Page 1

## ILLINOIS POLLUTION CONTROL BOARD July 18, 2007

IN THE MATTER OF:	)	
	)	
PETITION OF JOHNS MANVILLE	)	
FOR AN ADJUSTED STANDARD	)	
FROM: 35 Ill. Adm. Code	)	No. AS 04-04
811.310, 811.311, 811.318,	)	(Adjusted
and 814,	)	Standard - Land)
,	)	
	)	

REPORT OF PROCEEDINGS held in the above-entitled cause before Hearing Officer Bradley P. Halloran, called by the Illinois Pollution Control Board, taken before Laura Bernar, CSR, a notary public within and for the County of Cook and state of Illinois, at the Lake County Administrative Building, 18 North County Street, 10th Floor, Waukegan, Illinois, on the 19th day of July, 2007, commencing at the hour of 9:00 a.m.

HEARING OFFICER HALLORAN: Good morning. My name is Bradley Halloran. I'm a hearing officer with the Illinois Pollution Control Board. I'm also assigned to this case entitled in the matter of Petition of Johns Manville for an adjusted standard from 35 Illinois Administrative Code 811.310, 811.311, 811.318, and 814. It's docketed with the board as AS 4-4.

1

3

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

Today is July 19 it's 9:20. apologize for my lateness. There are no members of the public here, but if there were they'd be allowed to say their piece. going to run this hearing pursuant to Section 104 Subpart D and Section 101 Subpart F of the board's procedural provisions. I also want to note for the record that this hearing was properly noticed up. The hearing is intended to develop a record for the Illinois Pollution Control Board. I will not be making the ultimate decision in the case. That's left up to the five members of the board. I'm here to rule on any evidentiary matters and make sure the hearing goes

without a hitch. And a brief note, on July 9, 2007, I forwarded and filed possible questions from our technical units to the respected parties. And to that end we have Miss Alisa Liu from our technical unit that may or may not be asking questions of the witnesses.

With that said, Mr. Kenney, would you like to introduce yourself.

MR. KENNEY: Yes. Good morning,
Mr. Hearing Officer. My name is Edward
Kenney from Sidley Austin in Chicago. I'm
here representing Johns Mansville. With me
today is William Bow from LFR and he'll be
providing some testimony today. In addition
I have Denny Quinton, manager of engineering
from Johns Manville, and David Petersen, who
is one of JM's consultants. For short, I
think I'd like to refer to John Mansville as
JM. It's fairly typical for the company to
be known that way. And what we're here to
talk about is a petition for adjusted
standard involving the Johns Manville
property that's located a short distance from

here, just off of Greenwood Avenue, probably less than a mile from here. It's -- the Manville property is approximately 350 acres, and it formerly held a large manufacturing plant that dated back to the early part of the 20th century. The landfill that is the subject to this proceeding is a relatively small part of the entire facility. Johns Manville ceased manufacturing at that site about ten years ago, and the manufacturing buildings, which comprised about 1.9 million square feet under roof, were demolished over a period of years. That project was completed in 2001. This site is somewhat unusual in that it has been subject over the years, for about the last 20 years, more than 20 years, to a great deal of oversight under the Federal Superfund Program, and the State has also -- Illinois EPA has also been involved in overseeing various activities at the site over the years. And just to provide a short summary of the remedial activities, they primarily involved consolidation of asbestos-containing waste materials on the

1

2

3

5

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

eastern part of the site and construction of cover over that material. So the eastern part of the site is -- and Mr. Bow will give us an overview of the site as a picture to show it, is essentially a large asbestos landfill with engineered cover over it. petition involves a relatively small part of the eastern part of the site, and Mr. Bow will show us where that is and involves essentially two major elements: One is providing for an adjusted standard for gas, landfill gas, monitoring and management requirements of the Board's regulations, and also the other major area is ground water monitoring. That adjusted standard seeks to provide alternative placement for ground water monitoring wells.

1

5

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

We have previously submitted written testimony and exhibits to the Board. We had previously discussed that with the Illinois EPA over the year -- Actually, we've been in discussions with Illinois EPA about this adjusted standard petition over the years and submitted written testimony to

them. Illinois EPA submitted a
recommendation that the adjusted standard be
granted. And pursuant to your request, we
submitted our written testimony exhibits at
the end of June, on June 28 or 29, I believe.
For convenience sake, I think, why don't we
have Mr. Bow sworn after any statement that
Illinois EPA would make, and then we can have
him vouch for his testimony.

HEARING OFFICER HALLORAN: I agree with Mr. Kenney. Thank you, Mr. Kenney.

Mr. Orlinsky?

MR. ORLINSKY: I'm Peter Orlinsky,
Illinois EPA division of legal counsel. As
Mr. Kenney just mentioned, over the course of
at least the last two years there have been
several back-and-forth meetings and
information exchanges between Illinois EPA
and technical personnel of Johns Manville.
As a result of that information, the agency
was able to come to the determination that
the -- that this adjusted standard should be
granted and that by doing so there would be
no adverse effects to the environment. We

1	evidence.
2	MR. KENNEY: Thanks very much.
3	Now, Mr. Bow, you've brought
4	some pictures of the site with you today; is
5	that correct?
6	MR. BOW: I have.
7	MR. KENNEY: Why don't we mark this
8	one as this would be Exhibit B.
9	HEARING OFFICER HALLORAN: Sure.
10	MR. KENNEY: We'll mark this exhibit
11	B for identification. And we can we have
12	some extra copies of this, too, if you want
13	to take a look at it. I think what we'll do
14	if it's all right, Mr. Hearing officer, to
15	the extent we need to identify particular
16	parts of this, we can maybe make distinctive
17	marks on it so that it'll be clear for the
18	record.
19	HEARING OFFICER HALLORAN: Terrific.
20	MR. KENNEY: Mr. Bow, to the extent w
21	need to identify particular areas, we can
22	make marks on it and we'll just indicate wha
23	kind of mark we're making on it.
24	MR. BOW: That's fine.

MR. KENNEY: Could you, for the benefit of the Board, sort of describe the site? And if you could hold up the exhibit and show what you're talking about.

1

5

7

R

9

10

11

12

13

14

15

16

17

18

.19

20

21

22

23

24

MR. BOW: Sure. This is a site aerial photograph of the Johns Manville property that was taken on October 5, 2005. dashed outline with the double dots between them is the property line that encompasses the entire Johns Manville site. You can see in the lower right corner of the photograph is Lake Michigan which is the eastern property line of the Johns Manville property. The western property line is along some railroad tracks that exists essentially along Pershing Road which runs south of the city of Waukegan. The property itself is roughly 350 acres in size. The former manufacturing area is shown on the western side of the site which is in sort of the upper left corner of the property. It shows the former building pads of the manufacturing buildings that were removed, as Mr. Kenney stated, in 2001. eastern portion of the site, roughly 130 to

140 acres in size, is a former disposal area that was closed pursuant to a federal consent decree in -- The closure was completed in roughly 1992 through the placement of a two-foot thick engineered soil cover over the entire former disposal area, and that is shown also in a dashed outline in the photograph. Nested within that former disposal area are two units that were closed or are being closed pursuant to this proceeding, an onsite landfill that was used for the disposal of non-asbestos waste by the plant while it was still in operation post 1992, and those disposal areas are shown within the overall CERCLA closed disposal They're shown as Fill Area 1 and Fill area. Area 2 on this particular photograph. again, I point out that they are nested within the closed CERCLA landfill, and that has some significant relative to the adjusted standard that we're asking for today. The Fill Area 1 is roughly ten acres in size and was also known as the

1

2

3

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

former miscellaneous disposal pit. Fill Area

2 is roughly three and a half acres in size, and it was formerly known as the collection basin. There was a body of water that existed to the east on the eastern end of the former CERCLA landfill, the former disposal area, and that was filled in in roughly 1996 and is known as Fill Area 2.

2

3

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

MR. KENNEY: Now, the -- This large blue area, what is that?

The large blue area is a 35 MR. BOW: acre former settling basin that was used as part of the plant's waste water treatment system. Water would be used in the manufacturing process in the former manufacturing area. That water was subsequently pumped upwards, and, again, it was -- it is pumped in the disposal area and was pumped into this former lagoon, again, 35 acres in size, former settling basin, where various products including asbestos and other entrained debris in the waste water would drop out within the settling basin. water was then recycled back through the plant as an ongoing waste water treatment

This particular lagoon, 35 acres in system. 2 size, is currently being closed pursuant to a 3 first amended consent decree which is also part of the submitted testimony. This was allowed to remain open after the 1992 closure of the land areas so that the plant could 6 7 continue manufacturing. And when manufacturing ceased during the 1990s, it was 8 no longer needed for manufacturing; 10 therefore, it is now being closed pursuant to a first amended consent decree under a 11 12 federal and a state consent order.

13

14

15

16

17

18

19

20

21

22

23

24

MR. KENNEY: So what is the physical state of that -- of that feature at this point?

MR. BOW: Okay. The -- This

particular photograph happened to have been

taken on a day where we were actually pulling

across a very large geotextile across the

entire settling basin, and I'll show you.

The geotextile was placed on the western bank

of the former settling basin, and on this

particular day, October 5, 2005, it was

pulled across the water surface in order to

provide a substantial base upon which we 1 could place sand and clay cover, because the underlying sludge was quite weak and could 3 not hold up equipment placing sand and clay. So we put a geotextile across, and it was 5 6 pulled across the basin on this particular 7 day. And on this photograph you can actually see the leading edge at approximately this 8 9 location. This was 90 percent across the 10 basin as the photograph was taken. 11 Subsequent to this within an hour it was 12 pulled up on to the bank. Presently the 13 water level in that basin was originally approximately 600 to 603 feet above sea 14 15 Lake Michigan current level is 16 approximately 577 feet above sea level. 17 you have about a 26 foot difference between 18 the water level in the settling basin versus 19 the surrounding ground water in the area. Previously we used to pump -- JM used to pump 20 21 water up to the settling basin to keep it 22 full because there was asbestos fiber in the 23 bottom, and it needed to be kept wet. 24 this closure, pumping to the settling basin

has ceased and water is -- has been allowed to drain as it has always drained for the past 80 plus years out the bottom; however, it's not being replenished. And as the water then exposes the now sunken geotextile at the bottom, on the bottom surface of the sludge, as that geotextile becomes exposed as the water drains, sand is being placed over the top of it. And so the current photograph would actually show sand, very nearly half way across from the southwest corner of the settling basin toward the northeast as it drains and covers -- sand cover is placed on top.

1.2

MR. KENNEY: Now, you had mentioned, I think, that there was another body of water that existed to the east of Fill Area No. 2.

MR. BOW: Yes. It was actually to the east of the former settling basin. There was an interim basin called the collection basin, and it received water from the settling basin. The collection basin was a rectangular body that was roughly the same north/south dimension as the settling basin.

L.A. REPORTING (312) 419-9292

1	However, it was much narrower in the
2	east/west dimensions. It was only, perhaps,
3	150 feet in width in the east/west direction.
4	That used to contain water, and we did some
5	engineering work several years ago to prevent
6	water from filling the collection basin. And
7	subsequent to that we filled it in with quite
8	a bit of clay. And the therefore, there
9	was no standing water in the collection basin
10	any longer.
11	Fill Area No. 2 is comprised of
12	roughly the southern one-third of the former
13	collection basin.
14	MR. KENNEY: Okay. What were the
15	purposes of the settling basin in that
16	portion of the collection basin that formerly
17	had water?
18	MR. BOW: They were both used as part
19	of the waste water treatment system at the JM
20	plant during manufacturing.
21	MR. KENNEY: When the plant was
22	operating in terms of manufacturing?
23	MR. BOW: Correct.
24	MR. KENNEY: And those were allowed by

	rage is
1	the original consent decree?
2	MR. BOW: Yes.
3	MR. KENNEY: Now, the first amended
4	consent decree which is an exhibit to your
5	testimony, it's Exhibit No. 4. You were
6	involved in the negotiations process for that
7	that resulted in that, correct?
8	MR. BOW: I was.
9	MR. KENNEY: Okay. Now, did the
10	What's the overriding purpose of that consent
11	decree?
12	MR. BOW: The purpose of the consent
13	decree is to obtain final regulatory closure
14	on the settling basin, the former collection
15	basin, as I had mentioned, the onsite
16	landfill, some smaller waste water ponds
17	located west of the former settling basin,
18	and two long linear bodies of water called
19	the industrial canal and the pumping lagoon
20	that are located roughly along the northern
21	property of the JM property.

HEARING OFFICER HALLORAN: Mr. Kenney,
I guess just for clarification, that would be
No. 4 of Group Exhibit A.

22

2.3

24

1	MR. KENNEY: That is correct.
2	HEARING OFFICER HALLORAN: I'm trying
3	to make it clear to the board.
4	MR. KENNEY: That's correct. And the
5	Board had asked During the course of those
6	negotiations, was the idea of an adjusted
7	standard discussed with the USEPA, the IEPA
8	the Justice Department, and the Illinois
9	Attorney General's Office representatives who
10	were involved in that?
11	MR. BOW: Yes, it was.
12	MR. KENNEY: Is that reflected in the
13	consent decree?
14	MR. BOW: Yes, it is.
15	MR. KENNEY: The idea that the
16	adjusted standard would be necessary?
17	MR. BOW: It is.
18	MR. KENNEY: Do you know where?
19	MR. BOW: I believe it was on Page 24
20	under Subitem C on that page.
21	MR. KENNEY: Again, that's Exhibit 4
22	to Group Exhibit A. Do we need to read that
23	into the record? We can if you'd like.
24	HEARING OFFICER HALLORAN: We don't

need to.

MR. KENNEY: Okay. There was also somewhat contemporaneously with the negotiation of the amended, first amended consent decree, there were negotiations with the state on a consent order; is that correct?

MR. BOW: There were.

MR. KENNEY: I don't believe this is -- It's in the -- this document is in the record to the extent we submit it as an exhibit to Mr. Orlinsky's -- to the IEPA's recommendation, we can either submit it as a separate exhibit here or we can just reference that. The Board also asks if that consent order addresses -- because I believe it was in Mr. Campbell's comments, if that consent order also addresses the adjusted standard, and it does. Maybe it would make sense to just introduce this as a separate exhibit and just indicate where it is, if that's okay?

HEARING OFFICER HALLORAN: Exhibit C.

MR. KENNEY: I'm going to mark a

	Page 21
1	consent order dated January 6, 2005, People
2	of the State of Illinois, ex rel, Lisa
3	Madigan versus Johns Manville, No it's
4	Circuit Court of Lake County No. 01 CH 857
5	and identify that as ask Mr. Bow to
6	identify that.
7	MR. BOW: This is the state consent
8	order.
9	MR. KENNEY: And look at Page 13.
10	MR. BOW: Item No. 2 references
11	closure of the miscellaneous disposal pit and
12	a portion of the collection basin where waste
13	was disposed.
14	MR. KENNEY: Does that acknowledge
15	that an adjusted standard might be necessary?
16	MR. BOW: It does. It says that
17	Mansville should either file a petition with
18	the board for an adjusted standard for
19	closure of the landfill.
20	MR. KENNEY: Okay. I'm going to ask
21	that that be introduced that that be
22	entered into evidence as Exhibit C.
23	HEARING OFFICER HALLORAN: Any
24	objection?

1	MR. ORLINSKY: No objection.
2	HEARING OFFICER HALLORAN: So
3	admitted.
4	MR. KENNEY: I'll also ask that
5	Exhibit B be entered into evidence.
6	MR. ORLINSKY: No objection.
7	HEARING OFFICER HALLORAN: Admitted.
8	MR. KENNEY: So the adjusted standard
9	proceeding that we're here today, that
10	involves Fill Area No. 1 and Fill Area No. 2,
11	correct?
12	MR. BOW: Correct.
13	MR. KENNEY: Okay. About how big are
14	those two features?
15	MR. BOW: Fill Area 1 is the former
16	miscellaneous disposal pit is approximately
17	ten acres in size and Fill Area 2, the former
18	collection Basin, is roughly three and a half
19	acres in size.
20	MR. KENNEY: How were those landfills
21	operated, during what period?
22	MR. BOW: When the CERCLA action was
23	completed in 1992, the facility filed an
24	initial facility report to provide for the

disposal of plant-generated waste that were not asbestos contained within former miscellaneous disposal pit which was located roughly the eastern one half of Fill Area 1. The miscellaneous disposal pit was a pit, because the surrounding area had been built up during the CERCLA landfill work leaving a pit that was subsequently filled in with plant wastes in Fill Area No. 1.

MR. KENNEY: Now what kind of plant wastes were those?

MR. BOW: Largely two kinds with some additional materials: The two were calcium silicate, which was essentially limestone, crushed lime and sand that was made as part of the insulation material. There was some roofing materials, some granules, and then there was miscellaneous and smaller amounts of paper, cardboard, occasional pieces of wood; but largely calcium silicate and the rolled roofing or roofing granules. No asbestos materials were disposed in the miscellaneous disposal pit or the Fill Area 2 in the collection basin.

1	MR. KENNEY: The consent decree
2	prohibited that, didn't it?
3	MR. BOW: That's correct. And as part
4	of that during the 1992 and 1991 CERCLA
5	closure activities, a layer of sand was
6	placed at the direction of the U.S. EPA at
7	the bottom of the former miscellaneous
8	disposal pit as a cover layer over any
9	materials at the bottom that may have
10	contained asbestos.
11	MR. KENNEY: Okay. Now, Johns
12	Manville, through consultants such as
13	yourself, did some work to evaluate and
14	verify what was in that landfill, those Fill
15	Area 1 and Fill Area 2, correct?
16	MR. BOW: That's correct.
17	MR. KENNEY: And did
18	MR. BOW: The waste materials that
19	were discovered during the investigation that
20	were reported in one of the exhibits to
21	Exhibit A were well results from well
22	drilling showing the materials that were
23	disposed in the pit were consistent with what
24	they had said was going to be placed in the

Yes.

I believe -- Let me find it.

MR. KENNEY:

MR. BOW:

23

24

1	April 2003.
2	MR. KENNEY: Okay. And has there been
3	ongoing gas monitoring since then?
4	MR. BOW: Yes. Since that time, the
5	regulations call for monthly monitoring of
6	landfill gas. That is That continues to
7	this day. One of the adjusted standards is
8	to call for reduction of frequency of that
9	monitoring, but until that is resolved, we're
10	continuing the monthly monitoring.
11	MR. KENNEY: Okay. What is that
12	monthly monitoring showing?
13	MR. BOW: It is consistent with the
14	original investigation showing very low gas
15	pressures within the landfill itself and have
16	been no detections of landfill gas pursuant
17	to the standard monitoring that is done that
18	would indicate any migration of landfill gas.
19	MR. KENNEY: Okay. What does the
20	adjusted standard provide for?
21	MR. BOW: The adjusted standard
22	provides for two things: One is the a
23	reduction in the frequency of landfill gas

monitoring from a monthly period of

24

monitoring for a minimum of five years. It provides to go to semiannual monitoring for a total of five years, after which if no detections are noted, monitoring will cease.

The second standard provides for the location of the subsurface monitoring devices which would normally be placed at 100 feet away from the edge of the waste; however, in this case, because that would place us within some asbestos waste materials along the side slopes of the CERCLA landfill, we have asked that those monitoring locations be allowed to be placed somewhat further out to get away from having drilled through the side slopes of the landfill.

MR. KENNEY: Okay. Now, you've mentioned, I believe, a couple of times that there is an asbestos landfill that was constructed pursuant to the superfund consent decree. Could you give the board an idea of where that is.

MR. BOW: Sure.

MR. KENNEY: Using Exhibit B. If you have another drawing that shows it, that

1 would be okay as well.

2 MR. BOW: I'll take a look at both. Using Exhibit B, the former CERCLA landfill, 3 again, is located on roughly -- it's distorted from the photograph, but it's roughly the eastern half of the property itself, and it is shown by this dashed outline, and it can be seen essentially as the green vegetated area on the landfill 10 itself. This is the former CERCLA landfill outline as shown by this double dashed line 11 12 surrounding this area. The settling basin is 13 within that, as we've discussed, and the two 14 units for the onsite landfill being closed 15 pursuant to this proceeding and this adjusted 16 standard are nested within the former CERCLA 17 landfill in both areas, Fill Area 1 and Fill 18 Area 2. To further depict that, I have a 19 cross-section that is a west-to-east 20 cross-section. This cross-section is located -- it may be found within the 21 22 exhibits --23 MR. KENNEY: That would be Group 24 Exhibit A.

	5
1	MR. BOW: Group Exhibit A. This
2	cross-section is shown within that.
3	MR. KENNEY: Just for clarification, I
4	believe that is Group Exhibit A, and it's
5	Figure
6	MR. BOW: Figure 2B.
7	MR. KENNEY: Figure 2B.
8	HEARING OFFICER HALLORAN: Thank you,
9	Mr. Kenney.
10	MR. BOW: This particular
11	cross-section, east/west, is shown through
12	the starting at the western edge of the
13	former CERCLA landfill as shown on the aerial
14	photograph, and it runs towards the east and
15	terminates at the edge of Lake Michigan. The
16	cross-section itself shows several units
17	within it. First of all, it's a closed
18	CERCLA landfill shown in the green hatch.
19	The native ground comes up to approximately
20	580 to 585 feet above sea level above which
21	is the former CERCLA landfill which we
22	identified previously as part of the disposal
23	area shown in the green hatch. On top of
24	that particular unit is an engineered cover

consisting of six inches of sand overlaid by 1 15 inches of clay overlaid by three inches of 3 topsoil upon which there is a vegetative layer placed upon that. That CERCLA cover extends from the west to the east to the edge of the former miscellaneous disposal pit. 7 The former miscellaneous disposal pit, again, was left open to allow for ongoing disposal 8 of nonasbestos plant waste post 1992. 9 10 However, within that area you can see there is a sand layer depicted that has been 11 12 verified through drilling; sand layer 13 depicted at the bottom of the miscellaneous disposal pit and has cover over any asbestos 14 15 wastes that were going to be located below 16 the former miscellaneous disposal pit. And 17 then at the far eastern edge, the CERCLA 18 cover picks up again outside of the limits of 19 the former miscellaneous disposal pit, and it 20 extends down to the closure area, the edge of the former superfund site. 21 22 Above the CERCLA landfill and 23 CERCLA cap are miscellaneous disposal pit 24 wastes for on-site landfill waste material,

1	and that's shown in the brown hatching as
2	depicted above the cover on the CERCLA
3	wastes. And above the miscellaneous disposal
4	pit wastes is a clay cover that was used as
5	interim cover on top of the wastes that were
6	placed in the miscellaneous disposal pit.
7	That clay cover varies, currently varies
8	between anywhere, from, say, three feet and
9	upwards of 18 feet in thickness.
10	MR. KENNEY: So at present the Fill
11	Areas 1 and 2 have cover on them?
12	MR. BOW: They do.
13	MR. KENNEY: They're not open waste?
14	MR. BOW: They are not. There are no
15	waste materials at the surface. There is a
16	second cross-section Figure 2D located within
17	Exhibit A.
18	MR. KENNEY: That's Exhibit A, Group
19	Exhibit A, and that's Exhibit 2 to that and
20	it's Figure 2.
21	MR. BOW: This is Figure 2D. This is
22	again, also a west-to-east cross-section
23	through the miscellaneous I'm sorry
24	through Fill Unit 2 which is the former

1	collection basin. The cross-section extends
2	roughly from the edge of the former settling
3	basin eastward to Lake Michigan. The top of
4	the CERCLA cover is depicted until it gets to
5	the edge of the former collection basin.
6	There are some waste materials consisting
7	virtually entirely of calcium silicate
8	material at the bottom of the former
9	miscellaneous I'm sorry the bottom of
10	the former collection basin. And on top of
11	that there is another clay cover that varies
12	in anywhere from 5 to 15 feet in thickness.
13	MR. KENNEY: Now, it's not part of
14	this proceeding, but there have been
15	discussions with between Johns Manville
16	and IEPA concerning the cover that is on the
17	Fill Area 1 and 2; is that correct?
18	MR. BOW: There have.
19	MR. KENNEY: Do you have an
20	understanding as to what IEPA's position on
21	that whether the cover is equivalent to
22	the regulatory requirements?
23	MR. BOW: Well, the existing cover
24	will need to be modified through the

1 placement of some additional materials, sand drainage layer, and some additional cover 2 materials. But we've been in ongoing 3 discussions with the Illinois EPA, specifically Chris Liebman and his group. 5 And they have agreed that the cover that's 6 being proposed for the onsite landfill units is the equivalent of the standard cover in the regulations; therefore, an adjusted 9 10 standard will not be required.

11

12

13

14

15

16

17

18

19

20

21

22

23

24

MR. KENNEY: Okay. Now, in terms of the adjusted standard proceeding here today, we're talking about an adjusted standard for gas monitoring and management requirements and for ground water monitoring for Fill Area 1 and 2?

MR. BOW: Correct.

MR. KENNEY: Could you briefly describe -- First of all, why don't we start with gas management monitoring. Could you point out why that would -- why the regulatory requirements would present problems in terms of location of gas monitoring wells and management systems?

1	MR. BOW: Yes. The standard
2	regulation calls for the placement of
3	subsurface gas monitoring devices roughly 100
4	feet away from the edge of the waste unit.
5	And based on this cross-section 2B that I
6	referred to earlier, that would place the
7	monitoring wells or monitoring devices
8	roughly half way up the side slope of the
9	now-closed CERCLA landfill. So we would be
10	drilling We would be placing permanent
11	monitoring wells half way up the side slopes
12	of a closed superfund asbestos landfill. And
13	for a variety of reasons, health and safety,
14	and logistics and costs, we have felt that
15	the placement of monitoring wells half way up
16	the side slopes of the CERCLA landfill was
17	inappropriate and that placement of those
18	monitoring wells immediately at the top of
19	the slope was a much more practical solution.
20	MR. KENNEY: Now is that Are you
21	talking about ground water monitoring wells
22	or gas monitoring wells or both?
23	MR. BOW: Both.
24	MR. KENNEY: Okay. So is the problem

1	penetration of the cap or is the problem
2	getting equipment to put the wells in?
3	MR. BOW: It's both. The first issue
4	is that the U.S. EPA and JM would prefer to
5	avoid drilling through the CERCLA cap as much
6	as possible. Secondly and that's for
7	health and safety reasons simply during the
8	drilling event; and then, subsequent to that,
9	there is the concern that you could have
10	slope failure, and you would expose a
11	significant portion of the asbestos waste
12	materials underneath the cover should the
13	bringing of heavy equipment and construction
14	of the roads that would be necessary to put
15	these wells half way up the side slope should
16	that cover fail.
17	MR. KENNEY: Obviously with the drill
18	rig, you have to have some sort of equipment
19	to bring in and put it in place?
20	MR. BOW: That's correct.
21	MR. KENNEY: Like a truck or something
22	like that.
23	MR. BOW: Correct.
24	MR. KENNEY: And that can create

problems in terms of slope failure.

MR. BOW: Yes. So the combination of slope failure and the potential health and safety effects of the drilling and of the potential slope failure led us to conclude it would be more practicable to locate the monitoring point; instead of half way up the side slope, to just move them immediately to the east or the south away from the side slopes to the now closed CERCLA landfill.

MR. KENNEY: Okay. And the data that JM has collected concerning gas generation is that there is not much gas being generated by the landfills anyway.

MR. BOW: That's correct.

MR. KENNEY: Okay. Let's talk about ground water monitoring a little bit. Could you sort of explain what Johns Manville is seeking with respect to the adjusted standard for the ground water monitoring?

MR. BOW: Similar to the location of the gas monitoring devices, JM is seeking an adjustment, adjusted standard to the location of the ground water monitoring wells that

1	would normally be placed pursuant to the
2	regulation at a distance of one half of the
3	distance between the edge of the waste and
4	the zone of attenuation. That would, in
5	effect, locate those wells roughly 50 feet
6	away from the edge of the waste within the
7	two units. That 50-foot distance, again,
8	puts that within the CERCLA landfill
9	requiring drilling through the CERCLA cover
10	and along the side slopes of the CERCLA
11	landfill. Therefore, we have proposed
12	placing the monitoring wells and the zone of
13	attenuation extended outward a short
14	distance; that instead of the zone of
15	attenuation being 100 feet away from the
16	waste, it would be placed in various
17	distances roughly 150 to 200 feet away.
18	MR. KENNEY: Now, you're referencing
19	Figure 2A which is part of Exhibit 2 of Group
20	Exhibit A; is that correct?
21	MR. BOW: Correct.
22	MR. KENNEY: Okay. Now, the Pollution
23	Control Board, prior to the hearing, asked
24	the question concerning zone of attenuation

and whether the zone of attenuation could be, apparently based on this drawing, which is also the same drawing as Exhibit 8 to the adjusted standard petition. Is that correct?

1

5

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

MR. BOW: That's correct.

MR. KENNEY: Do you recall the Board's question?

The question regarding that was whether or not the zone of attenuation actually extends in a complete encirclement of the two waste units. And that is, in fact, the case. The concern was that the exhibits, as depicted, only showed the zone of attenuation in the down gradient direction, which is, from a practical perspective, where the ground water monitoring has to be conducted. But the zone of attenuation, in effect, extends, encircles the entire unit at a distance roughly 100 feet away from the edge of the waste. However, in the down gradient directions where the monitoring has to take place, it's extended somewhat further to the east and to the south. But to the northern and the

eastern -- western sides of the two units, it would not be changed. It would be left at the standard 100 foot distance.

MR. KENNEY: I'm going to ask that

Exhibit D, which is a drawing, be marked for identification. And I'll ask Mr. Bow to take a look at this. You've seen this, Peter.

I'll have Mr. Bow discuss this as well. I'm going to ask you to take a look at Exhibit D and explain what it is.

MR. BOW: Exhibit D is a modification to Figure 2A that shows the -- shows the proposed zone attenuation boundary on the south and east sides as had been requested in the adjusted standard petition. However, it includes a dashed line that would depict the zone of attenuation at a 100 foot distance away from the waste edge -- away from the unit -- the boundary of the waste in a traditional fashion, pursuant to the regulations at 100 feet away.

MR. KENNEY: Okay. Now, there wouldn't be ground water monitoring wells located to the north or where that --

1	northern part of that line to the north of
2	Fill Area 1 or Fill Area 2; is that correct?
3	MR. BOW: No, there would not.
4	MR. KENNEY: Because
5	MR. BOW: They are in a cross
6	gradient, not a down gradient direction.
7	There would not be monitoring the ground
8	water quality from these two units because
9	they are not down grading. Those directions
10	the west side on the north side are not down
11	grading of the units.
12	MR. KENNEY: Now, would the same type
13	of issue In the event that the gradient
14	never shifted and there needed to be wells,
15	would the same issues present themselves
16	there?
17	MR. BOW: They would.
18	MR. KENNEY: In terms of slope and
19	drilling through the asbestos landfill?
20	MR. BOW: They would.
21	MR. KENNEY: Because the asbestos
22	landfill extends around Fill Area 1 and Fill
23	Area it, doesn't it?
24	MR. BOW: It does. The asbestos

the former collection basin ground water

monitoring would never be anticipated for

23

24

MR. KENNEY: So in answer to the question raised by the board, this document would show the zone of attenuation extended around the landfills. But in terms of location of ground water monitoring wells, they wouldn't be required because -- under the regulations because at present it's not down gradient?

MR. BOW: That's correct. There was never any intent to modify the zone of attenuation in those other directions.

MR. KENNEY: Okay. I think we've addressed the board's questions about the consent orders. We've addressed the question about the zone of attenuation.

MS. LIU: Actually, I do have some remaining questions. Is it all right --

MR. KENNEY: We can do it now or --

HEARING OFFICER HALLORAN: Let's do it now since we're on the topic. Want to go ahead, Miss Liu.

MS. LIU: Since the consent order was the first thing you addressed, I believe the

question related to whether or not there had been any development since those consent orders came out that might have changed the directives at all? There was some indication in a public comment that perhaps there were future developments that might impact today's adjusted standard. I was wondering if you could provide any insight on that.

MR. KENNEY: Not to my knowledge.

What is occurring under the consent orders,
the Illinois consent order, the penalty has
been paid. It was -- The consent order arose
from an enforcement proceeding. Penalties
have been paid. I think there's been some
stipulated penalties for some sort of ongoing
MPDS type issues that have been paid. And
the only other issue essentially associated
with that was there was a reference to the
adjusted standard which is what we're here
for. And there really haven't been any other
development that I'm aware of with respect to
that.

In terms of the federal consent decree

provides for some extended remedial activities, settling basin is being done pursuant to that. There's some additional work that's being done pursuant to that. At some point in time, the two bodies of water, two of the bodies of water to the north of the site -- Why don't you identify those, Mr. Bow.

MR. BOW: The industrial canal located along the northern boundary and the pumping lagoon, which is an extension, westward extension of the canal.

MR. KENNEY: Those will need to be addressed, but they really don't relate to this proceeding at all. So there really have not been any development associated with either the state consent order or the federal consent decree that I'm aware of that would affect this, what the adjusted standard proceeding.

MS. LIU: Thank you for that update.

The other question I had was pertaining to

the zone of attenuation, and I appreciate you

clarifying where you intended it to be. But

I believe the question related more to the wording of the adjusted standard as proposed.

When I read it, I thought perhaps it might exclude the identification of the zone of attenuation on the western and northern side.

And I was wondering, not being a lawyer, if there was an alternate way you could word that so that there wasn't confusion.

1

2

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

MR. KENNEY: Yes. There was a reference in the adjusted standard language that refers to Exhibit 8 which was Exhibit 8 to the petition which is the same as figure We could do an alternative figure, or we could -- I was looking at the language, and I'm not sure I can figure out a better way of doing that, but we're certainly not adverse to that if the Board feels it needs to be clarified. We can even do an alternative exhibit more along the lines of the one that Mr. Bow was just discussing. I suppose we could do alternative language, too, but I'm really not sure exactly how to do it. location -- yeah. Basically the language that we had suggested talks about installing

ground water monitoring wells at the location specified on the attached Figure 8. Figure 8 really was intended to identify where the ground water monitoring wells were going to be installed and had the zone of attenuation placed on that for sort of additional information. We could either amend Figure 8, 2A to clarify that, you know, the zone of attenuation surrounds the two fill areas. It'll still show the monitoring wells in the same locations if that's -- if that's what the Board feels would be necessary.

I guess the other thing we could do is submit something that -- basically a revised figure that just shows where the monitoring wells would be and not indicate the other language.

MR. BOW: I believe that the Illinois
EPA felt it important that we distinguish
that the zone of attenuation would be moved
as a result of this adjusted standard. So
the act of moving the ground water monitoring
wells outward to the slope also necessitated
an adjustment to the zone of attenuation

1 adjusted standard to that.

MR. KENNEY: Okay.

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

The language references MR. BOW: Figure 8 as the location of the zone of attenuation as adjusted. We could -- easiest to modify Figure 8 in order to show the zone of attenuation in much the same way that we have shown Group Exhibit -- on Group Exhibit D where we would show the zone of attenuation at the 100 foot distance on the sides, the west and the north sides, and leave the modified zone of attenuation on the east and south sides as are already on the figure. Since the language references Figure 8 in the original adjusted standard, a modification of Figure 8, I believe, would just address the issue without trying to figure out how to write it down in words depending upon this corner and that corner, et cetera, et cetera, if that would be acceptable. I think that would be a good MS. LIU:

MS. LIU: I think that would be a good way to go.

MR. KENNEY: And that's fine. Now,

1	could we do this or do you want to do
2	submit another revised Figure 8?
3	MR. BOW: I'm fine with this
4	handwritten sketch as Group Exhibit D because
5	the that's essentially what it's going to
6	look like on the revised Figure 8. The
7	question would be whether the Board would be
8	concerned that the hand sketch isn't exactly
9	reflective of 100 foot distance on the north
10	and west sides in the sense that it's going
11	to wobble a little bit between 90 and 110 as
12	my pen moved around it. We could, on a much
13	more detail level, submit a figure that was
14	exactly 100 feet. I think it's a distinction
15	without a difference, but if the Board would
16	prefer that we come up with an exacting
17	drawing, I don't have any problem doing that.
18	I just don't have it with me today. In other
19	words, you know, this is
20	HEARING OFFICER HALLORAN: Off the
21	record.
22	(Short break taken.)
23	HEARING OFFICER HALLORAN: We can go
24	back on the record, I think. We took a short

MR. KENNEY: I think there was some discussion when we were off the record how best to address this Exhibit 8 to the petition issue and to kind of clarify that. I think the conclusion was that we can submit a revised Exhibit 8 that shows the zones of attenuation around Fill Area 1 and 2, and we can do that within the next day or so. So that would be our proposal in terms of clarification of the record.

HEARING OFFICER HALLORAN: Yeah.

That's fine with me. Or I'm trying to -- I'm thinking out loud here. Do you wish to submit that into evidence?

MR. KENNEY: We can submit -- Why don't we have -- and I would ask that

Exhibit D be entered into evidence. That's the figure that Mr. Bow had identified and was addressing. We can also submit a revised -- and that should be part of the administrative record as well, but I'm not sure how best to do that.

1	HEARING OFFICER HALLORAN:
2	Mr. Orlinsky, I guess first off, do you have
3	any objection to Exhibit D being admitted
4	into evidence?
5	MR. ORLINSKY: No.
6	HEARING OFFICER HALLORAN: Exhibit D
7	is admitted into evidence.
8	Now, the query is do you want to,
9	I guess, at our behest, submit a revised
10	Exhibit A?
11	MR. KENNEY: Just so the record is
12	clear, this drawing was submitted as
13	Exhibit A to the original to the amended
14	adjusted standard petition. And it's also
15	included in Group Exhibit A as Figure 2A; is
16	that correct?
17	MR. BOW: Correct.
18	MR. KENNEY: So it's sort of in two
19	places. What we would be submitting would be
20	sort of a modification of Exhibit D, which
21	was just entered just a little bit more
22	precisely drawn to show the zone of
23	attenuation around Fill Area 1 and Fill
24	Area 2, just be more precise by CAD; is that

1	correct?
2	MR. BOW: It is. The Exhibit D is a
3	hand sketch of what a more accurately
4	depicted revised Figure 8 would be. But it
5	will largely it will be exactly reflective
6	of what is on Exhibit D already.
7	HEARING OFFICER HALLORAN: Okay.
8	Thanks for the clarification, and I think the
9	record will reflect that. However, I feel a
10	little uncomfortable accepting it if you were
11	going to offer it into evidence. What will
12	happen, the Board will take that into
13	consideration, you'll just submit the revised
14	Exhibit 8 and Group Exhibit A.
15	MR. KENNEY: That's fine.
16	HEARING OFFICER HALLORAN: And any
17	objection, Mr. Orlinsky, just for the record?
18	MR. ORLINSKY: No. I wouldn't object.
19	MR. KENNEY: That's fine. We have no
20	problem with that. This is really for the
21	Board's clarification in any event. So we
22	have no problem doing it that way.
23	HEARING OFFICER HALLORAN: Terrific.
24	We can move on.

1	MR. KENNEY: One other question that
2	the board had raised was concerning
3	Exhibit 11 of Group Exhibit A which is
4	it's an onsite landfill ground water aviche
5	(ph.) quality report, and there was a
6	reference to a submittal to the Pollution
7	Control Board in that report. It actually
8	should be the submittal was to the
. 9	Illinois EPA; is that correct?
10	MR. BOW: It was a submittal from the
11	Illinois EPA.
12	MR. KENNEY: I'm sorry.
13	MR. BOW: Dated September 14, 2005.
14	There was a question from the Illinois EPA,
15	and we inaccurately stated it was a question
16	from Illinois Pollution Control Board. So
17	the sentence in Exhibit 11 that has been
18	referred to in the question that the Board
19	had, it should have stated from the IPCB. It
20	should have stated from the IEPA dated
21	September 14. So we're clarifying that it
22	should have been from the IEPA, not from the
23	Pollution Control Board.
24	MR. KENNEY: So that should clarify

the record on that score.

Now, the -- I believe you had testified that the types of wastes that were in the landfill were similar to, more similar to inert type wastes than they were to chemical and putrescible type wastes. Is that accurate?

MR. BOW: I did not -- I can make that characterization that they are more similar to inert type wastes. We hadn't discussed that specific point, but the presence of calcium silicate and the roofing material would be much more similar to an inert type waste, although technically it's being considered chemical and putrescible based upon the limited amount of landfill gas generation and the aviche (ph.) quality. It is much more similar to an inert waste than it is a chemical and putrescible waste.

HEARING OFFICER HALLORAN: Mr. Bow, could you speak up, please.

MR. BOW: In a traditional sense.

MR. KENNEY: So is it your opinion that the adjusted standards that have been

written testimony that was submitted to the board. And these go to what you were just talking about, about the distinction between inert wastes and chemical and putrescible wastes. So let me just read them verbatim and see.

2.3

On Page 10 you say that waste material generated at the plant in 1992 for disposal on the onsite landfill included sludge from the presettling lagoons, parentheses, insert solids from manufacturing, parentheses. How do you know the sludge from the presettling lagoons was inert solids?

MR. BOW: The sludge from the presettling lagoons came out of the thermal 12 manufacturing process. Thermal 12 or T12 insulation was primarily and largely consisted of lyme and silica sand quartz. Those materials are inert. It did not contain organic materials that you would typically consider to be a chemical and putrescible waste. Therefore, the description as largely inert is accurate in

that it was lime material and sand.

MR. ORLINSKY: And Ms. Bron's second question: On Page 11 you say the initial facility report on Page 9 has a reference to the waste being inert. For the record, in your discussions and communications with Illinois EPA, is it your understanding that Illinois EPA agreed with the reference to the waste being inert?

MR. BOW: They did not agree that it was inert.

MR. ORLINSKY: Now, and this is just my question now. If, in fact, there was some chemical and putrescible waste mixed in with the inert waste, would that have any bearing one way or another on this adjusted standard?

MR. BOW: Yes.

MR. ORLINSKY: It shouldn't have --

MR. BOW: It could because the ground water monitoring requirements as a whole, should they have been inert waste, would have been largely different. Because it is chemical and putrescible by definition in a strict sense, we are looking at the ongoing

agreed on a post-hearing briefing schedule as

follows: Mr. Kenney, JM's brief is due --

23

24

	1	1		1
<b>A</b>	49:21 57:2	27:11 37:10	49:9 50:23,24	В
able 7:21 54:22	adjusted 1:4,5	44:10 45:19	areas 10:21	<b>B</b> 10:8,11 22:5
about 4:22 5:10	3:6 4:22 6:11	already 9:9	12:14 14:6	27:23 28:3
5:11,16 6:22	6:15,23 7:2,22	47:13 51:6	28:17 31:11	back 5:5 13:23
9:21 11:4	12:20 19:6,16	alternate 45:7	41:3 42:1 46:9	48:24 49:1
15:17 22:13	20:18 21:15,18	alternative 6:16	arose 43:12	57:18,18
33:13 34:21	22:8 26:7,20	45:13,18,21	around 40:22	back-and-forth
36:16 42:14,16	26:21 28:15	although 53:14	42:5 48:12	7:17
45:24 55:3,3	33:9,12,13	always 16:2	49:9 50:23	bank 14:21
57:19	36:19,23 38:4	amend 46:7	asbestos 6:5	15:12
above 15:14,16	39:15 43:7,19	amended 14:3	13:20 15:22	base 15:1
29:20,20 30:22	44:19 45:2,10	14:11 18:3	23:2,22 24:10	based 34:5 38:2
31:2,3	46:21 47:1,5	20:4,4 41:10	27:10,18 30:14	53:15 54:24
above-entitled	47:15 50:14	50:13	34:12 35:11	basically 45:23
1:9 59:8,12	53:24 54:8	amount 53:16	40:19,21,24	46:14
acceptable 47:21	56:16	amounts 23:18	asbestos-conta	basin 13:3,11,19
accepting 51:10	adjustment	another 16:16	5:24 41:18	13:22 14:20,22
accurate 53:7	36:23 46:24	27:24 32:11	asked 19:5 27:12	15:6,10,13,18
55:24	<b>Adm</b> 1:5	48:2 56:16	37:23	15:21,24 16:12
accurately 51:3	administrative	answer 42:2	asking 4:6 12:21	16:19,20,20,22
acknowledge	1:13 3:7 9:10	anticipated	asks 20:15	16:22,24 17:6
21:14	49:23	41:24	assigned 3:4	17:9,13,15,16
acre 13:11	admitted 9:24	anybody 8:14	associated 43:17	18:14,15,17
acres 5:3 11:18	22:3,7 50:3,7	anyway 36:14	44:16	21:12 22:18
12:1,23 13:1	adverse 7:24	anywhere 31:8	attached 9:1	23:24 28:12
13:19 14:1	45:16	32:12	46:2	32:1,3,5,10
22:17,19	aerial 11:5 29:13	apologize 3:11	attenuation 37:4	41:5,6,23 44:2
across 14:19,19	affect 44:19	58:9	37:13,15,24	bearing 56:15
14:24 15:5,6,9	aforesaid 59:11	apparently 38:2	38:1,9,14,18	becomes 16:7
16:11	after 7:7 14:5	Appeared 2:4,8	39:13,17 42:4	<b>before</b> 1:9,11
act 46:22	27:3	appreciate 44:23	42:12,16 44:23	behalf 2:4,8
action 22:22	<b>again</b> 12:18	58:8	45:5 46:5,9,20	behest 50:9
activities 5:20,22	13:16,18 19:21	approximately	46:24 47:5,7	being 12:10 14:2
24:5 44:2	28:4 30:7,18	5:3 15:8,14,16	47:10,12 49:9	14:10 16:4,8
actually 6:21	31:22 37:7	22:16 29:19	50:23	25:7 28:14
14:18 15:7	41:20 58:9	49:1	Attorney 19:9	33:7 36:13
16:10,18 38:10	agency 2:5,8	April 26:1	<b>August</b> 58:1,5	37:15 41:9
42:17 52:7	7:20	area 6:14 11:18	<b>Austin</b> 2:2 4:12	44:2,4 45:6
addition 4:15	ago 5:10 17:5	12:1,6,9,16,16	Avenue 5:1	50:3 53:14
additional 23:13	agree 7:10 56:10	12:17,22,24	aviche 52:4	56:5,9 59:4
33:1,2 44:3	agreed 33:6 56:8	13:6,7,9,10,15	53:17	<b>believe</b> 7:5 8:15
46:6 54:15	57:23	13:17 15:19	avoid 35:5	19:19 20:9,16
address 47:17	ahead 42:22	16:17 17:11	aware 43:21	25:24 27:17
49:5	Alisa 4:5	22:10,10,15,17	44:18	29:4 42:24
addressed 42:14	allow 30:8	23:4,6,9,23	away 27:8,14	45:1 46:18
42:15,24 44:14	allowed 3:13	24:15,15 28:9	34:4 36:9 37:6	47:16 53:2
addresses 20:16	14:5 16:1	28:12,17,18	37:15,17 38:20	57:2
20:18	17:24 27:13	29:23 30:10,20	39:18,18,21	<b>below</b> 30:15
addressing	along 8:12 11:14	32:17 33:16	<b>a.m</b> 1:16	benefit 11:2
	11:15 18:20	40:2,2,22,23		
	I		1	<u> </u>

	<u> </u>	1	<u> </u>	
Bernar 1:11	22:22 23:12	23:20 32:7	Chris 33:5	comprised 5:11
59:4,16	24:3,16,18	53:12	Circuit 21:4	17:11
best 49:5,24	25:5,9,21,24	call 26:5,8	<b>city</b> 11:16 59:5	concern 35:9
<b>better</b> 45:15	26:4,13,21	<b>called</b> 1:10 16:20	clarification	38:12
between 7:18	27:22 28:2	18:18	18:23 29:3	concerned 48:8
11:8 15:17	29:1,6,10	<b>calls</b> 34:2	49:12 51:8,21	concerning
31:8 32:15	31:12,14,21	came 43:3 55:16	clarified 45:18	32:16 36:12
37:3 48:11	32:18,23 33:17	Campbell's	<b>clarify</b> 46:8 49:6	37:24 52:2
55:3	34:1,23 35:3	20:17	52:24 54:24	conclude 36:5
<b>big</b> 22:13	35:20,23 36:2	canal 18:19 44:9	clarifying 44:24	concludes 58:7
<b>bit</b> 17:8 36:17	36:15,21 37:21	44:12	52:21	conclusion 49:7
48:11 50:21	38:5,8 39:6,8	cap 30:23 35:1,5	<b>clay</b> 15:2,4 17:8	conducted 38:17
<b>blue</b> 13:9,10	39:11 40:3,5	cardboard 23:19	30:2 31:4,7	confusion 45:8
board 1:1,11 3:4	40:17,20,24	57:5	32:11	consent 12:2
3:9,20,23 6:19	41:9,16,20	case 3:5,21 27:9	clear 9:21 10:17	14:3,11,12
8:12 11:2 19:3	42:10 44:8,9	38:12	19:3 50:12	18:1,4,10,12
19:5 20:15	45:20 46:18	cause 1:9 59:8	closed 12:2,9,10	19:13 20:5,6
21:18 27:20	47:3 48:3	59:12	12:15,19 14:2	20:16,18 21:1
37:23 42:3	49:20 50:17	caused 57:5	14:10 28:14	21:7 24:1
45:17 46:12	51:2 52:10,13	cease 27:4	29:17 34:12	27:19 41:10
48:7,15 51:12	53:8,20,22	ceased 5:9 14:8	36:10 41:9	42:15,23 43:2
52:2,7,16,18	54:5,11,13	16:1	closure 12:3	43:10,11,12,24
52:23 54:14	55:15 56:10,17	century 5:6	14:5 15:24	43:24 44:17,18
55:2	56:19	<b>CERCLA</b> 12:15	18:13 21:11,19	consider 55:22
<b>board's</b> 3:16	<b>Bradley</b> 1:9 3:2	12:19 13:5	24:5 30:20	considerable
6:13 9:10 38:6	break 48:22 49:1	22:22 23:7	Code 1:5 3:7	41:1
42:14 51:21	brief 4:1 57:24	24:4 27:11	collected 36:12	consideration
<b>bodies</b> 18:18	58:1,2	28:3,10,16	collection 13:2	51:13
44:5,6	briefing 57:20	29:13,18,21	16:20,22 17:6	considered
<b>body</b> 13:3 16:16	57:23	30:4,17,22,23	17:9,13,16	53:15 57:5
16:23	briefly 33:18	31:2 32:4 34:9	18:14 21:12	consisted 55:19
<b>both</b> 17:18 28:2	<b>bring</b> 35:19	34:16 35:5	22:18 23:24	consistent 24:23
28:17 34:22,23	bringing 35:13	36:10 37:8,9	32:1,5,10	26:13
35:3 54:7,11	<b>Bron</b> 54:20	37:10 41:14	41:23	consisting 30:1
<b>bottom</b> 15:23	Bron's 56:2	certainly 45:16	combination	32:6
16:3,6,6 24:7,9	brought 10:3	54:15	36:2	consolidation
30:13 32:8,9	brown 31:1	Certified 59:4	come 7:21 48:16	5:23
boundary 39:13	building 1:14	<b>certify</b> 59:6,9	<b>comes</b> 29:19	constructed
39:19 44:10	11:21	cetera 47:20,20	commencing	27:19
<b>Bow</b> 4:14 6:3,8	buildings 5:11	CH 21:4	1:16	construction 6:1
7:7 8:1,4,7,8	11:22	changed 39:2	comment 43:5	35:13
8:20,23 9:3,6	<b>built</b> 23:6	43:3	58:5	consultants 4:18
10:3,6,20,24	business 59:5	characterization	comments 20:17	24:12
11:5 13:10	<b>B-R-O-N</b> 54:21	53:9	communications	consultation
14:16 16:18		chemical 25:16	56:6	8:18
17:18,23 18:2	C	53:6,15,19	company 4:20	contain 17:4
18:8,12 19:11	<b>C</b> 2:1 19:20	55:4,22 56:14	complete 38:10	55:21
19:14,17,19	20:23 21:22	56:23 57:6	completed 5:14	contained 23:2
20:8 21:5,7,10	<b>CAD</b> 50:24	<b>Chicago</b> 2:3 4:12	12:3 22:23	24:10
21:16 22:12,15	calcium 23:13	59:6	compliance 54:3	contains 59:11
,			_	

contemporane	create 35:24	32:4 38:13	31:6 41:22	58:4
20:3	cross 40:5	51:4	55:9	during 14:8
continue 14:7	cross-section	<b>Des</b> 2:6	disposed 21:13	17:20 19:5
25:18	28:19,20,20	describe 11:2	23:22 24:23	22:21 23:7
continued 25:18	29:2,11,16	33:19	distance 4:24	24:4,19 25:1
continues 26:6	31:16,22 32:1	description	37:2,3,7,14	35:7
continuing	34:5	55:24	38:19 39:3,17	
26:10	crushed 23:15	detail 48:13	41:1 47:10	E
<b>Control</b> 1:1,11	<b>CSR</b> 1:11 59:16	detections 26:16	48:9	<b>E</b> 2:1,1,7
3:4,20 8:12	59:16	27:4	distances 37:17	earlier 34:6
37:23 52:7,16	current 15:15	determination	distinction 48:14	early 5:5
52:23	16:9	7:21	55:3	easiest 47:5
convenience 7:6	currently 14:2	determined 57:3	distinctive 10:16	east 13:4 16:17
Cook 1:12 59:2	31:7 57:1	develop 3:19	distinguish	16:19 29:14
59:6		development	46:19	30:5 36:9
copies 8:13	<b>D</b>	43:2,21 44:16	distorted 28:5	38:23 39:14
10:12	<b>D</b> 3:15 39:5,9,11	developments	division 7:14	47:13
corner 11:11,20	47:9 48:4	43:6	docketed 3:8	eastern 6:1,2,8
16:11 47:19,19	49:19 50:3,6	devices 27:7	document 20:10	11:12,24 13:4
correct 8:19,22	50:20 51:2,6	34:3,7 36:22	42:3	23:4 28:6
9:6 10:5 17:23	dashed 11:8 12:7	difference 15:17	doing 7:23 45:16	30:17 39:1
18:7 19:1,4	28:7,11 39:16	48:15 57:3	48:17 51:22	eastward 32:3
20:7 22:11,12	data 36:11	different 56:22	59:5	east/west 17:2,3
24:3,15,16	dated 5:5 21:1	dimension 16:24	done 25:6,20	29:11
32:17 33:17	52:13,20	dimensions 17:2	26:17 44:2,4	<b>edge</b> 15:8 27:8
35:20,23 36:15	<b>David</b> 4:17	direction 17:3	dots 11:8	29:12,15 30:5
37:20,21 38:4	day 1:15 14:18	24:6 38:15	double 11:8	30:17,20 32:2
38:5 40:2	14:23 15:7	40:6	28:11	32:5 34:4 37:3
42:10 50:16,17	26:7 49:10	directions 38:21	down 30:20	37:6 38:20
51:1 52:9 54:6	deal 5:17	40:9 41:21	38:14,21 40:6	39:18
59:9	DEARBORN	42:12	40:9,10 41:21	<b>Edward</b> 2:4 4:11
costs 34:14	2:2	directives 43:4	42:9 47:18	effect 37:5 38:18
counsel 7:14	debris 13:21	discovered 24:19	drain 16:2	effects 7:24 36:4
<b>County</b> 1:12,13	decision 3:21	discuss 39:8	drainage 33:2	either 20:13
1:14 21:4 59:2	decree 12:3 14:3	discussed 6:20	drained 16:2	21:17 41:8
59:6	14:11 18:1,4	19:7 28:13	<b>drains</b> 16:8,13	44:17 46:7
<b>couple</b> 27:17	18:11,13 19:13	53:10	drawing 27:24	elements 6:10
54:23	20:5 24:1	discussing 45:20	38:2,3 39:5	encirclement
<b>course</b> 7:15 19:5	27:20 41:10	discussion 49:4	48:17 50:12	38:10
Court 8:4 21:4	43:24,24 44:18	discussions 6:22	drawn 25:13	encircles 38:18
<b>cover</b> 6:2,6 12:5	definition 56:23	32:15 33:4	50:22	encompasses
15:2 16:13	demolished 5:12	56:6	<b>drill</b> 35:17 41:7	11:9
24:8 29:24	<b>Denny</b> 4:16	<b>disposal</b> 12:1,6,9	drilled 27:14	end 4:4 7:5 13:4
30:4,14,18	Department	12:12,14,15,24	drilling 24:22	enforcement
31:2,4,5,7,11	19:8	13:5,17 21:11	30:12 34:10	43:13
32:4,11,16,21	depending 47:19	22:16 23:1,3,5	35:5,8 36:4	engineered 6:6
32:23 33:2,6,8	depict 28:18	23:23 24:8	37:9 40:19	12:5 29:24
35:12,16 37:9	39:16	25:11 29:22	41:11	engineering 4:16
41:14	depicted 30:11	30:6,7,8,14,16	drop 13:22	17:5
covers 16:13	30:13 31:2	30:19,23 31:3	due 57:24 58:1,2	enlightening
	I	I	I	1

		1	1	1
58:11	19:21,22 20:12	36:1,3,5	fine 9:18 10:24	<b>fully</b> 57:4
entered 21:22	20:14,21,23	fairly 4:20	47:24 48:3	further 27:13
22:5 49:19	21:22 22:5	familiar 9:1	49:14 51:15,19	28:18 38:23
50:21	24:21 27:23	far 30:17	<b>first</b> 14:3,11	54:12 57:9,22
entire 5:8 11:10	28:3,24 29:1,4	fashion 39:20	18:3 20:4	58:7
12:6 14:20	31:17,18,19,19	feature 14:14	29:17 33:19	future 43:6
38:19	37:19,20 38:3	features 22:14	35:3 41:10	
entirely 32:7	39:5,9,11	federal 5:18 12:2	42:24 50:2	G
entitled 3:5	45:11,11,19	14:12 43:23,24	five 3:22 27:1,3	gas 6:11,12 25:4
entrained 13:21	47:8,9 48:4	44:17	Floor 1:14	25:7,10,13,14
environment	49:5,8,19 50:3	feel 51:9	follows 57:24	25:17,21 26:3
7:24 54:3	50:6,10,13,15	feels 45:17 46:12	<b>foot</b> 15:17 39:3	26:6,14,16,18
Environmental	50:20 51:2,6	feet 5:12 15:14	39:17 47:10	26:23 33:14,20
2:5,8	51:14,14 52:3	15:16 17:3	48:9	33:23 34:3,22
<b>EPA</b> 5:19 6:21	52:3,17	27:8 29:20	foregoing 59:8,9	36:12,13,22
6:22 7:1,8,14	<b>exhibits</b> 6:19 7:4	31:8,9 32:12	former 11:18,21	53:16 54:8,9
7:18 24:6 33:4	8:12,24 9:1,19	34:4 37:5,15	12:1,6,8,24	General's 19:9
35:4 41:11	24:20 28:22	37:17 38:20	13:5,5,11,14	generate 25:4
46:19 52:9,11	38:13	39:21 48:14	13:18,19 14:22	generated 25:8
52:14 56:7,8	existed 13:4	<b>felt</b> 34:14 46:19	16:19 17:12	36:13 55:8
equally 54:2	16:17	few 8:2 54:18	18:14,17 22:15	generation 36:12
equipment 15:4	existing 32:23	fiber 15:22	22:17 23:2	53:17
35:2,13,18	41:13	figure 29:5,6,7	24:7 28:3,10	geotextile 14:19
equivalent 32:21	exists 11:15	31:16,20,21	28:16 29:13,21	14:21 15:5
33:8	explain 36:18	37:19 39:12	30:6,7,16,19	16:5,7
essentially 6:5	39:10	45:12,13,15	30:21 31:24	gets 32:4
6:10 11:15	expose 35:10	46:2,2,7,15	32:2,5,8,10	getting 35:2
23:14 28:8	exposed 16:7	47:4,6,14,15	41:6,23	give 6:3 27:20
43:17 48:5	exposes 16:5	47:16,18 48:2	formerly 5:4	<b>go</b> 27:2 42:21
et 47:20,20	extended 37:13	48:6,13 49:20	13:2 17:16	47:23 48:23
evaluate 24:13	38:23 42:4	50:15 51:4	forwarded 4:2	55:2 57:15,17
even 45:18 57:6	44:1	file 21:17	found 28:21	goes 3:24
event 35:8 40:13	extends 30:5,20	filed 4:2 22:23	frequency 26:8	<b>going</b> 3:14 8:9
51:21	32:1 38:10,18	25:2	26:23	20:24 21:20
evidence 10:1	40:22 41:1	fill 12:16,16,22	from 1:5 3:6 4:3	24:24 30:15
21:22 22:5	extension 44:11	12:24 13:7	4:5,12,14,17	39:4,9 46:4
49:16,19 50:4	44:12	16:17 17:11	4:24 5:2 16:11	48:5,10 51:11
50:7 51:11	extent 9:8 10:15	22:10,10,15,17	16:21 17:6	<b>good</b> 3:1 4:10
58:11	10:20 20:11	23:4,9,23	24:21 25:13	8:7,8 47:22
evidentiary 3:23	54:19	24:14,15 28:17	26:24 27:8,14	58:11
ex 21:2	extra 8:13 10:12	28:17 31:10,24	28:5 30:5 31:8	gradient 38:14
exacting 48:16		32:17 33:15	32:2,12 34:4	38:21 40:6,6
exactly 45:22	F	40:2,2,22,22	36:9 37:6,15	40:13 41:21
48:8,14 51:5	<b>F</b> 3:15	41:2 46:9 49:9	38:15,20 39:18	42:9
exception 41:4	facility 5:8 22:23	50:23,23	39:18 40:8	grading 40:9,11
exception 41.4 exchanges 7:18	22:24 25:1	filled 13:6 17:7	43:13 52:10,14	granted 7:3,23
exclude 45:4	56:4	23:8	52:16,19,20,22	granules 23:17
exhibit 9:16,24	fact 38:12 56:13	filling 17:6	52:22 55:10,11	23:21
10:8,10 11:3	fail 35:16	final 18:13	55:13,15	great 5:17
18:4,5,24	failure 35:10	find 25:24	full 15:22	green 28:9 29:18
10.1,0,4-7		11114 2J.2T	1411 13.22	

Greenwood 5:1	<b>hearing</b> 1:9 3:1	immediately	18:6 19:10	9:7,17 10:2,7
ground 6:14,16	3:3,14,17,18	34:18 36:8	involves 6:7,9	10:10,20 11:1
15:19 29:19	3:24 4:11 7:10	impact 43:6	22:10	11:23 13:8
33:15 34:21	8:3,15 9:7,12	important 46:19	involving 4:23	14:13 16:15
36:17,20,24	9:15,18,22	inaccurately	<b>IPCB</b> 52:19	17:14,21,24
38:16 39:23	10:9,14,19	52:15	issue 35:3 40:13	18:3,9,22 19:1
40:7 41:23	18:22 19:2,24	inappropriate	43:17 47:17	19:4,12,15,18
42:6 46:1,4,22	20:23 21:23	34:17	49:6	19:21 20:2,9
52:4 54:9	22:2,7 29:8	inches 30:1,2,2	issues 40:15	20:24 21:9,14
56:19 57:1	37:23 42:20	included 50:15	43:16	21:20 22:4,8
group 9:23,23	48:20,23 49:13	55:9	Item 21:10	22:13,20 23:10
18:24 19:22	50:1,6 51:7,16	includes 39:16	it'll 10:17 46:10	24:1,11,17
28:23 29:1,4	51:23 53:20	including 13:20		25:3,6,17,23
31:18 33:5	54:16 57:10,14	indicate 10:22	J	26:2,11,19
37:19 47:8,8	57:17 58:8	20:21 26:18	January 21:1	27:16,23 28:23
48:4 50:15	59:8	46:16	<b>JM</b> 4:20 15:20	29:3,7,9 31:10
51:14 52:3	heavy 35:13	indication 43:4	17:19 18:21	31:13,18 32:13
guess 18:23	held 1:8 5:4	indicative 25:15	35:4 36:12,22	32:19 33:11,18
46:13 50:2,9	he'll 4:14	industrial 18:19	41:11	34:20,24 35:17
	<b>him</b> 7:9	44:9	<b>JM's</b> 4:18 57:24	35:21,24 36:11
H	hit 54:19	inert 53:5,10,13	58:3	36:16 37:18,22
half 13:1 16:10	hitch 4:1	53:18 55:4,14	<b>John</b> 4:19	38:6 39:4,22
22:18 23:4	hold 11:3 15:4	55:20,24 56:5	<b>Johns</b> 1:4 2:4	40:4,12,18,21
28:6 34:8,11	hour 1:16 15:11	56:9,11,15,21	3:6 4:13,17,23	41:4,15,17
34:15 35:15		57:4,7	5:8 7:19 11:6	42:2,13,19
36:7 37:2	I	information	11:10,13 21:3	43:9 44:13
Halloran 1:10	idea 19:6,15	7:18,20 46:7	24:11 32:15	45:9 47:2,24
3:1,2 7:10 8:3	27:20	initial 22:24 25:1	36:18 54:1,22	49:2,3,17
8:15 9:12,15	identification	56:3	<b>July</b> 1:1,15 3:10	50:11,18 51:15
9:22 10:9,19	10:11 39:6	insert 55:11	4:1	51:19 52:1,12
18:22 19:2,24	45:4	insight 43:8	<b>June</b> 7:5,5	52:24 53:23
20:23 21:23	identified 29:22	installed 25:11	just 5:1,21 7:15	54:7,12 57:24
22:2,7 29:8	49:20	46:5	8:1 10:22	kept 15:23
42:20 48:20,23	identify 10:15,21	installing 45:24	18:23 20:14,20	kind 10:23 23:10
49:13 50:1,6	21:5,6 44:7	instead 36:7	20:21 29:3	49:6
51:7,16,23	46:3	37:14	36:8 41:13	kinds 23:12
53:20 54:16	<b>IEPA</b> 19:7 32:16	insulation 23:16	45:20 46:15	<b>know</b> 19:18 46:8
57:10,14,17	52:20,22 58:2	55:18	47:17 48:18	48:19 54:13
hand 48:8 51:3	IEPA's 20:12	intended 3:19	50:11,21,21,24	55:12
handwritten	32:20	44:24 46:3	51:13,17 54:19	knowledge 43:9
48:4	III 1:5	intent 42:11	54:23 55:2,5	known 4:21
happen 51:12	<b>Illinois</b> 1:1,10,13	interim 16:20	56:12 57:19	12:23 13:2,7
happened 14:17	1:15 2:3,5,6,8	31:5	Justice 19:8	
Harrison 2:6	3:3,7,19 5:19	introduce 4:9	K	L
hatch 29:18,23	6:21,22 7:1,8	20:20		lagoon 13:18
hatching 31:1	7:14,18 19:8	introduced 9:9	keep 15:21	14:1 18:19
having 27:14	21:2 33:4	21:21	Kenney 2:4 4:8	44:11
health 34:13	43:11 46:18	investigation	4:10,12 7:11	lagoons 55:10,13
35:7 36:3	52:9,11,14,16	24:19 26:14	7:11,15 8:7,9	55:16
hear 8:1	56:7,8 59:1,6	<b>involved</b> 5:20,23	8:17,21,24 9:4	Lake 1:13 11:12
				1 .

15:15 21:4	42:20	lower 11:11	matters 3:24	36:7,17,20,22
29:15 32:3	level 15:13,15,15	<b>lyme</b> 55:19	may 4:6,6 8:2	36:24 37:12
land 1:6 14:6	15:16,18 29:20		9:19 24:9	38:17,22 39:23
landfill 5:6 6:6	48:13	M	28:21 54:19	40:7 41:24
6:12 12:11,19	LFR 4:14	made 23:15	<b>maybe</b> 10:16	42:6 46:1,4,10
13:5 18:16	Liebman 33:5	Madigan 21:3	20:19	46:16,22 54:8
21:19 23:7	like 4:9,19 19:23	major 6:10,14	meeting 59:12	54:10 56:20
24:14 25:4,7	35:21,22 41:12	make 3:24 7:8	meetings 7:17	57:1
25:10,13,14,16	48:6	9:19,20 10:16	members 3:12	monthly 26:5,10
25:21 26:6,15	lime 23:15 56:1	10:22 19:3	3:22	26:12,24
26:16,18,23	limestone 23:14	20:19 53:8	mentioned 7:15	more 5:16 34:19
27:11,15,18	limited 41:13,13	54:22	16:15 18:15	36:6 45:1,19
28:3,9,10,14	53:16	making 3:21	27:17	48:13 50:21,24
28:17 29:13,18	<b>limits</b> 30:18	10:23	Michigan 11:12	51:3 53:4,9,13
29:21 30:22,24	line 11:9,13,14	management	15:15 29:15	53:18
33:7 34:9,12	28:11 39:16	6:12 33:14,20	32:3	morning 3:2
34:16 36:10	40:1	33:24	might 21:15 43:3	4:10 8:7,8
37:8,11 40:19	linear 18:18	manager 4:16	43:6 45:3	move 36:8 51:24
40:22 41:1	lines 45:19	54:21	migration 26:18	moved 46:20
52:4 53:4,16	Lisa 21:2	Mansville 4:13	41:17	48:12
54:8 55:9	little 36:17 48:11	4:19 21:17	mile 5:2	moving 46:22
landfills 22:20	50:21 51:10	manufacturing	million 5:11	MPDS 43:16
36:14 42:5	Liu 4:5 42:17,22	5:4,9,10 11:18	minimum 27:1	much 10:2 17:1
language 45:10	42:23 44:21	11:22 13:14,15	miscellaneous	25:4,7 34:19
45:14,21,23	47:22 57:11,12	14:7,8,9 17:20	12:24 21:11	35:5 36:13
46:17 47:3,14	57:22	17:22 55:12,17	22:16 23:3,5	47:7 48:12
large 5:4 6:5	locate 36:6 37:5	<b>Manville</b> 1:4 2:4	23:18,23 24:7	53:13,18 58:12
13:8,10 14:19	located 4:24	3:6 4:17,23 5:3	25:11 30:6,7	
largely 23:12,20	18:17,20 23:3	5:9 7:19 11:6	30:13,16,19,23	<u> </u>
51:5 55:18,24	28:4,21 30:15	11:10,13 21:3	31:3,6,23 32:9	N 2:1
56:22 57:7	31:16 39:24	24:12 32:15	41:22	name 3:2 4:11
last 5:16 7:16	44:9	36:18 54:1,22	Miss 4:5 8:4	narrower 17:1
lateness 3:11	location 15:9	mark 9:16,23	42:22 57:11,22	native 29:19
58:10	27:6 33:23	10:7,10,23	mixed 56:14	nearly 16:10
<b>Laura</b> 1:11 59:4	36:21,23 42:6	20:24	modification	necessary 19:16
59:16	45:23 46:1	marked 39:5	39:11 47:16	21:15 35:14
lawyer 45:6	47:4	marks 10:17,22	50:20	46:12
layer 24:5,8 30:4	locations 27:12	material 6:2	modified 32:24	necessitated
30:11,12 33:2	46:11	23:16 25:3	47:12	46:23
leading 15:8	logistics 34:14	30:24 32:8	<b>modify</b> 42:11	need 10:15,21
least 7:16	long 18:18	41:18 53:12	47:6	19:22 20:1
leave 47:12	longer 14:9	55:8 56:1	monitoring 6:12	32:24 44:13
leaving 23:7	17:10	materials 5:24	6:15,17 25:10	needed 14:9
led 36:5	look 8:10 10:13	23:13,17,22	25:14,17,22	15:23 40:14
left 3:22 11:20	21:9 28:2 39:7	24:9,18,22	26:3,5,9,10,12	needs 8:14 45:17
30:8 39:2	39:9 48:6	25:12 27:10	26:17,24 27:1	negotiation 20:4
legal 7:14	looking 45:14	31:15 32:6	27:2,4,6,12	negotiations
less 5:2	56:24	33:1,3 35:12	33:14,15,20,24	18:6 19:6 20:5
let 25:24 55:5	loud 49:15	55:20,21	34:3,7,7,11,15	nested 12:8,18
Let's 36:16	low 25:15 26:14	matter 1:3 3:5	34:18,21,22	28:16
i	I	I .	1	I

never 40:14	29:8 42:20	original 18:1	6:7,8 13:12	pictures 10:4
41:24 42:11	48:20,23 49:13	25:19,19 26:14	14:4 17:18	piece 3:13
next 49:10	50:1,6 51:7,16	47:15 50:13	23:15 24:3	pieces 23:19
nonasbestos	51:23 53:20	originally 15:13	29:22 32:13	pit 12:24 21:11
30:9	54:16 57:10,14	Orlinsky 2:7	37:19 40:1	22:16 23:3,5,5
non-asbestos	57:17	7:12,13,13	49:22	23:8,23 24:8
12:12	okay 9:22 14:16	9:13,14 22:1,6	particular 10:15	24:23 25:1,11
normally 27:7	17:14 18:9	50:2,5 51:17	10:21 12:17	30:6,7,14,16
37:1	20:2,22 21:20	51:18 54:14,17	14:1,17,23	30:19,23 31:4
north 1:14 39:24	22:13 24:11	54:18 56:2,12	15:6 29:10,24	31:6 41:22
40:1,10 41:2	26:2,11,19	56:18 57:8	parties 4:4 57:20	place 15:2 27:10
44:6 47:11	27:16 28:1	Orlinsky's 20:12	parties 4.4 37.20 parts 10:16	34:6 35:19
48:9	33:11 34:24	58:2	parts 10.10 past 16:3	38:22
northeast 16:12	36:11,16 37:22	other 6:14 13:20	pen 48:12	placed 14:21
northern 18:20	39:22 41:4	42:12 43:17,20	pen 48.12 penalties 43:13	16:8,13 24:6
38:24 40:1	42:13 47:2	44:22 46:13,17	43:15	24:24 27:7,13
44:10 45:5	51:7	48:18 52:1	penalty 43:11	30:4 31:6 37:1
north/south	one 2:2 4:18	others 8:19	penalty 45.11 penetration 35:1	37:16 46:6
16:24	6:10 8:14 10:8	out 12:18 13:22	People 21:1	placement 6:16
	23:4 24:20	16:3 27:13	percent 15:9	12:4 33:1 34:2
notary 1:12 note 3:17 4:1	26:7,22 37:2	33:21 43:3	percent 13.9 perhaps 17:2	34:15,17
noted 27:4	41:4 45:19	45:15 47:18	43:5 45:3	places 50:19
noted 27.4 notes 59:10	52:1 56:16	49:15 55:16		-
	one-third 17:12	outline 11:8 12:7	<b>period</b> 5:13 22:21 26:24	<b>placing</b> 15:4 34:10 37:12
<b>nothing</b> 57:9,12 <b>noticed</b> 3:18	ongoing 13:24	28:8,11	permanent	Plaines 2:6
now-closed 34:9	26:3 30:8 33:3	outside 30:18	34:10	plant 5:5 12:13
now-closed 54.9	43:15 56:24	outward 37:13	<b>Pershing</b> 11:16	13:24 14:6
0	only 17:2 38:13	46:23	personnel 7:19	17:20,21 23:9
object 51:18	43:17	over 5:12,15,21	57:21	23:10 30:9
objection 9:14	onsite 12:11	6:2,6,21,23	perspective	55:8
21:24 22:1,6	18:15 28:14	7:15 12:5 16:8	38:16	plant's 13:12
50:3 51:17	33:7 52:4 55:9	24:8 30:14	pertaining 44:22	1 ~
obtain 18:13	on-site 30:24	overall 12:15	Peter 2:7 7:13	23:1
Obviously 35:17	open 14:5 30:8	overlaid 30:1,2	39:7	please 8:5 53:21
occasional 23:19	31:13	overriding 18:10	Petersen 4:17	plus 16:3
occurring 43:10	opening 58:1	overseeing 5:20	petition 1:4 3:5	point 12:18
October 11:7	operated 22:21	oversight 5:17	4:22 6:7,23	14:15 33:21
14:23	operating 17:22	overview 6:4	21:17 38:4	36:7 44:5
off 5:1 48:20	operation 12:13		39:15 45:12	53:11
49:4 50:2	opinion 53:23	P	49:6 50:14	Pollution 1:1,10
57:15,16	54:5	<b>P</b> 1:10 2:1,1,4	Petitioner's 9:23	3:3,20 8:11
offer 51:11	order 14:12,24	pads 11:22	<b>ph</b> 52:5 53:17	37:22 52:6,16
Office 19:9	20:6,16,18	page 19:19,20	photograph 11:6	52:23
officer 1:9 3:1,3	21:1,8 41:15	21:9 55:7 56:3	11:11 12:8,17	ponds 18:16
4:11 7:10 8:3	41:16 42:23	56:4	14:17 15:7,10	portion 11:24
8:15 9:7,12,15	43:11,12 44:17	paid 43:12,14,16	16:9 28:5	17:16 21:12
9:22 10:9,14	47:6	<b>paper</b> 23:19	29:14	35:11
10:19 18:22	orders 42:15	parentheses	physical 14:13	position 32:20
19:2,24 20:23	43:3,10	55:11,12	picks 30:18	possible 4:2 35:6
21:23 22:2,7	organic 55:21	part 5:5,8 6:1,3	picture 6:4	post 12:13 30:9
			1	

	<u> </u>			
post-hearing	project 5:13	Q	56:4,8	6:13 32:22
57:20,23	54:21	quality 40:8 52:5	references 21:10	33:14,22 54:4
potential 36:3,5	properly 3:18	53:17 58:10	47:3,14	56:20
practicable 36:6	property 4:24	quartz 55:19	referencing	requiring 37:9
practical 34:19	5:3 11:6,9,13	query 50:8	37:18	resolved 26:9
38:15	11:13,14,17,21	question 37:24	referred 34:6	respect 36:19
precise 50:24	18:21,21 28:6	38:7,8 42:3,15	52:18	43:21
precisely 50:22	proposal 49:11	43:1 44:22	refers 45:11	respected 4:4
prefer 35:4	proposed 33:7	45:1 48:7 52:1	reflect 51:9	rested 57:21
48:16	37:11 39:13	52:14,15,18	reflected 19:12	result 7:20 46:21
prepared 8:18	45:2 54:1,8	54:20 56:3,13	reflective 48:9	resulted 18:7
presence 53:11	<b>Protection</b> 2:5,8	questions 4:3,6	51:5	results 24:21
57:4	protective 54:2,2	8:2 42:14,18	regarding 38:8	revised 46:15
present 31:10	provide 5:21	54:13,15,23	regulation 34:2	48:2,6 49:8,22
33:22 40:15	6:16 15:1	57:22 58:7	37:2	50:9 51:4,13
42:8	22:24 26:20	Quinton 4:16	regulations 6:13	rig 35:18
Presently 15:12	43:8	quite 15:3 17:7	26:5 33:9	<b>right</b> 10:14
presettling 55:10	provides 26:22		39:21 42:8	11:11 42:18
55:13,16	27:2,5 44:1	<u>R</u>	regulatory 18:13	58:6
pressure 25:15	providing 4:15	<b>R</b> 2:1	32:22 33:22	<b>Road</b> 11:16
pressures 26:15	6:11	railroad 11:15	54:4	roads 35:14
prevent 17:5	provisions 3:16	raised 42:3 52:2	rel 21:2	rolled 23:21
41:15,16	<b>public</b> 1:12 3:12	read 19:22 45:3	relate 44:14	roof 5:12
previously 6:18	43:5 58:4	55:5	related 43:1 45:1	roofing 23:17,21
6:20 15:20	pulled 14:24	really 43:20	relative 12:20	23:21 53:12
29:22	15:6,12	44:14,15 45:22	relatively 5:7 6:7	roughly 11:17
primarily 5:23	pulling 14:18	46:3 51:20	remain 14:5	11:24 12:4,22
55:18	<b>pump</b> 15:20,20	reasons 34:13	remaining 42:18	13:1,6 16:23
<b>prior</b> 37:23	pumped 13:16	35:7	remedial 5:22	17:12 18:20
probably 5:1	13:17,18	recall 38:6	44:1	22:18 23:4
problem 34:24	pumping 15:24	received 16:21	removed 11:23	28:4,6 32:2
35:1 48:17	18:19 44:10	recommendati	replenished 16:4	34:3,8 37:5,17
51:20,22	purpose 18:10	7:2 20:13	reply 58:3	38:19
problems 33:23	18:12	record 3:17,19	report 1:8 22:24	rule 3:23
36:1	purposes 9:18	9:10 10:18	25:2 52:5,7	run 3:14
procedural 3:16	17:15	19:23 20:11	56:4	runs 11:16 29:14
proceeding 5:7	pursuant 3:14	48:21,24 49:4	reported 24:20	S
9:11 12:11	7:3 12:2,10	49:12,23 50:11	59:7	
22:9 28:15	14:2,10 26:16	51:9,17 53:1	Reporter 8:4	S 2:1
32:14 33:12	27:19 28:15	56:5 57:15,16	59:5	safety 34:13 35:7
43:13 44:15,20	37:1 39:20	57:18,19	representatives	36:4
proceedings 1:8	41:9 44:3,4	rectangular	19:9	sake 7:6
58:14 59:7,11	put 15:5 35:2,14	16:23	represented 9:5	same 16:23 38:3
process 13:14	35:19	recycled 13:23	representing	40:12,15 45:12 46:11 47:7
18:6 55:17	putrescible 53:6	reduction 26:8	4:13	i
products 13:20	53:15,19 55:4	26:23	request 7:3	sand 15:2,4 16:8
professionalism	55:23 56:14,23	refer 4:19	requested 39:14	16:10,13 23:15
58:9	57:6	reference 9:19	required 33:10	24:5 30:1,11 30:12 33:1
Program 5:18	<b>puts</b> 37:8	20:15 43:18	42:7	55:19 56:1
prohibited 24:2		45:10 52:6	requirements	33.19 30.1
1	1	1	I	I .

<b>Sandra</b> 54:20	26:12,14	37:10	33:12,13 34:1	sunken 16:5
says 21:16	shown 11:19	sludge 15:3 16:6	36:19,23 38:4	superfund 5:18
schedule 57:23	12:7,14,16	55:10,13,15	39:3,15 43:7	27:19 30:21
schedules 57:20	28:7,11 29:2	small 5:8 6:7	43:19 44:19	34:12
score 53:1	29:11,13,18,23	small 5.8 0.7 smaller 18:16	45:2,10 46:21	suppose 45:20
sea 15:14,16	31:1 47:8	23:18	47:1,15 50:14	sure 3:24 10:9
29:20	shows 11:21	soil 12:5	54:9 56:16	11:5 27:22
second 27:5	27:24 29:16	solids 55:11,14	standards 26:7	45:15,22 49:24
31:16 56:2	39:12,12 46:15	solution 34:19	53:24	surface 14:24
<b>Secondly</b> 35:6	49:8	some 4:15 8:13	standing 17:9	16:6 31:15
<b>Section</b> 3:14,15	side 11:19 27:11	9:20 10:4,12	start 33:19	surrounding
see 11:10 15:8	27:15 34:8,11	11:14 12:20	starting 29:12	15:19 23:6
30:10 41:12	34:16 35:15	17:4 18:16	state 1:13 5:18	28:12
55:6	36:8,9 37:10	23:12,16,17	14:12,14 20:6	
seeking 36:19,22	40:10,10 45:5	24:13 27:10	1	surrounds 46:9 swear 8:4
seeks 6:15	sides 39:1,14	1	21:2,7 44:17 59:1	
seen 28:8 39:7	,	32:6 33:1,2		sworn 7:7 8:6
	47:11,11,13	35:18 42:17	stated 11:23	system 13:13
semiannual 27:2	48:10	43:4,14,15	52:15,19,20	14:1 17:19
sense 20:20	Sidley 2:2 4:12	44:1,3,5 49:3	statement 7:7	systems 33:24
48:10 53:22	significant 12:20	54:14,19 56:13	still 12:13 46:10	-T
56:24	35:11	something 35:21	stipulated 43:15	take 10:13 28:2
sent 54:23	silica 55:19	46:14	Street 1:14 2:6	
sentence 52:17	silicate 23:14,20	somewhat 5:14	strict 56:24	38:22 39:6,9 51:12
separate 20:14	32:7 53:12	20:3 27:13	sub 9:19	
20:20	similar 36:21	38:23	Subitem 19:20	taken 1:11 11:7
September	53:4,4,9,13,18	sorry 31:23 32:9	subject 5:7,15	14:18 15:10
52:13,21 58:3	similarly 41:7	52:12	submit 20:11,13	48:22 59:10
58:4	simply 35:7	sort 11:2,20	46:14 48:2,13	talk 4:22 36:16
set 58:4	since 25:18 26:3	35:18 36:18	49:7,16,17,21	talking 9:21 11:4
settling 13:11,19	26:4 41:20	41:18 43:15	50:9 51:13	33:13 34:21
13:22 14:20,22	42:21,23 43:2	46:6 50:18,20	submittal 52:6,8	55:3 57:19
15:18,21,24	47:14	south 2:2 11:16	52:10	talks 45:24
16:12,19,21,24	sit 8:22	36:9 38:24	submitted 6:18	technical 4:3,5
17:15 18:14,17	site 5:9,14,21 6:1	39:14 47:13	6:24 7:1,4 8:11	7:19 57:21
28:12 32:2	6:3,4,8 10:4	southern 17:12	14:4 50:12	technically
41:5,6 44:2	11:3,5,10,19	southwest 16:11	55:1	53:14
several 7:17 17:5	11:24 30:21	<b>speak</b> 53:21	submitting	ten 5:10 12:22
29:16	44:7	specific 53:11	50:19	22:17
<b>shifted</b> 40:14	six 30:1	specifically 33:5	<b>Subpart</b> 3:15,15	terminates 29:15
short 4:18,24	size 11:18 12:1	specified 46:2	subsequent	terms 17:22 25:4
5:22 37:13	12:23 13:1,19	square 5:12	15:11 17:7	33:11,23 36:1
48:22,24	14:2 22:17,19	<b>SS</b> 59:1	35:8	40:18 42:5
shorthand 59:5	sketch 48:4,8	standard 1:4,6	subsequently	43:23 49:11
59:7,10	51:3	3:6 4:23 6:11	13:16 23:8	Terrific 8:3
<b>show</b> 6:5,9 11:4	<b>slope</b> 34:8,19	6:15,23 7:2,22	substantial 15:1	10:19 51:23
14:20 16:10	35:10,15 36:1	12:21 19:7,16	57:3	57:14
42:4 46:10	36:3,5,8 40:18	20:19 21:15,18	subsurface 27:6	testified 53:3
47:6,9 50:22	46:23	22:8 26:17,20	34:3	testimony 4:15
showed 38:13	slopes 27:11,15	26:21 27:5	suggested 45:24	6:19,24 7:4,9
showing 24:22	34:11,16 36:10	28:16 33:8,10	summary 5:22	8:10,17,21 9:5
9	<u> </u>	<u> </u>	1	1

		<del></del>	· · · · · · · · · · · · · · · · · · ·	
14:4 18:5 55:1	topic 42:21	33:7 37:7	21:12 23:1	40:14 42:6
Thank 7:11 8:16	topsoil 30:3	38:11 39:1	24:18 25:12	46:1,4,10,16
29:8 44:21	total 27:3	40:8,11 41:12	27:8,10 30:9	46:23
57:8,10,12	toward 16:12	41:22	30:24 31:13,15	were 3:12 5:12
58:12	towards 29:14	unless 54:13	32:6 34:4	11:22 12:9
Thanks 10:2	tracks 11:15	until 26:9 32:4	35:11 37:3,6	14:18 17:14,18
51:8	traditional	unusual 5:15	37:16 38:11,20	17:24 18:5
their 3:13	39:20 53:22	update 44:21	39:18,19 53:14	19:10 20:5,8
themselves	transcript 59:10	upper 11:20	53:18,19 55:7	22:20 23:1,11
40:15	treatment 13:12	upwards 13:16	55:23 56:5,9	23:13,22 24:19
thermal 55:16	13:24 17:19	31:9	56:14,15,21	24:20,21,22,23
55:17	truck 35:21	used 12:11 13:11	57:6	30:15 31:5
they'd 3:13	true 8:21 54:7,11	13:13 15:20,20	wastes 23:9,11	43:5 46:4 49:4
thick 12:5	59:9	17:4,18 31:4	30:15,24 31:3	51:10 53:3,4,5
thickness 31:9	trying 19:2	USEPA 19:7	31:4,5 53:3,5,6	55:2 57:19
32:12	47:17 49:14	Using 27:23 28:3	53:10 55:4,5	58:13
	two 6:10 7:16	U.S 24:6 35:4	1	1
<b>thing</b> 41:19 42:24 46:13	12:9 18:18	41:11	water 6:14,17 13:3,12,13,15	west 2:6 18:17 30:5 40:10
	22:14 23:12,13	41.11	·	l .
things 26:22	1	V	13:21,23,24	41:2 47:11
think 4:19 7:6	26:22 28:13	varies 31:7,7	14:24 15:13,18	48:10
9:17,20 10:13	37:7 38:11	32:11	15:19,21 16:1	western 11:14
16:16 42:13	39:1 40:8 41:2	variety 34:13	16:4,8,16,21	11:19 14:21
43:14 47:22	41:21 44:5,6	various 5:20	17:4,6,9,17,19	29:12 39:1
48:14,24 49:3	46:9 50:18	13:20 37:16	18:16,18 33:15	45:5
49:7 51:8	two-foot 12:5	vegetated 28:9	34:21 36:17,20	westward 44:11
54:19	type 40:12 43:16	vegetated 28.9	36:24 38:16	west-to-east
thinking 49:15	53:5,6,10,13	verbatim 55:5	39:23 40:8	28:19 31:22
though 57:7	types 53:3	verbaum 33.3	41:23 42:6	wet 15:23
thought 45:3	typical 4:20	1	44:5,6 46:1,4	we'll 9:23 10:10
58:10	25:16	verify 24:14 25:7 versus 15:18	46:22 52:4	10:13,22
three 13:1 22:18	typically 55:22		54:9 56:20	we're 3:13 4:21
30:2 31:8	<b>T12</b> 55:17	21:3	57:1	9:21 10:23
through 12:4	U	very 8:2 10:2	Waukegan 1:15	12:21 22:9
13:23 24:12		14:19 16:10	11:17	26:9 33:13
25:12 27:14	ultimate 3:21	25:14 26:14	way 4:21 16:11	42:21 43:19
29:11 30:12	uncomfortable	58:11,11	34:8,11,15	45:16 49:1
31:23,24 32:24	51:10	view 41:11	35:15 36:7	52:21 57:1,18
35:5 37:9	under 5:12,17	virtually 32:7	45:7,15 47:7	we've 6:21 28:13
40:19 41:7,11	14:11 19:20	vouch 7:9	47:23 51:22	33:3 42:13,15
time 26:4 44:5	42:7 43:10	$\overline{\mathbf{w}}$	56:16	57:22
times 27:17	underlying 15:3	want 3:17 8:1	weak 15:3	<b>while</b> 12:13
today 3:10 4:14	underneath	9:15 10:12	<b>well</b> 9:2 24:21,21	<b>whole</b> 56:20
4:15 8:2,22	35:12		25:10 28:1	<b>width</b> 17:3
10:4 12:21	understanding	42:21 48:1 50:8	32:23 39:8	William 4:14
22:9 33:12	32:20 56:7	i	49:23 54:12	wish 49:15
48:18	unit 4:5 29:24	wanted 54:24	wells 6:17 33:24	Witness 8:6
today's 43:6	31:24 34:4	wasn't 45:8	34:7,11,15,18	witnesses 4:7
top 16:9,14	38:19 39:19	waste 5:24 12:12	34:21,22 35:2	<b>wobble</b> 48:11
29:23 31:5	units 4:3 12:9	13:12,21,24	35:15 36:24	wondering 43:7
32:3,10 34:18	28:14 29:16	17:19 18:16	37:5,12 39:23	45:6
	<u> </u>		<u> </u>	

100 00 55 5	100077040	50.1.0.4	0.00116	<u> </u>
wood 23:20 57:5	100 27:7 34:3	58:1,3,4	9:00 1:16	
word 45:7	37:15 38:19	<b>24</b> 19:19	<b>9:20</b> 3:10	
wording 45:2	39:3,17,21	<b>26</b> 15:17	90 15:9 48:11	
words 47:18	47:10 48:9,14	<b>28</b> 7:5	<b>9511</b> 2:6	
48:19	101 3:15	<b>29</b> 7:5		
work 17:5 23:7	<b>104</b> 3:15			
24:13 25:6,19	11 52:3,17 56:3	3		
25:19 44:4	<b>110</b> 48:11	31st 58:1		
wouldn't 39:23	<b>12</b> 55:17,17 58:3	312)853-2062		
42:7 51:18	<b>13</b> 21:9	2:3		
write 47:18	<b>130</b> 11:24	<b>35</b> 1:5 3:7 13:10		
written 6:19,24	14 52:13,21	13:18 14:1		
7:4 8:10 55:1	140 12:1	<b>350</b> 5:3 11:17		
***	<b>15</b> 30:2 32:12	4		
Y	<b>150</b> 17:3 37:17			
yeah 45:23 49:13	<b>17</b> 58:5	4 18:5,24 19:21	·	
year 6:21	<b>18</b> 1:1,14 31:9	4-4 3:9		
years 5:10,13,16	<b>19</b> 3:10 58:4	5		
5:16,17,21	<b>19th</b> 1:15	<b>5</b> 11:7 14:23		
6:24 7:16 16:3	<b>1990s</b> 14:8	32:12		
17:5 27:1,3	1991 24:4			
	<b>1992</b> 12:4,14	<b>50</b> 37:5		
Z	14:5 22:23	<b>50-foot</b> 37:7		
zone 37:4,12,14	24:4 25:2 30:9	<b>577</b> 15:16		
37:24 38:1,9	55:8	<b>580</b> 29:20		
38:13,17 39:13	<b>1996</b> 13:6	<b>585</b> 29:20		
39:17 42:4,11		6		
42:16 44:23	2	621:1		
45:4 46:5,8,20	<b>2</b> 12:17 13:1,7	600 15:14		
46:24 47:4,6,9	16:17 17:11	600162:6		
47:12 50:22	21:10 22:10,17	603 15:14		
<b>zones</b> 49:8	23:23 24:15	60603 2:3		
	28:18 31:11,19	00003 2.3		
0	31:20,24 32:17	8		
01 21:4	33:16 37:19	8 38:3 45:11,11		
04-04 1:5	40:2 49:9	46:2,2,7 47:4,6		
084-003592	50:24	47:15,16 48:2		
59:16	<b>2A</b> 37:19 39:12	48:6 49:5,8		
1	45:13 46:8	51:4,14		
1 12:16,22 22:10	50:15	<b>80</b> 16:3		
*	<b>2B</b> 29:6,7 34:5	<b>811.310</b> 1:5 3:7		
22:15 23:4,9	<b>2D</b> 31:16,21	<b>811.311</b> 1:5 3:8		
24:15 28:17	<b>20</b> 5:16,17	<b>811.318</b> 1:5 3:8		
31:11 32:17	<b>20th</b> 5:6	<b>814</b> 1:6 3:8		
33:16 40:2,22	<b>200</b> 37:17	847)294-4077		
49:9 50:23	<b>2001</b> 5:14 11:23	2:7		
<b>1.9</b> 5:11	<b>2003</b> 26:1	<b>857</b> 21:4		
10 55:7	<b>2005</b> 11:7 14:23	05/21.7		
10th 1:14	21:1 52:13	9		
<b>10:31</b> 49:2			1	ì
•	<b>2007</b> 1:1,15 4:2	9 4:2 56:4		