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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

PROPOSED NEW 35 ILL. ADM. CODE 217)
SUBPART T, CEMENT KILNS, and) R01-11
AMENDMENTS TO 35 ILL. ADM. CODE 211)
and 217.)

The following is the transcript of a hearing held in the above-entitled matter taken stenographically by MICHELE J. LOSURDO, CSR, a notary public within and for the County of DuPage and State of Illinois, before JOEL STERNSTEIN, Hearing Officer, at 100 West Randolph, Room 11-500, Chicago, Illinois, on the 3rd day of October, 2000, A.D., commencing at 11:00 a.m.

1 HEARING TAKEN BEFORE:
ILLINOIS POLLUTION CONTROL BOARD
2 BY: MR. JOEL J. STERNSTEIN
100 West Randolph Street
3 Suite 11-500
Chicago, Illinois 60601
4 (312) 814-3665

5 ILLINOIS POLLUTION CONTROL BOARD MEMBERS PRESENT:

6 Joel J. Sternstein
Anand Rao
7 Nicholas J. Melas
Cathy Glenn
8 Bobb Beauchanp

9 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MEMBERS
PRESENT:

10 Alec Messina
11 Dennis A. Lawler
Yoginder Mahajan
12 Berkley Moore

13 ILLINOIS ENVIRONMENTAL REGULATORY GROUP MEMBERS PRESENT:

14 Brooke Peterson

15 ALSO PRESENT:

16 Richard Forbes
17 Kathleen Bassi

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I N D E X

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1 HEARING OFFICER STERNSTEIN: Good morning. My
2 name is Joel Sternstein. I've been appointed by the
3 Illinois Pollution Control Board to serve as hearing
4 officer in this proceeding which is entitled In the
5 Matter of Proposed New 35 Illinois Administrative Code
6 217, Subpart T, Cement Kilns and Amendments to Illinois
7 35 Illinois Administrative Code 211 and 217. The
8 docketing number for this rulemaking is R01-11.

9 Sitting to my left -- my immediate left is
10 Nicholas Melas, the board member assigned to this
11 matter.

12 MR. MELAS: Good morning.

13 HEARING OFFICER STERNSTEIN: Also present from
14 the Board to my immediate right is Anand Rao, a member
15 of our technical unit and to Mr. Melas' left is Cathy
16 Glenn, board assistant for board member Ron Flemal and
17 to Cathy's left is Bobb Beauchanp who is attorney
18 assistant for board member Marili McFawn.

19 For the record, today's date is October 3rd,
20 2000, and it is approximately 11:03 a.m. At the back of
21 the room down at the end of the table are copies of the
22 current notice and service list. If you notice that
23 your name does not appear on the list, there are also
24 sign up sheets for the notice and service lists in the

1 back of the room pretty much right on top of the current
2 notice and service list. Please sign up if you wish to
3 be included on either list.

4 In addition, at the back of the room, you
5 will also find copies of the Board's first notice
6 opinion and order in this matter dated August 24th,
7 2000, and copies of the hearing officer order of August
8 25th, 2000. In addition, the Agency has provided copies
9 of their motion to amend, all the separate prefiled
10 testimonies, the statement of reasons, the technical
11 support documents and a handout that Mr. Lawler will
12 discuss in a few minutes, I guess.

13 Just to go over some procedural matters, on
14 August 21st, 2000, the Illinois Environmental Protection
15 Agency filed this proposal for rulemaking in the
16 August 24th, 2000, first notice opinion and order the
17 Board adopted the Agency's proposal. This proposal was
18 published in the Illinois Register on September 8th,
19 2000, starting at pages 13,563 and 13,579.

20 This proposal was filed pursuant to
21 Section 28.5 of the Environmental Protection Act
22 entitled Clean Air Act Rules Fast Track Procedure.
23 Pursuant to provisions of that section, the Board is
24 required to proceed within set time frames towards the

1 adoption of this regulation. As stated in the Board's
2 August 25th, 2000, hearing officer order, the Board has
3 no discretion to adjust these time frames under any
4 circumstances.

5 Also pursuant to Section 28.5, the Board
6 scheduled three hearings. As stated in the August 25th,
7 2000, hearing officer order, today's hearing is confined
8 to testimony by the Illinois Environmental Protection
9 Agency witnesses concerning the scope, applicability and
10 basis of this rule. Pursuant to Section 28.5, this
11 hearing will be continued on the record from day to day
12 if necessary until completed, although from what I see,
13 that should be highly unlikely.

14 The second hearing, besides including
15 economic impact considerations, shall be devoted to
16 presentation of testimony, documents and comments by
17 affected entities and all other interested parties. The
18 third and final hearing will be held only at the
19 Agency's request. If the third hearing is canceled, all
20 persons listed on the notice list will be advised
21 through a hearing officer order.

22 The second hearing is currently scheduled for
23 Friday, November 3rd, 2000, at 10:00 a.m. in the Board's
24 hearing room of its Springfield office on the 4th floor

1 at 600 South Second Street. Prefiling deadlines for
2 that hearing are in the August 25th, 2000, hearing
3 officer order. The third hearing is currently scheduled
4 for Wednesday, November 15th, 2000, at 11:00 a.m. in
5 this room, which is the Board's conference room, on the
6 11th floor of the James R. Thompson Center in Chicago.
7 It will be devoted solely to any Agency response to the
8 materials submitted at the second hearing. The third
9 hearing will be canceled if the Agency indicates to the
10 Board that it does not intend to introduce any
11 additional material.

12 This hearing will be governed by the Board's
13 procedural rules for regulatory proceedings. All
14 information which is relevant and not repetitious or
15 privileged will be admitted pursuant to 35 Illinois
16 Administrative Code 102.282. All witnesses will be
17 sworn and are subject to cross-questioning.

18 Again, the purpose of today's hearing is to
19 allow the Agency to present testimony in support of this
20 proposal and to allow questioning of the Agency. The
21 Agency will present the testimony it has regarding its
22 proposal. We will then allow for questioning of the
23 Agency regarding its testimony.

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1 procedure? Seeing none, a couple things on decorum, we
2 ask that you please speak one at a time. If you're
3 speaking over each other, the court reporter will not be
4 able to get your questions on the record. When
5 answering questions, please be sure to say yes or no
6 instead of nodding or shaking your head, and please note
7 that any questions asked by a Board member or a member
8 of the Board staff are intended to help build a complete
9 record for the Board's decision and are not intended to
10 express any preconceived notion or bias on the part of
11 the Board.

12 Mr. Melas, is there anything you would like
13 to add?

14 MR. MELAS: No, it's all been covered.

15 HEARING OFFICER STERNSTEIN: At this time, I'd
16 like to give the Agency an opportunity to make an
17 opening statement.

18 MR. MESSINA: Thank you. Good morning to
19 Hearing Officer Sternstein, Board Member Melas, Mr. Rao,
20 Ms. Glenn, Mr. Beauchamp and to the public and the
21 audience. My name is Alec Messina and I work for the
22 Agency in the Division of Legal Counsel, Bureau of Air.

23 First, I'd like to introduce the other Agency

24 personnel that are here today. To my right is Dennis

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1 Lawler who is the manager of the Division of Air
2 Pollution Control. To his right is Yoginder Mahajan and
3 to his right is Berkley Moore, both of whom are in the
4 Air Quality Planning Unit. Behind us is Richard Forbes,
5 who is the manager of the Air Quality Planning Unit and
6 to his right Kathleen Bassi, the policy advisor to the
7 chief of the Bureau of Air.

8 This proposal is to satisfy a portion of the
9 NOx SIP Call. It includes new Subpart T to 35 Illinois
10 Administrative Code Part 217 and it includes confirming
11 amendments to parts 211 and 217. The purpose of the
12 proposal is to control emissions of nitrogen oxide or
13 NOx during what is considered to be the control period.

14 At this time, I'd like to submit the prefilled
15 testimony into the record as read of Dennis Lawler.

16 HEARING OFFICER STERNSTEIN: I will mark Dennis
17 Lawler's testimony as Agency Exhibit Number 1.

18 MR. MESSINA: And also of Yoginder Mahajan.

19 HEARING OFFICER STERNSTEIN: And I will mark
20 Mr. Mahajan's testimony as Agency Exhibit Number 2.

21 MR. MESSINA: And finally of Berkley Moore.

22 HEARING OFFICER STERNSTEIN: And I'll admit

23 Berkley Moore's prefiled testimony as Agency Exhibit
24 Number 3.

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1 MR. MESSINA: There are additional copies at the
2 end of the desk. Mr. Lawler, Mr. Mahajan and Mr. Moore
3 have prepared brief versions of their testimony which
4 they will present today, but before we get to that,
5 there is one other item I'd like to submit into the
6 record and that was -- or that is the Agency's motion to
7 amend which was submitted in additionally with its
8 prefiled testimony and this motion changes some of the
9 compliance states that were in the rule initially
10 submitted to the Board. This was necessitated by a
11 Court order from the District Court, Court of Appeals --
12 U.S. District Court of Appeals, excuse me, and that's
13 all I have.

14 HEARING OFFICER STERNSTEIN: I'll admit the
15 motion to amend as Agency Exhibit Number 4, and with
16 that, I guess we are ready to hear the summaries of the
17 prefiled testimonies, so, Mr. Messina, go ahead and
18 present your first witness.

19 MR. MOORE: Do you want to swear in?

20 HEARING OFFICER STERNSTEIN: Thank you very
21 much, Mr. Moore. Let's swear in all the Agency
22 witnesses as a panel.

23

(Witnesses duly sworn.)

24

MR. MESSINA: I believe, Mr. Lawler, you'll

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1 start things off for us.

2

MR. LAWLER: I do have a copy of the material

3

that I am presenting, but I don't know if the Board

4

folks have a copy or not at this point. They're right

5

down on the end.

6

HEARING OFFICER STERNSTEIN: Actually,

7

Mr. Lawler, I will go ahead and submit a copy of what

8

we'll call Purpose of Proposed Rulemaking as Agency

9

Exhibit Number 5.

10

MR. LAWLER: My name is Dennis Lawler. I'm

11

manager of the Division of Air Pollution Control. The

12

purpose of my discussion this morning is to briefly

13

explain the purpose of our proposal and to summarize

14

briefly the development of the proposal itself and

15

there's a lot of background on this, and I'll try to be

16

as succinct as possible in going through this.

17

The rulemaking that we have proposed is to

18

address the obligations of the state of Illinois to

19

satisfy part of what we'll be referring to as the NOx

20

SIP Call and SIP is short for State Implementation Plan.

21

There are several other proceedings that are also part

22 of this entire package. We submitted to the Board on
23 July 11th a rulemaking that is going through the process
24 right now for electrical generating units. We will also

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1 be submitting later this month a rulemaking that
2 addresses non-EGUs or industrial boilers.

3 This particular one addresses cement kilns
4 and there will be one later on that will address
5 controls for internal combustion engines and that will
6 be at least another six months or so. That's been
7 remanded back to USEPA by the courts at this point.

8 The first thing I'd like to explain maybe is
9 on a sheet entitled Ozone Formation Process. It briefly
10 explains the formation of ozone. Ozone is a pollutant
11 that occurs in the summertime on hot summer days and is
12 the result of a chemical reaction between volatile
13 organic materials and nitrogen oxides in the air. The
14 sources of the various components that cause ozone are
15 industrial emissions, emissions from automobiles and
16 emissions from household products. We might have
17 cleaners, paints and a lot of other everyday materials
18 that we use. These emissions go into the air and under
19 again the presence of hot summer sun form ozone and
20 ozone occurs in and around the Chicago area and then is
21 transported with the winds.

22 The second chart that I'll talk a little bit
23 about --

24 HEARING OFFICER STERNSTEIN: Just for

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1 clarification, Mr. Lawler, all the charts and sheets
2 that we're looking at are all part of the exhibit that
3 was just submitted as Agency Exhibit Number 5.

4 MR. LAWLER: That's correct. That's correct.
5 The next chart is entitled Good Ozone, Bad Ozone. It's
6 always important, I think, to mention that ozone is
7 found in the stratosphere and protects us from
8 ultraviolet radiation from the sun, so, in that case,
9 ozone is good for us, but ozone that's formed near the
10 earth's surface and the troposphere is detrimental to
11 human health, so it's sometimes called bad ozone, but
12 it's the same ozone in both places.

13 The next chart is entitled Ozone Air Quality
14 Standard. The NOx SIP Call is designed to address the
15 one-hour ozone National Ambient Air Standard Quality
16 Standard abbreviated NAAQS and the one-hour standard --
17 the level of the standard is .12 parts per million which
18 translates to 125 parts per billion and in order to be
19 out of compliance with the ozone standard, an individual
20 monitor would have to measure four exceedences of this

21 125 level in a three-year period, so the fourth time at
22 an individual monitor that you exceed that level, you
23 would have a violation of the standard. There is an
24 eight-hour standard that USEPA has proposed, but it's

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1 still in the proposal stages and before the courts at
2 this point.

3 The next chart that I'll talk about is
4 entitled Tracking the Ozone. It's a busy chart and I
5 should say before I get into the chart that for years
6 our Agency and other Agency's in the different parts of
7 the country have focused on controlling volatile organic
8 materials for controlling ozone and so we have a lot of
9 rules and regulations that we usually called RACT rules,
10 Reasonable Available Control Technology rules, and in
11 some cases, for some industries, we've gone even beyond
12 RACT, tighter controls for VOCs again in an attempt to
13 get the ozone into compliance with the national
14 standards.

15 In 1989 and 1990, the four states of Indiana,
16 Illinois, Wisconsin and Michigan began a cooperative
17 relationship that's usually referred to as LADCO, Lake
18 Michigan Air Directors' Consortium, and the purpose of
19 this was to identify the causes of ozone in the Lake
20 Michigan area affecting the four states to determine the

21 transport that goes on in and around the lake and then
22 to identify control measures that would reduce ozone.

23 This chart kind of displays a study that was
24 done in 1991 that involved the traditional ozone

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1 monitors in the Chicago area plus we had aircraft,
2 balloons, ships and lot of extra instrumentation to get
3 substantial information so that we could study the ozone
4 and be able to put what's actually happening into
5 computer models to be able to predict what would happen
6 with ozone formation.

7 As part of this study in 1991, you'll notice
8 on a particular chart that's here there is an indication
9 of aircraft flying along the boundaries of the study
10 area and particularly along the southern boundary of the
11 chart and I'll talk about that in a minute.

12 The next chart that I'll talk about is
13 entitled ozone concentrations measured along the
14 southern LMOS boundary and LMOS Lake Michigan Ozone
15 Study. This is a slice of the atmosphere that the
16 aircraft and ground measurements found along that
17 southern boundary that I talked about on the last chart.
18 So on the left-hand side of this chart gives the
19 altitude in meters, so the chart goes up to 1400 meters

20 and along the horizontal axis are the longitude, so this
21 is kind of a stretch from central Illinois through
22 central Indiana and then looking northward.

23 So if you could visualize a visual slice,
24 these are the measurements of ozone that were measured

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1 from ground level up to 1400 meters on a typical morning
2 by this aircraft and what you'll see is that some of the
3 numbers that are shown here, which is ozone
4 concentration, is as high as 90 to 100 to 110 parts per
5 billions.

6 MR. MELAS: Billion.

7 MR. LAWLER: Parts per billion, yes, and if you
8 remember the level of the standard is 125 parts per
9 billion, so what we found here was that the transported
10 ozone coming into the Chicago area in some cases showed
11 levels that were very near the standard itself. So it
12 identified for us that we have a local problem that we
13 have to solve plus we have transport that we have to
14 address. We have to get that transport level down in
15 order to solve the ozone problem in Chicago and areas
16 like Chicago.

17 The next chart entitled VOC Reduction Goals
18 and VOC is volatile organic compounds is an indication
19 of if we didn't address the transport situation and

20 needed to get the reductions from in the urbanized area
21 itself in order to show attainment, we would have to get
22 over a 90 percent reduction in VOC emissions in the
23 Chicago area if we didn't do anything about that
24 transported problem and that's listed under base case.

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1 If we could get the concentrations coming
2 into the Chicago area reduced, for example, here showing
3 down to 70 parts per billion or 60 parts per billion,
4 then we need only in the 50 to 60 percent reduction in
5 VOC emissions in the urbanized area and while that's a
6 high number, it's much more achievable and levels of
7 that nature are already happening.

8 The next chart called OTAG Participating
9 States and OTAG is Ozone Transport Assessment Group.
10 What we found in the midwest was also discovered in
11 other parts of the country. For example, Georgia and
12 the northeastern states also found this transported
13 situation going on and so as this was discussed, the
14 environmental directors of the states working with USEPA
15 formed an organization called OTAG to study this
16 transport situation in the eastern two-thirds of the
17 country.

18 The study occurred from roughly 1995 to 1997.

19 There were hundreds and maybe even thousands of
20 participants in this national study. The participants
21 involved government agencies, industries, environmental
22 groups, academics and others, and the study itself
23 involved development of a very detailed emission
24 inventory and some complex air quality modeling for the

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1 eastern part of the country.

2 The next chart is entitled OTAG Findings and
3 in July of 1997, OTAG was completed and the dot points
4 here list the findings of the group and those were that
5 national NOx reductions, nitrogen oxide reductions, are
6 effective so that if you can reduce nitrogen oxides in
7 the eastern part of the U.S., this is an effective way
8 to reduce ozone in the urbanized areas.

9 Also ozone improvements are commensurate with
10 NOx emissions reductions. The more NOx you can reduce,
11 the better improvement you get in the ozone. Ozone
12 benefits diminish with distance, so the further you get
13 away from your area of concern, the less impact reducing
14 NOx has; that VOC reduction is still effective locally.
15 It does help ozone if you could get VOCs reduced in the
16 local area. NOx controls are effective between 150 and
17 500 miles and there are many instances where there's
18 some disbenefits in the urban areas from NOx controls

19 themselves.

20 The next chart is entitled NOx SIP Call
21 Chronology. USEPA recognized the importance of the
22 transport information that was being found by LADCO and
23 other areas in the country. They recognized the
24 information that OTAG provided to them, and so they did

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1 some research themselves, did considerable air quality
2 modeling and taking all that information, USEPA came
3 forth with what was called the NOx SIP Call that was
4 issued by USEPA in October of 1998.

5 The SIP Call that was issued at that point
6 called for each state that was affected to develop a
7 SIP, a state implementation plan, that was due to be
8 submitted to USEPA by September of 1999 with rules and
9 regulations adopted as part of the SIP. They also
10 included a proposed FIP, a federal implementation plan,
11 that they had proposed to go into effect if states
12 didn't meet their obligations for doing these SIPs.

13 After the SIP Call was issued, various groups
14 petitioned the D.C. Circuit Court of Appeals for various
15 reasons. While the Court of Appeals was reviewing those
16 petitions, there was also a request made for a stay from
17 the states for having to meet the September 1999 due

18 date and a stay was granted by the Court in May of 1999
19 at that point and so that removed the September 1999
20 date.

21 On March 3rd of 2000, the Court upheld the bulk
22 of the NOx SIP Call. There were some modifications that
23 were made. They omitted the state of Wisconsin as one
24 of the states that had to comply with the SIP Call

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1 because they said that Wisconsin didn't contribute to
2 nonattainment in any other states. They remanded back
3 to USEPA exactly what to do with the state of Missouri
4 and Georgia and they remanded the control levels or
5 portions of the rules that affected the internal
6 combustion engines which is why we aren't having to
7 propose that to the Board at this point, but in the
8 March 3rd notice, the Court did not address the stay
9 that had been issued.

10 Finally, on June 22nd of 2000, the Court removed
11 this stay that had been in place and required states to
12 submit SIPs to USEPA in October of 2000 and I'll say
13 more about that later. Finally, let me also mention
14 here is that as Alec mentioned, on August 31st the Court
15 also moved the compliance dates of the SIP Call back
16 from May 1st of 2003 to May 31st of 2004 and that's what
17 the motion that he submitted earlier addresses.

18 The next chart called NOx SIP Call Elements, the
19 SIP Call itself addressed 23 jurisdictions and that was
20 22 states and the District of Columbia and now with
21 Wisconsin no longer covered, it's 22 jurisdictions. The
22 elements of the control programs of the sources that the
23 USEPA identified as being reasonable to control were
24 EGUs, electric generating units, and those are utility

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1 generators and they identified control emit of
2 .15 pounds per million BTU, non-EGUs generally
3 industrial boilers that are larger than 250 million BTU,
4 60 percent control from those; large cement kilns, which
5 is the purpose of this proposal, a 30 percent control
6 reduction for the large kilns and large means kilns that
7 are larger than -- that are capable of emitting one ton
8 per day of NOx and then the forth element were large
9 internal combustion engines. The original proposal was
10 for a 90 percent control requirement and that's the one
11 that's back before the USEPA at this point. Also as
12 part of the NOx SIP Call, they encourage participation
13 in the National Cap and Trade Program.

14 The next chart entitled Road to the Illinois
15 Regulatory Proposal for Cement Kilns, in just the state
16 actions in response to all this, again, the SIP Call was

17 issued in October of 1998. Shortly thereafter, we began
18 a series of meetings with various interest groups on the
19 NOx SIP Call. We had meetings with a group we called
20 the policy group. It was really everybody that needed
21 to be involved or wanted to be involve in this. We had
22 meetings with affected sources and we had technical
23 group meetings where we talked a lot about inventories
24 and modeling and other technical elements.

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1 The Court issued the stay of a NOx SIP Call
2 on May 25th of 1999, so at that point we, after
3 discussions with the various interest groups, we turned
4 our focus kind of away from the SIP Call at that point
5 waiting to see what the courts did with it and focused
6 on our attainment demonstrations that we also needed to
7 be preparing.

8 On the next chart, which is again a
9 continuation of the Road to the Illinois Regulatory
10 Proposal, we have worked on the attainment demonstration
11 for the metro east. We're working on the attainment
12 demonstration for the Lake Michigan area and then the
13 SIP Call was upheld March 3rd of 2000 and the Agency
14 shifted its direction again back toward addressing the
15 SIP Call and we resumed meetings with industries and
16 prepared the regulatory proposals that we've now

17 submitted at least two of at this point to the Pollution
18 Control Board.

19 On the last chart that's entitled Regulatory
20 Proposal addresses part of the state's obligation for a
21 NOx SIP Call. That's all I want to say about it is the
22 title. Our proposal addresses the cement kiln portion
23 of our requirements for the NOx SIP Call and you'll hear
24 a little bit later on about some of the technical issues

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1 related to the rulemaking itself and the discussion of
2 our proposed rule. Thank you.

3 MR. MESSINA: At this time, I want to
4 reintroduce Yoginder Mahajan.

5 MR. MELAS: Just a simple little question. You
6 talked about the stratosphere and the troposphere and
7 then you got one plane up at 1500, just to give me an
8 idea, what is the dividing point generally speaking, I
9 know it's not a straight line, between the troposphere
10 and the stratosphere?

11 MR. LAWLER: It does. It changes from season to
12 season and it changes as you get closer to the poles,
13 the height is different, but the troposphere is really
14 15 to 20 miles in the air and the charts earlier --

15 MR. MELAS: Miles?

16 MR. LAWLER: Miles and earlier the numbers on
17 some of the earlier charts we're talking in the first
18 mile of the atmosphere.

19 MR. MELAS: Thank you.

20 MR. MESSINA: Mr. Mahajan.

21 MR. MAHAJAN: Good morning. My name is Yoginder
22 Mahajan and I am employed as an environmental protection
23 engineer in the Air Quality Planning Section in the
24 Bureau of Air of the Illinois Environmental Protection

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1 Agency. I have been employed in the this capacity since
2 March 1992. Prior to my employment with the Agency, I
3 worked for various metal fabrication industries for nine
4 years. My educational background includes a bachelor
5 engineering degree in mechanical engineering from Bhopal
6 University in Bhopal, India.

7 As part of my regular duties in the Air
8 Quality Planning Section, I have been involved with
9 preparing emission estimates for various source
10 categories used in the development of the 1990 ozone
11 season, weekday emissions inventories, evaluating
12 control technologies applicable to volatile organic
13 material, emissions sources utilized in the preparation
14 of the Rate-of-Progress plans for the Chicago and
15 St. Louis ozone nonattainment areas and assisting in the

16 development of regulations for the control of VOM
17 emissions from source categories included in the
18 Rate-of-Progress plans.

19 Regarding the proposal before you today, I
20 have been involved in the development of the NOx
21 regulations for cement kilns and I have prepared the
22 Technical Support Document, TSD, for the proposal. The
23 Agency is proposing this regulation to control the
24 emissions of NOx from large cement kilns in Illinois

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1 consistent with the federal NOx SIP Call. The
2 geographic region subject to the proposal is the entire
3 state of Illinois. Today's proposal requires owners or
4 operators of large cement kilns to employ low NOx
5 burners or mid-kiln firing systems or reduce their NOx
6 emissions by 30 percent from uncontrolled baseline
7 emissions levels.

8 The cement manufacturing process is a large
9 source of NOx because a large amount of fuel, usually
10 coal or natural gas, is burned at high temperatures that
11 cause the nitrogen and oxygen in the ambient air to
12 combine to form NOx. Also, some additional nitrogen
13 from the raw materials and from the fuel, unless the
14 fuel is natural gas, combines with the atmospheric

15 oxygen under these intra-kiln conditions to form
16 additional NOx.

17 As part of the evaluation of the control of
18 NOx emissions from cement kilns, the Agency relied upon
19 the March 1994 United States Environmental Protection
20 Agency publication entitled the Alternative Control
21 Technique Document called ACT to control NOx emissions
22 from cement manufacturing. The ACT discusses the
23 various controls available for reducing emissions from
24 cement kilns. Controls can be grouped into two

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1 categories, combustion controls where the emphasis is on
2 reducing NOx formation and postcombustion controls which
3 destroy the NOx formed in the combustion process.

4 USEPA has prepared a number of
5 cost-effectiveness estimates for controlling NOx
6 emissions from cement plants. Two of the most recent
7 and significant estimates are contained in the federal
8 ACT for cement plants, which I just referenced, and the
9 Regulatory Impacts Analysis, RIA, for the NOx SIP Call,
10 FIP, and Section 126 Petitions. The Agency is relying
11 on these documents to estimate the cost effectiveness of
12 controlling Illinois NOx sources to the level proposed
13 by this rulemaking.

14 Depending on the type and size of the kilns,

15 the cost-effectiveness, as described in the ACT, of
16 combustion from \$220 to \$1,330 per ton of NOx removed.
17 The cost effectiveness of SNCR control for
18 preheater/precalciner kilns varies from \$790 to \$1,100
19 per ton of NOx reduced while SCR control cost
20 effectiveness varies from \$3,140 to \$4,870 per ton of
21 NOx removed. The cost-effectiveness values in the ACT
22 are based on the NOx emissions reductions per year.

23 The RIA document contains cost information
24 for reducing ozone control period NOx emissions from the

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1 cement kilns. The Agency has relied upon the cost
2 estimates contained in the RIA document to estimate the
3 cost effectiveness of the proposed regulation. USEPA
4 determined that the average cost effectiveness of NOx
5 SIP Call level controls for large cement kilns would be
6 \$1,458 in 1990 dollars per ton of NOx removed. USEPA
7 has found the control of large cement kilns to be highly
8 cost effective.

9 The Agency performed the computer search of
10 its ozone inventory to identify potentially impacted
11 cement plants in Illinois. An initial search of this
12 inventory identified eight cement kilns. The Agency met
13 with representatives of these plants to ask them to

14 verify the emissions from their emission units. After
15 reviewing the emissions data and the supporting
16 documentation provided by the sources, the Agency made
17 those changes that it determined to be appropriate.
18 Based on the corrected emissions inventory, the Agency
19 determined that there were four cement kilns at three
20 sources that were potentially impacted by the proposal.

21 In order to determine each unit's ozone
22 control season NOx emissions, daily NOx emissions from
23 the affected units were multiplied by 153, the number of
24 days in the control period. Since the base year for the

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1 NOx SIP Call is 2007, the 1995 seasonal NOx emissions
2 for each emissions unit were multiplied by a 1995 to
3 2007 growth factor to determine the control period NOx
4 emissions for the base year 2007.

5 The Agency relied on USEPA's economic growth
6 projection model, E-GAS, to provide the growth factors
7 for each emissions unit. The Agency then applied the
8 proposed regulatory control efficiency of 30 percent to
9 the 2007 seasonal NOx emissions to obtain the 2007
10 controlled seasonal NOx emissions for these large cement
11 kilns. The total base year 2007 seasonal NOx emission
12 from these four kilns were calculated to be 4,073 tons
13 per control period. The required control on these kilns

14 will reduce 2007 base NOx emissions by 1,222 tons for a
15 2007 controlled level of 2,851 tons per control period.

16 In summary, the Agency is proposing a
17 regulation to control NOx emission from four large
18 cement kilns located throughout the state. The level of
19 control, a 30 percent reduction from base uncontrolled
20 emissions levels, has been determined by USEPA in its
21 NOx SIP Call to be highly cost effective. The actual
22 cost effectiveness determined by USEPA is \$1,458 per ton
23 of NOx removed in a control season.

24 USEPA also found that sources could meet this

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1 control requirement by utilizing conventional combustion
2 control technology such as low NOx burners. This
3 proposed regulation is consistent with the NOx SIP Call
4 and will result in a reduction of 1,222 tons of NOx
5 during the ozone control season. Thank you.

6 MR. MESSINA: And then I'd like to reintroduce
7 Mr. Moore who will be testifying today on the specifics
8 of the proposal itself.

9 MR. MOORE: Good morning. My name is Berkley L.
10 Moore. I'm a licensed professional engineer in
11 Illinois, and since 1970, I have been employed as an
12 environmental protection engineer or as an environmental

13 protection specialist in the Illinois Environmental
14 Protection Agency's -- that's the Agency -- Bureau of
15 Air.

16 I have a bachelor of science degree majoring
17 in chemical engineering which I received from Grove City
18 College in Pennsylvania and have completed all the
19 course work for a master's in environmental engineering
20 degree from Southern Illinois University.

21 The purpose of my testimony today is to
22 discuss the technical aspects of the Agency's Part 217
23 proposed Subpart T, cement kilns, proposal for
24 regulating the emissions of nitrogen oxides, that's NOx,

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1 pursuant to the United States Environmental Protection
2 Agency's, that's USEPA, NOx Budget State Implementation
3 Plan, that's SIP Call promulgated October 27th, 1998.
4 The Agency's proposal requires a 30 percent NOx
5 emissions reduction from large cement kilns as a portion
6 of the total reduction necessary to meet the state's
7 assigned NOx emissions budget.

8 The proposal does this by specifying that
9 affected cement kilns be operated with either one of two
10 control technologies that will be accepted as providing
11 a 30 percent reduction. The proposal also provides for
12 the use of several methods of demonstrating a 30 percent

13 NOx reduction in lieu of utilization of the
14 above-control technologies.

15 Definitions, in order to make the Agency
16 Part 217 proposal adequately functional, it is necessary
17 to propose amendments to Part 211, Definitions, of the
18 Board's air pollution regulations. That's 35 Illinois
19 Administrative Code. All proposed definitions are
20 consistent with those in the proposed Federal
21 Implementation Plan, the FIP, even though they may
22 differ somewhat in wording. This is explained more
23 fully in my prefiled testimony.

24 Incorporations by Reference, the Agency

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1 proposes to amend Section 217.104 to add the Compilation
2 of Air Pollution Emission Factors, AP-42, the
3 Alternative Control Techniques Document, NOx Emissions
4 from Cement Manufacturing, portions of the Standards of
5 Performance from New Stationary Sources, 40 CFR Part 60,
6 Appendix A, Methods 7, 7A, 7C, 7D and 7E and Section
7 60.13 to the documents that are incorporated by
8 reference. These documents are explained more fully in
9 my prefiled testimony.

10 Subpart T, cement kilns, the first part of
11 Subpart T per se is Section 217.600, Applicability,

12 which provides that the Subpart applies only to certain
13 cement kilns that produce greater than or equal to a
14 specified amount of clinker in tons per hour. These
15 rates were selected as applicability cutoffs because
16 they are the process rates that are expected to yield,
17 on the average, NOx emissions of at least one ton per
18 day.

19 Subsection (a) of Section 217.602, Control
20 Requirements, specifies the control requirements for
21 cement kilns that would apply after May 30th, 2004,
22 unless delayed by the provisions of Subsection B. An
23 owner or operator of a kiln which commenced operation
24 prior to January 1st, 1996, may not operate the kiln

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1 during any control period unless the owner or operator
2 complies with either section -- Subsections (a)(1),
3 (a)(2), (a)(3), (a)(5) or (a)(6). An owner or operator
4 of a kiln which commenced operation on or after
5 January 1st, 1996, may not operate the kiln during any
6 control period unless the owner or operator complies
7 with either Subsection (a)(4) or (a)(6).

8 Subsection (a)(1) governs acceptable
9 technology. Kilns that are operated with a low NOx
10 burner or mid-kiln firing system would be deemed to
11 comply with this subsection. Subsection (a)(2) governs

12 acceptable alternatives to the technology referenced in
13 Subsection (a)(1). Kilns meeting certain specified
14 emission rates, depending on type of kiln, would be
15 deemed to comply with this subsection regardless of the
16 control technique employed to reach such emission rates
17 or even if no control would be necessary to achieve
18 these rates. These emission rates were selected because
19 they are generally expected to provide a 30 percent
20 reduction of NOx emissions of uncontrolled emissions
21 from each type of kiln.

22 Subsection (a)(3) states that kilns which
23 achieve at least the same emissions decrease as a low
24 NOx burn or mid-kiln firing system by demonstrating a 30

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1 percent or greater reduction in NOx emissions would be
2 deemed to comply with this section. Subsections
3 (a)(3)(A) and (a)(3)(B) set forth the procedures to use
4 in determining whether a 30 percent or greater reduction
5 was achieved.

6 Subsection (a)(4) states that the owner or
7 operator of a kiln that began operating on or after
8 January 1st, 1996, must meet the more stringent of
9 either Subsection (a) or other requirements under the
10 Federal Clean Air Act. Because kilns that begin

11 operating after this date will be subject to more
12 stringent NOx emission limitations than those of the
13 proposal presently before the Board, due to Federal
14 Prevention of Significant Deterioration or New Source
15 Review Requirements, Subsection (a)(4) would not be
16 specifically required, but it is put forth by the Agency
17 as an alert to the owners and operators of newly
18 constructed kilns that the new kilns would likely have
19 to come supply with NOx emissions standards stricter
20 than those of proposed Subpart T.

21 Subsection (a)(5) governs the obtaining of an
22 alternate emissions standard. This subsection states
23 that any adjusted standard or alternate emissions
24 standard with an alternate compliance schedule that is

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1 granted by the Board pursuant to Section 28.1 of the
2 Illinois Environmental Protection Act and that is
3 consistent with federal law would be deemed to comply
4 with this section.

5 Subsection (a)(6) governs opting in to the
6 federal NOx trading program. Participation in the
7 trading program would allow the participating kiln to
8 demonstrate compliance by buying NOx emission credits
9 rather than applying control equipment or alternatively
10 to augment minor achieved reductions with purchased

11 credits sufficient to demonstrate full compliance.

12 In order to be fully effective in reducing
13 NOx emissions, the proposal provides for emissions
14 testing in accordance with Subsection 217.604, Testing.
15 Subsection (a) of this section requires the owner or
16 operator of a low NOx burner or mild-kiln firing system
17 that commenced operation prior to May 1st, 2003, to
18 maintain and operate the device in an appropriate manner
19 as approved by the Agency.

20 Subsection (b) pertains to kilns that both
21 began operating prior to May 1st, 2003, and utilize
22 Section 217.602 -- 217.602 (a)(2), (a)(3)(C) or (a)(5)
23 to show compliance with this subpart. Owners or
24 operators of such kilns must complete an initial

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1 performance test between May 1st, 2003, and May 30th,
2 2004, and must conduct subsequent annual testing during
3 each control period that the kiln is operated.

4 Subsection (c) pertains to kilns that began
5 operating on or after May 1st, 2003. Owners or
6 operators of such kilns must complete an initial
7 performance test within one year of initial startup and
8 must also comply with the requirements pertaining to
9 annual testing detailed in Subsection (b). Further

10 effectiveness of the Agency proposal is promoted not
11 only by testing, but also by periodic or in some cases
12 continuous monitoring of compliance.

13 Section 217.606, Monitoring, addresses these
14 monitoring requirements. Subsection (a) requires the
15 owner or operator to submit a complete monitoring plan
16 for approval by the Agency addressing the applicable
17 requirements in Subsection (b). The plan must be
18 submitted no later than August 31st, 2003, for kilns
19 that existed on or prior to that date or along with a
20 construction permit application if the kiln commences
21 operation after August 31st, 2003.

22 Subsection (b) sets forth the elements that
23 are required as part of a compliance monitoring plan.
24 Subsection (c) requires that owners or operators monitor

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1 the operating parameters of emission unit and predict
2 NOx emission rates in accordance with the plan specified
3 in the applicable operating permit.

4 In addition to testing and monitoring,
5 reporting and recordkeeping are helpful in realizing the
6 fullest effectiveness of the proposal. Section 217.608,
7 Reporting, sets forth the reporting requirements for
8 cement kilns. Subsection (a) requires the owner or
9 operator of the cement kiln subject to this subpart to

10 submit an initial compliance certification to the Agency
11 for that kiln either by May 31st, 2004, or within one
12 year of the initial startup of the kiln, whichever
13 occurs later.

14 The certification must contain, among other
15 things, a demonstration that the kiln is in compliance
16 with Section 217.602 and identification of the provision
17 it is in compliance with along with a summary of the
18 approved compliance method.

19 Subsection (b) pertains to annual emissions
20 reporting pursuant to 35 Illinois Administrative Code
21 254. Beginning in 2004, owners or operators complying
22 with this subpart pursuant to Section 217.602 (a)(1),
23 (a)(2), (a)(3), (a)(4) or (a)(5) must report to the
24 Agency the total NOx emissions during the control period

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1 of each kiln if it was operated during that period.
2 This report must be submitted to the Agency by
3 December 31st of each year.

4 Proposed Section 217.610 entitled
5 Recordkeeping requires the owner or operator to keep and
6 produce certain documents for at least three years and
7 must be produced upon request by the Agency. This
8 subsection also requires the owner or operator to keep

9 and produce the results of any required performance
10 testing; however, this does not preclude an owner or
11 operator of a cement kiln from having to comply with a
12 request for testing by the Agency pursuant to Section 4
13 of the Act or by USEPA pursuant to Section 114 of the
14 Clean Air Act.

15 That concludes my testimony.

16 MR. MESSINA: I'm sure the Board may have some
17 questions, but before we get there, I should have
18 mentioned this earlier after Mr. Mahajan's testimony,
19 but USEPA has recently come out with a supplement to the
20 ACT which provides additional information and additional
21 support materials for the information they provided in
22 the final ACT. I just wanted to make the Board aware
23 that that has just been released by USEPA.

24 HEARING OFFICER STERNSTEIN: Does the Agency

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1 anticipate that they might have to submit any other
2 documentation regarding the updated ACT?

3 MR. MESSINA: No.

4 MR. RAO: Should that be also incorporated by
5 reference or an updated ACT?

6 MR. MESSINA: At this time, we do not believe
7 so. It simply provides additional support documentation
8 for the material that is presented in the ACT.

9 HEARING OFFICER STERNSTEIN: Anything else from
10 the Agency right now?

11 MR. MESSINA: Not at this time.

12 HEARING OFFICER STERNSTEIN: The witnesses from
13 the Agency are now available for questions. I would
14 only ask that if anybody has some questions for the
15 witnesses, please wait to be acknowledged and then state
16 your name and affiliation for the court reporter.

17 I guess we'll start with the Pollution
18 Control Board and I'll allow Board Member Melas to go
19 first.

20 MR. MELAS: Mr. Lawler, I think the phrase was
21 used "uncontrolled emissions" which refers to NOx
22 emitted by cement kilns. Now, these kilns have CAA
23 permits I would presume. Is the NOx currently regulated
24 in those permits that they presently have?

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1 MR. MESSINA: Board Member Melas, I believe that
2 Mr. Moore might be better suited to answer that
3 particular question.

4 MR. MOORE: Well, no, because NOx is not
5 regulated in the permits or the Clean Air Act permits
6 for or will not be regulated in those permits for the
7 simple reason that prior to any adoption by the Board of

8 these regulations, there are no NOx emission limitations
9 that apply to cement kilns.

10 MR. MELAS: That clears that up.

11 Now, a little while ago, I think you were
12 talking -- I think Mr. Mahajan was about the USEPA's
13 gross projection model to determine the 2007 ozone
14 control season emissions. Now, is this the same as that
15 8 percent growth factor that's referred to in R01-09 for
16 electrical generating units?

17 MR. MAHAJAN: No, it's not.

18 MR. MELAS: It's different?

19 MR. MAHAJAN: It's different. It's the USEPA
20 approved method for the state to provide the growth rate
21 based on economic -- original economic standard, but the
22 ones used for the EGU was the IPM model which is
23 integrated planning model, so it's different.

24 MR. MELAS: So this particular growth model is

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1 specific to each individual state?

2 MR. MAHAJAN: Yes, based on the economics, yes.

3 MR. MELAS: Now, you all have made a pretty
4 thorough survey of the cement kilns in the state. What
5 is the age of these four kilns? Were they all
6 constructed prior to or after '96?

7 MR. MAHAJAN: They're all constructed prior to

8 1996.

9 MR. MELAS: Prior to '96. And do we know yet
10 whether any of them will be -- decide to opt into the
11 trading program?

12 MR. MAHAJAN: No, we don't know. We have the
13 option, but we don't know if they're going to do that.

14 MR. MELAS: The option does exist for them
15 though?

16 MR. MAHAJAN: Yes.

17 MR. RAO: Can I ask a follow-up?

18 MR. MELAS: Yeah. Go ahead. I'm finished.

19 MR. RAO: In terms of some of these facilities
20 participating in the trading program, that won't affect
21 the cap that's been set by the USEPA, does it?

22 MR. LAWLER: Again, we don't know if any of them
23 really will participate in the trading program, but the
24 option is there if they do it and if they did

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1 participate in the trading program, then that would
2 affect the state's budget to the extent that they would
3 participate, so it could affect it again if they opt
4 into the program. If they don't opt into the program,
5 then they won't have any effect.

6 MR. MELAS: That's all I have.

7 MR. RAO: I have a few questions on some of the
8 proposed provisions and also in the testimony. Starting
9 with the definitions, while some of the proposed
10 definitions have been limited to Part 217, Subpart T, a
11 few of the definitions, for example, long dry kiln, long
12 wet kiln, those definitions are not limited to
13 Subpart T.

14 Are those terms used in other parts of
15 Subtitle (b) or is there any, you know, reason why you
16 didn't limit it to Subpart T?

17 MR. LAWLER: The terms that you're referring to
18 are specific to kilns and really wouldn't apply to any
19 other industry, industry type, so we didn't think it was
20 necessary to limit it at this point because it, just by
21 its very nature and by its definition, it will only
22 apply to kilns.

23 MR. RAO: And the definition of low NOx burner,
24 you make a reference to the indirect firing system or

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1 comparable technique for main burner.

2 Could you explain what comparable technique
3 could be for a low NOx burner?

4 MR. MOORE: Well, the definition was written in
5 conjunction with the affected industry and the use of
6 comparable technique was to accommodate any proposals

7 that they could sell to the Agency as by demonstration
8 as being comparable to the very strict definition of low
9 NOx burner and in order for a kiln to use a comparable
10 technique, it would have to be approved by the Agency in
11 the permitting process and approved by the USEPA in a
12 federal enforceable state operating permit.

13 MR. RAO: So if a facility proposes comparable
14 technique, that would be under Subpart T of this
15 proposal?

16 MR. MOORE: Well, yes, yes.

17 MR. RAO: Just so I just wanted to get that
18 cleared up because if JCAR asks the question, we would
19 be able to handle it. Thank you.

20 Moving on to Section 217.600, Applicability,
21 Mr. Moore, you mentioned in your testimony that the
22 cutoffs for the four different types of kilns, the NOx
23 ton per year was selected or chosen so that it reflects
24 I think you said --

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1 MR. MOORE: A ton a day.

2 MR. RAO: -- a ton per day, is that controlled
3 or uncontrolled emissions of NOx.

4 MR. MOORE: That's uncontrolled.

5 MR. RAO: Uncontrolled, okay.

6 Moving on to Section 217.602, Subsection (a)(4).
7 In Subsection (a)(4), it's proposed that any kiln
8 subject to this subpart that commence operation on or
9 after January 1st, 1996, must meet most stringent of the
10 requirements of this subpart.

11 Could you tell us which of the options that
12 are proposed would constitute most stringent?

13 MR. MOORE: The wording here is intended to
14 imply that they must meet the more stringent of either
15 the requirements of this subpart as over against other
16 Clean Air Act requirements, not the more stringent --
17 not the most stringent requirements in this subpart.

18 MR. RAO: Okay.

19 MR. MOORE: The word is more and not most, which
20 is the comparative, so we're comparing two things.
21 We're comparing the requirements of this subpart with
22 other Clean Air Act requirements.

23 HEARING OFFICER STERNSTEIN: But just to clarify
24 what we are talking about earlier, there are no Clean

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1 Air Act requirements that apply to cement kilns right
2 now?

3 MR. MOORE: Right now, yes.

4 HEARING OFFICER STERNSTEIN: So pretty much this
5 means that you've got to comply with Subpart T?

6 MR. MOORE: Right now, yeah.

7 HEARING OFFICER STERNSTEIN: But in the
8 future --

9 MR. MOORE: In the future, there could be new
10 source performance standards that affect nitrogen oxide
11 emissions or something.

12 HEARING OFFICER STERNSTEIN: And this provision
13 just says comply with the stricter of the two?

14 MR. MOORE: Yeah, uh-huh.

15 MR. MESSINA: Could you hold on for one second
16 please?

17 HEARING OFFICER STERNSTEIN: Yeah.

18 MR. MOORE: Except there could be requirements
19 to impose PSD limitations emitting -- regarding NOx --
20 PSD is prevention of significant deterioration and there
21 could be requirements in an individual permit and, in
22 fact, there are some such requirements in a construction
23 permit for one of the kilns in Illinois right now.

24 HEARING OFFICER STERNSTEIN: But, again, the

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1 kiln would have to comply with the stricter of either
2 the PSD requirements or what's in Subpart T?

3 MR. MOORE: Yeah.

4 MR. RAO: I have a clarification question on

5 Section 217.604 the testing requirements. In the
6 proposed language under Subsections (a), (b) and (c),
7 you refer to any owner or operator of a kiln. I just
8 wanted a clarification as to whether kiln includes all
9 the four different types of kilns that are defined?

10 MR. MAHAJAN: Yes.

11 MR. MOORE: Yes.

12 MR. RAO: My last question was for Mr. Mahajan
13 regarding the cost. In your testimony, you referred to
14 the cost effectiveness the USEPA did for cement kilns as
15 \$1,458 dollars per ton in 1990 dollars. Would it be
16 possible for the Agency to give us the cost in terms of
17 current year 2000?

18 MR. MAHAJAN: Yeah. We will provide you the
19 information, the current numbers.

20 MR. RAO: That's all I had.

21 HEARING OFFICER STERNSTEIN: Does anybody else
22 from the Pollution Control Board have any questions of
23 the Agency.

24 MS. GLENN: I just have a quick one. Just a

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1 point of clarification, Mr. Moore, and I may have
2 misheard you in your verbal testimony, but under Section
3 217.604 the testing section Part (c), I think you may
4 have said in your spoken testimony in Part (c) that it

5 affects the owners or operators of a kiln that commences
6 operation on or after May 1, 2003. I may have misheard
7 you though. In the actual rule it says 2002 and I just
8 wanted to make sure that regardless of what you said,
9 you meant Section (c) to say 2002?

10 MR. MOORE: No, I meant to say whatever the rule
11 says.

12 MS. GLENN: I just wanted to be sure and I may
13 have misheard you. Thank you. There were a lot of
14 2000s.

15 HEARING OFFICER STERNSTEIN: I had a couple
16 questions before we move on to the regulated community.
17 There was a discrepancy in the TSD regarding the kiln
18 types at the La Farge cement plant. Page 4 of the TSD
19 La Farge has two dry kilns while page 22 says that
20 La Farge has one long dry and a preheater kiln and I was
21 just wondering which one is correct.

22 MR. MAHAJAN: The first statement is correct.
23 The table says preheater -- they are all -- both of them
24 are dry.

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1 HEARING OFFICER STERNSTEIN: Are long dry kilns,
2 okay.

3 MR. MAHAJAN: A little bit of an error.

4 HEARING OFFICER STERNSTEIN: And then one other
5 question, the kilns that are to be regulated -- and this
6 is a clarification question. The kilns that are to be
7 regulated currently have emission rates above the
8 emission limits in the preamble to the FIP and these
9 were the numbers in pounds of NOx per tons of clinkers,
10 so the long dry kilns are emitting more than 5.1 pounds
11 of NOx per ton of clinker, long wet 6 pounds, preheater
12 3.8 pounds and then the preheater/precalciners 2.8
13 pounds, and so am I to understand it that kilns to be
14 regulated in Illinois are all currently emitting more
15 than those limits in terms of pounds of NOx per ton of
16 clinker right now?

17 MR. MAHAJAN: Yes. In 1995, we went to base
18 year is calculated based on the emission which is much
19 more than these levels, yes.

20 HEARING OFFICER STERNSTEIN: And then the
21 proposed emission controls will put all the regulated
22 kilns below those numbers that I just mentioned?

23 MR. MAHAJAN: At these numbers or below, depends
24 what option we choose.

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1 HEARING OFFICER STERNSTEIN: You can pretty much
2 guarantee that it will be the emission after the
3 controls are in place will be either at those numbers or

4 below those numbers?

5 MR. MAHAJAN: I assume so.

6 HEARING OFFICER STERNSTEIN: That's the way the
7 rule is supposed to work, in other words?

8 MR. MAHAJAN: Yeah.

9 HEARING OFFICER STERNSTEIN: Does anybody else
10 from the Board have any other questions?

11 MS. GLENN: I had a quick question. I'm not
12 sure who this is for, but Section 217.610, the
13 recordkeeping section, Part (a), the owner or operator
14 of a cement kiln subject to the subpart must produce and
15 maintain records that include 1, 2 and 3, 4, 5 and 6.

16 My question would be where must they produce
17 those records? Is that like an on-site recordkeeping
18 and if someone from the Agency requested these, they
19 would be kept at the site and they're only produced at
20 someone's request? Can anyone request those?

21 MR. MOORE: Usually our field of operations unit
22 makes plant visits and the field inspector may say I'd
23 like to see your records and when the field inspector is
24 on a scheduled visit so forth.

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1 MS. GLENN: So they should be able to produce
2 those sort of on demand if your field inspectors --

3 MR. MOORE: Right, right, but they wouldn't call
4 up the plant manager at 4:00 a.m. and say I want them.

5 MS. GLENN: Okay. Thank you.

6 MR. MESSINA: I just wanted to clarify one thing
7 about your question about 604 (c), the motion to amend
8 that the Agency submitted changed that date from 2002 to
9 2003.

10 MS. GLENN: I hadn't read the motion.

11 MR. MESSINA: So that might clarify things.

12 MS. GLENN: So I did hear you correctly.

13 MR. MESSINA: I don't know.

14 MS. GLENN: Thank you.

15 HEARING OFFICER STERNSTEIN: I believe Mr. Rao
16 had another question of the Agency.

17 MR. RAO: Can any one of you tell us why
18 January 1st, 1996, was chosen as the cutoff date in the
19 applicability of this rule?

20 MR. MAHAJAN: Because the baseline for this
21 control was 1995.

22 MR. MELAS: Baseline emissions.

23 MR. MAHAJAN: Yeah, baseline emissions for
24 cement kilns control is 1995, so that was the date.

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1 MR. RAO: When you say the baseline was the
2 date, was that from the SIP Call?

3 MR. MOORE: Yes.

4 MR. MAHAJAN: Yes.

5 HEARING OFFICER STERNSTEIN: Following up again,
6 with regard to the baseline date, Mr. Melas had asked a
7 few questions before regarding the EGU and the
8 integrated planning model and 8 percent growth factor
9 there and then the growth factor that's being used here,
10 which is the USEPA's growth projection model which is
11 also known as E-GAS. Is there a percentage -- did they
12 have to make some sort of a percentage growth between
13 1995 and 2007 with respect to NOx emissions from cement
14 kilns in Illinois?

15 MR. MAHAJAN: Yes.

16 HEARING OFFICER STERNSTEIN: And what was that
17 percentage?

18 MR. MAHAJAN: It's a growth factor. It's 1.42,
19 42 percent.

20 HEARING OFFICER STERNSTEIN: 42 percent growth
21 between '95 and 2007, okay.

22 MR. MAHAJAN: Yes.

23 HEARING OFFICER STERNSTEIN: I believe that's
24 all the questions we have from the Board right now. One

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1 member of the regulated community is here and that's

2 Mr. Peterson. Do you have any questions, Mr. Peterson?

3 MR. PETERSON: I do have just a couple. First
4 question is for Mr. Moore regarding his prefiled
5 testimony. On page 3 you discuss in your prefile
6 testimony the definition at Section 211.5020 of the
7 preheated/precalciner kiln, and then there are three
8 references shortly thereafter in that paragraph to a
9 precalciner/precalciner kiln. Is that --

10 MR. MOORE: That is purely a typographical
11 error.

12 MR. PETERSON: I just wanted to clarify that.

13 MR. MOORE: Wow.

14 MR. PETERSON: I didn't know if there was a new
15 kind of kiln out there.

16 Mr. Lawler, in your testimony you stated the
17 Agency is currently developing regulations that are
18 going to be applicable to the non-EGU. Is it correct
19 that that is going to have a trade-in component to it?

20 MR. LAWLER: That's correct.

21 MR. PETERSON: And will that regulation contain
22 opt-in provisions that will allow a cement kiln to enter
23 the non-EGU trading program if they so desire?

24 MR. LAWLER: There will be opt-in provisions

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1 between the new rules that we're submitting for the

2 non-EGUs and even there's opt-in provisions in the EGU
3 rules also.

4 MR. PETERSON: And are there any differences
5 between the opt-in provisions of the EGU regulations and
6 the opt-in provisions that are being developed in the
7 non-EGUs?

8 MR. LAWLER: Brooke, I guess we're in the
9 process of developing those rules and submitting them
10 and working with you folks on it, so I don't know if I
11 could answer that.

12 MR. PETERSON: Will the Agency then be amending
13 Subpart T at 217.602 (a)(6) to provide the ability to
14 enter into the non-EGU program through that opt-in?

15 MR. LAWLER: That's something that we'll need to
16 consider. We want to make all the rules consistent with
17 each other as we do this and so we'll need to consider
18 that.

19 MR. PETERSON: Thank you. That's all I have.

20 HEARING OFFICER STERNSTEIN: Are there any other
21 questions from either the Board or the regulated
22 community? And just for the record, Mr. Peterson, you
23 represent --

24 MR. PETERSON: I'm sorry. I'm with the Illinois

1 Environmental Regulatory Group.

2 HEARING OFFICER STERNSTEIN: Were there any
3 other questions from the Board?

4 MR. MELAS: Brought to mind when you were
5 talking, Mr. Lawler, the portions with the internal
6 combustion engines, that's been delayed?

7 MR. LAWLER: Yes.

8 MR. MELAS: And you used the term large internal
9 combustion, what does that refer to? Are we talking
10 about vehicular engines or are we talking about
11 stationary?

12 MR. LAWLER: The large industrial combustion
13 engines are the large engines that are found along
14 pipelines to keep the flow of natural gas going, so they
15 are not car engines or mobile sources. They are these
16 big engines in general that are used for that purpose.

17 MR. MELAS: They require engines that big to
18 keep that gas moving.

19 MR. LAWLER: Yeah, I guess so.

20 MR. MELAS: I had no idea. Thank you.

21 HEARING OFFICER STERNSTEIN: I had one other
22 question. This is a follow-up to Mr. Rao's question
23 earlier in that there was the figure of the reasonable
24 cost being \$1,458 per ton and that's 1990 dollars. You

1 said you could provide --

2 MR. MAHAJAN: We will provide you with the 1998
3 or 1999 whichever is available in the sense of we will
4 base this on the Producer Price Index.

5 HEARING OFFICER STERNSTEIN: Or the Consumer
6 Price Index or whichever index is appropriate.

7 MR. MAHAJAN: Whatever is available, the latest
8 available we will provide based on that.

9 HEARING OFFICER STERNSTEIN: And then I know
10 there were a lot of other cost figures provided in the
11 Agency's proposal with respect to --

12 MR. MAHAJAN: Those costs are just for the
13 background purpose.

14 HEARING OFFICER STERNSTEIN: I'm sorry, for
15 the --

16 MR. MAHAJAN: Just for the background.

17 HEARING OFFICER STERNSTEIN: If we're going to
18 extrapolate the \$1,458 per ton cost to 1998 or 1999
19 dollars, should we do the same thing for the other
20 costs? In other words, the estimated cost of SNCR
21 technology or the estimated cost of mid-kiln firing
22 technology, should those -- I would think those should
23 all be extrapolated ahead as well?

24 MR. MAHAJAN: Yes, yes. Those costs are based

1 on the 1992 dollar, the ACT.

2 HEARING OFFICER STERNSTEIN: Oh, they are?

3 MR. MAHAJAN: Yeah.

4 HEARING OFFICER STERNSTEIN: Could you just put
5 those in the same year as the reasonable cost provision?

6 MR. MAHAJAN: Okay. We can do that.

7 HEARING OFFICER STERNSTEIN: That would be
8 great. Are there any other questions from the Board or
9 the regulated community?

10 Does the Agency have anything further to add?

11 MR. MESSINA: No. We have nothing at this time.

12 HEARING OFFICER STERNSTEIN: Again, in closing
13 here, the second hearing in this matter will be on
14 Friday, November 3rd, 2000, at 10:00 a.m. at the Board's
15 Springfield office, 600 South Second Street on the 4th
16 floor. Prefiled testimony for this hearing must be
17 filed with the Board by Thursday, October 19th, 2000, at
18 4:30 p.m.

19 Again, the third hearing is scheduled
20 November 15th, 2000, in the Board's Chicago office at
21 the Thompson Center if necessary. The transcript for
22 this hearing should be available by Friday, October 6th.
23 If anyone would like a copy, you could speak to the
24 court reporter directly, you could contact the Board's

1 clerk's office in Chicago for a hard copy which is
2 75 cents a page or the more economical route is to
3 download the hearing from the Board's website which is
4 at www.ipcb.state.il.us. The transcript should be
5 posted on the Board's website within about a week. You
6 may just want to call me next week if you don't see it
7 on there.

8 Again, I would just like to remind the Agency
9 to address the issues that we presented here at this
10 hearing which I believe are primarily the cost figures
11 extrapolated to 1998 or 1999 dollars, just remind them
12 to have those ready for the November 3rd hearing.

13 Is there anyone else present today who wants
14 to testify? Seeing no such person, that concludes
15 today's hearing. Thank you very much for your time and
16 attention and this hearing is adjourned.

17 (End of proceeding.)

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1 STATE OF ILLINOIS)
) SS:
2 COUNTY OF DUPAGE)

3 I, Michele J. Losurdo, Certified Shorthand
4 Reporter of the State of Illinois, do hereby certify
5 that I reported in shorthand the proceedings had at the
6 taking of said hearing, and that the foregoing is a
7 true, complete, and accurate transcript of the
8 proceedings at said hearing as appears from my
9 stenographic notes so taken and transcribed under my
10 personal direction and signed this _____ day of
11 _____, 2000.

12
13
14

15 Notary Public, DuPage County, Illinois
16 CSR No. 084-004285
Expiration Date: May 31, 2001.

17
18

19 SUBSCRIBED AND SWORN TO
20 before me this _____ day
of _____, A.D., 2000.

21 _____
22 Notary Public

23
24

