

1 BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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5 IN THE MATTER OF:

6 AMENDMENTS TO LOCATION No. PCB R97-29

7 STANDARDS FOR LANDSCAPE WASTE (Rulemaking-Land)

8 COMPOST FACILITIES, 35 ILL. ADM.

9 CODE 830.203(c)

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13 Proceedings held on October 7, 1997, at

14 10:00 a.m., at the Illinois State Library, Room

15 403, 300 South Second Street, Springfield,

16 Illinois, before the Honorable Richard R. McGill,

17 Jr., Hearing Officer.

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A P P E A R A N C E S

Members of the Board present:
Richard R. McGill, Jr., Hearing Officer
Kathleen M. Hennessey, Board Member
Marili McFawn, Board Member
Ronald C. Flemal, Board Member
Marie Tipsord, Attorney, Assistant to Board
Member Tanner Girard
Anand Rao, Scientist from the Board's
Technical Unit

The proponents:
Ms. Susan Garrett
Renuka Desai, M.D.

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I N D E X

WITNESSES	PAGE NUMBER
KAREN A. STRAUSS, Dr.P.H.	
Direct testimony presented by the witness.....	9
Cross-Examination by Ms. Garrett.....	32
Cross-Examination by Mr. Holloman.....	57
Cross-Examination by Dr. Desai.....	61
Cross-Examination by Ms. Garrett.....	67
Cross-Examination by Ms. Garrett (cont.).....	80
Cross-Examination by Dr. Desai.....	83
Cross-Examination by Dr. Holloman.....	90
Cross-Examination by Dr. Desai.....	108
Cross-Examination by Dr. Holloman.....	126
DR. SHIRLEY HARUKO BAER	
Direct testimony presented by the witness.....	134
Cross-Examination by Ms. Garrett.....	138
Cross-Examination by Ms. Garrett (cont.).....	142
Cross-Examination by Dr. Desai.....	208
JOYCE MUNIE	
Cross-Examination by Ms. Garrett.....	138
EDWIN C. BAKOWSKI	
Cross Examination by Ms. Garrett.....	140
CLYDE WAKEFIELD	
Direct testimony presented by the witness.....	228
Cross-examination by Dr. Desai.....	237
Cross-Examination by Dr. Holloman.....	238
PAUL WALKER	
Direct testimony presented by the witness.....	240
ANDREW H. QUIGLEY	
Direct testimony presented by the witness.....	255
Cross-Examination by Ms. Garrett.....	263
Cross-Examination by Dr. Holloman.....	268

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
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23
24

E X H I B I T S

NUMBER	MARKED FOR I.D.	ENTERED
Hearing Exhibit 34	29	29
Hearing Exhibit 35	reserved by Hearing Officer	
Hearing Exhibit 36	137	137
Hearing Exhibit 37	162	162
Hearing Exhibit 38	161	161
Hearing Exhibit 39	163	163
Hearing Exhibit 40	164	164
Hearing Exhibit 41	172	172
Hearing Exhibit 42	236	236
Hearing Exhibit 43	246	246
Hearing Exhibit 44	reserved by Hearing Officer	
Hearing Exhibit 45	263	263

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4
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P R O C E E D I N G S

(October 7, 1997; 10:00 a.m.)

HEARING OFFICER MCGILL: Good morning.

My name is Richard McGill. I have been appointed by the Illinois Pollution Control Board to serve as Hearing Officer in this regulatory proceeding entitled: In the Matter of Amendments to Location Standards for Landscape Waste Compost Facilities, 35 Illinois Administrative Code 830.203(c). The Docket Number for this matter is R97-29.

Today is the second hearing. The first hearing was held in Chicago on September 8, 1997. Also present today on behalf of the Board is Kathleen Hennessey, the Board Member assigned to this rulemaking.

BOARD MEMBER HENNESSEY: Good morning.

HEARING OFFICER MCGILL: Board Member Marili McFawn, Board Member Ron Flemal, Marie Tipsord, who is the Attorney Assistant to Board Member Tanner Girard, and from the Board's Technical Unit, Anand Rao.

On May 6, 1997, the proposed rulemaking was filed by its proponents, Dr. Renuka Desai and Susan Garrett. Generally, the proponents have

1 requested that the Board amend Section 830.203(c)
2 to prohibit composting areas from being located
3 within one half mile of the property line of a
4 hospital, school, athletic field, or public park
5 and to require that existing composting operations
6 located within that setback distance be relocated.

7 Again, there are service lists and notice
8 lists sign-up sheets for this proceeding at the
9 back of the room. Those on the notice list will
10 receive Board opinions and orders and Hearing
11 Officer orders. Those on the service list will
12 receive these documents plus certain other
13 filings. Also at the back of the room are copies
14 of current notice lists and service lists. These
15 lists are updated periodically.

16 As I mentioned before we went on the
17 record, besides the schedule of witnesses today for
18 the Illinois Environmental Protection Agency and
19 the City of Lake Forest, if you wish to testify
20 today, you must sign in on the sign-up sheet at the
21 back of the room. Time permitting, after the two
22 scheduled witnesses, we will proceed with the
23 testimony of persons who sign up in the order their
24 names appear on the sign-up sheet.

1 As we may only have this room until 4:30
2 today, if you do sign up and you get an opportunity
3 to testify today, please keep your testimony brief
4 and avoid providing repetitious testimony. In
5 addition, if you have prepared lengthy written
6 testimony, please be prepared to summarize that.
7 After I have reviewed the sign-up sheet, I will
8 determine whether we need to place specific time
9 limits on the testimony of those who have signed
10 up.

11 Just a few additional comments about the
12 procedure we will follow today. This hearing will
13 be governed by the Board's procedural rules for
14 regulatory proceedings. All information which is
15 relevant and not repetitious or privileged will be
16 admitted. All witnesses will be sworn and subject
17 to cross-questioning.

18 As to the order of today's proceeding, we
19 will begin with the witness for the City of lake
20 Forest followed by questions for the City's
21 witness. Then we will proceed with the witness for
22 the Illinois Environmental Protection Agency
23 followed by questions for the Agency's witness.
24 Then time permitting we will proceed with the

1 testimony of those on the sign-up sheet.

2 Anyone may ask a question of any
3 witness. I ask, however, that during the question
4 periods if you have a question please raise your
5 hand and wait for me to acknowledge you. When I
6 acknowledge you, please state in a loud and clear
7 voice your name and any organization you
8 represent.

9 Please note that any questions asked by a
10 Board Member or staff are intended to help build a
11 complete record and not intended to express any
12 preconceived notion or bias.

13 Finally, I would like to remind everyone
14 that this rulemaking involves a proposed change to
15 its statewide regulation. Accordingly, this is not
16 the proper forum to argue about the permit status
17 of any particular individual facility.

18 Are there any questions? We will now
19 proceed with the City of Lake Forest's witness.

20 Ms. Whiteman, would you like to present
21 your witness?

22 MS. WHITEMAN: Yes. For the City of Lake
23 Forest, I would like to present Dr. Karen Strauss.

24 HEARING OFFICER MCGILL: Would you please

1 swear in the witness.

2 (Whereupon the witness was
3 sworn by the Notary Public.)

4 K A R E N A. S T R A U S S, Dr.P.H.,
5 having been first duly sworn by the Notary Public,
6 saith as follows:

7 THE WITNESS: Good morning. My name is
8 Karen Strauss. I hold a Bachelor's Degree in
9 Economics, a Master's in Environmental Engineering,
10 and a Doctorate in Public Health. Both of my
11 postgraduate degrees are from the Johns Hopkins
12 School of Public Health in Baltimore.

13 I have been involved professionally for
14 over 20 years in public decision making about the
15 siting and operations of potentially hazardous
16 facilities. I live about a quarter of a mile from
17 an operating yard waste composting facility. I
18 have three young children who play sports all year
19 on fields across the street from this composting
20 facility. In addition to my three children, I live
21 with my husband whose chosen profession is to care
22 for children with cancer. I myself have been
23 severely immunocompromised since January of this
24 year.

1 Both professionally and personally my
2 family tends to lead relatively vigilant lives with
3 respect to identifying potential threats to our
4 family's health. As a professional in the field of
5 public health, I give utmost attention to the
6 environmental, economic, and public health effects
7 of siting or operating any potentially hazardous
8 facility. I give equal importance to exploring
9 both the economic and the exposure implications of
10 alternatives to the facility under scrutiny.

11 My role in this hearing was to
12 investigate and analyze the medical and scientific
13 literature pertaining to the public health effects
14 of landscape waste composting. My research
15 included studies performed both in the United
16 States and Europe. My conclusions are based
17 entirely on peer-reviewed, well-documented
18 studies. These studies include field measurements,
19 operating experience, medical and engineering
20 understanding of pathways of exposure, occupational
21 records, and epidemiological studies, both
22 prospective and retrospective.

23 My personal belief is that regulations
24 which are formulated to protect public health need

1 to be based on the firm foundation of legitimate,
2 relevant studies of applicable fields of knowledge.
3 Otherwise, there is an incremental disparity
4 between the cost and the benefits of those
5 regulations. My testimony, the full text of which
6 I submit for the record, summarizes the available
7 scientific data on public health and environmental
8 hazards associated with the composting of landscape
9 waste.

10 The conclusion of my literature review is
11 that landscape waste poses virtually no infectious
12 hazard to the general public. There may be
13 aesthetic or economic problems that require
14 management and regulatory attention. These are not
15 to be confused with health risks. Odors or
16 unsightly facilities may be aesthetically
17 unpleasant to neighbors. These are objections that
18 merit the cooperation of management and the
19 protection of regulations that set minimum
20 standards.

21 Promulgation of regulations that are
22 created to protect communities need to be based on
23 actual risk calculations that are relevant to the
24 community potentially exposed. The issues of

1 siting any kind of facility are always complex and
2 need to address numerous factors such as resource
3 allocation, environmental justice, environmental
4 effects, economics, and the health and safety of
5 communities involved.

6 Rules developed by states to protect
7 public health and the environment require
8 legitimate scientific basis. Promulgation of rules
9 that are unscientific or costly can lead to
10 extraordinary waste of limited community dollars
11 while not adding to the protection of the public
12 health or the environment.

13 I would now like to read some excerpts
14 from my prefiled testimony to share the basis of my
15 conclusions.

16 In 1994 I compiled a complete report for
17 the Village of Winnetka on the health hazards of
18 yard waste composting. I have recently reviewed
19 relevant literature to update that 1994 report.
20 The complete text of that report is in my prefiled
21 testimony.

22 Through this more recent review, I have
23 found no reports of health effects in the
24 populations around the more than 3,000 yard waste

1 composting sites in the United States nor around
2 the thousands of operating sites on the European
3 continent. This absence of new findings
4 substantiates prior conclusions and those of the
5 consensus of recognized experts in the field.

6 Ault and Schott summarized this consensus
7 in their extensive review article, and I quote:
8 "Many public health specialists, scientists, and
9 engineers in North America and Europe believe that
10 properly operated composting and co-composting
11 operations present little health risk to normal
12 compost facility employees and negligible, if any,
13 risks for nearby residences."

14 In other words, the international expert
15 consensus is that yard waste composting is not a
16 threat to healthy individuals and poses only a
17 minimal risk, if any, to a small, clearly
18 identified group of susceptible individuals. This
19 body of literature has been accumulated over the
20 past two decades and has withstood the test of more
21 sophisticated science as well as the experiences of
22 real people in real communities.

23 The proposal under current consideration
24 ignores or dismisses the majority of conclusions

1 from scientific peer review and literature. As we
2 all know, aspergillus fumigatus is an ubiquitous
3 organism and has participated in natural decay
4 processes. Airborne and settled spores are found
5 across all reaches of the globe from the equator to
6 Antarctica, especially in areas like forest
7 preserves, parks, wooded or vegetative lots, soil,
8 decaying leaves or plants, mulch, freshly cut
9 grass, and air.

10 Environmental and lifestyle choices and
11 nonoccupational activities account for most urban
12 and suburban residential exposures to aspergillus.
13 For example, digging in one's yard, earth moving or
14 activities that disturb the soil, construction
15 dust, lawn mowing, particularly with a mulching
16 lawn mower, gardening and landscaping, raking
17 leaves, household plants, walking through an
18 arboretum or along a nature trail, animal feces,
19 bird nests, household pets, contaminated air
20 conditioners or ventilation systems, household
21 dust, bathroom mold, basements or crawl spaces,
22 particularly those with dirt floors, gas stoves,
23 and heating systems all contribute to our exposure
24 to aspergillus.

1 We know that composting operations
2 generate size-related amounts of aspergillus as
3 part of the natural decay process of the landscape
4 waste. We also know that these spores can be
5 transported via air currents. Measurements in
6 multiple locations in the United States and Europe
7 show that residential exposure to these spores is
8 generally negligible because the persistence, that
9 is, the time and distance of dispersion, is short.

10 Specifically, studies of existing
11 commercial compost facilities in the United States
12 have found that concentrations of aspergillus tend
13 to fall off sharply within 500 feet of the
14 operational site.

15 A quotation from Ault and Schott in 1993,
16 "if the nearest human receptor is beyond the point
17 at which concentrations fall to background levels,
18 there is no elevated exposure occurring."

19 Millner confirms, and I quote, "when the
20 exposure is within or below the average range of
21 background concentrations found in the natural
22 environment, compost bioaerosols do not constitute
23 additional exposure," end quote.

24 Individuals live and work in much closer

1 proximity to more significant sources of
2 aspergillus than a yard waste compost facility. In
3 a community like Lake Forest, for example, which
4 prizes manicured lawns, mulched shrubs and trees,
5 natural vegetative spaces, and family pets,
6 residents may well be exposed to levels of
7 aspergillus that exceed levels from the compost
8 facility.

9 The University of Illinois bioaerosol
10 emission study confirmed this conclusion when it
11 found that, quote, "the concentrations of total
12 viable fungi and total fungal spores in the Lake
13 Forest community adjacent to the facility were
14 similar to outdoor fungal concentrations measured
15 in other communities with no known point source of
16 bioaerosol emissions. Moreover, these background
17 concentrations and additional sources of bioaerosol
18 emissions could account for the otherwise unusual
19 finding in the study that upwind bioaerosol
20 concentrations were comparable to downwind
21 concentrations.

22 John Haines best summarizes the potential
23 for residential exposure from yard waste composting
24 sites: Quote, "simply filling a bird feeder,

1 raking the lawn, digging in the garden, or sweeping
2 the basement may give a greater exposure to
3 aspergillus fumigatus than a day near a compost
4 facility," end quote.

5 Proponents of the setback proposal have
6 failed to present a thorough scientific,
7 peer-reviewed literature demonstrating health risk
8 from exposure to yard waste composting operations.
9 They have presented no formal epidemiological
10 evidence linking composting sites to human disease.
11 They have also ignored information about background
12 sources of aspergillus.

13 The proponents have intimated that this
14 gap in information exists because aspergillosis and
15 other aspergillus-related diseases have only
16 recently been discovered, and for that reason, no
17 studies have been performed. Simply put, the
18 proponents have chosen to disregard health studies
19 from the United States and Europe that have
20 concluded that there is insignificant health risks
21 from yard waste composting.

22 More significantly, in light of the
23 documented universal exposure to aspergillus and
24 enormous efforts by medical professionals to detect

1 the causes of human disease, the absence of
2 significant medical literature leads to the
3 inescapable conclusion that yard waste composting
4 poses neither a health risk to the general public
5 nor a significant health risk to susceptible
6 individuals.

7 BOARD MEMBER HENNESSEY: May I interrupt
8 you for just a minute?

9 THE WITNESS: Sure.

10 (Whereupon a short recess was
11 taken to make a brief
12 announcement.)

13 BOARD MEMBER HENNESSEY: Okay. I am
14 sorry.

15 HEARING OFFICER MCGILL: Please proceed.

16 THE WITNESS: Medical science and
17 researchers are focusing their attention instead on
18 those environmental hazards that do need to be more
19 carefully monitored and/or regulated, such as the
20 health impact on asthmatic children, fine
21 particulate matter from car exhaust or the burning
22 of fossil fuels.

23 A survey of the medical literature
24 reveals only four cases in the United States and

1 Europe of bioaerosol-related disease that experts
2 have associated with any form of composting,
3 including composting of yard waste. The most
4 relevant of these cases for this rulemaking
5 involved an asthmatic young man who was being
6 treated with immunotherapeutic agents and developed
7 aspergillosis.

8 That individual lived 250 feet from a
9 leaf composting facility and across the street from
10 a heavily forested area. Although the literature
11 links this case of aspergillosis to compost
12 exposure, the authors failed to investigate other
13 potential background sources of aspergillus.

14 The other three cases of
15 aspergillus-related disease involve occupational
16 exposure with only one individual working directly
17 in the compost industry. The four individual cases
18 reported in these articles bear attention but do
19 not represent the general population.

20 To put these cases in perspective,
21 consider that more than 3,000 yard waste composting
22 facilities currently are operating in the United
23 States alone. Hundreds of other compost facilities
24 also process sewage sludge, kitchen waste, and

1 other organic material. Farmers typically compost
2 their organic waste on the farm, and mushroom
3 farmers compost materials specifically to grow
4 their crops.

5 Despite all of these occupational and
6 potential residential sources of exposure to
7 aspergillus from composting, only four cases of the
8 disease have been discussed in the past 30 years of
9 medical literature review. Given the volume of
10 material that is composted in the United States and
11 Europe, the literature would be replete with
12 references to compost-related illness if composting
13 posed a general health threat asserted by the
14 proponents of this rulemaking. Just the opposite
15 is true.

16 In 1994 a panel of composting experts
17 from many disciplines and backgrounds, such as
18 government, academia, industry, and environmental
19 groups, concluded, quote, "composting facilities do
20 not pose any unique endangerment to the health and
21 welfare of the general public," end quote. That
22 panel further elaborated, quote, "there is little
23 reason for concern about the risk of potential
24 infections from exposure to aspergillus fumigatus

1 among healthy individuals in either the general
2 population that is defined as nonoccupational
3 exposure, or the work force exposure to composting
4 bioaerosols," end quote.

5 Similarly, in a technical bulletin from
6 the California Integrated Waste Management Board,
7 Ault and Schott concluded, quote, "the risk of
8 disease or illness caused by aspergillus fumigatus
9 is negligible or very low for healthy people. The
10 majority of exposure to the fungus will not result
11 in illness," end quote.

12 Dr. Slavin also reached similar
13 conclusions as far back as 1977 when he studied
14 organic farmers in close contact with compost
15 piles. Slavin and Winzenburger in that study
16 concluded, quote, "seldom can one attribute cases
17 of allergic aspergillosis with single extremely
18 heavy exposure to aspergillus such as might arise
19 from a compost pile."

20 As an additional point, the written views
21 of Dr. Slavin illustrate a primary weakness of the
22 proponents rulemaking submittals. The proposal
23 contains letters of encouragement from a number of
24 medical personnel, such as Dr. Slavin. In their

1 submittals the proponents freely excerpt limited
2 passages from these letters but do not provide the
3 Board with sufficient background information to
4 allow the Board to weigh these testimonials or
5 evaluate the context of these excerpts.

6 The proposal did not describe the
7 relevant theories and expertise for these
8 individuals who submitted the letters. Nor did it
9 set forth any peer-reviewed study or citations to
10 relevant scientific literature in which these
11 individuals might have based their views.

12 From the information submitted by the
13 proponents, for instance, the Board would have been
14 unaware both that Dr. Slavin conducted a specific
15 study on the health effects from composting and
16 that he concluded that the health risks are
17 insignificant for healthy individuals.

18 This Board must rely on the consensus of
19 scientific views based upon peer-reviewed studies,
20 rather than on unsupported letters, when enacting
21 measures to protect the public health and the
22 environment. It is widely recognized that there is
23 a small group of particularly susceptible
24 individuals who may be at a greater risk for

1 developing health complications from exposure to
2 bioaerosols.

3 It is also widely recognized among
4 experts that exposures from commercial and from
5 municipal composting has not increased the
6 incidence of disease even in the small but highly
7 vulnerable population. The aspergillus-related
8 diseases that these individuals develop frequently
9 arise after they are admitted to a hospital for
10 treatment from their underlying condition or
11 another condition.

12 The United States Centers for Disease
13 Control has found, quote, "aspergilli are
14 relatively uncommon causes of human disease, and
15 the severe invasive forms usually occur in
16 immunosuppressed hosts. More than 90 percent of
17 patients with invasive disease have had either
18 prolonged neutropenia, or are receiving cytotoxic
19 chemotherapy, or have received corticosteroids,"
20 end quote.

21 For asthmatic individuals, the link
22 between a particular aspergillus-related disease,
23 namely, allergic bronchopulmonary aspergillosis, or
24 ABPA, and their underlying asthmatic condition has

1 been documented since 1952. This is hardly a new
2 or mysterious area of investigation. In fact, this
3 link is so well established that ABPA is considered
4 to be a complication of bronchial asthma.

5 Yet, even for these most susceptible of
6 the susceptible groups, there is no apparent link
7 between exposure to aspergillus from composting
8 operations and increased health risks. As
9 discussed above, the literature contains only one
10 reference to an asthmatic individual that developed
11 ABPA allegedly from a composting operation, and the
12 methodology of that study has been called into
13 question.

14 In its study of the Islip composting
15 facility, the New York State Department of Health
16 searched for a connection between composting
17 operations and increased incidences of allergy and
18 asthma around the facility. After reviewing
19 medical reports of over 100 individuals with a
20 previous history of allergic or asthmatic
21 reactions, the study concluded, quote, "aspergillus
22 and other mold spores were not observed to be
23 associated with increased allergy and asthma
24 symptoms reported. However, the occurrence of

1 these symptoms was associated with Ragweed pollen,
2 ozone, temperature, and the time since start of the
3 study period. Allergy and asthma symptoms could
4 also have been influenced by exposures that were
5 not measured or accounted for in the study," end
6 quote.

7 When an investigator looks at a
8 peer-reviewed literature, a consensus view emerges
9 that there is no substantial public health hazard
10 from spores aspergillus fumigatus released from
11 commercial or municipal composting operations, both
12 because the actual residential exposure to such
13 spores is small, particularly when compared to
14 background levels, and because the majority of the
15 United States population is not vulnerable to
16 infection from airborne spores, hence, the absence
17 of reported cases.

18 Modification of the setback provisions,
19 as suggested by the proposal, would, at best,
20 establish a dangerous precedent. Our regulatory
21 system requires at a minimum that the peer-reviewed
22 consensus of relevant experts form the foundation
23 of sound defensible public health policy. The
24 Board is being asked to ignore the many actual

1 studies that have been performed by experts over
2 the past several decades.

3 None of the letters presented by the
4 proponents included the studies performed or
5 reviewed by those individuals to support those
6 opinions expressed. You are being asked to
7 formulate policy based upon the names on a
8 letterhead and to ignore the peer-reviewed body of
9 related scientific and medical knowledge and
10 experience. This is not a sound basis for
11 determining public policy.

12 Furthermore, modification of the setback
13 provision would indicate that the Board has given
14 no weight to the significant economic or
15 environmental impacts that could be expected from
16 this proposal. No one, to my knowledge, has even
17 estimated, much less calculated, the environmental
18 or economic cost of alternatives to existing
19 commercial yard waste composting facilities.

20 Ultimately, in reviewing this proposal,
21 the Board must seek to promote responsible yard
22 waste management by all residents of this state.
23 The proponents' approach seeks to shift the burden
24 of managing property owners' lawn and garden waste

1 from their own communities to other communities.
2 Petitions before this Board that ignore the
3 consensus of international experts must be
4 challenged.

5 Where are the calculations of alternative
6 choices for yard waste disposal that enumerate
7 economic, safety, public health, environmental, and
8 resource considerations? It is my opinion that the
9 petition before the Board today fails to provide
10 the basic and necessary foundations for
11 establishing sound public health policy for this
12 state. Thank you.

13 MS. WHITEMAN: I would like to move that
14 Dr. Strauss' prefiled testimony be admitted into
15 the record for this hearing.

16 HEARING OFFICER MCGILL: Could you hand
17 me a copy of that, please? Thank you.

18 I have been handed the prefiled testimony
19 of Dr. Karen Strauss which includes as attachments
20 the report entitled, "Investigation of Potential
21 Public Health Effects from Yard Waste Composting
22 Operations in Winnetka, Illinois."

23 An article entitled, "Aspergillus in
24 Compost: Straw man or Fatal Flaw."

1 A report entitled, "A Twelve-year
2 Longitudinal Study of Aspergillus Sensitivity in
3 Patients with Cystic Fibrosis."

4 A report entitled, "Allergic
5 Bronchopulmonary Aspergillosis in Patients with
6 Cystic Fibrosis."

7 A report entitled, "Allergic
8 Bronchopulmonary Aspergillosis from a Contaminated
9 Dump Site."

10 A report entitled, "EPI-AIP Trip Report,
11 Aspergillosis in a Hospital in Northern New
12 Hampshire."

13 A report entitled, "Participation of Cell
14 Mediated Immunity in Allergic Bronchopulmonary
15 Aspergillosis."

16 Another report entitled, "X-rays may not
17 Reflect the Extent of Disease when Allergic
18 Aspergillosis Complicates Asthma."

19 Last, a report entitled, "Epidemiologic
20 Aspects of Allergic Aspergillosis."

21 Is there any objection to entering, as a
22 hearing exhibit, the prefiled testimony of Karen
23 Strauss which includes the described attachments?

24 Seeing none, I am marking as Exhibit

1 Number 34 and entering, as a hearing exhibit, the
2 prefiled testimony of Karen Strauss which includes
3 the described attachments.

4 (Whereupon said documents were
5 duly marked for purposes of
6 identification and admitted
7 into the record as Hearing
8 Exhibit 34 as of this date.)

9 HEARING OFFICER MCGILL: Let's go off the
10 record for a moment.

11 (Discussion off the record.)

12 HEARING OFFICER MCGILL: Back on the
13 record.

14 Would it be possible to provide the Board
15 with a copy of Dr. Strauss' C.V.?

16 THE WITNESS: I didn't bring one with
17 me. I am sorry.

18 HEARING OFFICER MCGILL: You don't have
19 to provide a copy at this moment.

20 THE WITNESS: I will be glad to recite
21 any interesting piece of it for you.

22 HEARING OFFICER MCGILL: What I will do
23 is reserve Hearing Exhibit Number 35 for that C.V.

24 (Whereupon said document will

1 be marked for purposes of
2 identification as Hearing
3 Exhibit 35 at a later date.)

4 HEARING OFFICER MCGILL: Before we
5 proceed with questions for Dr. Strauss, Ms.
6 Whiteman, does that conclude the City of Lake
7 Forest's presentation for today?

8 MS. WHITEMAN: Yes, it does.

9 HEARING OFFICER MCGILL: All right. We
10 will now proceed with questions for Dr. Strauss.

11 As I mentioned earlier, if you have a
12 question, please raise your hand and wait for me to
13 acknowledge you, and then if you would state your
14 name and any organization that you represent.

15 All right. Does the Agency have any
16 questions?

17 MS. DYER: The Agency has no questions at
18 this time.

19 HEARING OFFICER MCGILL: Thank you. Do
20 the proponents have any questions?

21 MS. GARRETT: Yes.

22 HEARING OFFICER MCGILL: Would you please
23 state your name.

24 MS. GARRETT: My name is Susan Garrett,

1 and I am a citizen of Lake Forest, Illinois.

2 Before I ask Karen Strauss questions, I
3 would like to say that most of the documentation
4 attached to the testimony we are hearing today,
5 almost every single scientist, while they may not
6 be in agreement regarding the health risk,
7 recommend buffer zones for hospitals and public
8 facilities.

9 And, secondly, what seems to be a
10 question is the issue of negligible risk. It
11 certainly appears that the rationale for
12 recommending buffer zones is based on the fact that
13 since negligible risk cannot be scientifically
14 determined --

15 HEARING OFFICER MCGILL: Can I just
16 interrupt for a moment? This is really an
17 opportunity to ask questions --

18 MS. GARRETT: Okay.

19 HEARING OFFICER MCGILL: -- of this
20 witness.

21 MS. GARRETT: Okay. All right.

22 HEARING OFFICER MCGILL: If time permits
23 later and you are interested in testifying, we will
24 swear you in, and you can provide testimony.

1 MS. GARRETT: Okay.

2 CROSS EXAMINATION

3 BY MS. GARRETT:

4 Q Ms. Strauss, as you know, we are not
5 looking to shutdown composting operations in the
6 State of Illinois. Instead, we are looking for
7 more responsible siting requirements.

8 In your testimony you state, on page 2,
9 that you, and I quote, "believe that the proposal
10 to modify setback requirements target an
11 insignificant public health risk even for the most
12 vulnerable individuals."

13 In your 1994 report, "Investigation of
14 Potential Public Health Effects from Yard Waste
15 Composting Operations in Winnetka, Illinois," you
16 address public health effects.

17 Would you read from your report the
18 second paragraph on page 3 attached to your
19 testimony?

20 A I am sorry. I missed which --

21 Q It is your Winnetka Health Report, the
22 second paragraph on page 3.

23 A The one that begins, "allergic
24 reactions," or the one that begins, "aspergillosis

1 is a rare disease?"

2 Q At the very bottom, the last sentence in
3 that particular paragraph, starting with
4 "although."

5 A Okay. Aspergillosis is a rare disease.

6 Q No. The last --

7 A You asked me to read the paragraph. So I
8 have got to put it in context.

9 Q Okay. Okay. That's fine.

10 A "Aspergillosis is a rare disease of
11 severely immunosuppressed hospital patients such as
12 kidney or heart transplant patients or persons with
13 diseases or on medications which severely impair
14 their immune system. Although pulmonary
15 aspergillosis is not a health threat to the public,
16 siting criteria should include guidelines for the
17 proximity of composting facilities to health care
18 facilities." Is that what you are --

19 Q Okay. Do you agree with your analysis
20 from 1994 regarding the siting of compost
21 operations to health care facilities?

22 A Yes, for health care facilities that
23 house individuals who have severely
24 immunocompromised conditions.

1 Q So would you go along with siting
2 requirements for hospitals as an example of a
3 health care facility?

4 A Yes.

5 Q Okay. My second question --

6 A In fact, I would support that.

7 Q That's one of the things that we are --

8 A Hospitals, right. But hospitals do not
9 represent the general population. So there needs
10 to be a distinction between those compromised
11 individuals as nonrepresentative of the general
12 population.

13 Q In your prefiled testimony you state your
14 philosophy. Your personal philosophy talks to
15 sound, peer-reviewed science, reflecting the
16 consensus of relevant expert opinions. In that
17 vein, I direct you to a report compiled by Millner,
18 Epstein, Haines, Walker, and others. The name of
19 this is "Bioaerosols Associated With Composting
20 Facilities."

21 Page 44 to 45 identifies those at risk
22 and not at risk. Those at risk are: Chemotherapy
23 recipients, organ transplant recipients, AIDS
24 patients, individuals with congenital defects,

1 children with cystic fibrosis, asthmatic patients,
2 allergic individuals, and compost workers. Not at
3 risk: Healthy individuals.

4 Do you agree with this group's consensus?

5 A I would need to see the details of that
6 text.

7 Q It is attached to your testimony.

8 A Right, but there is a lot of pages.

9 Could you refer me to a specific --

10 Q Yes, I can. It is page 44 and 45 of
11 "Bioaerosols Associated With Compost Facilities."

12 A Okay. On page 44 and 45?

13 Q Uh-huh. It is the bottom of page 44. It
14 goes on to page 45.

15 A Okay. My pages are different. I have
16 the bottom of page 44 talking about a properly
17 operated compost system. I am sorry. This is the
18 Millner, Olenchok, Epstein, Rylander, Haines, and
19 Walker study?

20 Q It is "Bioaerosols Associated --

21 A "Bioaerosols Associated With Composting
22 Facilities," right. My page 44 describes, "a
23 properly operating composting system accelerates
24 the natural decomposition," et cetera. The first

1 paragraph on page 45 begins "composting is a time
2 honored practice that recently has been
3 recognized."

4 HEARING OFFICER MCGILL: Let's go off the
5 record for a moment.

6 (Discussion off the record.)

7 HEARING OFFICER MCGILL: Let's go back on
8 the record.

9 There is a question that the proponents
10 have posed, and it is relating to a passage from a
11 report. That report is part of the Agency's
12 prefiled testimony of Shirley Baer. I believe it
13 is referred to as Exhibit G in the Agency's
14 prefiled testimony.

15 Why don't you go ahead.

16 THE WITNESS: Okay. I would like to read
17 the statement to which I have been asked whether I
18 agree or not.

19 "There is little reason for concern
20 about the risk of potential infections from
21 exposure to *A. fumigatus* among healthy individuals
22 in either the general population, parenthesis,
23 defined as nonoccupation exposure, end parenthesis,
24 or work force exposed to composting bioaerosols.

1 There are subpopulations within the general
2 population and work force that may be at increased
3 risk from exposure to composting bioaerosols.

4 Of particular concern, immunocompromised
5 and/or immunosuppressed individuals, parenthesis,
6 e.g., chemotherapy recipients, organ transplant
7 recipients, AIDS patients, individuals with
8 congenital defects, and children with cystic
9 fibrosis may be at increased risk of infection,
10 close parenthesis, may have greater susceptibility
11 in colonization with infection of aspergillus
12 fumigatus.

13 Atopic or asthmatic individuals may be at
14 increased risk for developing allergic reactions to
15 various components of composting bioaerosols. A
16 variety of common components of aerosols,
17 parenthesis, pollen, fungal spores, house dust,
18 close parenthesis, are associated with allergic
19 reaction, organ-induced asthmatic reactions." Is
20 that --

21 Q (By Ms. Garrett) Yes. And so my question
22 is, do you agree with that consensus?

23 A Yes. They state very clearly, both in
24 this page and in the copy I have on page 10, which

1 is a complete copy of that same report, and if you
2 would like it, I can certainly --

3 BOARD MEMBER HENNESSEY: We have it.

4 THE WITNESS: You have the complete
5 copy?

6 BOARD MEMBER HENNESSEY: Yes.

7 THE WITNESS: At page 10 they basically
8 rephrase that same information. Several
9 conclusions reached by the working group include:
10 Number one, the general population is not at risk
11 to systemic, that is --

12 MS. GARRETT: That was not what -- she is
13 going off track. That was not --

14 THE WITNESS: Well, it talks about the
15 conclusions of the study that --

16 HEARING OFFICER MCGILL: Excuse me. Let
17 her finish her response to your question.

18 THE WITNESS: The study authors basically
19 give three conclusions. Do I need to identify this
20 document?

21 HEARING OFFICER MCGILL: You are
22 referring to the Millner bioaerosol report?

23 THE WITNESS: Exactly.

24 HEARING OFFICER MCGILL: That is in our

1 record.

2 THE WITNESS: The three conclusions are:
3 "Number one, the general population is not at risk
4 to systemic, that is, whole body and generalized or
5 tissue infections from compost associated
6 bioaerosol emissions.

7 Number two, immunocompromised individuals
8 are at increased risk to infections by various
9 opportunistic pathogens, such as aspergillus
10 fumigatus which occurs not only in compost but also
11 in other organic materials present in the natural
12 environment.

13 Number three, asthmatic and allergic
14 individuals are at increased risk to responses from
15 bioaerosols from a variety of environmental and
16 organic dust sources including compost."

17 Q (By Ms. Garrett) Okay. Then --

18 A Actually, there is -- I am sorry. I have
19 misspoke. There is actually seven conclusions of
20 this study, not three. There is seven. But I
21 don't need to -- it is two pages worth.

22 HEARING OFFICER MCGILL: Your specific
23 response, then, to their question?

24 THE WITNESS: Do I agree with the

1 conclusions of this study? Yes.

2 Q (By Ms. Garrett) Okay. Then, further, as
3 a public health -- a public policy consultant,
4 wouldn't you also want to provide protection for
5 those individuals who may not be healthy by
6 providing buffer zones between compost operations
7 and public facilities, just as you have already
8 recommended for health care facilities?

9 A As a Doctor of Public Health and an
10 Environmental Engineer, I maintain throughout my
11 work that it is important to keep public health and
12 environmental protection number one on our priority
13 list in terms of the purpose of regulations. Given
14 that, I look to the consensus of the literature
15 which determines that at about 500 feet from a
16 facility the level of aspergillus fumigatus spore
17 exposure drops to background levels.

18 So if you are looking for a number from
19 me, what the literature sites is at about 500 feet
20 from the boundary of the composting facility, the
21 level of aspergillus fumigatus drops off to
22 background. So that would -- if that's what you
23 are --

24 Q I guess my question -- let me restate it.

1 I am not looking for a number. We are not looking
2 for numbers.

3 What we are saying is that if you agree
4 with the consensus of that particular study, would
5 you also agree that those people who may be
6 considered unhealthy, shouldn't they -- as a public
7 health policy expert, shouldn't those same people
8 be provided some sort of protection, just as you
9 have recommended for those people deserving
10 protection from compost facilities who are in
11 health care facilities?

12 A There is a very clearly identified subset
13 of individuals who are extremely susceptible to
14 exposure to many environmental pollutions or
15 environmental hazards. I believe that, to the
16 extent that we can, we need to protect those
17 individuals from general environmental exposures.

18 Q Thank you.

19 A However, I will reiterate that those
20 individuals in the highly susceptible category do
21 not represent the majority of the people. And so
22 we need to differentiate between special needs
23 subpopulations and the needs of protecting the
24 public health and safety of the general healthy

1 population.

2 Q Okay. My next question is from your
3 exhibit, from Exhibit 2 of your testimony, quote,
4 "Aspergillus in Compost: Straw Man or Fatal Flaw,"
5 may I also ask you to read page 7, the fourth
6 sentence of that beginning with, "those can,
7 however," -- excuse me -- "there can, however." I
8 have a copy if you need it.

9 A Okay. I am sorry. I lost track of your
10 paragraph number. Which one do you want me to
11 read?

12 Q Page 7.

13 A Okay.

14 Q The fourth sentence.

15 A Can you tell me what it starts with?

16 Q Yes, "there can, however."

17 HEARING OFFICER MCGILL: Which paragraph
18 on page 7?

19 MS. GARRETT: Pardon me?

20 HEARING OFFICER MCGILL: Which paragraph
21 on page 7 are you referring to?

22 MS. GARRETT: I have page 7, the fourth
23 sentence.

24 HEARING OFFICER MCGILL: Could you tell

1 us --

2 BOARD MEMBER HENNESSEY: It appears to be
3 in the conclusion, the paragraph labeled
4 conclusion, which is the third full paragraph,
5 "there can, however, be potentially hazardous
6 concentrations" --

7 MS. GARRETT: It is under conclusion.

8 HEARING OFFICER MCGILL: Okay.

9 MS. GARRETT: Do you want me to show
10 you?

11 THE WITNESS: I am sorry.

12 HEARING OFFICER MCGILL: Under the
13 heading conclusion.

14 THE WITNESS: All right. I will read
15 this sentence, but in order to put it in context
16 for everyone listening, I would like to read the
17 previous two sentences just prior to it as well.

18 Q (By Ms. Garrett) Okay. Fine. That's
19 good.

20 A Because reading in context is really
21 important here. This is on -- I am reading from
22 the conclusion of this study number two in my
23 testimony. "Is aspergillus fumigatus in composting
24 a hazard? Not for most people most of the time or

1 in most places. There is no evidence that most
2 people are effected by the relatively small amounts
3 of AF, that is, aspergillus fumigatus, found in air
4 at a reasonable distance from even the largest
5 composting facilities.

6 Most of the air most of the time around
7 composts is just like air elsewhere when it comes
8 to AF content. There can, however, be potentially
9 hazardous concentrations of AF in the air near
10 where composting is being turned or mixed. Those
11 who work directly with large amounts of compost on
12 a daily basis can be exposed to large amounts of
13 AF.

14 Some people can take this exposure
15 without exhibiting symptoms and some cannot.
16 Common sense and government recommendations in some
17 states should curtail the siting of composting
18 facilities near health care facilities that house
19 aspergillosis susceptible individuals."

20 I believe that that paragraph reiterates
21 some of the language in the "Bioaerosols Associated
22 With Composting Facilities" study, talking about
23 the need to protect those highly susceptible
24 identifiable subset of individuals in health care

1 facilities.

2 Q It also reinforces our proposal to
3 include hospitals in the buffer zone from compost
4 facilities.

5 You state in your prefiled testimony,
6 page 3, and I quote, "based on my 1994 review, I
7 concluded that there is abundant scientific
8 evidence from testing dozens of yard waste
9 composting sites similar to Winnetka's that there
10 is no substantial public health hazard from spores
11 AF, released outside site boundaries from
12 composting operations.

13 Can you, Ms. Strauss, tell us
14 specifically what kind of data your 1994 review was
15 based on?

16 A Sure. I will be glad to. There was
17 specific studies. In Illinois itself, 11
18 composting facilities have been studied in the
19 State of Illinois. So that was one of the key
20 reports that I based my -- that was done by the
21 Illinois Environmental -- let me keep my -- here we
22 go. Okay. Sorry. The site -- the study that was
23 done on the 11 facilities in the State of Illinois
24 was done by the Illinois Department of Energy and

1 Natural Resources.

2 There is the Santa Clara County
3 California study, the State of New York Department
4 of Health Study, the Pennsylvania Department of
5 Environmental Resources, the Croton Point, New York
6 study, and several reports from Europe, especially
7 Germany.

8 I will add that -- this is new
9 information. I am supposed to receive, in the next
10 day or two, new studies from Denmark that have just
11 been published that demonstrate the lack of public
12 health effects from composting facilities in
13 heavily populated areas in that country.

14 Q In regard --

15 HEARING OFFICER MCGILL: Just one
16 moment. I wanted to clarify for the record that
17 Ms. Garrett was reading from page 3 of Karen
18 Strauss' prefiled testimony. I believe you
19 referred to page 3 of the first full paragraph.
20 You had indicated that, quote, there is no
21 "substantial" public health hazard, end quote.

22 The actual word in the passage is
23 "substantiated" public health hazard. I just
24 wanted to clarify that for the record.

1 MS. GARRETT: Okay.

2 HEARING OFFICER MCGILL: Please proceed
3 with your questions.

4 Q (By Ms. Garrett) In regard to public
5 health, you mention that AG (sic) is not just found
6 at compost sites. In fact, you point out that it
7 can be found in bird nests, household pets,
8 contaminated air conditioners, house dust, in
9 bathroom mold, potted plants, et cetera. As you
10 know, pets can be given back to friends, air
11 conditioners removed, and household dust and mold
12 cleared away.

13 From a public policy position, do you
14 suggest that the state ignore those individuals who
15 may be unhealthy and must attend a public school or
16 play soccer in a public park that abuts a
17 commercial composting facility where they are most
18 likely to be exposed to higher levels of AG (sic)?

19 A AF?

20 Q I am sorry. AF.

21 A Do I support locating composting
22 facilities away from health care facilities, and do
23 I support protection of the individuals who are
24 highly susceptible? Yes, I do.

1 Do I support basing public health policy
2 on a small subset of a population that is
3 potentially at risk? No, I do not support basing
4 public health policy on individuals -- highly
5 identifiable small subsets of individuals for whom,
6 I might add, have not been reported cases of ill
7 health effects from exposure to aspergillus.

8 Q Regarding the small subset, when you say
9 "small subset" are you talking a certain number of
10 individuals? Do you know the numbers that you are
11 talking about?

12 A Yes, I do. The numbers of transplant
13 patients and the numbers of AIDS patients who are
14 hospitalized and the number of individuals who, for
15 other medical reasons, are severely
16 immunocompromised is a well-known number in
17 hospitals, and it is a hospital per bed count. So
18 national numbers are irrelevant. What matters is
19 hospitals near -- if there are any hospitals near
20 composting facilities.

21 Q Okay. Let me go back to the allergic
22 individuals and the asthmatic individuals. Do you
23 have a count on those numbers?

24 A According to the latest data I received

1 from Asthma Line, which is available to physicians
2 and public health professionals, such as myself, it
3 is about 5 percent in the U.S. population.

4 Q That includes allergic individuals and
5 asthmatic individuals?

6 A These are fully diagnosed asthmatics on
7 treatment for asthma, 5 percent of the population.

8 Q I think our numbers --

9 A Well, this is from --

10 MS. GARRETT: Can I ask my partner, Dr.
11 Desai, to answer that because we do have --

12 THE WITNESS: I don't know that --

13 MS. GARRETT: We do have numbers that are
14 quite different.

15 HEARING OFFICER MCGILL: You have posed
16 the question, and she has responded to it. That
17 was regarding asthma. Did you have a question
18 regarding allergic individuals?

19 MS. GARRETT: Well, the combination of
20 allergic individuals and asthmatic individuals. We
21 have 25, 26 percent of the population.

22 THE WITNESS: Well, I can't -- I don't
23 know that number. I would be glad to investigate
24 it and see. But I don't know the number of

1 allergic -- diagnosed allergic individuals, nor do
2 I know the percent of those allergic individuals
3 who are susceptible to aspergillus response, so
4 that would, again, be a subset of a subset, from a
5 public health point of view.

6 Q (By Ms. Garrett) This has been --

7 A For example, I am --

8 Q This has been already submitted to the
9 Illinois Pollution Control Board. It is --

10 HEARING OFFICER MCGILL: I am just going
11 to interrupt. That's in the record.

12 MS. GARRETT: Yes.

13 HEARING OFFICER MCGILL: The Board will
14 review it. Why don't you ask your next question
15 for this witness.

16 MS. GARRETT: Okay.

17 Q (By Ms. Garrett) Ms. Strauss, on page 6
18 of your testimony, you say that proponents have not
19 presented any thorough scientific literature
20 showing a health risk from exposure to yard waste
21 composting operations which must be considered in
22 determining effective public health policy. You go
23 on to say that the proponents have not presented
24 any formal epidemiological evidence linking

1 composting sites to human disease.

2 Ms. Strauss, to the best of your
3 knowledge, do you know of any epidemiological study
4 that has been performed in the United States?

5 A On what? On aspergillus, yes.

6 Q On people who have been associated --

7 A Yes, there are a number of
8 epidemiological studies, both prospective and
9 retrospective. The Islip, New York study is
10 perhaps the best representative study in the United
11 States, and that was an epidemiological study.

12 I could read the conclusion of that
13 study, if you would like, or I can paraphrase it
14 for you. It is referred to as the Islip study.
15 The conclusion of that study is that there are no
16 additional public health threats from the operation
17 of a landscape waste composting facility.

18 Q And --

19 A And I can --

20 Q We have a different conclusion on that.

21 A I can --

22 MS. GARRETT: I don't know if you want me
23 to read that.

24 HEARING OFFICER MCGILL: Ms. Garrett, did

1 you have an additional question specific to the
2 Islip study?

3 MS. GARRETT: Well, I wanted to know if
4 she knew of any national epidemiological studies
5 that had been performed, and --

6 HEARING OFFICER MCGILL: She has already
7 stated that.

8 THE WITNESS: As an example of one, the
9 Santa Clara, California study also included a
10 survey of public health around the site.

11 Q (Ms. Garrett) Epidemiological?

12 A A survey -- that is what an
13 epidemiological study is.

14 Q Okay.

15 A It is the calculation of the number of
16 incidences or prevalence of a certain disease in
17 the population.

18 MS. GARRETT: Now, can I read what their
19 conclusion was to the epidemiological study or
20 not?

21 HEARING OFFICER MCGILL: What are you
22 reading?

23 MS. GARRETT: This is from -- Ms. Strauss
24 responded that --

1 HEARING OFFICER MCGILL: Is this the
2 Islip study that you are referring to?

3 MS. GARRETT: Yes.

4 THE WITNESS: Here it is. I have it.

5 HEARING OFFICER MCGILL: Which is a part
6 of our record. That's okay. We have that report
7 as well.

8 THE WITNESS: Okay.

9 MS. GARRETT: I ask that you refer to the
10 conclusion of the study, the epidemiological study,
11 I guess, performed in Islip, New York. It is page
12 60 under --

13 HEARING OFFICER MCGILL: Okay. And this
14 is -- just for clarity of the record, this is from
15 what --

16 MS. GARRETT: Yes, I think it needs to be
17 clarified what their conclusion was.

18 HEARING OFFICER MCGILL: Let's go off the
19 record for a moment.

20 (Discussion off the record.)

21 HEARING OFFICER MCGILL: Back on the
22 record.

23 Ms. Garrett has a question regarding the
24 conclusion on page 60 of the Islip study. The

1 Islip study is Exhibit E to the Agency's prefiled
2 testimony of Shirley Baer.

3 Ms. Garrett, if you would like to ask the
4 question about this conclusion you may do so.

5 Q (By Ms. Garrett) Okay. Ms. Strauss --

6 A It is Dr. Strauss.

7 Q Will you repeat your conclusion?

8 MS. GARRETT: I mean, should I read this
9 conclusion and ask if she agrees with it?

10 HEARING OFFICER MCGILL: Sure.

11 Q (By Ms. Garrett) Let me read the
12 conclusion of the epidemiological study performed
13 in Islip, New York, okay?

14 A Uh-huh.

15 Q "The health survey provided information
16 for use in selecting candidates for the symptom
17 diary study. However, the health survey itself is
18 vulnerable. The responses cannot be used on its
19 own to draw conclusions about the health status of
20 residents in the study neighborhood and any
21 association with operations of the Islip Composting
22 Facility."

23 A Do I agree that that is what the report
24 says? Yes.

1 Q I just want --

2 A The operative words here are, "cannot be
3 used alone." That is exactly why a literature
4 review is critical to this kind of decision making
5 process, because this was a well conducted
6 epidemiological study, and the results showed
7 clearly and corroborated with other studies in the
8 literature, that immunosuppressed individuals are
9 at higher risk. I think that has been clearly
10 established. And that siting near a hospital
11 facility needs to have special attention. That's
12 also in my opinion and has been clearly
13 established.

14 What this study also concludes is that
15 for the majority of the population there are not
16 additional health risks from exposure to the
17 facility. If you would like references to other
18 studies, I can give you the specific sitings for
19 the California study and also mostly studies in
20 Europe have done epidemiological with not only
21 retrospective epidemiological studies, but looking
22 at workers in composting facilities and the results
23 of those occupational exposure epidemiological
24 studies indicate that while occupational exposures

1 are far greater than public health exposures, there
2 is not an increase -- a statistically significant
3 increase in aspergillus related diseases in compost
4 workers in those facilities.

5 MS. WHITEMAN: I would like to object on
6 two grounds.

7 First of all, the piece that Ms. Garrett
8 read was actually the conclusion to Appendix D
9 which is called the health survey. I would also
10 like to object because she left off the last
11 sentence of that which I think is significant. It
12 says, "results of the environmental monitoring and
13 second phase of the health study, parenthesis, the
14 symptom diary study, closed parenthesis, attempted
15 to answer those questions."

16 Actually, the symptom diary is Appendix
17 E, so I think she, in a sense, misstated what the
18 study says. Those conclusions are not actually the
19 conclusions of the study. I would like the record
20 to reflect that.

21 HEARING OFFICER MCGILL: Let's go off the
22 record for a moment.

23 (Discussion off the record.)

24 HEARING OFFICER MCGILL: Back on the

1 record.

2 Ms. Whiteman, your objections are noted.
3 The passage that Ms. Garrett was referring to on
4 page 60 of the Islip report is located in Appendix
5 D, entitled "Health Survey." It is under the
6 heading, "Conclusion." The last sentence of that
7 paragraph was omitted from Ms. Garrett's question,
8 and that sentence reads, "it was also the
9 environmental monitoring and the second phase of
10 the health study, paren, the diary study, end
11 paren, attempted to answer those questions."
12 Appendix E is referred to as symptom diary.

13 Do you have any other questions?

14 DR. HOLLOMAN: Yes.

15 HEARING OFFICER MCGILL: Would you state
16 your name, please.

17 DR. HOLLOMAN: My name is Dr. William
18 Holloman. I am the president of Illinois Citizen
19 Action, a group concerned with the health of
20 Illinois citizens.

21 CROSS EXAMINATION

22 BY DR. HOLLOMAN:

23 Q Dr. Strauss, on that Islip study, do you
24 know what the -- when they talked about the area

1 surrounding the compost site, do you know the size
2 of that area -- what the size of that area
3 surrounding the compost site was?

4 A I don't recall, but I can find it really
5 quickly in here. I don't recall the exact.

6 Q It was several miles.

7 A Uh-huh.

8 Q And, consequently, the data is, for all
9 practical purposes, useless because it included an
10 area of such great distance from the compost site
11 that it is irrelevant, the data is. That is --

12 HEARING OFFICER MCGILL: Do you have a --
13 I am going to interrupt you for a second. Do you
14 have a specific question for the witness?

15 DR. HOLLOMAN: I asked her if she knew
16 what the distance was.

17 THE WITNESS: I would need to confirm
18 that statement, that it was several miles, because
19 I need to --

20 DR. HOLLOMAN: Then my follow-up question
21 is --

22 THE WITNESS: Well, let me --

23 HEARING OFFICER MCGILL: Let her try to
24 respond to your first question.

1 THE WITNESS: In my copy of this study, I
2 have it as page number 2 in the introduction, and
3 it provides a map of the location of the Islip
4 Composting Facility and the sampling sites for the
5 environmental monitoring in neighborhoods where
6 symptom diaries were maintained.

7 Let's see. I am trying to find -- the
8 site is here, and according to my map, it -- well,
9 can I just -- it is certainly not miles, according
10 to my map. The scale is roughly half an inch
11 represents a quarter of a mile. It looks to me
12 that -- I would say on the absolute -- this is my
13 estimate. The absolute outside boundaries --

14 Q Those were the --

15 A -- would be about three-quarters of a
16 mile.

17 Q Sampling sites for spores, but those were
18 not the sampling sites upon which the health of
19 individuals --

20 A Okay. Sir, I am sorry, but the title
21 Figure 1 -- let me just read it, please. The
22 location of the Islip Composting Facility sampling
23 sites for the environmental monitoring and
24 neighborhoods where symptom diaries were

1 maintained.

2 Q That's correct.

3 A So I would assume it is the same
4 geographic --

5 Q I don't have that right --

6 A -- coverage with the population of --

7 Q -- in front of me.

8 HEARING OFFICER MCGILL: Why don't you
9 move on to your next question.

10 MR. HOLLOMAN: That was the only question
11 I had at this time.

12 HEARING OFFICER MCGILL: All right. Then
13 is --

14 DR. DESAI: Can I ask a question?

15 HEARING OFFICER MCGILL: Okay.

16 DR. DESAI: It is the same question, but
17 let me --

18 HEARING OFFICER MCGILL: Would you state
19 your name first, please.

20 DR. DESAI: Yes. I am Dr. Desai. I live
21 in Lake Forest.

22 HEARING OFFICER MCGILL: Did you have a
23 question?

24 DR. DESAI: Yes.

1 CROSS EXAMINATION

2 BY DR. DESAI:

3 Q Okay. My question is, are you aware that
4 reliable estimates of average daily spore levels
5 were available only for one-quarter of the study
6 period?

7 A Which study are you referring to?

8 Q The Islip study, New York.

9 A There was actually a 20-day period where
10 hourly studies were taken.

11 Q That was only one-quarter of a period.
12 You cannot estimate --

13 A You can --

14 Q Let me ask you this.

15 A You can extrapolate. In environmental
16 sampling, the basic philosophy is to get a
17 representative sample, and once that sample has
18 been determined to be representative, then
19 extrapolation is a professionally preferred
20 technique instead of spending a lot of resources
21 sampling for longer. In the period that was
22 sampled for 20 days, every hour of those 20 days,
23 that is considered to be an ample representative
24 sample.

1 Q But the scientists don't agree with that.
2 They recommend further study. Okay. Let me go to
3 another question.

4 Are you aware that only about half of the
5 regional participants in the study actually
6 provided enough data to be included? And there
7 were gaps in the records from other participants?

8 A Well, with any epidemiological study, as
9 I suspect you know as a medical professional, there
10 are always individuals who fail to respond or fail
11 to respond completely. Statistical methods of
12 analyzing the results of those epidemiological
13 studies account for partial or incomplete responses
14 of individuals. So those have been accounted for
15 in the statistical analysis of their results.

16 HEARING OFFICER MCGILL: Dr. Desai, in
17 your last question, you were referring to the Islip
18 study; is that correct?

19 DR. DESAI: Yes.

20 HEARING OFFICER MCGILL: Okay. Did you
21 have any other questions?

22 DR. DESAI: No, not regarding the Islip
23 study, but I do have lots of questions for her.

24 MS. GARRETT: I just have a few more.

1 HEARING OFFICER MCGILL: Why don't we go
2 off the record for a moment.

3 (Discussion off the record.)

4 HEARING OFFICER MCGILL: We will take a
5 five-minute break.

6 (Whereupon a short recess was
7 taken.)

8 HEARING OFFICER MCGILL: Back on the
9 record.

10 Before we continue with the proponents'
11 questions, the Board had a follow-up question or
12 two that we would like to pose at this time.

13 MR. RAO: Dr. Strauss, you were talking
14 about this epidemiologic studies. Were any of
15 these studies that were done, did they establish
16 dose response curves for aspergillus fumigatus?

17 THE WITNESS: No. And, in fact, several
18 of the studies mentioned that at this point a dose
19 response curve has not been established.

20 MR. RAO: Would it be helpful for such a
21 curve to be established in evaluating health impact
22 for composting facilities?

23 THE WITNESS: Absolutely. A dose
24 response curve is always helpful, as long as it is

1 applied to the relevant population.

2 MR. RAO: Referring to this Islip study,
3 I think one of the conclusions was that the study
4 found that the spore count for AF in the study
5 neighborhood was four times the average background
6 levels, and the study neighborhood was located, I
7 think, 915 feet downwind of the facility.

8 Given this lack of well established dose
9 response relationship for AF, is it reasonable to
10 expect that higher exposure levels increases the
11 likelihood of adverse health effects?

12 THE WITNESS: Not in a healthy
13 population. Even at four times the normal
14 background levels for that particular geographic
15 area, that was within the bounds of other normal
16 background exposures across the United States in
17 the areas of similar meteorological conditions for
18 the state. For example, in the Pennsylvania study,
19 those similar types of levels were found.

20 MR. RAO: Okay. So you are saying that
21 even at those elevated levels, there were no
22 incidences of --

23 THE WITNESS: In the Islip study?

24 MR. RAO: Yes.

1 THE WITNESS: With the levels that they
2 found, there were no reported incidents of elevated
3 health effects at those levels within that study
4 population.

5 MR. RAO: Okay.

6 HEARING OFFICER MCGILL: I just have a
7 follow-up.

8 You are indicating that the levels that
9 they found downwind, apparently, were about four
10 times the background levels of some other locations
11 that they used to establish background levels?

12 THE WITNESS: A reference population, a
13 reference site.

14 HEARING OFFICER MCGILL: But the levels
15 that were four times background were actually
16 within background perimeters for other locations?

17 THE WITNESS: For other sites, for other
18 locations that don't have composting facilities.
19 And I will also point out, to put that specific
20 reading in context -- in fact, I will read it from
21 this study, on page 3 of the Islip study. "The
22 levels of fungal spores in the air can vary by time
23 of day and from day-to-day. Many factors,
24 including operations of the ICF" -- that is the

1 Islip Composting Facility -- "might effect daily
2 patterns of air spore levels. To evaluate these
3 fluctuations in spore levels" -- and then they go
4 on to describe the types of sampling that they
5 did.

6 But they recognized those peaks as
7 potentially the result of; for example, activities
8 at the site, sporadic activities, the change in
9 wind direction. There is a lot of different
10 factors that account for different levels. I don't
11 know when, specifically, that one was taken. I
12 could try to find it, if you would like me to.

13 MR. RAO: And the study did also mention
14 there was a lot of variability in the spore
15 levels?

16 THE WITNESS: Yes.

17 MR. RAO: It would be fairly high and
18 then at certain times it was at background level
19 so --

20 THE WITNESS: That's --

21 MR. RAO: -- my question was more in
22 general, you know, if the exposure levels are high,
23 I just wanted to know if that increases the
24 likelihood of adverse health effects, not

1 specifically relating to this four times the
2 background level, but in general, if there is no
3 dose response relationship, would you expect if the
4 levels were high there would be potential for --

5 THE WITNESS: Not necessarily because it
6 depends on where those levels fall within the range
7 of background levels and in similar types of
8 environments. If, for example, those background
9 levels could be associated with higher health
10 effects, then we might have seen pockets, for
11 example, pockets of health effects in areas where
12 the normal background level might achieve those
13 kinds of ranges. We have not seen that in the
14 literature, in the reports.

15 MR. RAO: Okay. Thanks.

16 HEARING OFFICER MCGILL: Do the
17 proponents want to proceed with their questions?

18 MS. GARRETT: Yes.

19 CROSS EXAMINATION (continued)

20 BY MS. GARRETT:

21 Q Ms. Strauss, are you familiar with a
22 study called "Aspergillus, Aspergillosis in
23 Composting Operations in California" which you did
24 not include in your testimony? Are you familiar

1 with this?

2 A Actually, I think I did include that one.

3 Q Did you?

4 A Yes. You are testing my eyesight here.

5 May I see it?

6 Q Okay. Here it is.

7 A It is a well-known study. I am sorry.

8 Yes, I did this in my Winnetka -- I think this was
9 included in my Winnetka report. Let me just check
10 real quick. I am not sure. The study I am looking
11 for is "Aspergillus, Aspergillosis in Composting
12 Operations in California," dated December 16, 1993.

13 HEARING OFFICER MCGILL: Okay. Just for
14 clarity --

15 THE WITNESS: The California Integrated
16 Waste Management Board.

17 HEARING OFFICER MCGILL: Just for clarity
18 in the record, this report is Exhibit D of the
19 Agency's prefiled testimony for Shirley Baer.

20 MS. GARRETT: Apparently, it is not
21 included in your testimony?

22 THE WITNESS: If you could give me just a
23 minute, please. It looks --

24 HEARING OFFICER MCGILL: I believe this

1 may have been part of the City of Lake Forest's
2 earlier filing for other witnesses.

3 THE WITNESS: Do you happen to know the
4 authors of this study? Perhaps it would help me to
5 identify what --

6 MS. GARRETT: Well --

7 MR. RAO: It is Ault and Schott.

8 THE WITNESS: Yes. Okay. All right.
9 Yes, I actually referred to that study in my
10 testimony. Sorry.

11 Q (By Ms. Garrett) I am going to give it
12 right back to you. I am going to ask you to read
13 on page 13 of that study under "facility siting
14 design and construction," the first two complete
15 paragraphs, please.

16 A It is on page 13. At least in this copy
17 it is page 13. Do I need to identify it? I am
18 more than happy to --

19 HEARING OFFICER MCGILL: No, that is
20 fine. This is page 13 from the study entitled
21 "Aspergillus, Aspergillosis in Composting
22 Operations in California," dated December 13,
23 1993. I am sorry. It is dated December 16, 1993.
24 It is, as I mentioned, Exhibit D to the Agency's

1 prefiled testimony of Shirley Baer.

2 THE WITNESS: I will read from that
3 report. "Some scientists have recommended that
4 buffer zones may be considered between certain
5 types of composting facilities and nearby
6 residences, hospitals, or schools to reduce the
7 risk of exposure to odors and air contaminants."

8 Millner, et al., in their 1977 study,
9 noted, quote, "in consideration of off-site health
10 matters related to air dispersal of spores, a
11 buffer distance between a composting operation and
12 health care facilities and residential areas may be
13 needed."

14 Olver noted the, quote, "buffer zones
15 that should normally be provided around the
16 composting site for odor control should work
17 equally well to confine the highest candida levels
18 of the fungus to the processing area."

19 Do you want me to keep going?

20 Q Those first two paragraphs, please.

21 A Okay. Diaz, et al. noted in a 1992
22 study, "prudence indicates that an open air compost
23 plant should not be sited in close proximity to
24 human habitations." Kramer stated, "consideration

1 should also be given to locating compost sites
2 similar to the present one" -- they are referring
3 to a municipal leaf composting facility -- "more
4 than two miles from residential areas in order to
5 minimize potential microbial contamination to the
6 environment. Only the latter author has
7 recommended this specific buffer width. The
8 Board's current" --

9 Q I think that's it.

10 HEARING OFFICER MCGILL: Yes, I think
11 that's the end of the first two paragraphs.

12 THE WITNESS: Okay.

13 Q (By Ms. Garrett) My next question is, do
14 you agree with that conclusion from that study?

15 A I agree that that is the conclusion of
16 the study, but I don't agree with the siting -- the
17 specific siting requirements, those siting
18 suggestions.

19 Q Are you familiar with these scientists
20 that have made those recommendations?

21 A I am familiar with most of them, and I am
22 also familiar with their work, most of whom -- in
23 fact, all that I recognize in there concluded that
24 there is no additional public health hazard --

1 Q That may be --

2 A -- from a composting facility.

3 Q -- but regarding the siting --

4 HEARING OFFICER MCGILL: Let me
5 interrupt. We need to let her finish her response,
6 and then, if you have a question after that, then
7 you can state your question.

8 I just want to clarify, there in the
9 second paragraph you read from there are comments
10 from several individuals. Do you disagree with
11 each of those --

12 THE WITNESS: No.

13 HEARING OFFICER MCGILL: -- comments, or
14 do you --

15 THE WITNESS: No. I probably should go
16 line-by-line as to which I agree with and which I
17 don't agree with. Would that be helpful?

18 HEARING OFFICER MCGILL: Yes.

19 THE WITNESS: Okay. The scientists that
20 recommend the buffer zones between certain types of
21 composting facilities and nearby hospitals, I
22 definitely agree with. I do agree that there needs
23 to be a buffer zone with residences or schools, and
24 that that buffer zone should be established by

1 looking at the literature of the falloff of the
2 spore exposure, as well as other factors that need
3 to be considered on siting.

4 The next sentence, "in consideration of
5 off-site health matters, a buffer distance," I
6 definitely agree with the concept of a buffer
7 distance. That's prudent science. That's prudent
8 public health policy. It is the size of the buffer
9 distance that may be up for discussion.

10 The one statement about a two-mile buffer
11 zone from residential areas I disagree with
12 completely. I think that poses an enormous
13 economic and public health and environmental
14 burden, without any just cause from a scientific or
15 medical standpoint.

16 HEARING OFFICER MCGILL: I just have a
17 few follow-up questions.

18 Do you have an appropriate distance in
19 mind for a setback distance?

20 THE WITNESS: The studies that I have
21 looked at that have looked at the spore falloff
22 from the composting facilities, both in the U.S.
23 and Europe, come to a consensus agreement that
24 about 500 feet seems to be the demarcation line at

1 which point the spore count returns to background
2 levels. So that would be the number that I would
3 start with in a public health policy point of view,
4 is the 500 feet boundary.

5 HEARING OFFICER MCGILL: In terms of the
6 locations or facilities that this setback would be
7 designed to -- the facilities that you would
8 measure this setback distance from, you have
9 mentioned hospitals. You believe that it would be
10 appropriate to have --

11 THE WITNESS: Absolutely.

12 HEARING OFFICER MCGILL: That 500 foot --

13 THE WITNESS: Absolutely, 500 feet. And
14 for hospitals, specifically, from a public health
15 point of view, I would recommend doing specific
16 site testing to find out if that 500 feet was
17 adequate. For the general public, I think the
18 health of the general public, which would include
19 parks or schools or any other normal public
20 facilities, 500 feet appears to be an adequate
21 boundary to protect from increased levels in
22 background.

23 HEARING OFFICER MCGILL: Just so that I
24 am clear, which facilities do you think should be

1 protected by this 500-foot setback?

2 THE WITNESS: Well, all public -- all
3 residences and facilities should be protected by
4 the 500-foot setback. That would be the minimum
5 that I would recommend as an established policy.

6 In hospitals, or for example, in nursing
7 homes where immunocompromised individuals might
8 reside, if they are existing near a facility, there
9 are certain ventilation techniques that can be
10 employed to make sure that the air filtration
11 systems adequately protect the residences of those
12 facilities. I would recommend that those types of
13 ventilation requirements be part of the siting.

14 HEARING OFFICER MCGILL: A specific
15 reference to the proponents' proposed language, you
16 have indicated -- is it correct that you would want
17 that distance, a 500-foot distance, from a
18 hospital?

19 THE WITNESS: Yes.

20 HEARING OFFICER MCGILL: And that
21 distance from a school?

22 THE WITNESS: 500 feet, yes.

23 HEARING OFFICER MCGILL: And from
24 athletic fields?

1 THE WITNESS: Yes.

2 HEARING OFFICER MCGILL: And from public
3 parks?

4 THE WITNESS: Yes. I would put the one
5 caveat in there that individual sites do vary
6 dramatically based on wind direction, moisture, the
7 activity of the site. And so it may be that
8 individual sites can be exempted from that simply
9 because the prevailing winds are blowing in the
10 direction opposite to where the facilities already
11 exist.

12 So I think that those types of site
13 specific exemptions need to be allowed for when
14 they are appropriate at those specific facilities,
15 but that has to account for the local meteorology,
16 the local geography, for example, the vegetation.
17 The height and the type of vegetation surrounding
18 the facility serves as an excellent buffer because
19 the spores tend to fall out and adhere to that type
20 of vegetation. Those kinds of issues would need to
21 be considered in a site-specific requirement.

22 BOARD MEMBER HENNESSEY: Just as an
23 aside, I might note for the record that the
24 Environmental Protection Act does provide, and our

1 rules do provide, for the establishment of
2 site-specific rules in several cases.

3 HEARING OFFICER MCGILL: Are there any
4 other facilities -- if the facilities the
5 proponents have proposed adding, which include
6 schools, hospitals, athletic fields, public parks,
7 are there any other facilities that you believe
8 would be appropriate to have setback protection?
9 Any other facilities or locations?

10 THE WITNESS: Using the term hospitals
11 broadly, where it is -- beds are provided for
12 immunocompromised individuals, that is a specific
13 situation. There are none that I can think of at
14 this time that would require specific setback
15 requirements.

16 HEARING OFFICER MCGILL: Thank you.

17 BOARD MEMBER HENNESSEY: I have just one
18 follow-up question. If I could try to crystallize
19 this, your main disagreement with the proponents'
20 proposal is it recommends an eighth of a mile
21 setback rather than the 500 feet? Would that be
22 fair to say?

23 THE WITNESS: It was my understanding
24 that it was a half a mile.

1 MS. GARRETT: It is a half mile.

2 BOARD MEMBER HENNESSEY: Oh, I am sorry.
3 The half-mile setback is -- the amount of setback
4 that they are asking for is --

5 THE WITNESS: Is not warranted based on
6 what is known about spore distribution and public
7 health risks.

8 HEARING OFFICER MCGILL: All right.
9 Thank you.

10 Marie, did you have a question?

11 MS. TIPSORD: Yes, but go ahead with
12 Anand.

13 MR. RAO: Just a clarification. This
14 500-foot buffer zone that you are recommending, is
15 that a maximum number, or is it a minimum distance
16 that you are recommending?

17 THE WITNESS: Let me answer that in a
18 somewhat roundabout way.

19 MR. RAO: The reason I ask is right now
20 in our current regulations, which are based on the
21 Environmental Protection Act, the setback distances
22 are set at one-eighth of a mile for residences.

23 THE WITNESS: Do you know what the --

24 HEARING OFFICER MCGILL: That is 660

1 feet.

2 MR. RAO: It is 660 feet, yes. I just
3 wanted to get your clarification.

4 THE WITNESS: Right. The 500 feet, as I
5 mentioned before, is the spore falloff point where
6 it returns to background. The additional 150 feet
7 provided under the current EPA regulations provides
8 an additional buffer zone that certainly is
9 supported by the literature.

10 MR. RAO: Okay. Thanks.

11 HEARING OFFICER MCGILL: All right.
12 Marie?

13 MS. TIPSORD: Yes. I have a
14 clarification.

15 The two paragraphs you read on page 13 of
16 this study, I heard both Ms. Garrett and yourself
17 refer to these as conclusions. They are not
18 actually conclusions of this study, are they?

19 THE WITNESS: No, they are not
20 conclusions. They are opinions of participants or
21 people who have contributed to the literature.

22 MS. TIPSORD: Okay. Thank you.

23 HEARING OFFICER MCGILL: Did you have any
24 additional questions?

1 MS. GARRETT: Yes, I have one more
2 question.

3 HEARING OFFICER MCGILL: Okay.

4 CROSS EXAMINATION (continued)

5 BY MS. GARRETT:

6 Q In Exhibit 5 of your testimony, "Allergic
7 Bronchopulmonary Aspergillosis from a Contaminated
8 Dump Site," I ask you to go to the last page, which
9 I can give you. On the report, the second column,
10 the last paragraph, beginning with "consideration,"
11 and can you read that. I can give it to you
12 because it is highlighted.

13 A This is the same individual who was
14 quoted in the previous study that we were reading
15 from, Kramer. He is the author of this study. I
16 have got it. Thank you.

17 Q Oh, okay.

18 HEARING OFFICER MCGILL: Could you just
19 state what study you are reading from?

20 THE WITNESS: This is Exhibit 5 in my
21 prefiled testimony. The name of the article is,
22 "Allergic Bronchopulmonary Aspergillosis from a
23 Contaminated Dump Site," and it is --

24 HEARING OFFICER MCGILL: For the record,

1 this is now exhibit -- Hearing Exhibit 34.

2 THE WITNESS: It is -- the lead author on
3 it is Melvin Kramer. He is the individual who was
4 referred to in earlier questions about the --
5 suggesting the two mile boundary.

6 And you want me to read the last
7 paragraph?

8 Q (By Ms. Garrett) Just that first -- yes,
9 the last paragraph is fine starting with
10 "consideration."

11 A Okay. I will read the last paragraph as
12 requested.

13 "Consideration should also be given to
14 locating compost sites similar to the present one
15 more than two miles from residential areas in order
16 to minimize potential microbial contamination of
17 the environment. Additionally, the collection and
18 disposal of leachate that may contain potential
19 pathogens or potent antigens needs attention,
20 keeping possible medical complications in mind."

21 MS. GARRETT: That's it. That's all I
22 have as far as questions.

23 HEARING OFFICER MCGILL: Did you have a
24 question about that?

1 MS. GARRETT: Oh, I am sorry. Yes.

2 Q (By Ms. Garrett) Do you agree with that?

3 A Absolutely not. There is no basis in
4 science or medicine or environmental or science
5 literature or environmental engineering literature
6 that would in any way warrant a two mile setback.
7 There is no foundation for that recommendation.
8 Additionally, I might add that this particular
9 study has been challenged, based on the author's
10 failure to examine other potential exposures to
11 aspergillus for this case report.

12 Q And then, I guess my question would be
13 why would you include this in your testimony?

14 A For completeness sake. I believe that
15 when the public and the regulatory bodies are
16 trying to make an informed decision, we need to
17 look at any relevant articles and any relevant
18 literature that might help make a relevant
19 substantiated decision.

20 MS. GARRETT: I have no further
21 questions.

22 HEARING OFFICER MCGILL: Do the
23 proponents have any further questions?

24 DR. DESAI: I have a couple of questions.

1 HEARING OFFICER MCGILL: Dr. Desai, why
2 don't you go ahead with your questions.

3 DR. DESAI: I won't take too long.

4 CROSS EXAMINATION (continued)

5 BY DR. DESAI:

6 Q A couple of things. I want to ask you,
7 would you have come here on your own as a
8 responsible citizen to give your testimony if Lake
9 Forest would not have invited you?

10 A Absolutely. I live within a quarter of a
11 mile of an operating composting facility. Yes.
12 These views are consistent with both my personal
13 and professional views.

14 Q It is my understanding that you had
15 signed a petition at one point to shut down the
16 Winnetka facility, and then you changed your mind.
17 Was it after sitting while you were a consultant or
18 before the date?

19 A No, it was actually within the hour. And
20 what happened is I considered my decision to sign
21 that petition as erroneous, based on the fact that
22 in the larger picture and with consideration to
23 resource allocations in that community as well as
24 other communities, that was not a legitimate reason

1 to ask for the closure of the site, so I withdrew
2 my name from the list.

3 Q It was just one hour that made you change
4 your mind?

5 A Yes. I called the --

6 Q Is it okay that Dr. Slavin has --

7 HEARING OFFICER MCGILL: Let her finish
8 her response.

9 THE WITNESS: I called the individual who
10 brought the survey to me and I met with her and we
11 removed my name from that list.

12 Q (By Dr. Desai) So then it is okay if Dr.
13 Slavin has said something in 1977, and it is not as
14 important as what he has said in 1995? It took him
15 18 --

16 A If you want to ask me about specific
17 studies of Dr. Slavin, I can --

18 Q You have said that Dr. Slavin said in
19 1977 that one exposure can cause allergic
20 aspergillosis, and I agree with it because he said
21 exposure was needed to get aspergillosis when
22 exposure caused asthma not aspergillosis. There is
23 a difference.

24 A Right.

1 Q So I want to make the record straight.

2 Okay. But then in 1995 --

3 HEARING OFFICER MCGILL: Dr. Desai, what
4 is your question for the witness?

5 DR. DESAI: My question is that if she
6 can change her mind in one hour, if after studying
7 more and more, if Dr. Slavin, what he had said in
8 1977, and what he is saying in 1995, after
9 experience for 18 years, then which one --

10 HEARING OFFICER MCGILL: I believe we
11 have -- you say the conclusion in 1997. Are you
12 referring to a letter that is now a part of this
13 record that you have submitted.

14 DR. DESAI: Yes.

15 HEARING OFFICER MCGILL: The Board has
16 that and can review that.

17 THE WITNESS: It is also Number 9 in my
18 prefiled testimony, from the original article by
19 Raymond Slavin entitled "Epidemiologic Aspects of
20 Allergic Aspergillosis."

21 HEARING OFFICER MCGILL: Well, let me
22 just clarify. You are referring to an article now
23 from 1977?

24 THE WITNESS: It was originally published

1 in 1977, yes, in March.

2 HEARING OFFICER MCGILL: This is now a
3 part of Exhibit 34?

4 THE WITNESS: Right.

5 HEARING OFFICER MCGILL: Dr. Desai, am I
6 correct? Did you submit a letter from Dr. Slavin
7 as part of your --

8 DR. DESAI: Uh-huh.

9 HEARING OFFICER MCGILL: -- submittals?

10 DR. DESAI: Yes, yes.

11 HEARING OFFICER MCGILL: Okay. Thank
12 you.

13 THE WITNESS: I am reading from what
14 would have been in the medical journal, on page
15 217. So in the copy you have in my testimony, it
16 is page 217. I am reading from a paragraph called
17 "Reactivity in Organic Farmers."

18 Basically Slavin studied 13 organic
19 farmers to determine any potential health effects
20 from their constant occupational and residential
21 exposure to aspergillus from any composting they
22 were doing on their farms. I will read this
23 sentence.

24 "None of the 13 organic farmers in close

1 contact with compost piles was clinically sensitive
2 and the sera of all 13 were negative for
3 precipitating antibodies to A. Fumigatus," which
4 "A" is short for aspergillus. The conclusion of
5 this study was --

6 DR. DESAI: That is not what I asked.
7 That is not what I asked.

8 THE WITNESS: Is Dr. Slavin entitled to
9 change his opinion? Absolutely. A sign of a good
10 researcher is continued research. What Dr. Slavin
11 recommends and has concluded and as a participant
12 in many other studies is that prudence is always
13 the best course. I certainly agree with that. But
14 prudence based on science and based on resources.

15 Q (By Dr. Desai) Is the reason because he
16 has recommended the two-mile buffer zone, and you
17 don't agree with that?

18 A I don't recall ever seeing Dr. Slavin
19 recommend a two-mile buffer zone.

20 HEARING OFFICER MCGILL: Why don't we --
21 unless you have a specific question about the two
22 mile buffer zone, I think she has responded to the
23 issue of a two-mile buffer zone.

24 So why don't you ask your next question,

1 please.

2 Q (By Dr. Desai) Okay. You state in your
3 testimony, page number 13, "you are being asked to
4 promulgate policy based on the names on a
5 letterhead and to ignore the peer-reviewed body to
6 related scientific and medical knowledge and
7 experience."

8 What do you mean by that? Do you think
9 that Dr. Slavin, Dr. Fink, those who have been
10 involved in the study, did not have medical
11 experience and medical knowledge?

12 A In the papers that I received and that I
13 reviewed based on the testimony that you submitted,
14 the letters were certainly sincere in their
15 quality. However, there was no scientific
16 evidence, nor epidemiological studies, nor history
17 of even case reports that would have substantiated
18 the request for a two-mile site boundary.

19 And based on my professional integrity as
20 a public health doctor, I have to have some kind of
21 basis for establishing a setback. And two miles,
22 to my knowledge, has no substantiated reference
23 points in any of the literature I reviewed.

24 So while I applaud the individuals for

1 their sincerity, when it comes to establishing
2 public policy, it is my professional opinion that
3 we need to have scientific and epidemiological and
4 environmental facts to establish those boundaries.

5 Q Have you seen -- you disagree with this
6 article by Dr. Fink who has reported a case, and
7 they have moved the spore count up to two miles,
8 and that's the reason for that conclusion for the
9 two-mile buffer zone. Let me finish.

10 Are you aware Dr. Slavin has been
11 involved in this research with aspergillus and the
12 effects of aspergillus on the children and the
13 other people with cystic fibrosis, how bad they
14 are, the effect of this fungus. He has attached
15 the report. You have so many of his case reports.

16 A Cystic fibrosis -- individuals who suffer
17 with cystic fibrosis are clearly among the
18 subpopulations at risk. Those would be the
19 individuals who would be frequenting the health
20 care facilities that require special consideration
21 in a site boundary.

22 Q Do you agree that these distinguished
23 physicians have done lots of work to put their name
24 on the letterhead? Is it appropriate to say that

1 their opinions don't count?

2 A What is appropriate to say is that the
3 letters that I reviewed were not based on
4 scientific findings. So if you would like me to
5 review the specific studies, I would certainly be
6 glad to.

7 DR. DESAI: Okay. That's all.

8 HEARING OFFICER MCGILL: Any further
9 questions?

10 DR. HOLLOMAN: Yes. Dr. Strauss --

11 HEARING OFFICER MCGILL: Would you state
12 your name again, please.

13 DR. HOLLOMAN: My name is William
14 Holloman.

15 CROSS EXAMINATION (continued)

16 BY DR. HOLLOMAN:

17 Q On page 5 of your testimony, you refer to
18 the study by Ault and Schott which refers to the
19 fact that healthy individuals -- that compost sites
20 are not a threat to healthy individuals. I am
21 sorry. It is on page 9. The risk of disease or
22 illness, and I quote from the study of Ault and
23 Schott. "The risk of disease or illness caused by
24 aspergillus fumigatus is negligible or very low for

1 healthy people."

2 Several times today you have talked about
3 the dangers to healthy people. Can we infer that
4 it would be a risk for nonhealthy people to live in
5 an area of a compost site?

6 A It depends on the reason for the ill
7 health of that individual. For example, in the
8 case of an individual suffering from cystic
9 fibrosis, as long as they are outside of that site
10 boundary, they should be adequately protected by
11 public policy. That individual, however, may want
12 to refrain from walking through a forest preserve,
13 for example, or nearby agricultural fields that
14 would be present and take certain precautions that
15 that individual should be aware of if that
16 individual is receiving adequate medical advice.

17 Q Okay. So you listed one subset of
18 nonhealthy individuals.

19 A As an example, an AIDS patient; for
20 example, an individual who has -- who is not only
21 HIV positive but, in fact, is suffering from the
22 physical effects of the HIV --

23 Q So would you recommend some signs around
24 a compost --

1 A -- positive status.

2 HEARING OFFICER MCGILL: Could you let
3 her finish her response before posing your next
4 question.

5 THE WITNESS: Those are just two samples
6 of individuals in the subpopulations who are in
7 higher risk than those of us who are not.

8 Q (By Dr. Holloman) So would you recommend
9 a sign around a compost site that says nonhealthy
10 people do not approach this site?

11 A Absolutely not. No, I would not
12 recommend that. In fact, I would argue strongly
13 against it as a potential arousal of public fear
14 with no basis in fact.

15 Q Let me ask you a more personal question.
16 You said you lived within a quarter of a mile --

17 A Yes, sir.

18 Q -- of a compost site?

19 A (Nodded head up and down.)

20 Q If through some terrible circumstance,
21 and I do mean terrible circumstance, your child
22 became immunocompromised, would you move away from
23 that site? Would you move your residence?

24 A No, and I will tell you why, if we are

1 going to get personal. Since January of this year,
2 I have been under treatment with chemotherapy and
3 radiation for cancer. I live within a quarter mile
4 of that site. My children live within a quarter
5 mile of that site. I have been severely
6 immunocompromised for the entire year of 1997, and
7 I assure you that I am on top of anything that
8 would be of a health risk to me or my family.

9 Let me give you a further example.
10 During that intensive immunocompromised status, I
11 am highly susceptible to infection from children
12 who have just received live vaccines, such as the
13 hepatitis vaccine or the measles vaccine.

14 Following along your lines of suggestion,
15 it is not appropriate to put on the door of the
16 mall where I might be shopping or the grocery
17 store, a child who has received a measles vaccine
18 has just entered. Immunocompromised individuals
19 beware. That is completely inappropriate.

20 Knowing that I am immunocompromised, it
21 is my responsibility, in my opinion, to avoid
22 certain exposures during this time, and for myself,
23 for my husband, who is a pediatric oncologist, and
24 for my own children, we frequently err on the side

1 of caution in terms of public health exposures.

2 Q I sympathize with your current medical
3 history.

4 A Thank you.

5 Q I would suggest, however, that you might
6 be more knowledgeable than the average citizen and
7 therefore, more capable of dealing with these types
8 of situations.

9 A Which is why I take my professional and
10 my personal opinions quite seriously, to make sure
11 that I can substantiate my opinions. Because the
12 public does depend on me and has depended on me for
13 over 20 years now, to represent all sides of the
14 scientific argument to determine the sound basis
15 for public policy.

16 Q You stated that in order to determine a
17 buffer zone that it would be recommended to have
18 more scientific information, epidemiology studies,
19 and so on, in order to be able to establish that
20 buffer zone. Am I quoting you correctly, when I
21 say that?

22 A You know what, I actually needed a minute
23 to recover from my prior statement, so if you could
24 please repeat that, I would appreciate it.

1 Q You had stated earlier that in order to
2 precisely establish a buffer zone around compost
3 sites there is a need for more scientific data,
4 epidemiology study, perhaps suggesting, and I was
5 not sure, that those types of studies should be
6 conducted at each site. Am I interpreting you
7 correctly on that?

8 A No, I don't think so. What I am
9 suggesting is that the body of literature
10 establishes the 500-foot boundary as an adequate
11 boundary between the operating compost facility and
12 the falloff to background levels of aspergillus
13 fumigatus spore counts. Establishing that as the
14 boundary for the public policy also needs to
15 include certain site exemptions if that site can
16 demonstrate that a different boundary is required.

17 Q I see.

18 A For example, a hospital or a situation
19 where that boundary physically or geologically is
20 not achievable for some reason, and there are
21 sufficient buffer zones in place or could be in
22 place to protect the surrounding community and the
23 public.

24 Q So you would suggest that the permitting

1 of new compost sites be preceded by such a type --
2 such a site?

3 A If there is a reason to look at them as
4 different from what is described in the original
5 regulation.

6 DR. HOLLOMAN: Okay.

7 MR. RAO: Can I ask a follow-up
8 question?

9 DR. HOLLOMAN: That's the only questions
10 I have.

11 MR. RAO: Okay. With reference to these
12 health concerns associated with bioaerosols, we
13 were just talking about setbacks and buffer zones.
14 Are there other practices or management practices
15 that can be employed to minimize the transport of
16 these bioaerosols? Do you know?

17 THE WITNESS: Yes, there are definitely
18 management practices that are recommended and
19 preferred for the proper utilization of a
20 composting site, and those management practices
21 cover not only bioaerosol distribution, but also
22 the minimization of odors associated with the
23 composting site. And noise pollution is another
24 issue that is addressed in the recommended

1 management techniques of these sites.

2 MR. RAO: Are you familiar with the
3 current regulations, the landscape regulations?

4 THE WITNESS: On a basic level, yes, but
5 not in detail.

6 MR. RAO: Okay. Talking about odor, you
7 know, most of the questions here are focused on
8 aspergillus and bioaerosols. Are there any health
9 effects associated with odor from composting
10 facilities?

11 THE WITNESS: The response to odors is,
12 primarily, individually based. And while some
13 individuals may shrug it off, other individuals may
14 find it extremely unpleasant and have actual
15 physiological reactions to the odors. It is very
16 much an individual, independent response.

17 MR. RAO: Do you believe that some kind
18 of a buffer zone should also be afforded to some of
19 these other facilities that are mentioned in the
20 proponents' proposal with respect to minimizing the
21 effects of odor?

22 THE WITNESS: No. I think that the
23 attention actually needs to be given to proper
24 management of the site. And given that there will

1 be rare and infrequent odors that emanate from the
2 site, even under the best of management practices,
3 it is my professional opinion that that is a result
4 of maintaining a composting facility and does not
5 pose a public health threat or an environmental
6 threat. It may be a temporary inconvenience, but
7 it is not a public health threat.

8 MR. RAO: Okay. Thank you.

9 HEARING OFFICER MCGILL: Do the
10 proponents have any further questions?

11 Okay. Thank you.

12 BOARD MEMBER HENNESSEY: There is just a
13 couple of follow-up questions I have.

14 On page 3 of your testimony, you state
15 that you recently reviewed relevant literature to
16 update your Winnetka report. Is that identified in
17 your prefiled testimony? Have you provided a list
18 of the new literature?

19 THE WITNESS: The new literature? I
20 believe I have. I will have to check to make sure
21 it is complete. Well, some of the things that are
22 not in there; for example, are the literature I
23 reviewed where there was nothing. I didn't include
24 that list.

1 BOARD MEMBER HENNESSEY: Literature where
2 there was nothing?

3 THE WITNESS: Where there was no relevant
4 information.

5 BOARD MEMBER HENNESSEY: Oh, I see.

6 THE WITNESS: For example, I went through
7 the Med Line into the Asthma Line which is a public
8 health and physician specific Internet site. I
9 looked through the Asthma Line for information that
10 might be relevant, and I didn't find any when I
11 looked through it. So that kind of research is not
12 in the -- I didn't list the ones that I didn't find
13 anything for.

14 BOARD MEMBER HENNESSEY: I see.

15 THE WITNESS: I could provide you with
16 that list if you would be interested in it.

17 BOARD MEMBER HENNESSEY: I would be,
18 yes.

19 THE WITNESS: Okay. The line of Internet
20 search that I did?

21 BOARD MEMBER HENNESSEY: Yes.

22 THE WITNESS: Okay.

23 BOARD MEMBER HENNESSEY: And if you want
24 to just tell us now on the record, then --

1 THE WITNESS: I spent hours doing this.
2 I couldn't possibly recreate those accurately.

3 BOARD MEMBER HENNESSEY: Well, I assume
4 that the City of Lake Forest is submitting a public
5 comment?

6 MS. WHITEMAN: Yes.

7 BOARD MEMBER HENNESSEY: That could be
8 included with the public comment.

9 MS. WHITEMAN: Sure.

10 THE WITNESS: Okay. May I ask a question
11 of you? Do you need to know -- how detailed do you
12 need? Do you need the search engine? Because many
13 of the search engines don't access specific Web
14 sites. So a Web address won't be useful if you
15 can't go through a specific search engine. I will
16 give you as complete a trail as I can. How about
17 that?

18 BOARD MEMBER HENNESSEY: Okay. Just do
19 your best.

20 THE WITNESS: Okay.

21 BOARD MEMBER HENNESSEY: Specifically, we
22 talked a little bit about cystic fibrosis. I just
23 wanted to clarify for the record, do you believe a
24 500-foot setback will provide adequate protection

1 for children that might be in school 500 feet away
2 that might have cystic fibrosis; is that correct?

3 THE WITNESS: Yes. Because any child who
4 is able to be out on that play field from a
5 personal capability for air intake, I hope, is
6 under adequate medical care and under advisement of
7 that physician. So that if there is a danger that
8 child really shouldn't be out on the field anyway
9 because even the motion of running on the grass
10 will stir up aspergillus fumigatus exposure to that
11 child. So forget the compost facility for a
12 moment. If that child is that susceptible, then
13 that child really should be advised by a medical
14 professional not to even be on that field.

15 BOARD MEMBER HENNESSEY: A similar
16 question with respect to children that might have
17 asthma. Would the 500-foot setback provide
18 adequate protection for a child that might be
19 playing 500 feet away from a compost facility?

20 THE WITNESS: Yes, according to existing
21 studies that I have looked at, the 500-foot
22 boundary is consistently reported as the drop-off
23 point.

24 BOARD MEMBER HENNESSEY: And the same

1 question with respect to children that have
2 allergies.

3 THE WITNESS: Or immunocompromised
4 children, yes.

5 BOARD MEMBER HENNESSEY: Okay.

6 THE WITNESS: The 500-foot boundary is,
7 as I said, consistent in the literature as the
8 falloff point back to background levels. Now,
9 whether those children should be on that field may
10 be a different question. But in terms of the
11 composting facilities, at that point the composting
12 facility does not add substantially to background
13 exposure that those children might otherwise
14 encounter in the play field or the forest preserve
15 or the school yard.

16 BOARD MEMBER HENNESSEY: I think that's
17 all I have. Thank you.

18 HEARING OFFICER MCGILL: Let's go off the
19 record just for a moment.

20 (Discussion off the record.)

21 HEARING OFFICER MCGILL: Why don't we go
22 back on the record.

23 I had a question about facilities that
24 may be within the 500-foot buffer that we have been

1 talking about. As you know, one aspect of the
2 proponents' proposed amendment is to actually
3 require existing facilities that are not within
4 their suggested setback to relocate.

5 From a health perspective, is there a
6 concern for healthy or unhealthy individuals if
7 they are within 500 feet of these compost
8 operations?

9 THE WITNESS: There is a concern. It
10 doesn't mean there is a direct causal
11 relationship. The concern would be to exposures
12 well above potential background exposures. For
13 example, an occupational exposure would be the
14 highest that one would assume in a closer than
15 500-foot drop back. That would be the maximum.
16 That would be the actual occupational exposure of
17 the individual; for example, turning the compost or
18 moving of the substrate in some way.

19 HEARING OFFICER MCGILL: From a health
20 perspective, are you agreeing that existing
21 facilities that may be within the 500-foot setback
22 from these various facilities, that you have
23 mentioned, that those compost facilities should be
24 relocated?

1 THE WITNESS: It depends on the
2 facility. If it is a facility that would have
3 immunocompromised individuals or individuals who
4 are in some way compromised on their health,
5 particularly bronchial health, if they are
6 attending that particular facility, then it needs
7 to be scrutinized. If they are not attending that
8 facility then the purpose of that facility needs to
9 be evaluated and the exposure.

10 For example, in -- if it is a set of
11 storage lockers, to give an example where the least
12 amount of people might be, or whatever that
13 facility is, I would think that would need to be
14 evaluated on an individual basis. If there are
15 immunocompromised individuals attending that type
16 of facility, then I would recommend that facility
17 or the compost -- the facility be moved or the
18 composting facility be moved, whichever is more
19 feasible and reasonable for that community.

20 HEARING OFFICER MCGILL: Are you talking
21 about individuals actually working at the compost
22 facility?

23 THE WITNESS: No, occupational exposures
24 are a different category.

1 HEARING OFFICER MCGILL: Okay.

2 THE WITNESS: Those exposures do need to
3 be addressed, and again, that is back to good
4 management practices. There are --

5 HEARING OFFICER MCGILL: Just to use one
6 of the examples, you indicated that you would agree
7 with a school -- having a 500-foot buffer for a
8 school?

9 THE WITNESS: Yes.

10 HEARING OFFICER MCGILL: If that school
11 is within 500 feet, say, 200 feet from a compost
12 operation, do you think it would be appropriate,
13 from a health perspective, to have that compost
14 operation relocated so it was at the 500 foot -- at
15 the minimum of a 500-foot buffer?

16 THE WITNESS: That would be one of those
17 individual cases that I referred to earlier saying
18 that other factors need to be evaluated. For
19 example, what is the buffer between the compost
20 facility and the school, and is it adequate to
21 catch any airborne spores that are generated?

22 HEARING OFFICER MCGILL: You are talking
23 about a physical --

24 THE WITNESS: Trees.

1 HEARING OFFICER MCGILL: -- buffer?

2 THE WITNESS: Trees, to be real
3 straightforward about it, are an excellent buffer
4 because the spores tend to fallout on vegetation.
5 Or some kind of geological buffer would be a
6 question I would ask. I would want to know about
7 the prevailing wind. I would want to know about
8 the moisture and the activity at that site timed
9 with the presence of individuals at that school.

10 HEARING OFFICER MCGILL: Okay. Thank
11 you.

12 THE WITNESS: Those are the kinds of
13 questions I would question at that site to
14 determine whether one or the other of those
15 facilities needed to be moved.

16 BOARD MEMBER HENNESSEY: I have one other
17 question. How are you measuring the 500-foot
18 setback? What is your measurement points you are
19 using?

20 THE WITNESS: What are the points? There
21 are sampling techniques that are the standard
22 sampling techniques in our environmental exposure
23 data collections that are posted, and the air
24 samples are taken, or microbial samples are taken

1 for examination under a microscope. That is how
2 spore counts are determined.

3 What the 500-foot setback indicates is at
4 that distance from the site boundary, not from the
5 center of the site, but the site boundary, at that
6 distance, the spore counts that are taken are
7 comparable to background levels for exposure at
8 that boundary site, at that 500-foot site.

9 BOARD MEMBER HENNESSEY: Okay.

10 THE WITNESS: So this is from
11 straightforward sampling techniques, from
12 environmental engineering.

13 HEARING OFFICER MCGILL: 500 feet from
14 the boundary of the compost facility?

15 THE WITNESS: Right.

16 HEARING OFFICER MCGILL: Not necessarily
17 the composting operations or activities?

18 THE WITNESS: Right. Most of the falloff
19 of the spores actually occurs well within the site
20 boundary just by the nature of the spores and the
21 way they are airborne and the way they fall, the
22 way they adhere to moisture droplets or
23 vegetation. So that any that are still airborne at
24 that point tend to fall off on a pretty much linear

1 basis from the actual site at which they became
2 airborne.

3 BOARD MEMBER HENNESSEY: All right.
4 Thank you.

5 DR. DESAI: I have one follow-up
6 question.

7 HEARING OFFICER MCGILL: All right. Dr.
8 Desai.

9 CROSS EXAMINATION (continued)
10 BY DR. DESAI:

11 Q What happens if the facility that is --
12 at Islip there they found four times higher levels,
13 up to 2200 feet. What would you recommend for
14 them? How can you justify 500 feet when 2200 feet,
15 which was already found at the Islip facility?

16 A There --

17 Q If a school is next door to this kind of
18 facility, then what would happen to the children in
19 the school with asthma and allergies?

20 A Well, there are several questions there.
21 Let me try to address each of them.

22 What would I recommend for the Islip
23 site? I would make no different recommendations
24 from the conclusions of that study, which the

1 conclusion of the study was that that site could
2 continue to operate without jeopardizing any of the
3 communities or the public around that site.

4 In terms of peak levels and spike levels
5 in measurements, those are always important to
6 investigate. They are important to investigate
7 from a causal point of view, and they are certainly
8 important to investigate putting them in
9 perspective of the range of exposures to determine
10 the public health effect within the range.

11 And I lost the third question. I am
12 sorry.

13 Q Are you saying that the spores in the
14 500-foot distance are more pathogenic than the
15 spores you found at the 2,200-foot distance?

16 A No. No, that's not what I am saying.

17 Q They can do the same thing, right? A
18 lion is a lion, right?

19 A That is not what I am saying. Now I
20 remember the third part of your earlier question.

21 No, that is not what I am saying. What I
22 am saying is that the levels of exposure at
23 background levels fluctuate on a daily, hourly, and
24 pretty much minute-by-minute basis, depending on

1 the course of action that person follows from any
2 given day, depending on their home situation, where
3 they play, where they shop, et cetera, et cetera.
4 So any one of us could wear a monitoring device and
5 watch our levels move dramatically from any given
6 day or any given hour.

7 In terms of children who are at risk or
8 who are susceptible, once again, I have to rely on
9 the medical community who are treating those
10 children to advise them of any exposures that might
11 jeopardize their health in any way. They need to
12 take individual action. But because those
13 individuals as much as I will say we suffer,
14 temporarily, I hope, it is we suffer, to re-orient
15 public policy on that basis is inappropriate, in my
16 opinion.

17 HEARING OFFICER MCGILL: I believe the
18 Agency had a question.

19 MS. DYER: I have just a couple of
20 questions.

21 The first one is, can you cite,
22 specifically, where in the literature the 500-foot
23 distance to reach background levels is referenced?

24 THE WITNESS: Yes. Can I do it off the

1 top of my head, no.

2 MS. GARRETT: I have it if you need it.

3 HEARING OFFICER MCGILL: Why don't we go
4 off the record for a moment.

5 (Discussion off the record.)

6 HEARING OFFICER MCGILL: Let's go back on
7 the record.

8 Why don't you restate those materials
9 that you were referring to.

10 THE WITNESS: The question was where the
11 500-foot operational line comes from. And the
12 primary reference is on page 5 of my prefiled
13 testimony from a study by Ault, A-U-L-T, and
14 Schott, S-C-H-O-T-T, published in 1993. This was
15 the -- I will quote from the study.

16 "Concentrations at composting operations
17 are quite variable and often, but not always,
18 higher than concentrations in the ambient air of
19 residential areas. A study of ten commercial
20 composting facilities in the U.S.A. found airborne
21 concentrations of *A. fumigatus* at the active site
22 of operations to be, on the average, ten-fold
23 higher than background levels." That was on site.
24 "But the concentrations fell off sharply within

1 500 feet of the operational site. If the nearest
2 human receptor is located beyond the point which
3 concentrations fall to background levels, there is
4 no elevated exposure occurring."

5 So that was basically a review of the
6 results of ten site studies.

7 HEARING OFFICER MCGILL: Let me just
8 interrupt. Where did you just read that from?

9 THE WITNESS: May I show you?

10 HEARING OFFICER MCGILL: Sure.

11 THE WITNESS: I don't know how to refer
12 to these. This is actually -- that's in the --

13 HEARING OFFICER MCGILL: Let's go off the
14 record for a moment.

15 (Discussion off the record.)

16 HEARING OFFICER MCGILL: Let's go back on
17 the record.

18 Ms. Strauss was reading from pages 9 and
19 10 of the report entitled, "Aspergillus,
20 Aspergillosis and Compost Operations in
21 California," dated December 16, 1993, which is
22 Exhibit D to the prefiled testimony of Shirley Baer
23 of the Agency.

24 THE WITNESS: That same report is also

1 referenced in my testimony. I just couldn't find
2 it quite as readily.

3 HEARING OFFICER MCGILL: Okay. Thank
4 you.

5 MS. DYER: Okay. I have two follow-up
6 questions.

7 The first is, when they talk about
8 operational site, within 500 feet of the
9 operational site, do you understand that to be
10 within the 500 feet of the property boundary of the
11 site, or within 500 feet of the composting pile, or
12 within 500 feet of the composting area?

13 THE WITNESS: Of the site boundary,
14 whatever has been zoned to be that composting
15 facility. The 500 feet is generally referred to as
16 from the site boundary.

17 MS. DYER: What do you base that
18 understanding on, construing it that way?

19 THE WITNESS: From my reading of the
20 literature and knowledge of sampling techniques.

21 MS. DYER: And I believe you said that
22 that distance, that 500-foot distance, is
23 consistent throughout the literature?

24 THE WITNESS: Right.

1 MS. DYER: Are there other places you
2 have seen that?

3 THE WITNESS: Yes, there are. Let's
4 see.

5 What I would like to do is ask your
6 permission to give you those references in my
7 comment rather than taking the time to find them
8 specifically in my stack.

9 HEARING OFFICER MCGILL: That's fine. If
10 the City would include those references in their
11 public comment.

12 MS. WHITEMAN: Sure.

13 MS. DYER: Could I ask you to take a
14 look, as you are doing that, at that study that we
15 have discussed already, "Bioaerosols Associated
16 with Composting Facilities," with Millner as the
17 first author. There are several authors.

18 THE WITNESS: Right.

19 MS. DYER: On page 34 there are -- it is
20 Exhibit G to Shirley Baer's -- to Dr. Baer's
21 testimony.

22 THE WITNESS: I am sorry. What page
23 now?

24 MS. DYER: It is page 34.

1 THE WITNESS: Page 34. Individual case
2 studies?

3 MS. DYER: Yard waste studies.

4 THE WITNESS: Facility design and
5 mitigation. That's what is on my --

6 HEARING OFFICER MCGILL: The pagination
7 may be different. Maybe you could give the section
8 or the subsection title.

9 MS. DYER: The section is entitled yard
10 waste studies, and the paragraph starts, "Swerling
11 and Strom reporting on the study of four
12 communities in New Jersey."

13 BOARD MEMBER McFAWN: It is two pages
14 before --

15 THE WITNESS: Yes, I got it. Thank you.

16 MS. DYER: It looks to me that that
17 reference is a 1,500-foot distance before the
18 concentrations drop off. It is 300-foot and
19 1,500-foot distance downwind.

20 THE WITNESS: This particular -- it is on
21 my page 32. It is a 1991 study by Swerling,
22 S-W-E-R-L-I-N-G and Strom, S-T-R-O-M, reporting on
23 the study of four communities in New Jersey.
24 During periods of work activity, the concentrations

1 dropped significantly at 100 meters, which is 300
2 feet. It says during the work activity the
3 concentrations dropped significantly. At 300 -- I
4 will use feet -- at 300 feet and 1500 feet
5 downwind. At 100 meters which is roughly 300 feet
6 downwind, the airborne concentration was at 354 CFU
7 per cubic meter, and at 500 meters it was 86 CFU
8 per cubic meter. These numbers were within the
9 range of typical background concentrations. So
10 even at 300 meters with the -- at the 300-foot
11 drop-off and 1,500-foot drop-off, both of those
12 were found to be measurements consistent with
13 background levels at those four sites.

14 MS. DYER: All right. So there is some
15 variance from place to place in the distance that
16 it takes to reach background levels, would you
17 agree?

18 THE WITNESS: Yes.

19 MS. DYER: Okay.

20 HEARING OFFICER MCGILL: Just for
21 clarification, that was -- I believe we were just
22 discussing page 34 of Exhibit G to Shirley Baer's
23 prefiled testimony.

24 THE WITNESS: May I just clarify that

1 that 300 foot level, even at 300 feet, it was
2 within background levels. So that would actually
3 be inside the 500-foot boundary. I wouldn't -- I
4 think 300 feet -- this is a unique appearance of
5 the figure of 300 feet. I would be more inclined
6 to use the 500 feet which appears in different
7 places frequently in the literature.

8 MS. DYER: I have another follow-up on
9 this, and then I have an additional question.

10 When I asked you about what the distance
11 would -- where you would be measuring it from, the
12 composting pile, the composting area, or boundary
13 of the site, under the Illinois regulations that's
14 a significant issue or question, the determination
15 that has to be made.

16 THE WITNESS: Right.

17 MS. DYER: I don't know if you are
18 familiar enough with the regulations, but there is
19 a term "composting area" in the definitions
20 already. And that would be the area of the
21 composting -- I am reading from our Section
22 830.102, the definitions in part 830 of 35 Illinois
23 Administrative Code. The composting area would be
24 the area of a composting facility in which waste,

1 composting material, or undistributed end product
2 compost is unloaded, stored, staged, stockpiled,
3 treated, or otherwise managed.

4 I believe that that is the area -- the
5 distance from which our existing setback is
6 measured.

7 THE WITNESS: Exactly. Where the action
8 takes place, where the compost is.

9 MS. DYER: Right.

10 THE WITNESS: Certainly, different
11 communities have different sized fenced in or not
12 fenced in areas where they do their composting. So
13 you would need to establish the boundary where the
14 actual compost is and is being handled, where the
15 substrate are being handled at the facility.

16 MS. DYER: I just wanted to clarify that
17 we were --

18 THE WITNESS: Right. Yes, I know.
19 Property ownership is not what I am talking about.
20 I am talking about where the actual composting
21 occurs. That's the site that I am referring to.

22 MS. DYER: Okay.

23 THE WITNESS: And that is referred to in
24 the literature.

1 HEARING OFFICER MCGILL: I just want to
2 clarify. You would measure the 500-foot setback
3 from the composting area, as Ms. Dyer has just
4 defined composting area?

5 THE WITNESS: Yes, yes. That would be
6 the source point of any bioaerosol that would be
7 generated from the handling of the substrate.

8 BOARD MEMBER HENNESSEY: The property
9 line is irrelevant?

10 THE WITNESS: Yes, the property line is
11 really irrelevant. That's who owns the property in
12 the community, and how big that facility is. For
13 example, where I live, an old municipal solid waste
14 landfill is also on that same property, but to
15 measure from the boundary of that property is not
16 actually addressing the concern of the spore
17 distribution from the composting facility.

18 HEARING OFFICER MCGILL: Does the Agency
19 have any further questions?

20 MS. DYER: Yes, I have one further
21 question. This is more of a clarification from
22 what I was hearing, based on what I was hearing
23 before.

24 Is it your professional opinion that the

1 existing setback -- the applicability of an
2 existing setback in Illinois should be expanded to
3 include schools, hospitals, athletic fields, and
4 public parks?

5 THE WITNESS: I am hedging only because I
6 don't know the exact wording of the existing
7 regulation. Do I think that the 500-foot boundary
8 applies to all occupied facilities? Yes. If there
9 is a facility that falls within that 500 feet, it
10 needs to be specifically analyzed to determine.

11 MS. DYER: Facility is a term of art
12 here. It is a defined term. I would rather you
13 didn't use that.

14 THE WITNESS: Okay. I am sorry.

15 MS. DYER: Any occupied premises would be
16 much broader than schools, hospitals, public parks,
17 and athletic fields. I am trying to determine
18 exactly what you think the scope of applicability
19 needs to be, based on your expertise in the public
20 health.

21 THE WITNESS: Okay. The --

22 MS. DYER: And, specifically, with
23 respect to this hazard, not odors, not anything
24 else, but the aspergillosis.

1 THE WITNESS: Okay. Let me try to answer
2 that. I didn't realize that the word "facility"
3 had a more specific meaning. I am really -- what I
4 am concluding from my literature review is that
5 within 500 feet of this site, where the composting
6 is actually taking place, there are elevated
7 aspergillus fumigatus spore counts. At the
8 500-foot demarcation, in general, the spore count
9 falls back to background levels.

10 So that within that 500-foot border,
11 there will be an elevated exposure, a potential
12 elevated exposure, to aspergillosis fumigatus
13 spores that were generated from the composting
14 facility. So any activities that occur within that
15 500 feet need to be monitored in terms of exposure
16 to potentially elevated levels. Does that --

17 MS. DYER: Monitored in terms of
18 exposure, is not --

19 THE WITNESS: I don't mean actively
20 monitored. I mean in terms of a consideration of a
21 site.

22 MS. DYER: Okay. What we are --

23 THE WITNESS: I am sorry.

24 MS. DYER: What we are contemplating

1 here, or discussing here, is a uniform setback.

2 THE WITNESS: Right.

3 MS. DYER: Statewide.

4 THE WITNESS: Right.

5 MS. DYER: And it wouldn't be --

6 THE WITNESS: So --

7 MS. DYER: -- based on a siting hearing
8 or site specific.

9 THE WITNESS: Exactly. So within that
10 500-foot boundary, no schools would be located, no
11 hospitals -- certainly no hospitals or other health
12 care facilities would be located. There might be a
13 park district there. There might be a forest
14 preserve there, but it may not be accessible to the
15 public if the concern is an elevated level from the
16 composting.

17 But there wouldn't be any public -- I
18 don't know what to call it, other than facilities.
19 There wouldn't be schools or playgrounds or
20 community parks located within that 500-foot
21 boundary, again, as a general regulation. Is that
22 what --

23 HEARING OFFICER MCGILL: Did you have any
24 further questions?

1 BOARD MEMBER McFAWN: I think you have
2 answered the question.

3 THE WITNESS: Okay. I am sorry. I don't
4 think I have. I would really like to, if I need to
5 try again.

6 BOARD MEMBER HENNESSEY: I think the
7 record is pretty clear. I guess I understand that
8 she said she thinks there should be a 500-foot
9 setback for schools, hospitals, and athletic
10 facilities --

11 THE WITNESS: Anywhere where the public
12 is going to be, in general, participating in a --

13 BOARD MEMBER HENNESSEY: -- or public
14 parks. It sounds like she might be willing to say
15 no people within 500 feet.

16 THE WITNESS: Not really.

17 BOARD MEMBER HENNESSEY: I am overstating
18 it, but I am not sure if we are clear or not on the
19 record, I guess, is my point.

20 THE WITNESS: Yes, I would really like to
21 answer what --

22 MS. DYER: I guess what has left a
23 question for me is whether she is talking about
24 something uniform because she was talking about

1 monitoring and site specific considerations and all
2 of the other considerations with the wind
3 direction, and that would not come into play if it
4 were statewide. I wanted to be sure that she --
5 that there was a uniformity of the --

6 THE WITNESS: Unless there is a specific
7 facility that had a specific function that was
8 applying for an exemption, and only under those
9 exemption applications would you or would the
10 facility need to, I think, go through those types
11 of studies to determine whether 300 feet might be
12 adequate, if it happens to be at this New Jersey
13 facility.

14 So there is exceptions to every rule, as
15 we all know. And so in a public policy, I think it
16 is prudent to establish what fits for the largest
17 number of individuals and the largest number of
18 sites and give an opportunity for exemptions that
19 can be determined as reasonable exemptions. It is
20 a policy approach that I am advocating.

21 HEARING OFFICER MCGILL: Does the Agency
22 have any further questions?

23 MS. DYER: No.

24 HEARING OFFICER MCGILL: Okay.

1 MR. RAO: I have one. I have a
2 clarification question.

3 HEARING OFFICER MCGILL: Okay.

4 MR. RAO: Earlier, you were listing these
5 factors that a site might have to consider if a
6 facility like a school or a hospital is within this
7 500-foot buffer distance to make this evaluation,
8 this site specific evaluation. And you mentioned,
9 you know, testing for spore counts. Are these
10 tests commonly done at these kinds of sites? Is it
11 a common test that is available?

12 THE WITNESS: Because it -- it is not
13 common because the sites are fairly representative,
14 one to the other, as long as they are within the
15 same kind of meteorological and geological
16 environment in terms of wind patterns, moisture
17 content, those kinds of characteristics are able to
18 be applied to other facilities.

19 MR. RAO: So --

20 THE WITNESS: So that each site doesn't
21 have to redo the same studies over and over again.

22 MR. RAO: Okay. That's what I wanted to
23 get clear, that they don't have to do this spore
24 count, this spore testing at all of these sites?

1 THE WITNESS: There is no reason for an
2 individual -- for each individual site to have to
3 undergo those types of local studies.

4 MR. RAO: Okay.

5 THE WITNESS: There is no basis for
6 that.

7 DR. HOLLOMAN: I have a question.

8 HEARING OFFICER MCGILL: All right. Go
9 ahead.

10 CROSS EXAMINATION (continued)

11 BY DR. HOLLOMAN:

12 Q Dr. Strauss, were you aware of the study
13 that was done at the DK site in Lake Forest, that
14 the highest spore counts were obtained at the fence
15 line downwind? In fact, the counts that were taken
16 at the fence line were higher than those obtained
17 from the stirred compost site.

18 Could you explain how something like that
19 might have happened, unless it could be something
20 called bad data?

21 A These were downwind?

22 Q Pardon?

23 A These were downwind?

24 Q Yes.

1 A I believe there were high readings upwind
2 also, and those would be much harder to explain.
3 Can I explain them? I would need to see the
4 specific reading and when it was taken. I would
5 assume that it was in a draft that was passing that
6 site monitor, that collection.

7 Q That data is not available in the study
8 that was done.

9 A Yes. I would be glad to look at it.

10 Q I think what this does is confirm what
11 you have said earlier, that there is a necessity to
12 do testing at the site, in fact, to determine if
13 there is something unique about that site.
14 Clearly, there is something unique about the Lake
15 Forest site when the highest readings are found at
16 the fence line downwind. Now, I don't know how far
17 the fence line was from the compost site, where the
18 action was taking place. I am presuming it was
19 more than 500 feet.

20 A Well, to explain that particular point,
21 data point, I would really need to see that study
22 in detail. I would be glad to look at it.

23 Q Well, there is only two ways to explain
24 it: Bad data which means that the whole study is

1 useless, or in fact, it is real, indicating that
2 500 feet if, in fact, that site is 500 feet from
3 the compost site, might not be a sufficient buffer
4 to the area?

5 A My memory of that site also indicates
6 high readings upwind of the site. And my
7 familiarity with that site is that there are forest
8 preserves in the area, as well as corn fields in
9 that immediate area. So I would need to see
10 specifically where that was taken and what the wind
11 direction was at that time in order to try to be
12 more precise about the source of that reading
13 because I really can't comment on it without that
14 kind of information.

15 Q The collection system for collecting
16 spores, is that a small point in time or is that a
17 long period of time over which the spores are
18 collected?

19 A That is study specific. Basically, these
20 collection devices can be used either for points,
21 point collection; or for example, in the Islip
22 study, there was 20 days where the collection was
23 made every hour, made every hour during each of
24 those 20 days. So the sampling equipment lends

1 itself to a wide variety of time applications.

2 Q So, consequently, it is very hard to
3 compare studies when different sampling methods are
4 used?

5 A Well, no, the same sampling techniques
6 are used so that any weaknesses or strengths of
7 that particular sampling method are comparable
8 throughout the studies.

9 Q Throughout a given study, but not
10 necessarily from study to study?

11 A Well, in studies that employ the same
12 sampling techniques or comparable sampling
13 techniques, then those data are considered
14 comparable.

15 HEARING OFFICER MCGILL: Are there any
16 further questions for this witness?

17 BOARD MEMBER McFAWN: Yes, I have one
18 question. When you submit your public comment,
19 could you provide us with whatever additional
20 information you might have on the 500 feet. You
21 did say that you have gotten it from a number of
22 sources. We have looked at the one from Ault and
23 Schott. It seems like they reference a chem-risk
24 study of 1981 at the site. Would you make that

1 information available to the Board?

2 THE WITNESS: I would be glad to.

3 HEARING OFFICER MCGILL: Are there any
4 further questions?

5 THE WITNESS: For example, if I cite a
6 study that is a review study, would you like me to
7 give the reference within that review study? Would
8 that be helpful?

9 BOARD MEMBER McFAWN: Yes.

10 THE WITNESS: Okay.

11 BOARD MEMBER McFAWN: Thanks.

12 THE WITNESS: It is a lot of work.

13 BOARD MEMBER McFAWN: Then I guess not.
14 You have given us a lot of --

15 THE WITNESS: That's what I am here for.

16 BOARD MEMBER McFAWN: You have given us a
17 lot of testimony about the 500 foot, so I would
18 like information about that. When you talked about
19 the spore falloff occurring within that distance,
20 anything that talks about that I am interested in
21 as well.

22 THE WITNESS: Okay.

23 HEARING OFFICER MCGILL: Are there any
24 further questions for Dr. Strauss? Why don't we go

1 off the record for a minute.

2 (Discussion off the record.)

3 HEARING OFFICER MCGILL: Back on the
4 record.

5 Are there any further questions for this
6 witness?

7 MR. WALKER: Yes.

8 HEARING OFFICER MCGILL: If you could
9 state your name and any organization you represent,
10 please.

11 MR. WALKER: Paul Walker from the
12 Illinois State University, professor of Animal
13 Science.

14 I have a question on your definitions,
15 perhaps. When you mentioned the 500 feet and then
16 you talked about possible exemption site specifics
17 and the definitions of school, is a university
18 classified as a school? And when you are talking
19 about where the general public would be on the
20 premise, then are you talking about any grounds
21 owned by that school or university within 500 foot,
22 or are you recommending to the PCB that if you have
23 a 500-foot statewide regulation that you also have
24 a clause for exemptions for specific sites

1 depending on locations, et cetera?

2 THE WITNESS: I am recommending that
3 there be a clause for exemptions for certain sites
4 if those sites can demonstrate that the management
5 of that particular facility doesn't impose a
6 substantially higher than background exposure.

7 MR. WALKER: I think that's an important
8 point to make, to clarify. We are starting to
9 focus on 500, and site specific exemptions may be a
10 very important part, depending on how schools are
11 going to be defined, et cetera.

12 THE WITNESS: Right, and particularly the
13 school that --

14 MR. WALKER: And the purpose of the
15 compost site, et cetera?

16 THE WITNESS: Right.

17 MR. WALKER: Thank you.

18 HEARING OFFICER MCGILL: Are there any
19 further questions for this witness?

20 Let's go off the record for a minute.

21 (Discussion off the record.)

22 HEARING OFFICER MCGILL: Let's go back on
23 the record.

24 Are there any further questions for this

1 witness?

2 Okay. Thank you very much for your time
3 this morning, Dr. Strauss.

4 (The witness left the stand.)

5 HEARING OFFICER MCGILL: Let's go off the
6 record.

7 (Discussion off the record.)

8 HEARING OFFICER MCGILL: We are going to
9 break for lunch now and start up at 1:30.

10 (Whereupon a lunch recess was
11 taken.)

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AFTERNOON SESSION

(October 7, 1997; 1:30 p.m.)

HEARING OFFICER MCGILL: Back on the record.

We will now proceed with the Agency's witness. Ms. Dyer, will you and the witness step up, please.

MS. DYER: Hello. My name is Judy Dyer. I am here today on behalf of the Illinois Environmental Protection Agency. With me is Dr. Shirley Baer on my right, and Joyce Munie on my left. Joyce Munie testified at the hearing in Chicago, and she is just going to sit up here so that we can confer, if need be.

At this time I would like to present Dr. Shirley Baer who will give a summary of her testimony.

HEARING OFFICER MCGILL: Thank you. If you could please swear in the witness.

(Whereupon the witness was sworn by the Notary Public.)

S H I R L E Y B A E R,
having been first duly sworn by the Notary Public,
saith as follows:

1 THE WITNESS: My name is Dr. Shirley
2 Baer. I have worked for the Agency close to nine
3 years at the EPA. I have worked in the Solid Waste
4 Planning Section, the Permit Section, and currently
5 I work in the Remedial Project Management Section.
6 I have a B.S. in Botany, a Master's in Food
7 Science, which emphasizes on Microbiology, and a
8 Doctorate in Food Microbiology.

9 On May 6th the Agency -- the proposal was
10 submitted to me to review. The proposal was to
11 amend the location standards in 830.203(c). Based
12 on the documents submitted with the proposal as
13 well as my own research, it is my professional
14 opinion that the current landscape waste
15 regulations is protective of public health as it is
16 written.

17 HEARING OFFICER MCGILL: Does that
18 conclude your testimony?

19 THE WITNESS: Yes.

20 MS. DYER: That concludes a summary of
21 her testimony.

22 I would move at this point to have her
23 testimony and the attachments to it entered into
24 the record. Here is a copy.

1 HEARING OFFICER MCGILL: Thank you. I
2 have been handed a copy of the testimony of Shirley
3 Baer which includes as attachments Dr. Baer's
4 resume or C.V.

5 Also included is an attachment or
6 excerpts of comments from the prior landscape waste
7 compost rulemaking, R93-29, comments of the
8 Agency.

9 The third attachment is a question and
10 answer document entitled "Aspergillus Fumigatus."

11 The fourth attachment is entitled,
12 "Aspergillus, Aspergillosis in Composting
13 Operations in California," dated December 16,
14 1993.

15 The next exhibit -- or the next
16 attachment is entitled, "A perspective Study of
17 Health Symptoms and Bioaerosol Levels Near a Yard
18 Waste Composting Facility," Islip Composting
19 Facility, Town of Islip, Suffolk County, New York,
20 March 1994.

21 The next attachment is a memo dated
22 January 10, 1994, to Judy Dyer from Shirley Baer,
23 subject, airborne problems associated with
24 composting operations.

1 Then the next attachment is a report
2 entitled, "Bioaerosols Associated with Composting
3 Facilities."

4 Is there any objection to entering as a
5 hearing exhibit the testimony of Shirley Baer which
6 includes the described attachments? Seeing none, I
7 am marking as Exhibit Number 36 and entering as a
8 hearing exhibit the testimony of Shirley Baer which
9 includes the described attachments.

10 (Whereupon said documents were
11 duly marked for purposes of
12 identification and admitted
13 into the record as Hearing
14 Exhibit 36 as of this date.)

15 HEARING OFFICER MCGILL: Before we
16 proceed with questions for Shirley Baer, Ms. Dyer,
17 does that conclude the Agency's presentation for
18 today?

19 MS. DYER: That does.

20 HEARING OFFICER MCGILL: Okay. Why don't
21 we proceed with questions for Dr. Baer.

22 Do the proponents have any questions?

23 MS. GARRETT: Yes.

24 HEARING OFFICER MCGILL: Would you just,

1 again, state your name, please.

2 MS. GARRETT: Susan Garrett.

3 CROSS EXAMINATION

4 BY MS. GARRETT:

5 Q Dr. Baer, we have heard a lot today about
6 good management practice of composting facilities.
7 What procedures are currently in place if a
8 facility is not found to be operating properly?

9 A I think I would like to defer that
10 question to Joyce Munie. That is more of an
11 enforcement type of action.

12 HEARING OFFICER MCGILL: Why don't we
13 swear in Ms. Munie.

14 (Whereupon the witness was
15 sworn by the Notary Public.)

16 J O Y C E M U N I E,
17 having been first duly sworn by the Notary Public,
18 saith as follows:

19 THE WITNESS: That would be for a matter
20 of enforcement. It would go through our attorneys
21 who would refer it to either the Attorney General's
22 office or the States Attorney's office.

23 MS. GARRETT: And what, exactly, would
24 the penalty be, for instance, if a composting

1 facility in Kane County was not operating
2 properly? What kinds of penalties are in place?

3 THE WITNESS: In general, the penalties
4 are site specific. Sometimes it is a matter of
5 somebody will get deferred for enforcement but will
6 end up being a compliance issue in that just trying
7 to bring the facility back into compliance.
8 Sometimes there are no penalties attached.
9 Penalties -- there is a maximum penalty. But I am
10 afraid I don't know what it is.

11 MS. DYER: I am not sure, procedurally,
12 how the Board feels about this, but we do have Ed
13 Bakowski here today. He did not submit testimony,
14 but he might be able to shed light on this
15 particular question if you want him sworn in as
16 long as he is here. He can come up and --

17 HEARING OFFICER MCGILL: He is with the
18 Agency?

19 MS. DYER: Right.

20 HEARING OFFICER MCGILL: Okay. Sure. If
21 he wouldn't mind stepping up here and getting sworn
22 in.

23 Could you just state your name, please.

24 MR. BAKOWSKI: Edwin Bakowski.

1 HEARING OFFICER MCGILL: Would you please
2 swear in the witness.

3 (Whereupon the witness was
4 sworn by the Notary Public.)

5 MS. DYER: Before answering, if you could
6 just explain your title first.

7 E D W I N C. B A K O W S K I, P.E.,
8 having been first duly sworn by the Notary Public,
9 saith as follows:

10 THE WITNESS: My name is Ed Bakowski. I
11 am the Manager of the Permit Section in the Bureau
12 of Land. I have held that position for
13 approximately four years. Prior to that I was a
14 solid waste unit manager which in that position I
15 have been involved in permitting of the compost
16 facilities since 1987.

17 HEARING OFFICER MCGILL: Thank you.

18 THE WITNESS: In regards to general
19 enforcement about facilities that don't comply with
20 the permitting requirements, or operating without
21 permits or outside of permits, the procedure is
22 that we have to send out inspectors to verify
23 whether they are in compliance. If it is believed
24 that there is a violation, they make the

1 recommendation to -- there is a decision panel in
2 the Agency that determines whether it should be
3 referred to for enforcement, and then the
4 enforcement branches, as Joyce said, is either the
5 Illinois States Attorney's office or the local.

6 MS. GARRETT: How long does something
7 like that usually take? I mean, if you found a
8 composting facility in Kane County that was
9 completely operating improperly, and the inspector
10 agreed with that, then, how long would it possibly
11 take before all of the different steps would be
12 taken before that facility was brought back into
13 compliance?

14 THE WITNESS: Okay. We didn't anticipate
15 enforcement type questions, so I will do the best I
16 can to answer from my perspective, as fairly
17 familiar with the system. If the Agency determines
18 there is an imminent environmental threat or
19 endangerment, we have powers where the director can
20 order a site closed, okay. So if it is determined
21 that there is an imminent threat, it can be a
22 matter of -- I believe it is overnight if not that
23 same day, okay.

24 On other types of complaints, I would say

1 it graduates about the severity of the violations
2 and the potential environmental or public health
3 threat. Some cases can take a considerable amount
4 of time. Some can go quicker.

5 MS. GARRETT: Generally speaking, would
6 you say that most of the cases would take about a
7 year or less or more or -- I mean --

8 THE WITNESS: The ones that ultimately go
9 to enforcement that may well be, but I think the
10 Agency's primary goal is to get people back into
11 compliance rather than into enforcement. So I
12 think a lot of times, on setting out the
13 enforcement, there is notices that go out and
14 usually those -- if it is an operational problem
15 and it is fixable, a lot of those get fixed. I
16 don't think I can give you a range of how long it
17 takes to fix a problem like that.

18 (The cross-examination by Ms.
19 Garrett of the witness, Dr.
20 Shirley Baer, now continues.)

21 Q (By Ms. Garrett) Okay. On page 7, Dr.
22 Baer --

23 A Of what?

24 Q I am sorry. Of this attached report,

1 Illinois comments -- I am sorry -- Exhibit B. On
2 page 7 of Exhibit B, it was concluded, and I quote,
3 "that the risk of aspergillus is low except in the
4 cases of persons who have allergic responses or are
5 immunosuppressed."

6 Is this an overall statement of
7 aspergillus or aspergillus as it is related to
8 commercial composting facilities?

9 A I think that is in general with
10 aspergillus. That is a --

11 Q But the statement can't be made that on
12 composting facilities the aspergillus is low?

13 A I don't think it says that it is low.

14 Q All right.

15 A Can you rephrase the question? What are
16 you asking me?

17 Q It is page 7.

18 A Okay.

19 Q I will tell you exactly where it is. It
20 is the second paragraph.

21 HEARING OFFICER MCGILL: Let me just say,
22 for clarity, that this is now part of Exhibit 36.
23 This is the second attachment to Shirley Baer's
24 prefiled testimony with the Agency that is marked

1 as Exhibit B.

2 Q (By Ms. Garrett) I can read it if you
3 want. It starts out with "participants in the
4 workshop comprised of 25 people" -- "concluded that
5 the risk from aspergillus fumigatus is low except
6 in the case of persons who have allergic responses
7 or are immunosuppressed."

8 A Okay.

9 Q Does that mean that it is low at
10 composting sites, or it is low overall?

11 A I think what you are asking is what the
12 conclusion was. And I would like to point out that
13 this was based on what was -- had not been
14 published, but it has been published now. I think
15 I put it as Exhibit G. They have concluded that
16 the risk around the composting site is low except
17 for immunosuppressed and possibly -- and they said
18 this is except in the case of persons who have
19 allergic responses or who are immunosuppressed.

20 Q Okay. From a scientific and technical
21 perspective, what exactly does low risk mean?

22 A I think that when they talk about -- I am
23 not a risk-based person. You are talking about
24 more like a biological risk, I am assuming?

1 Q Well, actually --

2 A Our Agency is more of a -- our expertise
3 is in chemical risks. We just recently went
4 through a procedure that talked about risks
5 extensively. I think some of the Board Members are
6 understanding that. We have a risk for cancer
7 causing agents, chemicals, one times ten to the
8 sixth, if it is cancer or if it is not, if it is a
9 noncarcinogenic chemical. We do target hazard
10 quotients greater than one.

11 But for the biological risks, which I
12 think is what you are asking for, that is not what
13 our expertise is. And we would probably defer it
14 to the Department of Public Health as to what would
15 be the acceptable risk for aspergillus.

16 Q Okay. I don't know what to do with --
17 the reason I said scientific and technical is
18 because, as you provided your testimony, you said
19 that we didn't have the scientific and technical
20 data to support our proposed changes. So I am
21 trying to find out what scientific and technical or
22 biological data supports some of the comments that
23 you provide in your testimony.

24 A Well, I basically defer to the experts in

1 the field. I have talked to Dr. John Walker. I
2 talked to him yesterday. He is at the U.S. EPA. I
3 talked to -- let me look through the list of my
4 notes here, if you can hold on. I talked to Ed
5 Horn at the New York Department of Health at New
6 York. I have talked to Dr. Eliot Epstein. I have
7 talked to -- this is within, like, the last two
8 months that I have talked to these people. Sally
9 Roland over at the New York Department of
10 Environmental Conservation. And they all concurred
11 that it was still low. They didn't feel like it
12 was a substantial threat to the public health.

13 Q Well, my question, then, is, has the term
14 "low risk" been defined low on site as well as
15 certain distances from the operation? I mean, is
16 there a way in which, when we are talking about the
17 level of aspergillus and we are talking about that
18 500 mark and we are talking about people who are
19 allergic or who are asthmatic or who have
20 immunocompromised systems, when is that 500 mark,
21 maybe, I should say, an acceptable low risk
22 marker?

23 Or is there something out there when you
24 are saying that, generally speaking, these compost

1 sites are at a low risk, is that just a broad
2 generalization, or can we be more scientific and
3 technical and specific so that we --

4 A I understand. I think, like the previous
5 witness had kind of alluded to, that basically
6 there has been, like, four cases reported, I guess,
7 in the United States. That is my understanding.
8 Of those four only one was really an off-site
9 incident. Even that one has not been concluded
10 that the compost site was the actual cause of the
11 person's death, is my understanding. So I would
12 say there is no -- I mean, we have not demonstrated
13 that it is a health hazard.

14 Q In your opinion, is risk associated with
15 death? Are we talking about effecting somebody who
16 is allergic or who has asthma?

17 A It could include something like
18 debilitating. I think, also, like, they pointed
19 out, I think it was in Lake Forest that they had
20 that overlay map. They haven't shown an increase
21 for, you know, correlating -- or like an increase
22 of asthmatic problems or disease or anything around
23 compost sites. That is my understanding. I think
24 that Lake Forest had presented that in the earlier

1 testimony. That's what I am basing it on, what has
2 been provided to me.

3 Q Okay. Did you know that in Lake Forest
4 the people who conducted the test asked that --
5 there were some sort of, I guess, diaries, I guess
6 you refer to those as diaries and that the City of
7 Lake Forest turned that request down. So I don't
8 know if there is any measurement of increased cases
9 of allergies or asthmatic --

10 A Well, I guess, like, another thing, too,
11 was the New York study that you point to a lot,
12 too, and that, basically, you talk about, like,
13 well, there should be, like, a -- the diary should
14 show, like, a cause and effect. I think in the
15 Lake Forest exhibit that they have given as Exhibit
16 3 in their testimony, there is a letter from Dr.
17 Epstein. He is an authority. I think everybody
18 has concurred on that one. When I talked to the
19 people at the U.S. EPA, they referred me to him and
20 the Department of New York.

21 They said that his letter says that
22 really those incidents where they had, like --
23 like, you would think where there is a high level
24 of spore activity that you would have more

1 incidence, but there was no correlation, you know.
2 You would think that if you have a high level that
3 you should have an increased level of complaints
4 and there wasn't.

5 Q Just to make a small -- I know Eliot
6 Epstein is here. Is he here?

7 A I don't think he is here. I only talked
8 to him on the phone.

9 Q Okay. Eliot Epstein's company, E&A, did
10 do a spore measurement test in Lake Forest prior
11 to --

12 A Okay.

13 Q -- the test that you are talking about.

14 A Okay.

15 Q And that test was deemed totally
16 inconclusive because the spore counts were all over
17 the place. In fact, if anything, they were
18 incredibly high on-site and off-site.

19 MS. WHITEMAN: Can I object to her
20 characterization because it is not in the record.

21 MS. GARRETT: Okay. Well, I don't know
22 what the --

23 HEARING OFFICER MCGILL: Let's just go
24 off the record for a moment.

1 (Discussion off the record.)

2 HEARING OFFICER MCGILL: Back on the
3 record.

4 I encourage you to ask questions. That's
5 what the purpose of this is, and not to provide
6 testimony.

7 MS. GARRETT: Okay. I am sorry.

8 HEARING OFFICER MCGILL: Why don't we
9 move on.

10 Q (By Ms. Garrett) Would you consider low
11 risk an acceptable risk?

12 A I guess it is like -- I think it was --
13 in my personal opinion, low risk is acceptable. I
14 think that's been kind of stated. I think when you
15 talk about risk, you have to also -- I think our
16 Agency has been directed also to balance
17 everything, you know, balance other
18 considerations.

19 If I can read for the Board, I think --
20 we have, like, a mission statement. I think most
21 agencies have those. I will read that. This is
22 what we use when we make some of our decisions.

23 "The mission of the Illinois EPA is to
24 safeguard environmental quality consistent with the

1 social and economic needs of the state so as to
2 protect the health, welfare, property, and the
3 quality of life." So I think we kind of have to --
4 we are looking at a package here that we have to
5 deal with.

6 Q Okay.

7 A So we do protect the health.

8 Q Okay.

9 A The health of the general public, the
10 public health.

11 Q Okay. In your prefiled testimony you
12 stated that, quote, papers prepared by
13 environmental health experts who have studied the
14 health risks from airborne substances around
15 composting facilities were reviewed by the IEPA.
16 These papers demonstrated that properly operating
17 compost facilities should not present a health
18 risk.

19 In regard to Exhibit C of your testimony,
20 you attach supporting documentation of a 10-year
21 study on the Montgomery County, Maryland,
22 composting facility. Your documentation reports
23 that, quote, "this study could not detect any
24 significant difference in levels of aspergillus up

1 and downwind of the facility."

2 Were you aware, Dr. Baer, that during the
3 study the site was partially enclosed?

4 A No.

5 Q Okay. Let me refer you to Biocycle
6 Magazine, January of 1995.

7 HEARING OFFICER MCGILL: I am sorry. I
8 am just going to interrupt for a second. You had
9 referred to Exhibit C --

10 MS. GARRETT: Did I say C?

11 HEARING OFFICER MCGILL: -- of the
12 prefiled testimony of Dr. Baer?

13 MS. GARRETT: Yes.

14 HEARING OFFICER MCGILL: All right. You
15 can proceed.

16 MS. GARRETT: I can? Okay.

17 THE WITNESS: The article you are
18 bringing up, is it something that I have seen
19 before?

20 Q (By Ms. Garrett) It is a compilation of
21 some of the studies that you have, and that's why I
22 wanted to point it out, that one of the remarks
23 that was made in this particular study was that
24 site was enclosed for part of the 10-year study.

1 HEARING OFFICER MCGILL: Do you have a
2 specific question?

3 Q (By Ms. Garrett) The question is, in your
4 professional opinion, would the enclosure of the
5 operational part of the site have diminished the
6 levels of aspergillus and then should not be used
7 when analyzing levels of aspergillus emanating from
8 compost facilities?

9 A Well, I think when you are looking at a
10 site you have to take a measurement. You did bring
11 up one point that I want to point out and that is,
12 like, in some of the studies that were brought up
13 talking about the -- I think those four cases we
14 are talking about, I think two of those cases, and
15 we are talking about the enclosed facility. Two of
16 those cases were also enclosed, and that was when
17 they had a higher incident of the -- you have a
18 higher chance of the aspergillus. The organic dust
19 syndrome that you talked about in your exhibits,
20 usually those occur in enclosed areas.

21 Q But --

22 A So you are saying -- your question is, if
23 I get it correct, is that you want to know would
24 the spore counts be lower if it was enclosed?

1 Q Right. Would it have effected the spore
2 counts downwind and upwind at that particular site
3 which you have included as an exhibit?

4 A I don't know enough about this site to
5 know how the operations are done. So I can't
6 really answer that.

7 Q Okay.

8 HEARING OFFICER MCGILL: Hang on just a
9 second. Let's go off the record for a moment.

10 MS. GARRETT: Okay.

11 (Discussion off the record.)

12 HEARING OFFICER MCGILL: Let's go back on
13 the record.

14 Ms. Garrett, the article that you are
15 referring to, I am not sure if that is in our
16 record or not. Since you are referring to that
17 now, we would like to see that that does get into
18 our record. So you can include it in public
19 comment, if you would like, or it can be submitted
20 as a hearing exhibit.

21 DR. DESAI: It is in the record. I put
22 it in. It is in the record.

23 HEARING OFFICER MCGILL: So this article
24 has already been filed and is part of this record?

1 DR. DESAI: Yes, it is in my binder here.

2 MS. WHITEMAN: The binder with the
3 supporting information?

4 DR. DESAI: Uh-huh.

5 HEARING OFFICER MCGILL: A binder was
6 just submitted that is going to be a hearing
7 exhibit. Remember, in the first hearing we
8 reserved several hearing exhibit numbers. That
9 will be available at the Board for review.

10 MS. WHITEMAN: One question about that
11 binder. As I recall from the last hearing, the
12 binder was only supposed to have information in it
13 that was provided to the experts from whom they
14 received letters. I was wondering whether any of
15 this information was subsequently added to that
16 binder or whether that binder is just the
17 information that was given to the experts that they
18 sent letters to? My understanding is that was what
19 was supposed to be in the binder.

20 DR. DESAI: Some of them are later on
21 that I received. Some of the information may be
22 new, some of it old. As it arrived, I started
23 putting it in.

24 MS. GARRETT: This is an article written

1 by -- this is summary of everything that we have
2 got here.

3 MS. WHITEMAN: Right. I am not objecting
4 so much to this article. What I was wondering is
5 that binder was supposed to be just the information
6 that has gone to the experts so that we could
7 determine what the experts had said in letters, the
8 experts from whom they received letters, what they
9 had reviewed.

10 I am just wondering whether that is
11 really what is in that binder or whether or not
12 that is new information that has been added to that
13 binder since the last hearing. Because, otherwise,
14 we have no way of knowing what their experts looked
15 at or didn't look at in preparing the letters.

16 HEARING OFFICER MCGILL: Let's go off the
17 record for a minute.

18 (Discussion off the record.)

19 HEARING OFFICER MCGILL: Let's go back on
20 the record.

21 The proponents have submitted a binder
22 that will be a hearing exhibit and is available for
23 review. Apparently, the binder includes an article
24 entitled, "Bioaerosols and Composting." And

1 apparently, the binder -- all the documentation in
2 the binder are materials that have been forwarded
3 to various health professionals by Dr. Desai in
4 obtaining responses from these health
5 professionals, and nothing has been added to the
6 binder since you filed your proposal?

7 DR. DESAI: Yes. And this particular
8 article, every health professional, they have sent
9 it. Every medical professional, they have sent
10 this article.

11 BOARD MEMBER McFAWN: And it is in this
12 article that the Montgomery County Regional
13 Sewage-Sludge Composting Facility is discussed?

14 MS. GARRETT: Yes.

15 BOARD MEMBER McFAWN: Okay. Thank you.

16 DR. DESAI: You are welcome.

17 HEARING OFFICER MCGILL: Was your
18 question answered?

19 MS. GARRETT: Yes, I guess. I am not
20 sure what happened but --

21 HEARING OFFICER MCGILL: Do you want to
22 restate your question?

23 MS. GARRETT: I think she has answered
24 it.

1 HEARING OFFICER MCGILL: Okay. That is
2 fine. You can move on to another question.

3 MS. GARRETT: I asked, and she said she
4 wasn't sure, I think.

5 THE WITNESS: Without knowing the details
6 of how they operate.

7 Q (By Ms. Garrett) All right. You
8 submitted, I am not sure the exhibit number, but an
9 article, a documentation to your testimony,
10 "Aspergillus, Aspergillosis in Composting
11 Operations in California."

12 A Okay.

13 Q And under summary of findings, which is
14 the first page, the summary says that, quote, "the
15 majority of exposures to the fungus will not result
16 in illness. The most at risk of developing health
17 complications if exposed to large concentrations of
18 spores include people who already suffer from
19 asthma, immune suppressed people, or patients
20 taking high dosages of steroids."

21 A Uh-huh.

22 Q What happens, Dr. Baer, when, as we have
23 been told -- we have submitted information that
24 shows that over 25 percent of our population

1 already suffers from asthma and allergies and
2 through no fault of their own may be attending a
3 public school and playing sports on fields that are
4 by a commercial composting facility?

5 A Let me see if I can find my -- I want to
6 first clarify something about the asthma, the 25
7 percent issue. If I can get my notes here. They
8 keep bringing up the asthma, that 25 percent has
9 been issued and talking about children.

10 Well, I looked at something about the
11 asthma issues and really, recent studies, and I
12 have a few here if can I bring these up to you.
13 There is like -- they talk about asthma mortality
14 and hospitalization among children. They have
15 concluded, and I will just summarize the three
16 points that basically are discussed in this.

17 A child's asthma is usually largely
18 dependent on the social economic status of the
19 parent. That, basically, the asthma is aggravated
20 by -- is usually a cause of lack of access to
21 continuous care and poor quality of care lessens
22 the family's ability to control the causes of the
23 exacerbation and to reduce disability.

24 The most common asthma triggers, if we

1 are getting down that road, are dust mites, animal
2 dander, cockroaches, and tobacco smoke, all of
3 which are found indoors. Studies to date suggest
4 that indoor allergens and irritants play a more
5 significant role in the level of asthma mortality
6 experienced by children living in urban centers. I
7 mean, that is from what I have looked at in regard
8 to asthma. I was very -- when you bring the points
9 up, I need to try and look and see what we are
10 talking about. If I --

11 MS. GARRETT: Can I just follow-up with
12 that?

13 MS. DYER: Do you want to submit these as
14 an exhibit?

15 THE WITNESS: Yes.

16 MS. GARRETT: My question --

17 HEARING OFFICER MCGILL: Let me just mark
18 these for the record.

19 MS. GARRETT: Okay.

20 HEARING OFFICER MCGILL: And see if
21 anyone has any objection.

22 MS. GARRETT: Okay.

23 HEARING OFFICER MCGILL: I have been
24 handed by the Agency several articles. The first

1 is entitled "Asthma Mortality and Hospitalization
2 Among Children and Young Adults in the United
3 States, 1980 to 1983."

4 Is there any objection to entering this
5 article as a hearing exhibit?

6 MS. GARRETT: I do have an objection
7 because -- do I have to ask -- can I say -- my
8 objection is that the study was conducted in 1983,
9 and also are we talking only about mortality?

10 HEARING OFFICER MCGILL: This is a --
11 this refers to 1980 through 1993.

12 MS. GARRETT: Okay.

13 HEARING OFFICER MCGILL: If it is going
14 to be a hearing exhibit, it will be available for
15 you to review.

16 MS. GARRETT: Okay.

17 HEARING OFFICER MCGILL: Okay. Is there
18 any objection to entering this as a hearing
19 exhibit?

20 Okay. I will mark this as Exhibit Number
21 37.

22 (Whereupon said document was
23 duly marked for purposes of
24 identification and admitted

1 into the record as Hearing
2 Exhibit 37 as of this date.)

3 THE WITNESS: I just wanted to continue.
4 I think when you say --

5 HEARING OFFICER MCGILL: Let's just go
6 off the record for a moment.

7 (Discussion off the record.)

8 HEARING OFFICER MCGILL: Let's go back on
9 the record.

10 The next article I have been handed is
11 entitled, "Environmental Risk Factors of Childhood
12 Asthma in Urban Centers." Is there any objection
13 to entering this as a hearing exhibit?

14 Seeing none, I will mark this as Exhibit
15 38.

16 (Whereupon said document was
17 duly marked for purposes of
18 identification and admitted
19 into the record as Hearing
20 Exhibit 38 as of this date.)

21 MS. GARRETT: Can I just ask the date on
22 that?

23 HEARING OFFICER MCGILL: It is September
24 of 1995.

1 The next article is entitled,
2 "Observations on Asthma," also dated September of
3 1995.

4 Is there any objection to entering this
5 document as a hearing exhibit?

6 Seeing none, I am marking this as Exhibit
7 39, and entering it as a hearing exhibit.

8 (Whereupon said document was
9 duly marked for purposes of
10 identification and admitted
11 into the record as Hearing
12 Exhibit 39 as of this date.)

13 HEARING OFFICER MCGILL: The last article
14 is from The Journal of Allergy and Clinical
15 Immunologies, September of 1991. It is entitled,
16 "Guidelines for the Diagnosis and Management of
17 Asthma, National Heart, Lung and Blood Institute,
18 National Asthma Educational Program, expert panel
19 report."

20 Is there any objection to entering this
21 document as a hearing exhibit?

22 Seeing none, I will mark this as Exhibit
23 40 and enter it as a hearing exhibit.

24 (Whereupon said document was

1 duly marked for purposes of
2 identification and admitted
3 into the record as Hearing
4 Exhibit 40 as of this date.)

5 HEARING OFFICER MCGILL: Okay. These
6 four documents have been entered as hearing
7 exhibits.

8 Why don't you proceed.

9 THE WITNESS: Okay. I wanted to bring
10 that out, that we are talking about the same
11 group. We are talking about the 25 percent. And
12 in those reports it doesn't really specify
13 aspergillus as the culprit for asthma attacks or
14 the cause of asthma. I want to point that out.

15 It is more of a social and economic
16 issue. Usually it is occurring in urban areas,
17 where the increases are, and in the inner cities
18 where there is poor health care provided. I just
19 wanted to put that in perspective.

20 Q (By Ms. Garrett) I appreciate that. Is
21 it then your opinion, Dr. Baer, that this
22 supporting document, "Aspergillus, Aspergillosis in
23 Composting Operations in California" where they do
24 state that the majority of the exposures to the

1 fungus will not result in illness, and that those
2 most at risk for developing health complications
3 from exposure to large concentrations include
4 people who already suffer from asthma, et cetera?

5 A Yes.

6 Q Is it important to take into
7 consideration that when you are looking
8 specifically at aspergillus and how it effects
9 individuals that those expert opinions regarding
10 asthmatics and allergic individuals, that it counts
11 for a lot based on the fact that they are being
12 very specific to the subject that we are addressing
13 today?

14 A Can you rephrase that? I am not really
15 quite sure what you are asking, what you want, what
16 it is you are looking for.

17 Q Do you place weight on the fact that this
18 document that you attach to your testimony says
19 that specific to composting, i.e., aspergillus and
20 how it effects asthmatics and individuals with
21 allergies, do you put a lot -- do you put weight on
22 that because of the fact that it is specifically
23 addressing aspergillus and compost operations and
24 who would be effected rather than an overall view

1 of asthmatics and allergic individuals?

2 A Okay. I want to clarify. I don't think
3 it says anything about allergies.

4 Q I am sorry. Whatever it said. Asthma.

5 A I think it has been -- I think that the
6 report here, as well as the other reports that have
7 been submitted today, they have taken that into
8 consideration that that could be a possibility. It
9 is a possibility to look at.

10 Q Do you know for sure that they have taken
11 that into consideration?

12 A I think based on when they do the -- the
13 New York study, since you keep pointing to that
14 one, it seems, the Islip report, they have -- you
15 know, they had the little diaries, and they said
16 they had no reported cases of, you know, increases
17 of asthma, you know, problems -- that was my
18 understanding when I talked to the New York
19 Department of Health -- that was associated with
20 compost operations.

21 Like, when they had a compost in
22 operation, they didn't have that correlation
23 there. I mean, it is a possibility I think they
24 are saying here. They are putting in a

1 precautionary statement here.

2 Q Now, in the summary of findings --

3 A Yes, but the statement here, I think, is
4 a cautionary statement, also. I don't think they
5 have a case where they have, like, immunosuppressed
6 people reporting complications being near a
7 compost. I haven't seen any lecture on that. Have
8 you?

9 Q I guess what I am saying is, do you value
10 the summary of findings from this particular
11 document that you submitted?

12 A Yes.

13 Q Do you place value on it?

14 A Yes.

15 Q Okay. In that same report, on page 11,
16 under the subheading of "composting operations,"
17 and I quote, and it is the second paragraph, "many
18 public health specialists, scientists, and
19 engineers believe that properly operated composting
20 operations present little health risk to normal
21 compost facility employees and negligible, if any,
22 risk for nearby residences."

23 Specifically, Dr. Baer, when an employee
24 is normal, and I assume that means normal health,

1 how can we be sure that high concentrations over a
2 certain period of time will not effect his or her
3 health?

4 A Well, I think, like, based on Dr.
5 Strauss' testimony, there has been like 20 years of
6 study. I think there has been, like, what, 20
7 years of history of this type of operation. They
8 haven't had any severe cases except for two, I
9 think, that have been reported of all the people
10 who have been working at the sites.

11 Q Okay. So would you say, then, that that
12 particular study -- I think that was done in New
13 York, would be the scientific and technical support
14 for that kind of a statement --

15 A Well, I think it is --

16 Q -- specifically?

17 A Well, I think it is, like, in terms of,
18 like, not having -- there haven't been a majority
19 of cases reported.

20 Q Okay.

21 A I think that's also an indicator. I
22 mean, I would assume if it was a serious problem,
23 like you are contending, I would think that the
24 literature would be massive with reports on that,

1 wouldn't you think, that you would see more reports
2 trying to hunt them down.

3 Q Would you suggest that children who or
4 individuals who report high cases or incidences of
5 allergies or asthma would immediately make the link
6 or the association with being anywhere near a
7 composting facility?

8 A I think that -- allergies, I think that
9 was not really part of the determination. Again,
10 it was asthma that they are talking about.

11 Q Okay, asthma.

12 A And, really, with asthma -- I think also,
13 like, what was the thing that initiated the
14 asthma. I think we have gone around that circle,
15 like, trying to tie down, like, what is the cause
16 of an asthmatic attack or problems. I think it is
17 an environmental issue or an environmental
18 condition.

19 We can't really -- I think, even with the
20 information that we have looked at it, it is hard
21 to determine -- aspergillus is ubiquitous. It is
22 all over. I guess it has been very hard to
23 determine if that aspergillus is because of the
24 composting site or if it is from another source.

1 Like, when you move the composting site, would the
2 person still have the same asthmatic attack.

3 Q Okay. And --

4 A I think that it possibly could -- it
5 could be either way.

6 Q Okay. Speaking to the negligible, if
7 any, risk for nearby residences, I ask the same
8 question. What scientific or technical data
9 determines negligible risk? What is the scientific
10 definition of negligible risk? Is there something
11 out there that we can refer to when we make these
12 general overview statements about --

13 A I think when you talk about negligible,
14 isn't that, like, little or none? This is really
15 based on their studies and not mine, so --

16 Q Okay. Would it make sense, from your
17 point of view, to have, at the very least, minimum
18 setbacks written into a regulation to provide a
19 distance between compost operations and schools,
20 public facilities, and hospitals?

21 A Well, I think -- to help with that
22 clarification, I went and looked at other states to
23 see what they had for setbacks.

24 I was wondering if I could submit this as

1 an exhibit?

2 HEARING OFFICER MCGILL: Sure.

3 THE WITNESS: I did this last week. So I
4 think it was pretty current when I did it. One
5 thing I want to point out, when you look at
6 setbacks for composting operations --

7 HEARING OFFICER MCGILL: May I just
8 interrupt you for a minute so we can take up this
9 document.

10 THE WITNESS: Okay.

11 HEARING OFFICER MCGILL: I have been
12 handed a document that the Agency describes as a
13 comparison of landscape waste standards from
14 different states.

15 MS. DYER: It is a table comparing them,
16 yes.

17 THE WITNESS: And the first page
18 summarizes the various regulations.

19 HEARING OFFICER MCGILL: So there is a
20 summary table and then --

21 THE WITNESS: This is my summary, and
22 then I kind of --

23 HEARING OFFICER MCGILL: -- the actual
24 regulations?

1 THE WITNESS: Yes. This is for me to
2 kind of sort through.

3 HEARING OFFICER MCGILL: Okay. I have
4 been handed a document that is a summary table on
5 landscape waste standards from different states,
6 and then attached to that are materials relating to
7 those state's regulations.

8 Is there any objection to entering this
9 as a hearing exhibit?

10 All right. Seeing none, I am marking
11 this as Exhibit Number 41 and entering it into the
12 record as a hearing exhibit.

13 (Whereupon said document was
14 duly marked for purposes of
15 identification and admitted
16 into the record as Hearing
17 Exhibit 41 as of this date.)

18 THE WITNESS: Can I continue?

19 HEARING OFFICER MCGILL: Yes, please.

20 THE WITNESS: I want to make a point,
21 too, that the states that I listed are those that
22 surround Illinois -- are Illinois plus the
23 surrounding states because I thought it would be
24 more appropriate to look at the regional area than

1 have you look at all 50 states. Like, Alaska
2 probably wouldn't really be typical of this area.
3 I did include New York, Connecticut, and California
4 because those appear to be the sites that have done
5 some composting studies and their basis.

6 What I did was I took the standards that
7 are in the regulations now that we have. If you
8 notice, one of the columns is, like, is there a
9 reporting or a registering requirement; is there a
10 location standard; a storm water leachate control
11 operating standards; an operating plan; salvaging
12 and access control; loads check-in, personnel
13 training; record keeping; contingency plan; a
14 closure plan; quality of end product; financial
15 assurance. Those are standards that Illinois has
16 put on the books. Okay. There is a standard.

17 Throughout this hearing, and from what I
18 read from the transcript as well as what was
19 submitted, is that they -- they talk about -- they
20 talk about setbacks, but they forget that one thing
21 is that the setback that currently is in place, I
22 am not sure if that was really based on health
23 risks, health concerns, as much of more of a
24 nuisance control. It was put out by the

1 legislators, so we have no history of it. But
2 prior to that setback, it was from odor complaints,
3 I assume. That's what I am assuming. I am making
4 an assumption.

5 But going back to that, here is the
6 standards we set forth. If you look at the
7 standards and also look at what the experts
8 recommend, they say management practices play an
9 important part in reducing health concerns,
10 off-site as well as on-site. That is one key
11 element. You can't just have a setback and just
12 say, well, have at it. Otherwise, that setback --
13 we have all these standards in here.

14 If the Board would look at the table,
15 Illinois, by far, has the most standards set forth
16 now. Like, for example, Michigan does not even
17 have them report or register a landscape waste
18 operation.

19 Backtracking, I want to point out to the
20 Board that when you do read the rules, you have to
21 be careful. These have the municipal waste
22 composting rules on here which are more stringent
23 than the landscape waste. You have to be careful
24 how you look it up, to make sure you are talking

1 about the same thing.

2 Like, for example, Ohio has a huge stack
3 of -- has a very large amount of composting rules,
4 but they only -- but the class four is the only one
5 that you need to look at because that is the
6 landscape waste. They have, like, two provisions
7 in the whole stack here. I just gave it as the
8 entire record.

9 BOARD MEMBER HENNESSEY: For
10 clarification, though, the first page, you are only
11 looking at compost standards, correct?

12 THE WITNESS: Yes, landscape waste
13 compost standards. So I am saying when you are
14 looking through the regs, make sure you are looking
15 for the landscape waste compost standards, not the
16 municipal waste or the organic waste. They kind of
17 mix them together. If you look at Ohio, you will
18 see what I mean. It is kind of like you have to
19 sit there and think, okay, which one does it apply
20 to.

21 HEARING OFFICER MCGILL: Your table,
22 though, that is now Exhibit 41, deals with
23 landscape waste?

24 THE WITNESS: Yes, just landscape waste.

1 HEARING OFFICER MCGILL: Alone?

2 THE WITNESS: Alone, yes.

3 HEARING OFFICER MCGILL: Okay. Thank
4 you.

5 THE WITNESS: Now, for the location
6 standards, I didn't talk -- I didn't include
7 anything like the water table or the public water.
8 I was taking more of the horizontal distance to
9 receptor, to a community. If you look at that of
10 the 13 states, I think, including Illinois, listed,
11 five of them don't have any setbacks at all
12 established. They do it either by permit, or they
13 are silent on the issue.

14 I want to also clarify that with the --
15 where it says yes, like, Y, and there is a number
16 next to it, that's the feet. Also if there is a
17 little R that means they only identify residential
18 as the receptor. They didn't say anything about
19 schools or hospitals.

20 And in terms of Wisconsin, that was
21 brought up as being 1,000 feet away. But I think
22 if you continue to read on that line, it says it is
23 1,000 feet unless the facility is screened by
24 natural objects, plants, fences, or other

1 appropriate means so that it is not visible from
2 the highway or park. Then, you go back to the 100
3 feet for the residence. So basically, it looks
4 like it is more like a blockage of view, not more
5 of a measurement of aspergillus, it sounds like to
6 me. Finally --

7 HEARING OFFICER MCGILL: If I could
8 interrupt, what is RB?

9 THE WITNESS: R is going to be -- that's
10 what I was going to say. That is for New York.
11 That is 200 feet, and they have defined residences
12 and businesses as the setback. I should have put
13 footnotes, but I ran out of room here. R is going
14 to be residential. They also identify businesses.
15 None of the other states identify anything besides
16 the residential, or they are silent on it.

17 HEARING OFFICER MCGILL: I guess for
18 Wisconsin, what does the P stand for?

19 THE WITNESS: That is for parks.

20 DR. DESAI: Could I say something?

21 MS. GARRETT: Yes, the --

22 DR. HOLLOMAN: She is not answering any
23 questions.

24 THE WITNESS: Well, I think you asked me,

1 like, what the setback was, right?

2 Q (By Ms. Garrett) No. What I asked you
3 was what your opinion was of our proposed amendment
4 to the --

5 A Well, based on -- I just want to -- okay,
6 based on what I have looked at from other states,
7 it appears that they don't feel it necessary to
8 have a setback.

9 Q Every state in the country?

10 A The states in the regional -- in our
11 regional area. I think it is really hard to
12 imagine going around and looking at a different
13 situation than ours. Well, California does not
14 even have a setback stated anywhere in their
15 rules.

16 Also, I want to point out, like, with New
17 York, the 200-foot setback, that was before the
18 study, and that is what it is after. They felt it
19 was not necessary to change that setback even after
20 that study.

21 BOARD MEMBER McFAWN: Okay. "That study"
22 being the Islip?

23 THE WITNESS: The Islip study, yes.

24 Q (By Ms. Garrett) What about a state like

1 Washington?

2 A Do you know what their setback is?

3 Q No. I am asking you.

4 A I would say that -- my understanding is
5 that Washington, they don't have a statewide
6 regulation. That, basically, it is by regional.

7 Q I mean is it fair to provide -- do you
8 include all of the states that you have submitted
9 to the Illinois Pollution Control Board? Are all
10 states represented?

11 A I only looked at the regional. I think
12 if you look at most of these studies, you are
13 looking in a regional area because we all have such
14 seasonal differences from Washington and California
15 and, you know, Nevada. We have different types of,
16 you know, vegetation and climate.

17 Q Well --

18 A I think it is more representative -- we
19 are talking for the State of Illinois, so I
20 figured, well, let me look around the region.

21 BOARD MEMBER McFAWN: How many states,
22 again?

23 THE WITNESS: I have 13 there, but I
24 could look at the rest of them.

1 BOARD MEMBER McFAWN: I knew you had
2 testified to a number. I thought that maybe that
3 would help. You said 13, and some of them are not
4 regional? You looked at California and New York?

5 THE WITNESS: And Connecticut because
6 those seemed to be the ones that were popping up in
7 discussions, in the exhibits here. I am not aware
8 of anyone that has more stringent standards than we
9 do for landscape waste composting. I have not run
10 across a state that has as many management
11 requirements, design requirements, and reporting
12 requirements as Illinois does.

13 Q (By Ms. Garrett) And you have looked at
14 all the different --

15 A Yes. It was during the -- two years ago
16 we had the -- we did the landscape waste rules, and
17 I went through every state.

18 Q Okay. Well, I guess my feeling would be
19 that -- I mean, I don't mind that you have given 13
20 states, but it would also be interesting -- and I
21 will now backtrack a little bit, if I can. I think
22 it is important to have all of the states
23 represented because while we may have regional
24 similarities, we also may be similar to states like

1 Washington or New Hampshire or Maine. I don't
2 know. I don't know how important it is to compare
3 us to each state, but --

4 A Well, you know, it might be for your
5 interest to maybe do that research.

6 Q Okay.

7 HEARING OFFICER MCGILL: Let's go off the
8 record for a moment.

9 (Discussion off the record.)

10 HEARING OFFICER MCGILL: Let's go back on
11 the record.

12 DR. HOLLOMAN: I have a procedural
13 question. When Dr. Baer gave her testimony she
14 gave us two sentences. Now, as we are asking
15 questions, she has introduced data and papers into
16 the record which we have not had opportunity to
17 see. As far as I can tell, she is using this
18 method to enter testimony to inhibit us from being
19 able to see this material.

20 MS. DYER: That is certainly not the
21 intention. She prefiled her testimony before she
22 saw anyone else's testimony, and we pulled this
23 together for this hearing today. If, procedurally,
24 you would have preferred that we submitted a

1 supplemental testimony, we would have been prepared
2 to do that. We were waiting to see what sort of
3 questions we got before we submitted this.

4 DR. HOLLOMAN: Well, we should have that
5 same opportunity.

6 HEARING OFFICER MCGILL: Well, this --

7 MS. DYER: We are not the proponents
8 here.

9 HEARING OFFICER MCGILL: Well, this
10 Exhibit 41 was being presented in response to a
11 specific question. This will be available for you
12 to review, and you can file public comments in
13 addition.

14 DR. HOLLOMAN: Well, I am interested in
15 how many more reams of data will be filed in
16 response to, quote, specific questions. The
17 questions have been turned around so that this
18 testimony can be entered.

19 BOARD MEMBER McFAWN: I can understand
20 where you are coming from. Generally, when we have
21 prefiled testimony, it is submitted ahead of time,
22 and then even what would have been probably more
23 easily following the normal course of procedures
24 during hearing is if Dr. Baer, if you would have

1 testified up front instead of just your summary.

2 But during public hearings, we do have
3 latitude for participants as well as proponents to
4 enter into the record the information that they
5 believe will help the Board to reach a decision. I
6 do understand where you are coming from.

7 DR. HOLLOMAN: I think that should have
8 been entered as testimony rather than as a response
9 to questions.

10 BOARD MEMBER McFAWN: I can understand
11 where you are coming from. I think it is now
12 before the Board. Perhaps during the break, if you
13 would like to -- if we can move on away from these
14 exhibits and we will take a break and you can take
15 a look at them and see if you have any questions
16 today that you want to pose to Dr. Baer about them
17 as well as make public comments on them.

18 MS. GARRETT: Okay. Thank you. Should I
19 keep going?

20 HEARING OFFICER MCGILL: Yes, why don't
21 you proceed with your next question.

22 Q (By Ms. Garrett) Well, my real question
23 was, and let me ask it again because I don't think
24 you did answer it.

1 Would it make sense, then, from your
2 point of view, Dr. Baer, to have at the very least,
3 the minimum setbacks written into the regulations
4 to provide a distance between compost operations
5 and schools, public facilities, and hospitals?

6 A Well, if it is based on, like, health
7 risks and -- I think we stand by our original
8 current regulations as they stand, that we feel
9 like it should remain as it is.

10 Q Are you familiar with the exact wording
11 of the current regulation?

12 A Yes. Do you want to read it to me or --

13 Q Well, are you familiar with some of the
14 history associated with how it got to be -- how it
15 went from 200 feet, I think, or 250, to one-eighth
16 of a mile. Are you familiar with that?

17 A I am not familiar with the -- the
18 legislation or the regulations?

19 Q It would be the legislation.

20 A I am not familiar with the -- you don't
21 have a copy of the legislation?

22 MS. GARRETT: Without asking a question,
23 can I read the --

24 HEARING OFFICER MCGILL: Are you

1 referring to the Regulation 830.203(c)?

2 MS. GARRETT: Yes, I am.

3 HEARING OFFICER MCGILL: And what was the
4 question?

5 MS. GARRETT: If Dr. Baer is familiar
6 with the rationale as to why it increased from --
7 was it 200 to 660 feet?

8 THE WITNESS: I am not familiar.

9 Q (By Ms. Garrett) Are you familiar with
10 the incompatibility part of the regulation, what
11 that means?

12 A Are you talking about the half mile?

13 Q No, I am talking about the 660 feet.

14 A No, I am not familiar with why that word
15 was put in there the way it was.

16 MS. GARRETT: Without asking a question,
17 I would -- what I would like to do is to in some
18 way read -- explain what that means, so I can make
19 some sense out of what I am trying to get at.

20 HEARING OFFICER MCGILL: Well, I think
21 you just ask the question as to whether she
22 understands what it means to have the word
23 incompatibility or in there or why --

24 MS. GARRETT: Okay.

1 HEARING OFFICER MCGILL: -- it is an
2 eighth of a mile for certain facilities. I think
3 she has responded to that.

4 Q (By Ms. Garrett) Could it be, Dr. Baer,
5 that incompatibility refers to surroundings, the
6 surroundings of -- what is incompatible to a
7 compost operation?

8 A As I stated earlier, I don't know why
9 they put that in there. I really don't want to
10 speculate on it. We just --

11 MS. GARRETT: Would Ms. Dyer know, I
12 mean, as the legal -- is there a legal person who
13 would understand the incompatibility aspect of the
14 law which is probably the most important part of
15 it?

16 MS. DYER: I am not sure what it is you
17 are asking. Are you asking what the legislature
18 intended? Or are you asking --

19 MS. GARRETT: Well, can you read the
20 regulations? Can you read the current
21 regulations?

22 HEARING OFFICER MCGILL: Ms. Dyer is not
23 sworn in.

24 MS. DYER: I am not going to testify. I

1 am just trying to clarify what the question is.

2 MS. GARRETT: Well, I will get to it. I
3 can't say -- I have to ask a question.

4 Could Dr. Baer read the current
5 regulations? Maybe that would help.

6 MR. BAKOWSKI: Is it all right if I read
7 it?

8 MS. GARRETT: Yes, I don't care.

9 THE WITNESS: Okay.

10 MS. GARRETT: Just as long as it gets
11 read. I can't read it.

12 MR. BAKOWSKI: Okay. I am assuming that
13 you are talking about 830.203(c)?

14 MS. GARRETT: Yes.

15 MR. BAKOWSKI: It says the composting
16 area of the facility must be located so as to
17 minimize incompatibility with the character of the
18 surrounding area, including at least a 200-foot
19 setback from any residence and in the case of a
20 facility that has developed or the permitted
21 composting area of which is expanded after November
22 17, 1991, the composting area shall be located in
23 at least one-eighth mile from the nearest residence
24 other than a residence located on the same property

1 as the facility."

2 MS. GARRETT: Would you agree that the
3 basic requirement of this subsection is that the
4 composting operations not be in places where they
5 will be incompatible with the character of the
6 surrounding area.

7 MR. BAKOWSKI: The legislation that I am
8 reading says, to minimize incompatibility with the
9 character of the surrounding area, and I think the
10 Agency's view of that is, in the context of setting
11 up the rule committee that proposed these rules,
12 they determined that these rules would establish
13 the criteria for establishing what is compatible
14 and what is incompatible.

15 MS. GARRETT: Okay. Is it your opinion
16 that public schools are compatible with composting
17 operations?

18 MR. BAKOWSKI: I think that this says
19 that the facility is to be located so as to
20 minimize incompatibility with a school. That's
21 what that would say. If they comply with these
22 rules, the Agency's view would be that they have
23 done everything that they are required to do to
24 minimize that incompatibility, any incompatibility.

1 MS. GARRETT: The incompatibility --

2 MR. BAKOWSKI: I mean --

3 MS. GARRETT: Could it be that the
4 incompatibility was put in the legislation because
5 the legislators did not want composting operations
6 to be located next to facilities like schools or
7 hospitals because, in fact, schools and hospitals
8 may be incompatible with a commercial composting
9 operation?

10 MR. BAKOWSKI: I don't recall any
11 specific reference to any legislative history here
12 or reading any debates on the floor when they were
13 doing this, so I don't really know exactly what
14 they meant. My recollection of the controversy
15 over landscape waste composting facilities back
16 when that ban went in was the significant response
17 to odor complaints. There was a lot of nuisance
18 type odor complaints from these facilities and that
19 was -- there was a lot of reaction to those types
20 of complaints.

21 MS. GARRETT: Do you think that
22 incompatibility was mistakenly put in this
23 regulation.

24 MR. BAKOWSKI: No.

1 MS. GARRETT: Let me ask the question
2 again. Do you think that commercial compost
3 operations -- that hospitals and schools and public
4 parks are compatible with commercial composting
5 operations?

6 MR. BAKOWSKI: I think that the current
7 set of rules were developed with the overall
8 committee. The Board reviewed the issues of odor
9 nuisances, operation requirements, setbacks and
10 that the current rules are what are -- to define
11 what minimizing compatibility is.

12 MS. GARRETT: I just --

13 HEARING OFFICER MCGILL: Do you have --

14 MS. GARRETT: Well, I guess that I just
15 don't -- is that yes or no?

16 MR. BAKOWSKI: Restate your question.

17 MS. GARRETT: Do you think that
18 hospitals, public schools, and public parks are
19 compatible with commercial composting operations?

20 MR. BAKOWSKI: I think commercial
21 composting facilities that comply with these rules
22 are compatible. The school does not need to be
23 compatible with the facility. The facility has to
24 be compatible with the character of the surrounding

1 area. And if not, then a facility operates --

2 MS. GARRETT: And if --

3 MR. BAKOWSKI: -- in accordance with
4 these rules is compatible.

5 MS. GARRETT: Okay. Well, I can't read
6 the -- what went into the legislation, so I --

7 HEARING OFFICER MCGILL: Well, I think
8 that the witness has given his best answer to your
9 question.

10 MS. GARRETT: Okay. All right.

11 HEARING OFFICER MCGILL: Why don't you
12 move on to your next question.

13 BOARD MEMBER HENNESSEY: You can always
14 submit -- if you have some additional information
15 on the legislative history, you can certainly
16 submit that through the public comment.

17 MS. GARRETT: Okay.

18 (The cross-examination by Ms.
19 Garrett of the witness, Dr.
20 Shirley Baer, now continues.)

21 Q (By Ms. Garrett) Okay. Working from the
22 same document that we started from when --

23 A Okay. A long time ago, yes.

24 Q On page 13, under sitings, could I ask

1 you, Dr. Baer, to read the first two paragraphs?

2 HEARING OFFICER MCGILL: Could you just
3 clarify what document you are referring to, what
4 page number.

5 MS. GARRETT: I am sorry. It is
6 "Aspergillus, Aspergillosis in Composting
7 Operations in California." It is one of Dr. Baer's
8 exhibits. It is under, "facility siting design and
9 construction."

10 THE WITNESS: It is D, Exhibit D. I
11 think it is page 13.

12 HEARING OFFICER MCGILL: It is Exhibit D
13 of Dr. Baer's prefiled testimony?

14 THE WITNESS: Yes.

15 HEARING OFFICER MCGILL: Okay. I am
16 sorry. What page are you reading from?

17 THE WITNESS: On page 13?

18 MS. GARRETT: Yes.

19 THE WITNESS: And you want me to start
20 with the first paragraph?

21 MS. GARRETT: Yes.

22 THE WITNESS: "Some scientists have
23 recommended that buffer zones may be considered
24 between certain types of composting facilities and

1 nearby residences, hospitals, or schools to reduce
2 the risk of exposure to odors and air
3 contaminants."

4 Millner noted, "in consideration of
5 off-site health matters related to air dispersal of
6 spores, a buffer distance between a composting
7 operation and health care facilities and
8 residential areas may be needed."

9 Olver noted the, quote, "buffer zones
10 that should normally be provided around the
11 composting site for odor control should work
12 equally well to confine the highest candida levels
13 of the fungus to the processing area," unquote.

14 Diaz noted, quote, "prudence indicates
15 that an open air compost plant should not be sited
16 in close proximity to human habitations," end
17 quote.

18 Kramer stated, quote, "consideration
19 should also be given to locating compost sites
20 similar to the present one, bracket, a municipal
21 leaf composting facility, bracket, more than two
22 miles from residential areas in order to minimize
23 potential microbial contamination of the
24 environment," end quote.

1 Only the latter author has recommended a
2 specific buffer zone width. Do you want me to keep
3 going or not?

4 Q (By Mr. Garrett) No, that's fine.

5 A Okay.

6 Q In your capacity as an Environmental
7 Specialist with the IEPA, do you support this
8 recommendation?

9 A I think that I support -- if we can go
10 one by one again.

11 Q Okay. Go ahead.

12 A Okay. Millner, "in consideration of
13 off-site health matters," it says, "may be needed."
14 It does -- I would say that I would agree with
15 that. I agree with the second statement.

16 Q Which is what?

17 A That, basically, the buffer zone would --
18 that odor control -- the buffer zone, if you had
19 odor control, would work equally well to confine
20 the high candida level.

21 HEARING OFFICER MCGILL: That is Olver's
22 statement?

23 THE WITNESS: Yes.

24 HEARING OFFICER MCGILL: And you said you

1 agree with that?

2 THE WITNESS: Yes. I am trying to break
3 it down.

4 HEARING OFFICER MCGILL: Yes, that is
5 helpful. Thank you.

6 THE WITNESS: Diaz, I think the third
7 statement is you do have to take into
8 consideration, like, where you locate them. I
9 think that is taken when the developers come in.

10 On Kramer, I don't agree with the last
11 statement by Kramer where they need a two-mile
12 setback.

13 Q (By Mr. Garrett) Okay. Thank you.

14 A Not a specific two-mile setback.

15 Q In another study, Exhibit G, "Bioaerosols
16 Associated with Composting Facilities Regarding
17 Buffer Distances," and I quote, "buffer distances
18 to the surrounding community will depend upon
19 facility size, design, and operation of facility."

20 A What page are you on?

21 Q Well, I can't read it because it -- it
22 must be an 11. Yes, try 11.

23 A Okay. The last paragraph?

24 Q Yes.

1 A Okay.

2 Q Okay. I will read that again. "Buffer
3 distances to the surrounding community will depend
4 upon facility size, design, and operation of
5 facility." If so, do you know of any practice
6 currently in place in the State of Illinois that
7 uses facility size, design, and operation as
8 factors as a basis for siting compost facilities?

9 A I am going to defer that to Joyce because
10 she basically looks over permit applications for
11 commercial operations.

12 MS. MUNIE: The operating requirements
13 are found in 830.202.

14 Subsection C gives specific requirements
15 to control odors and other nuisances, including
16 dust.

17 Subsection E gives specific requirements
18 for minimizing odors that take into account the
19 types of materials that are being composted. They
20 have to have procedures for delaying, processing,
21 and managing landscape waste during all weather
22 conditions.

23 The methods for taking into consideration
24 have to include the factors of the time of day, the

1 wind direction, the percent of moisture, the
2 estimated odor potential, and the degree of
3 maturity.

4 (The cross-examination by Ms.
5 Garrett of the witness, Dr.
6 Shirley Baer, now continues.)

7 Q (By Mr. Garrett) Okay. Dr. Baer, do you
8 agree with the premise that, quote, "composting
9 facilities -- this is from your Exhibit G -- do not
10 pose any unique endangerment to the health and
11 welfare of the general public?

12 A Yes.

13 Q Are you aware of the basis for this
14 conclusion?

15 A I think it is the conclusion of the
16 study. They did a review of this whole document
17 and this panel of experts concluded with that, with
18 this -- with this recommendation. I have called
19 two of the authors here, John Walker who is over at
20 the U.S. EPA, and Eliot Epstein, with E&A, which I
21 think you have met him, actually.

22 Q Uh-huh, yes.

23 A And Ed Horn over at the Department of
24 Health at New York, and all three stand by that

1 statement. Even though this report has been out
2 since 1994, nothing from the date this was
3 published to today, they stand by that statement.

4 Q Are you aware of the basis for that
5 conclusion?

6 A I think it is based on what they
7 reviewed, the scientific data that they listed
8 here.

9 Q Do you know what that is, specifically?

10 A I think they have, like, a list here.
11 They go through case histories.

12 Q Okay. Would you mind reading the third
13 sentence under that same paragraph which is on page
14 12, starting out with, "the major basis for this
15 conclusion?"

16 A Where is it?

17 Q It is the --

18 A The "asthmatic and allergic individuals
19 are at increased risk." Is that what --

20 Q No, no. Go down past four.

21 A "Composting facilities do not pose any
22 unique endangerment to the health and welfare of
23 the general public."

24 Q And then the major basis, if you could

1 read that.

2 A "The fact that workers regarded as the
3 most exposed part of the community and when worker
4 health was studied for periods of up to 10 years of
5 the composting site, no significant adverse health
6 effects were found." Do you want me to keep
7 going?

8 Q All right. That's the basis. Do you,
9 Dr. Baer, with your scientific expertise, believe
10 that a small sampling of worker's health is
11 representative of the general public?

12 A I think besides -- that was their major
13 basis, but I think also in terms of, like, clinical
14 reports or any reports of incidents of --

15 Q I am just reading from what they said was
16 the basis --

17 A This is the major basis.

18 Q Right.

19 A But they also reviewed the literature. I
20 think there is a bibliography back there. They are
21 not dealing with just compost workers, and they
22 didn't find anything there.

23 Q Do you agree with their major basis, I
24 guess, is the best way to say it?

1 A Yes, I do. I agree that --

2 Q That it is based on --

3 A Because they are the most susceptible
4 population. They had the highest level of
5 exposure.

6 Q Okay.

7 A They are probably representative of the
8 general public.

9 Q In addition, do you know how many workers
10 were evaluated overall and how many of them were
11 employees, compost workers, for more than even one
12 year or so?

13 A No. Do you know?

14 Q With that --

15 HEARING OFFICER MCGILL: Go ahead and ask
16 your next question.

17 Q (By Ms. Garrett) Was that information
18 available or included in this particular report?

19 A I don't see any information about the
20 number of workers in this report, that they based
21 it on, the total number of workers.

22 Q So could it be that, you know, making a
23 general statement like this, using the small
24 amount, the small number of compost workers but not

1 knowing the number of compost workers and not
2 knowing how long those compost workers were really
3 in close proximity to the compost, do you think
4 that scientifically that that is a sound premise, a
5 sound conclusion to make?

6 A We don't know the number of workers that
7 they looked at.

8 Q Or for how long they were exposed?

9 A I think they said ten years. Didn't they
10 say that here on the statement?

11 Q But it doesn't necessarily mean that --

12 A It could have been actually 20 years,
13 right? Ten years of written data. They looked
14 over the history for ten years, but it could have
15 been someone that worked prior to that ten years.

16 Q Well, it could -- could it be somebody
17 that worked for three months?

18 A It could be.

19 Q Okay.

20 A I don't know.

21 Q Could you also read on page 37 of that
22 same study under "mitigation through facility
23 siting, design and operational changes," the first
24 two sentences?

1 A Pardon? What was the question again?

2 Q Could you also read on page 37 of that
3 same study, "Bioaerosols Associated with Composting
4 Facilities" under "mitigation through facility
5 siting, design and operational changes." That, I
6 think, is -- I am not sure what --

7 A Page 37, where it says, "when siting new
8 facilities?"

9 Q Yes. Could you read that first?

10 A "When siting new facilities, critical
11 evaluation should be made of several factors
12 including the proximity to residents and public
13 facilities and meteorological and topographical
14 perimeters that contribute to off-site transport of
15 bioaerosols. The proximity to residences and
16 public places should also be a consideration with
17 upgrading composting facilities. Required buffer
18 areas can be greatly reduced with enclosure and
19 good management practices and increased
20 mechanicalization of the facility, the layout of
21 composting activities associated with
22 bioaerosolization, particularly material handling
23 processes should be located downwind or as far as
24 possible from sensitive receptors."

1 Q Do you agree with this recommendation
2 attached to your testimony of taking into
3 consideration residences as well as public
4 facilities when siting new compost facilities?

5 A Yes, I think it should be considered.
6 But I think there is also other factors there being
7 considered also.

8 Q Right, but --

9 A I think we do take into consideration
10 residences and they are setback already.

11 Q Right. But do you agree that you should
12 also take into consideration public facilities, as
13 was stated in this particular --

14 A What public facilities do you think they
15 are talking about here?

16 Q I think public -- well, are you asking me
17 what public facilities are?

18 A Yes.

19 Q I would say public facilities are public
20 schools, public parks.

21 A We take into effect operational
22 requirements and we do have requirements for good
23 management practices. So I think that basically
24 the proximity -- I think we have not set a number.

1 Q Well, I guess -- could you answer the
2 question regarding public facilities? Do you
3 agree --

4 A Pardon?

5 Q Do you agree with this document that was
6 attached to your testimony, that when siting a
7 facility, critical evaluation should be made of, in
8 addition to residences, public facilities?

9 A I think we took all this into
10 consideration when we wrote the regulations, all of
11 this information. We do take into consideration
12 the facilities.

13 Q How did you take that into consideration?

14 A We had the additional operating
15 requirements, like the half mile setback if you are
16 close to a residence or --

17 Q I am talking about how did you take into
18 consideration when writing the regulation the
19 consideration of public facilities? Did you --
20 could you specifically tell us how you did that?

21 A Well, Section 830.202 gives a whole list
22 of all of the requirements that we have taken into
23 account to protect the surrounding receptors. If
24 you look through that, we have a list of

1 requirements that they have to maintain.

2 Q I am talking about public facilities,
3 i.e. --

4 A Yes, yes, and the rules take that into
5 effect.

6 Q Do you mind reading some of that?

7 HEARING OFFICER MCGILL: I think that she
8 has answered the question as best she could. Did
9 you have anything further to add to Ms. Garrett's
10 question?

11 THE WITNESS: No.

12 HEARING OFFICER MCGILL: Any further
13 response? No.

14 Okay. Why don't you -- do the proponents
15 have many more questions?

16 MS. GARRETT: I have one more.

17 HEARING OFFICER MCGILL: Okay. One more
18 question.

19 DR. DESAI: I have two or three.

20 HEARING OFFICER MCGILL: All right.

21 Let's go off the record for a moment.

22 (Discussion off the record.)

23 HEARING OFFICER MCGILL: We will take a
24 10 minute break. We will start in 10 minutes. I

1 have got 2:57.

2 (Whereupon a short recess was
3 taken.)

4 HEARING OFFICER MCGILL: Back on the
5 record.

6 The proponents would like to continue
7 their questions of the Agency.

8 Q (By Ms. Garrett) I have one last
9 question. Is it your professional opinion, Dr.
10 Baer, as an Environmental Specialist of the IEPA,
11 that these at risk individuals could be placed in a
12 position where they may be even more at risk if
13 they attend a public school, play in a sports
14 field, play in a public park, or spend time in a
15 hospital that abuts a commercial composting
16 facility?

17 A Based on what I have read and also
18 including, like, the operational standards that we
19 require for one to operate, I don't think they are
20 at any additional risk than what is already there
21 in the background.

22 Q And even based on what Dr. Strauss'
23 testimony --

24 A I think if you include our operational

1 standards that we have required, the design and
2 operational standards, I think we are more
3 protective than most states and actually, in fact,
4 all states, from what I have seen. I have not seen
5 any state that has more stringent requirements. I
6 think the history of this whole rulemaking is that
7 we basically took a lot -- we went further than
8 anyone. We made a point of making sure that
9 operators are going to be accountable, making sure
10 that they meet operational requirements. I think
11 most people say operating requirements are
12 necessary. These operational perimeters need to be
13 met.

14 Q Are you saying that operational standards
15 are just as important or more important or less
16 important than siting?

17 A I think it is more important.

18 Q Than the siting?

19 A I think the whole -- the rule as itself
20 includes locational requirements, the location.
21 But I think -- are you saying are they equal? I
22 think they are part of the whole package. You
23 should put it together as one package when you
24 review in terms of a properly ran facility. It

1 includes everything.

2 MS. GARRETT: Okay. Thank you.

3 HEARING OFFICER MCGILL: Do the
4 proponents have any further questions?

5 Yes, Dr. Desai.

6 CROSS EXAMINATION

7 BY DR. DESAI:

8 Q When you go through a rulemaking process,
9 do you consult the Health Department?

10 A The Department of Health?

11 Q The Department of Health, uh-huh.

12 A I think they were on the committee,
13 weren't they. Yes, I think Tom Long was on -- was
14 part of the conferring --

15 Q Let me ask a second question.

16 HEARING OFFICER MCGILL: Well, I think
17 they are still trying to respond to that.

18 All right. Your response was that -- who
19 was it?

20 THE WITNESS: It is Tom Long at the
21 Illinois Department of Public Health. He was the
22 person that was involved in the --

23 Q (By Dr. Desai) It was a year and a half
24 ago?

1 A Yes.

2 Q Do you know who his --

3 A Who his replacement is?

4 Q Uh-huh.

5 A Mike Mooney.

6 Q Have you talked to the Health Department

7 recently about their position on this issue?

8 A I talked to them yesterday.

9 Q Okay.

10 A I think it is summarized in your

11 exhibit. I think the Susan Garrett supplemental

12 testimony, the letter of April 17th, 1997, is that

13 the one? I think you already submitted that.

14 Yes. You submitted that as a supplementary,

15 right?

16 Q Uh-huh. Can you read this for us?

17 HEARING OFFICER MCGILL: Could you just

18 identify the letter.

19 THE WITNESS: It is on Illinois

20 Department of Public Health stationery. It is

21 dated August 7th, 1997, and it is addressed to

22 Susan Garrett and Dr. Desai and signed by John

23 Lumpkin, the Director of Public Health.

24 HEARING OFFICER MCGILL: Thank you. This

1 was a hearing exhibit from the first hearing?

2 DR. DESAI: Yes, uh-huh.

3 THE WITNESS: Do you want me to read the
4 part that you have highlighted?

5 DR. DESAI: Yes.

6 THE WITNESS: "Insufficient data are
7 available to establish dose response relationships
8 for bioaerosols among populations that reside near
9 these facilities. Nevertheless, it would be
10 prudent public policy siting these compost
11 facilities away from populations. We also concur
12 that the siting of compost facilities with regard
13 to schools, hospitals, athletic fields and public
14 parks should be at least as protected as that
15 provided for residents."

16 Q (By Dr. Desai) Yes. And --

17 A I think there is more. "With regard to
18 existing compost facilities that are in compliance
19 with current siting regulations, it may be
20 appropriate to review them on a case-by-case
21 basis. Evaluating the size of the compost
22 operation, distances to residents, and public areas
23 from downwind, et cetera, before making a
24 determination that they should be relocated.

1 Without a clear dose response relationship it may
2 not be possible to justify relocation of existing
3 facilities."

4 Q Okay. My question is, do you agree with
5 this?

6 A Let me look at -- I have got --

7 Q I will hand it to you again.

8 A I think I would agree with it. I
9 discussed this with Mike Moody, about it. He says
10 it is prudent, that it is something to consider,
11 but he also says that it has to be at least as
12 protective as that of residents.

13 Q Do you agree with that?

14 A Yes.

15 Q Okay. That's all. That's my question.

16 A I think when we say be as protective, I
17 think it is protective in terms of improving the
18 quality of life, I assume you are talking about.
19 And I think, you know, by increasing that setback,
20 are we really more protective or not.

21 Q You are talking about insufficient data.
22 We don't know. That is what he is talking about.

23 A Okay. Go ahead.

24 Q When was the last time you testified to

1 make the rule change --

2 A For this?

3 Q -- in front of the Pollution Control
4 Board? No, not this one.

5 A This rulemaking?

6 HEARING OFFICER MCGILL: I am sorry.
7 What is your question?

8 Q (By Dr. Desai) When was the last time you
9 testified?

10 A In front of the Board for any
11 rulemaking?

12 Q Uh-huh, uh-huh.

13 A What was it, last year, with the site
14 remediation program, wasn't it, that we finished in
15 December.

16 Q Do you remember your 1993 testimony where
17 you addressed Section 830.203, where -- let me read
18 what you had proposed.

19 A Okay.

20 HEARING OFFICER MCGILL: Could you tell
21 me what you are reading from?

22 DR. DESAI: It is her testimony from 1993
23 on the rulemaking process when you were updating
24 the regulations. That was in 1993.

1 MS. DYER: You are reading from the
2 transcript?

3 DR. DESAI: Uh-huh.

4 BOARD MEMBER McFAWN: This would be the
5 landscape waste compost rulemaking?

6 DR. DESAI: Uh-huh, Section 830.203.

7 HEARING OFFICER MCGILL: All right. So
8 this is from the R93-29 rulemaking?

9 DR. DESAI: Yes, where she had proposed
10 that standards requiring restrictions and
11 prohibition against locating in any area posing a
12 threat to a historical significant site, a natural
13 landmark, a nature preserve or an endangered
14 species.

15 THE WITNESS: I want to clarify -- go
16 ahead. I am sorry.

17 DR. DESAI: It is still written in the
18 regulation. This is how it is written in the
19 regulation.

20 Q (By Dr. Desai) My question is, you said
21 to protect the endangered species. From what? Is
22 it the noise, odor, or fungus? Why do you want to
23 protect the endangered species?

24 A I want to clarify that I didn't testify

1 in that portion of the rules, 203(c), the location
2 standards. That would be Gary Cima (spelled
3 phonetically) if it was a location standard. Mine
4 was more the quality of -- mine was the quality of
5 the end product of the compost. That was Subpart
6 E.

7 HEARING OFFICER MCGILL: Are you
8 referring to the current regulations, 830.203(h)?

9 DR. DESAI: Uh-huh.

10 Q (By Dr. Desai) Okay. Let me ask you, are
11 you aware of this regulation at all?

12 A Yes.

13 Q Okay. Then if the regulation says that
14 they want to protect the endangered species, I want
15 to know from what? Is it the noise? Is it odor?
16 Is it fungus? What is it?

17 HEARING OFFICER MCGILL: I believe Dr.
18 Desai is referring to 830.203(i).

19 THE WITNESS: I want to clarify that I
20 didn't testify on this portion of the rulemaking.
21 But my understanding is that this is basically --
22 we kind of let -- it was sort of like to identify
23 or warn the developers about the Endangered Species
24 Act, that they would have to comply with. And

1 usually it is in terms of the habitat that I think
2 you are trying to protect.

3 Q (By Dr. Desai) Then why is it you don't
4 want to protect the children?

5 A I think that the rules -- these
6 regulations do protect the children, the standards
7 that we have there.

8 Q The regulations don't mention the
9 school.

10 A But the standard itself is protective of
11 human health, I think. It protects -- I think -- I
12 have talked to the New York Department of Health
13 and they said that that Islip study, again, is that
14 basically that when they did the study that they
15 did not find anything to separate the children as a
16 separate more sensitive population than the general
17 public.

18 Q I am just talking about the endangered
19 species versus the children. That's all. I am not
20 talking about the Islip study.

21 A Well, I -- okay.

22 Q You say it should be protective. I want
23 to know --

24 A Okay. I think --

1 Q -- from what. That's all I want to
2 know.

3 A Well, I think this whole rule protects
4 public health. The regulations do protect
5 children.

6 BOARD MEMBER McFAWN: Again, why was this
7 included about the endangered species?

8 THE WITNESS: I think that was just, more
9 or less, to let them know that there is a
10 requirement -- that there is the Endangered Species
11 Act.

12 BOARD MEMBER McFAWN: Which has to do
13 with location and habitat?

14 THE WITNESS: Yes, something that was
15 basically for their knowledge for something that
16 they would have to comply with.

17 BOARD MEMBER McFAWN: Can I ask a
18 question? That type of requirement is or that type
19 of information that heads up requirements that
20 might be included in this rule, would that be
21 included in any other rules that have to do with
22 the locating of facilities?

23 MR. BAKOWSKI: It was probably borrowed
24 from the landfill rules.

1 BOARD MEMBER McFAWN: So the landfill
2 rules would have something like that, as well?

3 MR. BAKOWSKI: Yes.

4 BOARD MEMBER McFAWN: Okay. Thank you.

5 DR. DESAI: Okay.

6 HEARING OFFICER MCGILL: Do you want to
7 go to your next question?

8 Q (By Dr. Desai) Would you agree with the
9 medical professionals when they said that
10 children's immune systems are immature? Would you
11 agree with that?

12 A I am not a health official. I wouldn't
13 know.

14 Q If they say -- okay. The American
15 Academy of Pediatrics and the American Academy of
16 Allergies says that, then would you --

17 A I would probably defer to the Illinois
18 Department of Public Health for this type of
19 question. I am not a health official. I wouldn't
20 be able to make a judgment on that.

21 Q But you are part of the policy making,
22 aren't you?

23 A Uh-huh.

24 Q Would you have investigated it if

1 somebody asked you?

2 A Yes.

3 Q Would you investigate?

4 A Uh-huh.

5 Q Okay. Thank you.

6 MS. DYER: I am not sure that --

7 DR. DESAI: Well, the reason I asked that

8 for, is I want to know if the EPA is aware that

9 children's immune systems are not mature, so they

10 are prone to have more infections when they are

11 exposed to all kinds of --

12 HEARING OFFICER MCGILL: I think she has

13 answered your question. You had asked if she was

14 aware -- you are asserting that children's immune

15 systems are immature, and I believe her response

16 was that --

17 THE WITNESS I am not a health official.

18 HEARING OFFICER MCGILL: She is not

19 aware, but would defer to the Department of Public

20 Health's position on that.

21 Q (By Dr. Desai) If the Department of

22 Public Health says yes, then would you change your

23 opinion?

24 A On what?

1 Q That children's immune systems are
2 immature, so that they get frequent infections so,
3 therefore, they should be protected?

4 A I think that based on the information
5 that we have obtained that these rules are
6 protective of children.

7 HEARING OFFICER MCGILL: Okay. Why don't
8 you ask your next question.

9 DR. DESAI: I don't have any further
10 questions. If she couldn't answer that question, I
11 can't go further.

12 HEARING OFFICER MCGILL: Okay. Do the
13 proponents have any further questions?

14 Does anyone else have any questions for
15 the Agency?

16 All right. The Board has a few
17 questions.

18 Would the Agency oppose the prospective
19 application of the one-eighth mile setback for
20 hospitals?

21 THE WITNESS: Based on my review of the
22 information here of other states, talking to the
23 other states' experience, there doesn't seem to be
24 any need to change our regulations as they stand

1 now.

2 HEARING OFFICER MCGILL: So that would be
3 your position with respect to schools as well?

4 THE WITNESS: Schools, yes.

5 HEARING OFFICER MCGILL: And also with
6 athletic fields?

7 MS. DYER: I just want to interject
8 here. Dr. Baer is testifying as an expert witness
9 here, not as the -- well, she is representing the
10 Agency, but the Agency's position may reflect
11 public policy considerations that she is not
12 prepared to address. If that's the case and we go
13 back, we will submit an official Agency position in
14 final comment.

15 But she is testifying as to her expert --
16 her professional opinion based on her review of the
17 literature. So I just want to reserve that because
18 our management may have some different position
19 than the Agency would take, and you asked what the
20 Agency position would be.

21 HEARING OFFICER MCGILL: Okay. I would
22 be interested in hearing what the Agency's position
23 would be, if you could include that in your public
24 comments --

1 MS. DYER: Absolutely.

2 HEARING OFFICER MCGILL: -- to the
3 rulemaking with respect to hospitals, schools,
4 athletic fields and public parks.

5 BOARD MEMBER HENNESSEY: Dr. Baer, as an
6 individual expert on the basis of your knowledge,
7 do you have an opinion as to whether it would be
8 appropriate to extend one-eighth of a mile setback
9 to hospitals?

10 THE WITNESS: I think, like, the
11 one-eighth setback, I don't know if that was set
12 based on health. I am just assuming that it was
13 based on more of a nuisance control and odor
14 control, not as an additional health protection
15 against bioaerosols, in particular.

16 Based on what I have looked at with other
17 states, I think to add that is not necessary at
18 this point, if they are operating in accordance
19 with the regulations as they stand now.

20 BOARD MEMBER HENNESSEY: Do you know if
21 the operational standards that are currently in the
22 regulations prevent increased concentrations of
23 aspergillus spores --

24 THE WITNESS: From being --

1 BOARD MEMBER HENNESSEY: Right.

2 THE WITNESS: Yes, I think they have like
3 moisture requirements. They have turning
4 requirements. I think they have to take into
5 consideration wind direction and also if there is
6 odor complaints which they have to address that,
7 and that would probably be the first sign if there
8 is a problem with the composting operation. I
9 think there is a lot of little things built in to
10 it that they have to meet and comply with.

11 BOARD MEMBER HENNESSEY: Let me take an
12 extreme example. Say you have a composting
13 facility, a composting operation ten feet away from
14 a hospital with children with AIDS. Would you have
15 any concerns that those immunocompromised children
16 were being exposed to higher than background levels
17 of -- higher than background level concentrations
18 of the aspergillus spores?

19 THE WITNESS: I think I would have some
20 concerns, but I would think that on a case-by-case
21 basis, with other environmental factors around that
22 area also, like, for example, you know, St. John's
23 is doing a lot of construction and they can stir up
24 a lot of dust and, you know, are they taking any

1 additional measures to protect the immunosuppressed
2 individuals that reside in the hospital? I don't
3 know.

4 You know, I think that the Department of
5 Public Health has a lot of requirements for them to
6 monitor. I think most hospitals have an air
7 filtration system to remove possible, you know,
8 pathogens or irritants from the air. I think there
9 are other safeguards besides just a compost
10 facility.

11 I would like to also point out one
12 thing. When New York did that study and looked at
13 the setbacks, you know, the recommendation about
14 locating next to a hospital, they did not change
15 their setback and add hospitals as something as a
16 specific setback for hospitals. So they did not
17 feel a need, even though they had a specific study
18 for that. The setback that you see in front of you
19 is the same as it was before the study.

20 BOARD MEMBER HENNESSEY: In the first
21 round of rulemaking on the landscaping compost
22 waste --

23 THE WITNESS: It is a mouthful.

24 BOARD MEMBER HENNESSEY: Yes, LCW. Were

1 hospitals, schools, athletic facilities or parks
2 ever specifically discussed?

3 THE WITNESS: We might have. I would
4 have to look at my notes, and maybe we could -- I
5 think we discussed a lot of -- it was a long,
6 arduous process. We met with the committee, like,
7 six to seven times, at least that amount. So I
8 think that it probably may have come up in
9 discussion, but I am not sure. I would have to go
10 back. That was a long time ago.

11 HEARING OFFICER MCGILL: Off the record
12 for a moment.

13 (Discussion off the record.)

14 HEARING OFFICER MCGILL: Okay. Why don't
15 we go back on the record.

16 Are there any further questions for this
17 witness or anyone here at the Agency?

18 MR. BAKOWSKI: If I may, the -- you posed
19 a question to the Agency. We are having some
20 discussion about what that is. So I am guessing we
21 are not clear on it. You asked us, specifically,
22 if we would be opposed to some setback
23 requirement?

24 HEARING OFFICER MCGILL: Right, to the

1 perspective application of the one-eighth mile
2 setback for hospitals, the same question for
3 schools, the same question for athletic fields, and
4 the same question for public parks.

5 MR. BAKOWSKI: Did you want those
6 addressed individually or the hospitals one and the
7 public --

8 HEARING OFFICER MCGILL: Individually.

9 MR. BAKOWSKI: Each of those four and
10 only those four?

11 BOARD MEMBER HENNESSEY: If there are any
12 others that you want to add --

13 MR. BAKOWSKI: Are you asking us whether
14 we would be opposed to it versus whether we think
15 it is necessary?

16 BOARD MEMBER McFAWN: Because Dr. Baer
17 has testified as to what the Agency's position is
18 from a health standpoint, now we want to know if
19 you are opposed to it from a policy standpoint.

20 MR. BAKOWSKI: Okay. That's what I was
21 trying to get at.

22 HEARING OFFICER MCGILL: Certainly, if
23 the Agency thinks that additional facilities should
24 be mentioned in the setback standards, you can

1 include that in your public comment. But I would
2 like to see the Agency's position on these four
3 types of facilities also.

4 MR. BAKOWSKI: Okay. I mean, the whole
5 gist of our testimony is that we haven't seen
6 evidence that says something is needed, but I don't
7 think we have seen clear evidence that there is any
8 guarantee that it may not reduce risk, you know,
9 whether how much reduction or how much risk there
10 is hasn't really been established yet. So I think
11 it is in those contexts, so I think we can answer
12 that.

13 HEARING OFFICER MCGILL: Okay. Thanks.

14 Ms. Dyer, did you have any questions?

15 MS. DYER: If that were to happen, would
16 the Board anticipate defining those terms, those
17 four terms?

18 HEARING OFFICER MCGILL: Well, I think
19 you can present the Agency's concerns or positions
20 about those terms in your public comment.

21 MS. DYER: Okay.

22 HEARING OFFICER MCGILL: Are there any
23 further questions for the Agency?

24 DR. DESAI: Just one more question.

1 HEARING OFFICER MCGILL: Okay, Dr. Desai.

2 DR. DESAI: I have a hypothetical
3 question.

4 If the Board recommends the setback,
5 whatever they decide, would you oppose it or would
6 you go along with it?

7 MR. BAKOWSKI: If they adopt it, we will
8 enforce it.

9 DR. DESAI: Thank you.

10 BOARD MEMBER HENNESSEY: That's good to
11 hear.

12 HEARING OFFICER MCGILL: Thank you very
13 much.

14 (The Agency witnesses, Dr.
15 Baer, Ms. Munie, and Mr.
16 Bakowski left the stand.)

17 HEARING OFFICER MCGILL: Off the record
18 for a moment.

19 (Discussion off the record.)

20 HEARING OFFICER MCGILL: Back on the
21 record.

22 We will now proceed with the testimony of
23 those persons who have signed up to testify today.
24 Given the time and the number of persons who would

1 like to testify, each witness is going to be
2 limited to no more than ten minutes of testimony.
3 Accordingly, please try to keep your testimony
4 brief and avoid providing repetitious testimony.

5 We will now proceed with the testimony of
6 Mr. Clyde Wakefield. If you would step up here,
7 please.

8 Would you please swear in the witness.

9 (Whereupon the witness was
10 sworn by the Notary Public.)

11 HEARING OFFICER MCGILL: Before you
12 begin, if you would just please state your name and
13 identify any organization that you are representing
14 here today.

15 THE WITNESS: Yes. My name is Clyde
16 Wakefield. I am the Director of Public Works and
17 Engineering for the City of Crystal Lake, Illinois.

18 HEARING OFFICER MCGILL: All right.
19 Thank you. You may begin.

20 C L Y D E F. W A K E F I E L D,
21 having been first duly sworn by the Notary Public,
22 saith as follows:

23 THE WITNESS: I have held that position
24 for 19 years. Previously I have -- we have sent --

1 the City has sent public comment and distributed it
2 on the service list. My purpose today is to enter
3 that same public comment as testimony because of
4 the severe impact, I guess, that it would have on
5 our facility. If the proposed rule were adopted,
6 as previously stated, it would essentially put us
7 out of business.

8 I have additional copies. Do you need
9 those now or later?

10 HEARING OFFICER MCGILL: When you are
11 finished, if you would like to present the written
12 version of your testimony as a hearing exhibit you
13 can ask to do that. Why don't you just continue
14 with your testimony now.

15 THE WITNESS: This communication was
16 dated September 5th, 1997. It was signed by the
17 City Manager, Joseph Misurelli, but was authored by
18 myself.

19 The City of Crystal Lake hereby enters a
20 most vigorous opposition to the proposed amendment
21 to location standards for the landscape waste
22 compost facilities. It is the City's considered
23 opinion that the justification for the proposed
24 change is flawed, without scientific basis, and

1 would impose a serious economic impact upon the
2 City of Crystal Lake and likely numerous municipal
3 composting operations.

4 The City of Crystal Lake composts leaves
5 only and operates the municipal facility by license
6 from the IEPA, permit number 1995-079. The City of
7 Crystal Lake long ago recognized the positive
8 benefits of providing a sensible, environmental
9 alternative to burning leaves. The City began a
10 composting operation by the Street Department over
11 15 years ago, well before the State-imposed
12 regulations required licensing.

13 When the State and its agencies created
14 and enacted statutes setting regulations for
15 establishment of permitted composting sites, the
16 City of Crystal Lake complied in order to continue
17 to provide an economical, environmentally correct
18 solution to leaf disposal. We engaged a consultant
19 and began acquisition of a site that met the
20 numerous siting requirements for both the State's
21 regulations and the City's operating efficiencies.
22 The site, indicated on the map as Figure 1, was
23 acquired in 1987 for \$375,000.00. This permit,
24 finally obtained in June of 1992, was No. 1992-010,

1 and was renewed in 1995.

2 In addition to land acquisition costs,
3 noted above, the City incurred costs for consulting
4 engineers and testing services, clearing and
5 grading, fencing and berming for screening,
6 construction of stone base and asphalt paving for
7 access roads and an all-weather composting pad.
8 Further, specialized composting equipment was
9 purchased for use by the City Street Department to
10 properly and efficiently deal with the volume of
11 materials collected from our rapidly-growing
12 municipality (now in excess of 30,000). The
13 Wildcat compost turner and a Toro tub grinder in
14 addition to a large wheeled end loader to service
15 those machines is used by the City in its
16 composting operation.

17 The estimated cost invested by the City
18 in the various site preparations, operating
19 machinery and other necessary incidentals is
20 \$450,000.00. Combined with the land purchase, the
21 City has in excess of \$800,000.00 invested in our
22 composting operation. As noted above, the City
23 acquired our permit by meeting or exceeding the
24 minimum requirements for siting including all

1 applicable setbacks established at the time of the
2 permit in 1992.

3 In all the time the City has operated a
4 compost facility (licensed or not), there has not
5 been a single odor-related or operating complaint
6 received.

7 However, in 1995, School District Number
8 47 acquired a site and constructed a junior high
9 school that is approximately 1,000 feet (border to
10 border) from the already existing City compost
11 site. The distance from the active composting
12 operation to the corner of the school site is 2,150
13 feet. The site purchased by the City was selected
14 because it is situated in an industrial-zoned area,
15 and further is separated from the recently
16 developed school by a significant rail corridor and
17 embankment.

18 The City believes there would be a
19 serious operating and economic hardship imposed
20 upon the staff and taxpayers of the City of Crystal
21 Lake by enactment of the proposed amendment to
22 compost site setbacks. The City could not, under
23 any scenario, possibly relocate such a facility
24 within 6 months. The question further remains,

1 that given the investment in property, site
2 improvements, and operating machinery, does not the
3 City acquire and retain a vested property right
4 which cannot be rendered useless without due
5 process and due compensation.

6 The setback standard being proposed
7 appears to be created arbitrarily, without
8 remedies, without scientific justification, and on
9 the basis of a single site possibly affecting a
10 statistically minute segment of the population.
11 The Crystal Lake site has not received a single
12 complaint on the basis of odor, dust, noise, or
13 allergic reaction.

14 The City and its taxpayers would face
15 serious financial harm by enactment of the proposed
16 amendment. It is highly doubtful that any other
17 site of comparable size and proximity to the heart
18 of the City is available. The City purchased an
19 unusually shaped remnant parcel for this specific
20 long-term use, and the necessary disposal of leaves
21 as a municipal service is dependent upon use of
22 this site.

23 The impact of closing this existing site,
24 which has not generated even one complaint, would

1 be significant, both financially and operationally,
2 depriving taxpayers of an expected municipal
3 service. Therefore, it is the City's position that
4 the proposed amendment to setback regulations is
5 arbitrary and would represent an unlawful taking of
6 property. An economic and operational hardship
7 would distinctly be created without any substantive
8 justification. The City expresses in the most
9 strenuous terms that it opposes the proposed
10 amendment due to the serious negative impacts it
11 would create in our situation.

12 I go on to point out here one last
13 point. The City would also respectfully request
14 that the Board review its method of notice for
15 amendments of this nature. As a permit holder, the
16 City would expect that alterations in statutes that
17 could materially impact the very existence and
18 right to operate our site would be made known
19 directly to the permittee.

20 No notice of any sort was received by the
21 City, and it was only by a courtesy letter from our
22 County Health Department that we became aware of
23 this impending issue. It is recommended that the
24 Board consider adding permit holders (easily

1 available from the EPA) to notices distributed in
2 matters that impact such permit holders.

3 Thank you for your consideration of the
4 above matters. It was signed by Joseph Misurelli.

5 HEARING OFFICER MCGILL: Thank you. I
6 would -- just before you present that document, I
7 would just like to note in response to one of your
8 last comments that notice of this rulemaking did
9 appear in the newspapers of general circulation and
10 I believe also in the Illinois Register Regulatory
11 Agenda, and in the Board's monthly periodical, The
12 Environmental Register. Also, notice was sent out
13 to mailing lists based on lists from the original
14 landscape waste composting rulemaking and
15 information on the rulemaking has also been
16 available on the Board's Home Page on the Worldwide
17 Web.

18 Did you want to have that document
19 entered as a hearing exhibit?

20 MR. WAKEFIELD: Yes, I would.

21 HEARING OFFICER MCGILL: Thank you. I
22 have been handed a letter dated September 5, 1997,
23 directed to the Illinois Pollution Control Board,
24 subject, public comment on the matter of Amendments

1 to Location Standards for Landscape Waste Compost
2 Facilities, R97-29, from the City of Crystal Lake,
3 Illinois.

4 Is there any objection to entering this
5 letter into the record as a hearing exhibit?

6 Seeing none, I am marking this document
7 as Exhibit Number 42 and entering it into the
8 record as a hearing exhibit.

9 (Whereupon said document was
10 duly marked for purposes of
11 identification and admitted
12 into the record as Hearing
13 Exhibit 42 as of this date.)

14 HEARING OFFICER MCGILL: We will now
15 proceed with any question for this witness.

16 Does the Agency have any questions for
17 this witness?

18 MS. DYER: No, the Agency has no
19 questions.

20 HEARING OFFICER MCGILL: Do the
21 proponents have any questions for this witness?

22 DR. DESAI: I have one question.

23 HEARING OFFICER MCGILL: Dr. Desai, go
24 ahead.

1 CROSS EXAMINATION

2 BY DR. DESAI:

3 Q If the majority of people in your town
4 opposes this compost facility, what would be the
5 City's position?

6 A If they oppose it?

7 Q Uh-huh.

8 A Well, that's pretty hypothetical. I
9 seriously doubt if that would be the consensus.

10 Q Well, if that happens -- it is happening
11 all over. It is a possibility that it could
12 happen.

13 A Our only alternative at this point, I
14 guess, would be either to return to burning or have
15 the leaves trucked to another licensed facility.
16 There is only one other facility, that I am aware
17 of, that is licensed in McHenry County.

18 Q But you would respect the people's
19 feelings?

20 A There would have to be some method of
21 dealing with the leaves. I don't know what that
22 would be other than disposing of them by municipal
23 service.

24 Q If you find an alternative for the

1 composting, then would you do it?

2 A Well, that would be -- that would have to
3 be judged, I guess, if it is economically
4 feasible. I am sure there are alternatives, but
5 whether they are feasible or not.

6 DR. DESAI: That's all.

7 DR. HOLLOMAN: Mr. Wakefield --

8 HEARING OFFICER MCGILL: If you could
9 just identify yourself, please.

10 DR. HOLLOMAN: I am William Holloman.

11 HEARING OFFICER MCGILL: Thank you.

12 CROSS EXAMINATION

13 BY DR. HOLLOMAN:

14 Q Did you say that the school had purchased
15 a piece of property next to the compost site?

16 A It is about 1,000 feet away.

17 Q It is currently not used?

18 A It is used. The school is in operation.

19 Q The school is in operation?

20 A It was built in 1996.

21 Q And how far away is that?

22 A It is 1,000 feet from our property
23 border.

24 Q It is 1,000 feet. Therefore, you would

1 not be opposed to, say, an eighth of a mile buffer
2 between the compost site and public facilities?

3 A That would not impact our site as it
4 currently stands, no.

5 DR. HOLLOMAN: Thank you.

6 HEARING OFFICER MCGILL: Any there any
7 further questions for this witness?

8 I would just like to clarify that the
9 exhibit -- Hearing Exhibit 42, the letter I
10 described earlier, also includes as an attachment a
11 map or figure that is referred to as Location Map
12 Composting Facility, Crystal Lake, Illinois. That
13 attachment is a part of Hearing Exhibit 42.

14 Is there any objection to that?

15 Seeing none, Hearing Exhibit 42 includes
16 the reference letter and the attached location
17 map.

18 There are no further questions for this
19 witness?

20 Let's go off the record for a second.

21 (Discussion off the record.)

22 HEARING OFFICER MCGILL: Back on the
23 record.

24 Seeing no further questions for this

1 witness, I thank you for your time.

2 THE WITNESS: You are welcome.

3 BOARD MEMBER McFAWN: Thank you, Mr.
4 Wakefield.

5 (The witness left the stand.)

6 HEARING OFFICER MCGILL: The next witness
7 is Paul Walker. If you would step up, please.

8 Could you please swear in the witness,
9 please.

10 (Whereupon the witness was
11 sworn by the Notary Public.)

12 HEARING OFFICER MCGILL: Mr. Walker,
13 before you begin, if you would please state your
14 name and identify any organization that you are
15 representing here today.

16 P A U L W A L K E R,
17 having been first duly sworn by the Notary Public,
18 saith as follows:

19 THE WITNESS: I am Paul Walker. I am a
20 Professor of Animal Science at the Illinois State
21 University. I represent an interdisciplinary
22 research team conducting basic and applied
23 research. I am with a research program utilizing
24 livestock waste and urban waste as value added

1 products. In that respect, I am responding to a
2 request from Scott Smith, who is Chairman of the
3 Illinois Composting Council, to provide some
4 testimony today regarding the proposed amendment.

5 I would like to read the summary. In
6 response to Scott's request, we did a literature
7 review of the scientific information available and
8 I would like to read that summary and make a couple
9 of statements and then enter it into the
10 testimony.

11 In response to government mandates to
12 decrease the amount of material entering landfills,
13 the rush to compost has been promoted with
14 adequate, though less than exhaustive scientific
15 assessment of potential health and environmental
16 problems associated with nutrients, elements,
17 chemicals, and pathogens that may be components of
18 raw, partially composted and composted waste.

19 In general, finished compost is a useful
20 product that can be applied to soil to provide an
21 improved medium for growing plants. Although
22 indicator microorganisms including fecal coliforms,
23 and potentially pathogenic bacteria such as
24 Salmonella have been isolated in raw material for

1 composting, there has been little to no correlation
2 between occurrence of these organisms at compost
3 sites and infections in surrounding communities.

4 There is a preponderance of evidence in
5 the literature that there is no substantial public
6 health risk from the spores of aspergillus
7 fumigatus released from composting operations.
8 Levels of pesticides and metal contamination of
9 soil and surface water have been documented to be
10 well within regulatory limits at appropriately
11 managed sites.

12 Odor is the most common pollutant
13 complaint associated with improperly operated
14 compost facilities. Wet grass clippings are the
15 most common contributor to odor pollution. Best
16 management practices and appropriate public
17 education are required to minimize odor
18 complaints. The literature reviewed does not
19 support the need for more stringent Illinois siting
20 regulations for compost facilities.

21 We oppose the proponents' allegation that
22 the amendments are necessary because of actual and
23 potential health threats from exposure to
24 commercial composting operations. The attached

1 literature review presents a summary of scientific
2 studies and applied demonstrations of available
3 evidence that concludes: Composting facilities do
4 not pose any unique endangerment to the health and
5 welfare of the general public.

6 I would like to enter our literature
7 review as testimony. I would also like to provide
8 a letter from the Town of Normal supporting -- or
9 in opposition to the proposed amendments and what
10 effect it would have on their site.

11 I would like to add an additional
12 comment. We had a compost site that was permitted
13 in operation, and still have it today, in the
14 process of changing our permit. But subsequent to
15 our establishment of that compost facility, the
16 Town of Normal purchased land across the road from
17 and built a public high school, and that was in
18 full knowledge that the composting operation was
19 there, and they did not see it as a potential
20 health threat to their school or their students.

21 We have been operating without complaint
22 for -- we are in our fourth year. So I am not
23 certain that all communities would view it as a
24 public health risk from a practical point of view,

1 aside from the scientific literature. That's all I
2 have for comment.

3 HEARING OFFICER MCGILL: Thank you. If
4 you would hand me the documents that you would like
5 to have entered as hearing exhibits.

6 THE WITNESS: Do you need multiple
7 copies?

8 HEARING OFFICER MCGILL: One is enough
9 for me. Thank you.

10 BOARD MEMBER McFAWN: Do you, by chance,
11 have extra copies to give to the proponents,
12 perhaps?

13 THE WITNESS: Sure. I have several.

14 HEARING OFFICER MCGILL: Let's go off the
15 record.

16 (Discussion off the record.)

17 HEARING OFFICER MCGILL: Let's go back on
18 the record.

19 I have been handed a letter dated October
20 2, 1997, directed to Dorothy Gunn, Clerk, the
21 Illinois Pollution Control Board, from Paul Walker,
22 Professor of Animal Science, and Tim Kelley,
23 Assistant Professor of Environmental Health. This
24 is on Illinois State University letterhead.

1 Attached to that letter is the public comment of
2 Paul M. Walker and Timothy Kelley.

3 Is there any objection to entering these
4 documents into the record as hearing exhibits?

5 THE WITNESS: I would like to offer a
6 comment, if I could.

7 If you are going to consider additional
8 regulations for setbacks, I would encourage you to
9 consider what the definitions of each of your
10 public facilities are, such as schools and does it
11 include permitted and nonpermitted compost sites,
12 and then can compost sites be located on, quote,
13 school or university property, in terms of what
14 your definitions would be.

15 HEARING OFFICER MCGILL: Okay. Back to
16 the document that Mr. Walker has handed me.

17 Is there any objection to entering into
18 the record as a hearing exhibit the October 2, 1997
19 letter with the public comment attachment that I
20 described earlier?

21 Seeing none, I am entering into the
22 record as Hearing Exhibit 43 these described
23 documents.

24 (Whereupon said documents were

1 duly marked for purposes of
2 identification and admitted
3 into the record as Hearing
4 Exhibit 43 as of this date.)

5 HEARING OFFICER MCGILL: Mr. Walker has
6 also handed me a letter directed to the Illinois
7 Pollution Control Board -- excuse me.

8 Let's go off the record for a moment.
9 (Discussion off the record.)

10 HEARING OFFICER MCGILL: Back on the
11 record.

12 The letter that Dr. Walker handed me is
13 directed to the Illinois Pollution Control Board
14 from Mayor Kent M. Karraker, from the Town of
15 Normal, Illinois, dated October 6, 1997, and the
16 Board will accept this as public comment.

17 THE WITNESS: Okay. That's all they
18 want.

19 BOARD MEMBER HENNESSEY: Mr. Walker, what
20 is the distance between the compost facility and
21 the high school?

22 THE WITNESS: The only thing is the
23 property line that is across the street. If you
24 want to take the active compost site, it is 1,103

1 feet. Now, as our compost site enlarges, it will
2 become less and less and less.

3 BOARD MEMBER McFAWN: This is a compost
4 operation run by the University?

5 THE WITNESS: Yes. Primarily for
6 research, but we were in the process, prior to our
7 learning of this, of asking for a -- or applying
8 for a commercial permit so that we could sell the
9 compost. Currently we use it all on the property,
10 so it doesn't require us to have a commercial
11 permit. But we would like to have the opportunity
12 to sell it, because we do take all of the leaf and
13 grass landscape waste and a large portion of the
14 wood chips from the Town of Normal. We have a very
15 cooperative relationship with them. So it would be
16 a small-sized commercial operation if you looked at
17 it from that perspective. Does that answer your
18 question?

19 BOARD MEMBER McFAWN: Yes, it does.

20 BOARD MEMBER FLEMAL: In regards to the
21 location on the school, I take it your concern is
22 because you have it on campus that you wouldn't
23 care to have the school characterized as the entire
24 campus area.

1 THE WITNESS: Correct.

2 BOARD MEMBER FLEMAL: How close are the
3 nearest campus buildings to your --

4 THE WITNESS: It depends on what you call
5 a campus building. If you call playground, storage
6 buildings, motorcycle, driving range, and farm
7 classrooms, the nearest one would be -- I am going
8 to have to make a guess here. It is within an
9 eighth of a mile distance.

10 BOARD MEMBER FLEMAL: One of the items
11 that you mentioned was a playground. Is that a
12 playground for children?

13 THE WITNESS: No, it is an intramural
14 field for intracollegiate athletes. We do have a
15 classroom that would be within the eighth of a mile
16 proposed or discussed.

17 BOARD MEMBER FLEMAL: I believe that --
18 Dr. Walker, were you here this morning?

19 THE WITNESS: Yes, I was.

20 BOARD MEMBER FLEMAL: One of the items
21 that was referred to rather extensively in the
22 morning testimony was the issue of at what distance
23 from compost sites aerosols fall to background
24 levels. The figure that was most commonly cited

1 this morning was 500 feet. Do you recall hearing
2 that testimony?

3 THE WITNESS: Yes, I recall that.

4 BOARD MEMBER FLEMAL: Does your
5 literature search lead you to that conclusion?

6 THE WITNESS: That number also occurred
7 in much of the same literature that we reviewed
8 which was presented by others. Actually, the
9 figures are used where the majority of the spores
10 begin to drop out as anywhere from 250 to 500
11 feet. Some of the literature uses 500 to 800. One
12 reference, and I can't quote which one it was,
13 talked about it in terms of 90 meters and 30 meters
14 and 150 meters.

15 So I think that the 500 feet is,
16 according to the literature that we reviewed, would
17 be a fairly, quote, use the term loosely, safe
18 distance in which by that appropriate time,
19 depending on how the compost site is operated, what
20 the weather conditions are, and the wind
21 velocities, that the background level -- spore
22 counts should be at normal background levels.

23 Now, I think an important point there was
24 that -- and it was brought out this morning.

1 Background levels from community to community and
2 time to time will vary. And so if you are trying
3 to look for some magic number as to what you would
4 classify for the State of Illinois as background
5 levels, I am not sure the scientific literature
6 will be able to provide you that number. If you
7 are looking for a negligible risk number, I am not
8 sure that the scientific evidence can provide you
9 with that number either, as a lot of that work has
10 not been done.

11 So when you begin to write standards, the
12 evidence suggests that there is nothing about
13 compost sites, if they are well managed, that makes
14 them any more dangerous to the general public than
15 what normal background levels are, particularly as
16 we look at the AF problem.

17 HEARING OFFICER MCGILL: The facility
18 that you referred to is an on-site landscape waste
19 compost facility?

20 THE WITNESS: Yes. Everything is
21 utilized on site for research purposes.

22 HEARING OFFICER MCGILL: So is that
23 subject to the minimum performance standards in the
24 regulations at 830.202?

1 THE WITNESS: I don't know if we are or
2 not, but we operate it under those standards. In
3 other words, we have complied -- our feeling is
4 that we should be a good neighbor and everything we
5 try to do from a polite standpoint, so when we do
6 basic research we set it up as applied standard.
7 We follow the state regulations and so we have
8 essentially built our facility to comply.

9 HEARING OFFICER MCGILL: Thank you.

10 BOARD MEMBER HENNESSEY: Would the 500
11 feet pose a problem if that were the setback?

12 THE WITNESS: If the operation expanded?

13 BOARD MEMBER HENNESSEY: Yes.

14 THE WITNESS: Yes. Now, the 500 feet --
15 I think you have to be very careful if you are
16 going to put it from the property line, from the
17 center of operation, from the edge of operation,
18 you know, where are you going to classify the 500
19 feet. If it is from the property line, I think
20 that's immaterial and not relevant to the
21 discussion. If it is from the edge of the
22 composting operation itself, then that may be
23 worthy of consideration. So where the 500 feet
24 becomes established, I think, becomes fairly

1 important.

2 BOARD MEMBER HENNESSEY: Thank you.

3 THE WITNESS: But I do think if you do
4 that you need to be sure you build in a clause for
5 site-specific exceptions or exemptions, depending
6 on prevailing winds, what is being established, and
7 is it -- when you say public park, you know, how
8 frequently is it used, what is the volume of people
9 there, what is the relative risk for it. I think
10 you need to have some kind of clause for exemptions
11 depending on specific locations rather than make it
12 general, as a statewide, as we tend to like to do
13 it sometimes, because that is easier to control, I
14 am sure.

15 BOARD MEMBER HENNESSEY: But we do
16 already have generic procedures to allow someone to
17 come in and get a site-specific rule or an adjusted
18 standard.

19 THE WITNESS: Correct.

20 BOARD MEMBER HENNESSEY: Are you
21 suggesting that we --

22 THE WITNESS: Be sure that you are clear,
23 if you amend it, that that still is allowed. In
24 other words, don't -- sometimes when we draft we

1 confuse or muddle the water and sometimes someone
2 will say, well, which part of it are you at on the
3 legislation, so be sure that it is clear that we do
4 provide for exemptions.

5 Our concern then becomes kinds of selfish
6 for the University because it is on school
7 property. I don't know how you plan to define what
8 a school is, you know, is a university exempt, what
9 kind of a building could it be next to or not be
10 next to, that type of situation.

11 HEARING OFFICER MCGILL: Does the Agency
12 have any questions for this witness?

13 MS. DYER: The Agency has no questions.

14 HEARING OFFICER MCGILL: All right.
15 Thank you.

16 Do the proponents have any questions?

17 DR. HOLLOMAN: No questions.

18 HEARING OFFICER MCGILL: Are there any
19 questions for this witness? There is a question in
20 the audience.

21 DR. KAREN STRAUSS: From a --

22 HEARING OFFICER MCGILL: If you could
23 just state your name again, for the record.

24 DR. KAREN STRAUSS: I am sorry. Dr.

1 Karen Strauss.

2 From a research perspective, are there
3 other alternatives, other than burning, to the
4 biodegradation of yard waste or landscape waste
5 that are under any kind of investigation?

6 THE WITNESS: Yes and no. There is
7 direct application. We have -- not our research
8 team, but other investigators at Illinois State and
9 elsewhere have looked at the direct application.
10 There are problems with direct application in terms
11 of economic cost and also in terms of contamination
12 and pollution of the environment.

13 There is -- we have done work in the past
14 in vessel the material which is an anaerobic
15 process as opposed to aerobic. From a health
16 perspective anaerobic might be better because it is
17 in vessel contained. It is cost prohibitive for
18 wide scale use in the state.

19 So I would say that the preponderance of
20 investigation out there at this point would point
21 to the age-old process of aerobic composting of
22 being fairly safe, or safe for the general public.

23 Does that answer your question?

24 DR. KAREN STRAUSS: Yes. Thank you.

1 HEARING OFFICER MCGILL: Are there any
2 further questions for this witness?

3 Seeing none, thank you very much, Dr.
4 Walker.

5 (The witness left the stand.)

6 HEARING OFFICER MCGILL: We will now
7 proceed with the testimony of Andrew Quigley.

8 If you would please come up. Would you
9 please swear in our witness.

10 (Whereupon the witness was
11 sworn by the Notary Public.)

12 HEARING OFFICER MCGILL: Before you
13 begin, for the record, if you would please state
14 your name and identify any organization that you
15 are representing here today.

16 MR. QUIGLEY: My name is Andrew H.
17 Quigley. I am the Executive Director of the Solid
18 Waste Agency of Lake County, Illinois.

19 HEARING OFFICER MCGILL: Thank you.

20 A N D R E W H. Q U I G L E Y,
21 having been first duly sworn by the Notary Public,
22 saith as follows:

23 THE WITNESS: This afternoon I would like
24 to enter into the record as part of my public

1 comment, a letter to Dorothy Gunn, Clerk of the
2 Illinois Pollution Control Board. I would like to
3 read my statement to the Board.

4 HEARING OFFICER MCGILL: Go ahead.

5 THE WITNESS: The Solid Waste Agency of
6 Lake County, Illinois is a joint action Agency
7 responsible for implementing the Lake County Solid
8 Waste Management Plan. The Agency is comprised of
9 35 municipalities and Lake County. The Agency
10 represents nearly 90 percent of the Lake County
11 population.

12 The Five Year Update to the Lake County
13 Solid Waste Plan was completed in 1994. Section
14 3.4 of the Update addressed Landscape Waste
15 Management. The Agency conducted a study of 12
16 active compost facilities utilized by Lake County
17 residents and businesses. Eight of these
18 facilities were located in the County. Since then,
19 four Lake County compost facilities closed and one
20 new facility has opened in McHenry County.

21 In 1994, the Solid Waste Plan concluded
22 that there was adequate compost capacity for Lake
23 County. However, new capacity would have to be
24 developed prior to the year 2000. The opening of

1 the Thelen Facility in McHenry County provides Lake
2 County with adequate capacity. However, the
3 closure of existing facilities will cause us to
4 rely on Thelen without new and competing
5 facilities. This reliance may cause an increase in
6 the cost of transportation and the lack of
7 competition for landscape waste disposal
8 materials.

9 Landscape waste cannot be landfilled with
10 municipal solid waste. Therefore, municipal
11 officials must search for an environmentally sound
12 and cost-effective alternative for the safe and
13 reliable disposal of compost. Lake County relies
14 on these facilities to serve our residents and
15 businesses. Until the landscape waste landfill ban
16 is lifted, residents must be served by compost
17 facilities. It is estimated that Lake County
18 generates nearly 50,000 tons of landscape waste
19 which must be managed through compost facilities.
20 The availability of compost sites is critical to
21 promote the safe management of this material.

22 A group of residents asked this Agency to
23 provide testimony to the Pollution Control Board
24 regarding the proposed regulations. Prior to

1 making a recommendation, we asked our technical
2 consultant to make a literature search regarding
3 the impacts of the bioaerosols and compost
4 facilities. Our consultant identified
5 approximately 20 articles on this topic. Several
6 articles were written by the same author and were
7 simply the same information published in a
8 different form. However, we did find about 13
9 articles which examined bioaerosols and/or their
10 components. These articles were published between
11 1983 and 1997.

12 Bioaerosol emissions from compost
13 facilities have been of great interest since the
14 broad acceptance of compost facilities as a solid
15 waste management tool. Initially, the management
16 of municipal solid waste, sewage sludge, through
17 static pile aerated composting was the focus of
18 this effort. Gradually, with the introduction of
19 the landscape waste composting, the literature
20 begins to change its focus to wood waste
21 composting.

22 One of the most complex and difficult
23 issues facing any regulatory body is to find a
24 common ground to facilitate a reliable disposal

1 method and safeguard our environment. The proposed
2 boundary change is a perfect example of this kind
3 of issue.

4 Bioaerosol emissions from landscape waste
5 compost facilities are a concentrated example of
6 what transpires in our yards, parks, and our
7 natural environment every day. The amount of these
8 materials in the air is dependent on the time of
9 year, moisture, and the amount of organic material
10 available.

11 While science seems to be able to
12 identify the type and quantity of bioaerosols in
13 our natural environment and compost facilities, it
14 seems to be unable to quantify its impact on our
15 health. Only one study began to examine the
16 potential health impact of landscape waste compost
17 facilities. This study was conducted by the New
18 York State Department of Health, Center of
19 Environmental Health. The study was published in
20 March of 1994.

21 The study examined the health symptoms
22 and bioaerosol levels near a yard waste composting
23 facility. They conducted a health diary study of
24 142 households in the study neighborhood and 218

1 households in a reference community. A total of
2 1,111 individuals participated in the study. The
3 study concluded that despite twice the average
4 background level of *A. fumigatus*, there was no
5 evidence of the facility impacting the nearby
6 neighborhood. The study found that there was a
7 positive correlation, however, between the seasonal
8 elevation of bioaerosols and respiratory ailments.

9 The New York study was careful to point
10 out that much additional study needs to be
11 undertaken. In particular, risk assessments and
12 allergy relationships need to be further explored.
13 The study did say that compost facilities should
14 not be sited close to hospitals or other health
15 care facilities where extreme precautions are being
16 taken to prevent infection of immunocompromised
17 patients.

18 This one study and the study conducted by
19 the City of Lake Forest are just beginning to
20 examine this important issue. But what is also
21 clear is that there is not enough information
22 available which links these facilities or even home
23 composting to increased health risk. Therefore, it
24 is important to conduct additional and

1 comprehensive health evaluations prior to enacting
2 changes to the boundary of compost facilities.

3 Based on the evidence to date, there is
4 no indication that landscape waste composting
5 facilities contribute to an adverse health impact.
6 In fact, there is some evidence which indicates
7 that residents are at risk from organic materials
8 decomposition in their own homes. It is
9 conceivable that increased home composting may
10 further increase the exposure of residents to
11 bioaerosols.

12 The proposed change, if implemented, may
13 in fact, cause a greater risk to residents because
14 composting may become financially unattractive.
15 Residents may begin to manage their landscape waste
16 at their home, placing themselves in additional
17 health risks.

18 It is therefore recommended that the
19 Board not implement the proposed rule and authorize
20 additional scientific studies to confirm and assess
21 risks to residents with home composting, industrial
22 composting, and municipal composting facilities.

23 Thank you.

24 HEARING OFFICER MCGILL: Thank you. Did

1 you have some materials you wanted to have entered
2 as a hearing exhibit?

3 MR. QUIGLEY: Yes.

4 HEARING OFFICER MCGILL: This is your
5 original?

6 MR. QUIGLEY: Yes.

7 HEARING OFFICER MCGILL: Okay. That's
8 all I need. I have been handed a letter dated
9 October 6, 1997, directed to Ms. Dorothy Gunn,
10 Clerk, the Illinois Pollution Control Board, from
11 Andrew H. Quigley, Executive Director. This is on
12 the stationery of the Solid Waste Agency of Lake
13 County, Illinois.

14 Attached to this letter is a document
15 entitled, "public comments" and refers to this
16 rulemaking in the matter of Amendment to Location
17 Standards of Landscape Waste Compost Facilities,
18 Title 35, Section 830.203, Rulemaking, R97-29. It
19 is submitted by Andrew H. Quigley.

20 Is there any objection to entering this
21 document into the records as a hearing exhibit?

22 Seeing none I am marking this document as
23 Exhibit Number 45 and entering it into the record
24 as a hearing exhibit.

1 (Whereupon said document was
2 duly marked for purposes of
3 identification and admitted
4 into the record as Hearing
5 Exhibit 45 as of this date.)

6 HEARING OFFICER MCGILL: Are there any
7 questions for this witness?

8 CROSS EXAMINATION

9 BY MS. GARRETT:

10 Q Mr. Quigley, in our testimony on
11 September 8 we talked about, in our economic impact
12 report, that we would like the county to work with
13 the municipalities to possibly put together some
14 commercial composting locations. It is our belief
15 that if the county could work with the
16 municipalities there would be a much more
17 harmonious relationship between these
18 municipalities who have commercial composting
19 operations and their citizens.

20 Do you agree with that kind of a premise?

21 A Lake County, which is a member of my
22 agency, had previously operated a landscape waste
23 composting facility on forest preserve grounds.
24 That operation, I believe, was discontinued some

1 time in 1991, 1992, in response to pressures
2 brought to it by the forest preserve, which was, in
3 part, the Lake County government, I guess.

4 My agency would be happy to look at
5 landscape waste -- those facilities development.
6 However, I guess, the only thing that I am cautious
7 about is that under the proposed rule and how it
8 would be implemented, it would cause me that
9 somewhere in Lake County we may find a site that is
10 two miles away from everyone or whatever that
11 boundary is, but under this proposed rule of one
12 half mile, if a park or a forest preserve is
13 developed, the facility would shut down, through no
14 fault of its own. All of a sudden we would be out
15 of business in operating that kind of facility. Or
16 it is an eighth of a mile or whatever it is. Once
17 something else develops against the property it, in
18 fact, becomes a taking of that property. But we
19 would be willing to examine that.

20 We are also -- as my testimony states,
21 that the closure of existing compost facilities in
22 Lake County will -- there is capacity in one
23 facility that is left at Thelen. From a cost
24 standpoint, it would -- it may cause us to begin

1 looking at our own development. But I have a
2 feeling that once we started to look at it, the
3 private sector would also begin to look at it as an
4 investment opportunity and then we would begin
5 competing with the private sector again.

6 Q Putting the investment, the financial
7 side aside, is there a way in which if citizens
8 approach the Lake County Board or the Lake County
9 Forest Preserve, that this kind of a proposal could
10 be bought forward? Over and over again -- it seems
11 to me I have read in some regulations that counties
12 need to work with -- I want to say municipalities.
13 I am not sure exactly where this is. I know I read
14 it.

15 If there was a group of citizens from
16 different municipalities in Lake County, if they
17 came together and made such a proposal, would you
18 support that kind of proposal rather than testing
19 and, you know, saying that it won't work? Can we
20 look at it in a way in which it may work?

21 A I think if the Lake County Board asked
22 the Agency to look at, or any member of the Agency,
23 the City of Lake Forest or the City of Antioch or
24 whoever it is, would ask the Agency to take a look

1 at that, we certainly would take a look at that and
2 evaluate it. Clearly, that would probably be --
3 there would be bigger pressure for us to do that,
4 quite frankly, even without citizen support if, in
5 fact, we saw compost facilities close down, because
6 people would be forced to, you know, hire
7 transportation costs, et cetera, throughout the
8 county to get rid of their landscape waste.

9 Q So is it your opinion, then, that this
10 kind of a proposal may not work because of
11 additional costs associated with it?

12 A Well, I am just simply saying that if you
13 were to close down existing facilities in Lake
14 County, there certainly would probably be a great
15 deal of interest in trying to develop close in but
16 permittable landscape waste facilities within the
17 county, whether it be under my Agency's operation
18 or whether it be under a private hauler or private
19 operator or in some sort of contract.

20 So, yes, I think if the marketplace
21 changed there would be pressures to do that and
22 look at that because the one large existing
23 facility is going to probably create a pretty --
24 you know, they are not going to be able to -- they

1 will be able to raise their costs very easily.

2 HEARING OFFICER MCGILL: Do the
3 proponents have any further questions?

4 Does the Agency have any questions for
5 this witness?

6 MS. DYER: No questions.

7 HEARING OFFICER MCGILL: Thank you. Does
8 anyone have any questions for this witness?

9 MS. WHITEMAN: Yes, just two questions.

10 HEARING OFFICER MCGILL: State your name,
11 please.

12 MS. WHITEMAN: I am sorry. Marian
13 Whiteman, for the City of Lake Forest.

14 The first question, have you investigated
15 other sites within Lake County that might
16 potentially satisfy all of the location standards
17 and regulations? Have you determined how many
18 sites there are and where those might be located?

19 THE WITNESS: No, I have not.

20 MS. WHITEMAN: And then do you believe
21 that the rule, as it is proposed, would have any
22 affect on Thelen in terms of closing maybe a
23 portion of that site over the entire site or is it
24 your understanding that the rule would have no

1 impact?

2 THE WITNESS: Based on my recollection of
3 site visits to Thelen, and the half mile rule as it
4 is proposed, and without looking at a land
5 description as to who owns the property around, I
6 would think, no, it would not have an impact.

7 MS. WHITEMAN: Okay.

8 BOARD MEMBER McFAWN: Which site were you
9 talking about?

10 THE WITNESS: This would be the Thelen
11 site that is in McHenry County adjacent to Lake
12 County.

13 HEARING OFFICER MCGILL: Can you spell
14 that?

15 THE WITNESS: It is T-H-E-L-E-N.

16 HEARING OFFICER MCGILL: Thank you. Are
17 there any further questions for this witness?

18 DR. HOLLOMAN: Could I ask a question?

19 HEARING OFFICER MCGILL: Sure.

20 CROSS EXAMINATION

21 MR. DR. HOLLOMAN:

22 Q Mr. Quigley, in response to Dr. Walker's
23 questions from Dr. Strauss about alternative means
24 of composting, he mentioned in vessel anaerobic

1 facilities. Are you aware of any other in vessel
2 composting methodologies?

3 A Yes, I am.

4 Q Would you comment on them? Are they
5 economically feasible?

6 A Depending on what the -- the ones I am
7 most familiar with are co-composting, where
8 municipal solid waste and landscape or organic
9 material waste is mixed with sewage sludge. If
10 those are done in an area where there are high
11 disposal fees, it may become cost competitive with
12 that.

13 In Lake County right now our landfill
14 disposal fees are approximately \$35.00 a ton. And
15 we are probably not at the point where that would
16 be financially competitive with landfilling. But
17 that includes municipal solid waste with landscape
18 waste, or organic material of some sort, whether it
19 be sewage sludge or whatever. There are some other
20 in vessel methods that I am familiar with its
21 literature. Again, I think they are probably
22 closer to \$80.00 or \$90.00 a ton.

23 HEARING OFFICER MCGILL: Do the
24 proponents have any further questions?

1 The Agency has a question?

2 MS. DYER: With regard to the Thelen
3 site, Ms. Munie has a question.

4 MS. MUNIE: Are you aware of whether the
5 Thelen site is directly abutted to land that is
6 owned by the park district?

7 THE WITNESS: I said without review of
8 the legal description of the surrounding property,
9 you know, just having been out to the site and
10 toured the site on several occasions, you know, so
11 if it is adjacent to the property, that is fine. I
12 did not know that.

13 MS. MUNIE: Okay. So you are not saying
14 that it is surrounded by farmland? You are not
15 aware of --

16 THE WITNESS: I am not aware of who owns
17 property surrounding the Thelen site. However, if
18 that is, in fact, true, then according to this
19 regulation, we will be -- Lake County would be and
20 McHenry County will have problems.

21 MS. GARRETT: While that property may be
22 owned by a park district, is it being used as a
23 public park?

24 HEARING OFFICER MCGILL: Hang on one

1 second. Let's go off the record.

2 (Discussion off the record.)

3 HEARING OFFICER MCGILL: Let's go back on
4 the record.

5 Ms. Garrett has directed a question to
6 Ms. Munie. I will just remind Ms. Munie that she
7 has been sworn in and is under oath.

8 Why don't you go ahead and restate your
9 question.

10 Q (By Ms. Garrett) Is the property that is
11 owned by the park district considered being used as
12 a public park?

13 A It is currently being used as a forest
14 area available to the public as part of the park
15 district. It is a forested area that is open to
16 the public by the park district.

17 MS. GARRETT: Okay.

18 HEARING OFFICER MCGILL: Are there any
19 further questions for this witness?

20 BOARD MEMBER McFAWN: I was just kind of
21 curious about your study that you conducted on the
22 12 compost facilities. I understand it is now down
23 to 9. Is that a very lengthy study?

24 THE WITNESS: No, it is not.

1 BOARD MEMBER McFAWN: Would it provide
2 the description for the remaining 9 or 8
3 facilities?

4 THE WITNESS: It would provide
5 descriptions of the facilities studied at that time
6 and their status within the Lake County study that
7 was done in 1994. It would not include the Thelen
8 facility, which is what I made reference to in my
9 testimony. But, yes, we talk about our annual
10 capacities and the operation and the ownership of
11 those facilities.

12 BOARD MEMBER McFAWN: Okay.

13 HEARING OFFICER MCGILL: Are there any
14 further questions for this witness?

15 Seeing none, thank you for your time.

16 THE WITNESS: Thank you.

17 (The witness left the stand.)

18 HEARING OFFICER MCGILL: Let's go off the
19 record for a moment.

20 (Discussion off the record.)

21 HEARING OFFICER MCGILL: Let's go back on
22 the record.

23 We have gotten through all of the people
24 who signed up to testify and who remained to

1 testify, so I would just like to make a few closing
2 remarks because we are at the end of our allotted
3 time for this room.

4 There are presently no additional
5 hearings scheduled in this rulemaking. But I will
6 remind you that pursuant to my hearing officer
7 order of September 11, 1997, persons may request a
8 third hearing to provide testimony in response to
9 the testimony of Dr. Karen Strauss by filing a
10 request with the Clerk of the Board. The request
11 must be received by the Board no later than
12 November 3, 1997.

13 If a third hearing is held it will likely
14 be held in Chicago. Because there is a potential
15 for a third hearing, I will not be setting a public
16 comment deadline today. Anyone may file written
17 public comment, and the Board is presently
18 accepting written public comment.

19 Copies of the transcript of today's
20 hearing should be available at the Board's Chicago
21 office by October 17. Shortly after that, the
22 transcript should be available through the Board's
23 Home Page on the Worldwide Web. The identifier for
24 that is www.ipcb.state.il.us/.

1 If anyone has any trouble locating that,
2 they can call me at 312-814-6983 or they can call
3 the Board's general phone number.

4 Are there any other matters that need to
5 be addressed at this time?

6 I would like to thank everyone for their
7 participation today. This hearing is adjourned.

8 (Hearing Exhibits 34 through 45
9 were retained by Hearing
10 Officer McGill.)

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1 STATE OF ILLINOIS)
) SS
2 COUNTY OF MONTGOMERY)

3 C E R T I F I C A T E

4 I, DARLENE M. NIEMEYER, a Notary Public
5 in and for the County of Montgomery, State of
6 Illinois, DO HEREBY CERTIFY that the foregoing 274
7 pages comprise a true, complete and correct
8 transcript of the proceedings held on the 7th of
9 October A.D., 1997, at the Illinois State Library,
10 Room 403, 300 South Second Street, Springfield,
11 Illinois, in the matter of: Amendments to Location
12 Standards for Landscape Waste Compost Facilities,
13 35 Illinois Administrative Code 830.203(c), in
14 proceedings held before the Honorable Richard R.
15 McGill, Jr., Hearing Officer, and recorded in
16 machine shorthand by me.

17 IN WITNESS WHEREOF I have hereunto set my
18 hand and affixed my Notarial Seal this 17th day of
19 October A.D., 1997.

20

21

22 Notary Public and
23 Certified Shorthand Reporter and
Registered Professional Reporter

24 CSR License No. 084-003677
My Commission Expires: 03-02-99

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