Willhite and it 3 may be that, depending on the pace of the questions 4 tomorrow, we want to make sure we use most of Dr. Keeler's time. He is far and away the most elusive 5 6 man to get time from. He just got back from Moscow last 7 week, so it may be that we shift -- we'll do Dr. Rice 8 and Jeff Sprague. We may, depending on quickly that 9 goes, do Dr. Keeler and Marcia Willhite after that, so we get Dr. Rice and Dr. Keeler as soon as possible. 10 11 MADAM HEARING OFFICER: Does that 12 answer your question, Mr. Forcade? 13 MR. FORCADE: Yes. 14 MR. KIM: I can give it to Mr. Forcade 15 after the hearing. 16 MR. HARRINGTON: We understand we have 17 to work around scheduled witnesses and we are perfectly 18 happy to do that. We would like to do that with our 19 witnesses as well. 20 MR. KIM: We are certainly going to extend the same courtesy we have the next time around. 21 22 MADAM HEARING OFFICER: With that, then I think we will adjourn today. We will begin at 9 a.m. 23 24 in the morning.

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2	adjourned	at	5:04	p.m.	.)				
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2 COUNTY OF ST. CLAIR)SS 3 4 I, Holly A. Schmid, a Notary Public in 5 and for the County of Williamson, DO HEREBY CERTIFY that 6 pursuant to agreement between counsel there appeared 7 before me on June 12, 2006, at the office of the Illinois Pollution Control Board, Springfield, Illinois, 8 9 Jim Ross, who was first duly sworn by me to testify the 10 whole truth of his knowledge touching upon the matter in controversy aforesaid so far as he should be examined 11 12 and his examination was taken by me in shorthand and 13 afterwards transcribed upon the typewriter (but not 14 signed by the deponent, and said testimony is herewith 15 returned. 16 IN WITNESS WHEREOF I have hereunto set 17 my hand and affixed my Notarial Seal this 15th day of 18 June, 2006. 19 20 HOLLY A. SCHMID 21 Notary Public -- CSR 22 084-98-254587 23 24