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## ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

PETITION OF BFI WASTE SYSTEMS
OF NORTH AMERICA, INC., FOR
WASTE DELISTING,

JUN 0 3 2008

ORIGINAL

STATE OF ILLINOIS Pollution Control Board

TRANSCRIPT OF PROCEEDINGS had in the above-entitled cause, taken before MARGARET R.

BEDDARD, a Notary Public within and for the County of Kane, State of Illinois, and a Certified Shorthand Reporter of said state, at Room 301, 106 South 5th Street, Oregon, Illinois, on the 15th day of May, A.D. 2008, at 9:00 a.m.

HEARING OFFICER: BRADLEY P. HALLORAN.

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           PRESENT:
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          McGUIRE WOODS, LLP,
          (77 West Wacker Drive, Suite 4100,
 3
          Chicago, Illinois 60601),
          BY: MS. PATRICIA F. SHARKEY and
               MR. BRADLEY R. DANIELS,
 5
               appeared on behalf of the Petitioner;
 6
          ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,
          (1021 North Grand Avenue East,
 7
          Post Office Box 19276,
          Springfield, Illinois 62794),
 8
          BY: MR. WILLIAM D. INGERSOLL,
                         - and -
10
          ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,
          (9511 West Harrison Street,
          Des Plaines, Illinois 60016),
11
          BY: MR. PAUL R. JAGIELLO,
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               appeared on behalf of the Agency.
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15
      REPORTED BY MARGARET R. BEDDARD, CSR.
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- 1 HEARING OFFICER HALLORAN: Good morning,
- everyone. We're on the record now. My name is
- Bradley Halloran. I'm the hearing officer with the
- 4 Illinois Pollution Control Board. I'm also assigned
- 5 to this matter entitled In the Matter of Petition of
- 6 BFI Waste Systems of North America, Inc., for Waste
- 7 Delisting as documented as AS 08-5. Today is May 15,
- 8 2008, approximately 9:10 a.m.
- I do want to note that -- at the top, that
- there are no members of the public here. If there
- were, they would be allowed to state their peace.
- We're going to run this hearing pursuant to
- 13 Section 104, Subpart D, and Section 101, Subpart F,
- of the Board's procedural rules.
- I also want to note, for the record, that
- this hearing was properly noticed up. This hearing
- is intended to develop a record for the Illinois
- 18 Pollution Control Board. I will not be making the
- 19 ultimate decision in the case. That's left up to the
- four esteemed members of the Board. I'm only here to
- 21 rule on evidentiary matters to make sure the hearing
- 22 goes without a hitch.
- 23 A brief note. On April 15, 2008, I
- forwarded, via an hearing officer order, questions

- 1 from our technical units to the respective parties.
- 2 The Petitioner filed prefiled testimony addressing
- those issues on May 6, 2008. To that end, we have
- 4 Alisa Liu from our technical unit as well as Anand
- 5 Rao that may or may not be asking questions.
- 6 With that said, Ms. Sharkey, would you like
- 7 to introduce yourself, please.
- 8 MS. SHARKEY: My name is Patricia Sharkey. I'm
- 9 with the law firm of McGuire Woods. I'm representing
- 10 BFI -- I'm representing BFI Waste Systems of North
- 11 America, Inc., today. Thank you. And we're going to
- be having -- With me I have two other witnesses who
- will be testifying on behalf of BFI, Mike Maxwell of
- 14 Weaver Boos Consultants and Beth Steinhour --
- 15 Elizabeth Steinhour of Weaver Boos Consultants.
- 16 We do have an opening statement that we'd
- 17 like to make, but perhaps you'd like to go through
- 18 introductions first.
- 19 HEARING OFFICER HALLORAN: Mr. Ingersoll?
- 20 MR. INGERSOLL: I'm Bill Ingersoll from the
- 21 Illinois EPA, Division of Legal Counsel, representing
- 22 the Agency. Accompanying me today is Paul Jagiello
- 23 also from our Division of Legal Counsel and Mark
- 24 Crites. Mark is the permit engineer who has reviewed

- the petition and interacted with technical staff for
- 2 BFI -- the technical representatives of BFI. And
- Mark will be available if needed or if questions need
- 4 to be directed -- technical questions need to be
- 5 directed to the Agency.
- 6 HEARING OFFICER HALLORAN: Thank you,
- 7 Mr. Ingersoll.
- 8 Ms. Sharkey, opening.
- 9 MS. SHARKEY: Yes. Thank you.
- 10 OPENING STATEMENT ON BEHALF OF
- 11 BFI WASTE SYSTEMS OF NORTH AMERICA, INC.
- MS. SHARKEY: What we wanted to do is put into
- perspective what this petition is about, and I think
- we'd like to start by thanking the Board for the
- opportunity to have this hearing and particularly for
- having two members of its technical staff here today.
- And we really do appreciate both the opportunity to
- explain our petition and the opportunity to address
- any questions that the technical staff and the Board
- 20 may have. And we look forward to this hearing as
- 21 something of a dialogue to allow us to understand the
- Board's concerns and to be able to provide answers to
- any questions that may come up.
- There is a lot of minutia involved in a

- 1 petition of this sort, and we are talking about
- delisting FO39, which is a leachate from multiple
- sources. As a result, the list of constituents
- 4 involved is quite long, and the petition here is
- actually quite extensive because we have provided the
- 6 Board with probably the fullest demonstration of the
- 7 character of a leachate or of a waste stream that it
- 8 may have seen in any delisting petitions before.
- 9 That's because we have a full nine years of sampling
- data from this landfill, which has been closed for 25
- 11 years. The reason for not nine years rather than 25
- 12 years is we, frankly, felt it was just enough, but
- also it is a period of time that represents the time
- 14 since the landfill had a new cap put in place, an
- impermeable cover, and we believe that it's the best
- representation of how that landfill is functioning at
- 17 this point.
- But apart from all of the data that's
- 19 here -- and there's an extensive amount of data --
- what we want to make sure everybody understands is
- 21 that the big picture here is that this is a very
- simple delisting, in fact. What we have is a
- 23 leachate that is being generated in one unit at the
- 24 Davis Junction Landfill. There are three units at

- that landfill. One of them accepted hazardous waste
- for a period of, I believe, seven years. And the
- other landfills otherwise took the same material that
- 4 this landfill took. This landfill had 2 percent
- 5 hazardous waste. And, as a result, it is
- 6 character -- the leachate is characterized as a
- 7 hazardous leachate. The other two units at the same
- 8 landfill did not take any hazardous material. And,
- 9 as a result, the leachate from those units is not
- 10 characterized as hazardous.
- 11 The leachate from the hazardous unit is --
- must at this point be trucked 350 miles into Ohio in
- order for it to be handled at a facility that is
- 14 permitted and authorized to accept hazardous liquid
- 15 waste. Previously it was being hauled to the CID
- 16 chemical waste management treatment facility in
- 17 Calumet City over 100 miles from Davis Junction.
- 18 However, recently BFI's been informed that CID cannot
- 19 handle that material at this point. As a result,
- it's now going to Ohio, quite a distance. In
- 21 contrast, the leachate from the nonhazardous units at
- 22 the Davis Junction Landfill is going to a facility
- 23 IPC that is in the Rockford area. I believe it's
- 24 approximately seven miles from the Davis Junction

- 1 Landfill.
- 2 So what this is about is about not anything
- 3 particularly new or dramatic that's going to happen
- with this leachate. The leachate is going to be
- 5 hauled for treatment under this delisting. It could
- 6 be hauled for treatment seven miles rather than being
- 7 hauled for treatment 350 miles. We believe at the
- 8 end of the day this is actually an environmentally
- 9 beneficial delisting and that it certainly is going
- to minimize air emissions and use of energy. But,
- 11 even beyond that, it's minimizing the risk of hauling
- 12 a liquid material in a tanker truck over highways for
- a great distance -- greater distance than necessary.
- So the big picture on this is we're simply taking
- this material to one treatment plant instead of
- 16 another, and it's a closer treatment plant. And both
- 17 treatment plants are permitted to handle this type of
- 18 material.
- The only impediment for IPC being able to
- 20 handle this material is the fact that it is
- 21 characterized as a hazardous liquid -- hazardous
- 22 waste under RCRA because of the fact that 2 percent
- of the waste handled in that landfill was hazardous
- 24 waste. So we believe that the situation here is

- actually pretty simple. We're not asking for a
- wide-open delisting. We are not asking for an
- across-the-board delisting. We're asking for a very
- 4 limited type of delisting. And that is very limited
- by the language in the adjusted standard that we've
- 6 proposed and put in the petition that's in front of
- 7 the Board.
- 8 That language limits the disposal to a
- 9 treatment facility, and it also limits the
- 10 applicability of the delisting to the point at which
- the material leaves the facility. So all the while
- that the leachate is handled at the Davis Junction
- Landfill, it will be treated as it is now, as a RCRA
- 14 hazardous waste. It will loaded on to a tanker
- truck -- a 5,000-gallon tanker truck as it is now,
- and it will leave the facility under an Illinois
- 17 waste -- an Illinois special waste manifest. It will
- then arrive at the treatment facility where it will
- 19 be subject to Clean Water Act requirements. The
- facility, pursuant to our adjusted standard, would be
- required to be one that is permitted by USEPA and
- 22 under its pre-treatment program.
- So what we believe we're talking about
- under the conditional delisting and the way that

- we've set this up in that delisting language is that
- 2 it's a cradle to grave situation for governmental
- 3 control of this waste stream. There's no point at
- 4 which it's leaving or exiting a regulatory system.
- 5 And I think when we look at how EPA has thought about
- 6 this in the past and talked about the kinds of risks
- 7 that delisting present, the biggest risk is -- and
- 8 the biggest concern is where a waste stream is
- 9 actually exiting a regulatory system. And that will
- 10 never happen in this case.
- 11 Apart from that, we have, I think, a lot to
- 12 talk about in terms of answering specific questions.
- We're well aware of there being guidance out there
- and a lot of history on delisting. And we believe
- what we have here is actually something that the
- 16 Board has done before and talked about before, and
- 17 that is conditional delistings that essentially allow
- 18 for a waste that may not meet -- every constituent
- 19 may not meet the parameters that it would be required
- 20 for an open listing, but where by virtue of the type
- of delisting that's being requested and that
- 22 condition listing -- the conditions in the delisting
- that some of those concerns are alleviated.
- What we've given you is a lot of

- information in this very, very big binder that --
- We've presented two large binders as a part of the
- 3 petition. But what you get out of that after nine
- 4 years of testing for all of the Appendix 9
- 5 constituents is a very large majority of those
- 6 constituents fall by the way stream, have not been
- detected. What we then come down to is a handful of
- constituents that we've identified as the final list
- 9 of constituents. Many of those we have DRAS -- The
- 10 DRAS being the model that EPA has required. The DRAS
- 11 model has yielded a number of those that are -- We
- 12 have analyzed under DRAS all of those that have
- actually been detected. For those, only a handful
- fall out as presenting any question outside of DRAS,
- meaning that they exceed of DRAS limits.
- Of those, we have taken a hard look at each
- one of those. So this is really a situation where we
- go from quite a bit of data -- and, again, on a very
- 19 conservative scenario that we've looked at this
- 20 data -- and narrowed it down to a few constituents
- 21 that are subject to other types of standards that we
- believe are appropriate to look at in this instance.
- 23 And we will be talking about those in greater depth.
- 24 But, again, this is a scenario of a package that

- 1 could look very big, but at the end of the day comes
- 2 down to a few issues.
- We appreciate the questions we received
- 4 from the Board's technical staff. What we'd like to
- 5 do is put on two witnesses. We're going to have
- 6 Ms. Steinhour to begin with give an overview of the
- 7 petition itself and what we've gone through in
- putting together the petition. Mr. Maxwell then is
- 9 going to talk a bit about the modeling and the data.
- And then what we would like to do is actually turn to
- 11 the questions that the Board -- the Board's technical
- staff presented us with and provide our prefiled
- 13 testimony -- our testimony on that, a short
- 14 discussion of each one of those, and then provide an
- opportunity for additional questions on those
- questions, if that is an acceptable way to proceed.
- 17 HEARING OFFICER HALLORAN: That sounds fine.
- 18 Thank you, Mr. Sharkey.
- 19 Mr. Ingersoll, before Ms. Sharkey calls
- Ms. Steinhour, do you have any opening?
- MR. INGERSOLL: Nothing. Thank you.
- 22 HEARING OFFICER HALLORAN: Thank you.
- Ms. Sharkey?
- MS. SHARKEY: I'd like to begin by having

- 1 Ms. Steinhour sworn in.
- 2 HEARING OFFICER HALLORAN: If you'd just raise
- your right hand, the court reporter will swear you
- 4 in.
- 5 (WHEREUPON, the witness was duly
- 6 sworn.)
- 7 ELIZABETH A. STEINHOUR,
- 8 called as a witness herein, having been first duly
- 9 sworn, was examined and testified as follows:
- 10 DIRECT EXAMINATION
- 11 MS. STEINHOUR: Thank you for the opportunity to
- 12 present the petition to the --
- MS. SHARKEY: Excuse me. Before you begin, if I
- 14 could ask Ms. Steinhour to state, for the record, her
- 15 educational and professional background.
- 16 HEARING OFFICER HALLORAN: And spell your name,
- 17 please.
- MS. STEINHOUR: My name is Elizabeth,
- 19 E-l-i-z-a-b-e-t-h, Steinhour, S-t-e-i-n-h-o-u-r. I
- 20 have a bachelor's in legal studies from the
- 21 University of Illinois. I've worked for the Illinois
- 22 Environmental Regulatory Group for approximately
- 23 eight years in development of the major environmental
- laws and regulations. And since then I've been in

- the consulting field to sustain our clients with
- 2 compliance issues and maintaining compliance with the
- 3 environmental laws and regulations.
- 4 MS. SHARKEY: And I would just like to say that
- 5 Ms. Steinhour's resume is in the petition itself
- 6 under Appendix I.
- 7 MS. STEINHOUR: And all of the land, air, water
- 8 matters that I was involved with stemming back to the
- 9 actual landfill regulations.
- I am a senior project manager for
- 11 Weaver Boos Consultants along with Mike Maxwell.
- 12 I've been responsible for managing and assisting our
- clients in complying with the post-closure care
- 14 activities at Davis Junction Landfill. I've been
- involved with that since 2001.
- 16 Ms. Sharkey, as she stated, Davis Junction
- 17 Landfill, it's a closed landfill that has three
- units, one of the units, which is the subject of
- 19 today's phase one. I wanted to just add to what
- 20 Ms. Sharkey had stated by saying the 26,000 cubic
- 21 yards of hazardous waste that was handled at Davis
- Junction is -- was 26,000 out of 1.9 million cubic
- yards of waste that was disposed of within that unit.
- Of the 1.9 million cubic yards, 87 percent of it was

- 1 general municipal waste, 11 percent was special
- waste, and the remaining 2 percent was hazardous
- 3 waste.
- The reason we looked back nine years, I
- also wanted to clarify, was because in 1998, '99 the
- 6 landfill had put a new liner on -- over the phase one
- 7 unit, and they put a dual leachate gas extraction
- 8 system within the landfill. So we felt that the past
- 9 nine years has been representative of the conditions
- 10 as they stand today and will stand until final
- 11 closure of these final post-closure activities.
- I also wanted to clarify that the reason
- 13 CID is not accepting the waste from Davis Junction
- 14 Landfill -- the wastewater is because they are
- 15 overwhelmed with their own internal leachate that
- 16 they're creating, so they do not have the capacity to
- 17 handle leachate accepted from outside sources. It
- doesn't have anything to do with the characteristics
- i9 of the leachate or anything like that. There are
- 20 detailed records within the petition that detail what
- 21 type of hazardous waste was received, where it came
- 22 from. The landfill kept very good records as far as
- 23 waste receipts.
- The process -- What I wanted to focus on

- today was to make the Board aware of the process that
- we've undertaken to prepare the delisting package.
- It began a long time ago, and it's interesting. It
- 4 was in May of 2003 that we actually had a meeting
- 5 with the Agency to discuss the potential for
- 6 delisting this hazardous waste leachate. During that
- meeting, Weaver Boos outlined our suggested approach
- 8 for preparing a delisting package for the Board.
- There was also discussion at that time concerning the
- 10 potential for discharging to this -- to the sanitary
- sewer system, which would, thus, exempt the leachate
- 12 from coverage under the RCRA program. What we did
- was we went back. And Weaver Boos and BFI, we both
- worked on evaluating the potential for a sanitary
- 15 sewer system. Given the rural location of this
- landfill and the cost, it was not a feasible --
- 17 economically feasible option.
- In 2003 we submitted a draft delisting
- 19 petition to the Illinois EPA, which also included a
- 20 draft sampling analysis plan. And the sampling and
- 21 analysis plan was prepared after we had evaluated
- 22 five years of leachate data and we'd also had
- 23 discussions with USEPA and we'd reviewed their RCRA
- 24 delisting guidance manual. We suggested further

- 1 monitoring at that time for certain selected
- 2 constituents, and we said we would conduct that
- monitoring in addition to the annual leachate
- 4 sampling that we conduct at the site.
- In May of 2004 we provided the Agency with
- a draft delisting petition. During the summer of
- 7 2004, we, again, met with the Illinois EPA, and the
- 8 Illinois EPA asked us to do a comparison of the
- 9 hazardous versus the nonhazardous leachate. That
- 10 comparison is provided in Appendix D to the petition.
- 11 And our analysis resulted in showing no statistical
- significance between the non-haz and the haz leachate
- 13 at the site.
- In January of 2005 we received verbal
- comments from the IEPA regarding our draft petition
- and our sampling analysis plan. From February to
- June 5 -- June 2005, we implemented our SAP. We did
- 18 six sampling events. We tried to sample so we had a
- 19 representative idea of what was happening from
- 20 different months other than our annual sampling
- event, which is in January and February.
- In October of 2006 we, once again, met with
- 23 the Agency. And in February 2008 we met with them to
- 24 discuss the final draft to present it to the Illinois

- EPA. We provided nine years of leachate data, 15
- 2 sampling events. There's over 10,000 data points
- 3 that have been evaluated for approximately 300
- 4 constituents. The majority of the constituents have
- 5 been non-detect for years. There has been little
- 6 statistical significant variability in the
- 7 concentration of the constituents that are present.
- 8 As Ms. Sharkey stated, the disposal options are
- 9 limited for this facility. And right now BFI's
- transporting the waste to Ohio, which is over 350
- 11 miles away.
- We are requesting the adjusted standard and
- belief that it provides cradle to grave governmental
- 14 control over this delisted waste. It will only allow
- 15 BFI to transport the leachate to a regulated -- a
- wastewater treatment facility with a regulated
- 17 treatment program, such as Interstate Pollution
- 18 Control, which is seven miles -- not even seven miles
- 19 away. And so, in essence, they will be able to
- transport the leachate -- the hazardous leachate in
- 21 the same manner that they're transporting the
- 22 nonhazardous leachate from that site.
- I think we've provided protections in how
- we are going to handle the leachate by providing

- 1 notification to the Illinois EPA 60 days before we
- start transporting it under an approved delisting
- 3 program. We've talked to the Agency and agreed that
- 4 we'll sample the first initial trucks -- consecutive
- trucks going out of the facility, and we'll continue
- to do quarterly sampling on the first year and then
- 7 semiannual sampling. So we will do -- be doing more
- 8 sampling than we're currently doing under their
- 9 post-closure permit.
- We're going to transport it by a licensed
- 11 hauler. We're going to transport it under a special
- waste manifest. And I think it's important to note
- that we're not going to be applying -- this
- wastewater is not going to be going into any land
- 15 surface impoundment. It's not going to be going into
- a lined pond. It's actually going to go to this
- wastewater treatment, be pretreated, and have to
- comply with the MPDS permit requirements before its
- 19 ultimate disposal.
- We are not asking for any changes to the
- 21 landfill's ground water monitoring program. We will
- continue to monitor that program in accordance with
- our RCRA post-closure permit. And, as Ms. Sharkey
- 24 stated, if we have a spill, it's going to be covered

- under the RCRA program because we're not handling it
- 2 in -- It wouldn't be handled in accordance with the
- provisions of a delisting regulation site specific.
- 4 So if you have any questions.
- 5 HEARING OFFICER HALLORAN: Ms. Sharkey, do you
- 6 have any direct, so to speak?
- 7 MS. SHARKEY: No, I don't. Thank you.
- 8 HEARING OFFICER HALLORAN: Before we go,
- 9 Mr. Ingersoll, any queries?
- MR. INGERSOLL: Yes, please.
- 11 CROSS-EXAMINATION
- 12 BY MR. INGERSOLL:
- 13 Q. Ms. Steinhour, exactly when in the
- process -- It's going to be -- The leachate is going
- to be in a tanker truck, and it's going to go to the
- 16 receiving facility?
- 17 A. Right.
- 18 Q. Exactly at what point does the proposed
- 19 delisting attach to that leachate?
- A. We would like the proposed delisting to
- 21 attach at the time. It will be handled as a -- It
- will be manifested as a special waste, and so from
- 23 the point at which it leaves the facility. At the
- 24 point at which it arrives at IPC's door, the manifest

- that's attached to it, it's very important that it's
- 2 a special waste manifest and not a RCRA hazardous
- 3 waste manifest because then they would be precluded
- 4 from accepting the wastewater.
- 5 Q. So as it's going down the road -- even
- 6 though it's a lot shorter than it's traveling now --
- 7 it would be a special waste and not a hazardous
- 8 waste?
- A. Right. But if there were a spill, it's our
- 10 position that it wouldn't be -- it's not being
- 11 handled in accordance with the delisting petition, so
- it would be a spill that's been manifested as a
- special waste from Davis Junction. And if it does
- spill, we would have to clean it up under the RCRA
- permitting program -- clean-up program.
- 16 Q. Because one of the conditions would have
- 17 failed?
- 18 A. Right.
- 19 So the RCRA clean-up program would
- supersede the delisting petition if we had a spill
- 21 and a release to the environment because the
- delisting petition says you manifest it, you
- transport it, and you have to dispose of it at IPC.
- 24 If we dispose of it in any other manner -- We can't

- 1 put it in a landfill because it's a RCRA -- it would
- be a RCRA waste. We can't spread it on the ground or
- 3 land apply it. It would be considered a RCRA
- 4 wastewater.
- 5 Q. Okay. Now, as just a factual matter, when
- 6 it gets to IPC, it's in a truck -- your truck --
- 7 BFI's truck. Then what's going to happen to it? I
- 8 don't know what IPC's facility looks like. It's just
- 9 factual background, not a regulatory question.
- 10 A. IPC has a chemical process that they use to
- 11 treat their wastewater --
- 12 Q. Before that. Just physically what happens
- to the stuff?
- 14 A. Typically, it's my understanding that they
- put it in a separate holding tank. And they test it
- there, decide how they're going to treat it, and then
- they feed it into their system. So they don't
- 18 just -- That's how typically the wastewater treatment
- 19 facilities handle all leachate, whether it's
- 20 hazardous or nonhazardous, because they want -- they
- 21 have it coming from different facilities.
- Q. That was just for we nontechnical folks
- here.
- A. So what they'll do is they'll put it in

- this holding tank. They'll test it. They have
- 2 certain parameters that you have to meet. And then
- they'll treat it and dispose -- You know, it's
- 4 discharged along with the other wastewater that
- 5 they're handling at the facility.
- 6 MR. INGERSOLL: Okay. Thank you. I have
- 7 nothing further.
- 8 HEARING OFFICER HALLORAN: Thank you,
- 9 Mr. Ingersoll.
- MR. RAO: I have a follow-up.
- 11 HEARING OFFICER HALLORAN: Yes, Mr. Rao.
- MR. RAO: You just mentioned how once the
- leachate gets to the wastewater treatment plant
- they're going to hold it in some kind of a storage
- 15 tank?
- 16 MS. STEINHOUR: What they'll do is they'll
- 17 transfer it from the tank into a storage -- one of
- their holding tanks that they use for treating the
- 19 wastewater.
- 20 MR RAO: Okay. Earlier, in your testimony, you
- 21 also mentioned about how this leachate would be
- 22 pretreated in accordance with MPDS permit --
- MS. STEINHOUR: No. It will be subject to IPC's
- 24 wastewater treatment facility, their pretreatment

- 1 program. So what we have agreed during discussions
- with the Illinois EPA is to make sure that the
- delisting petition language is written to clarify
- 4 that we can't go to a wastewater treatment facility
- 5 that doesn't have an approved pretreatment program
- and that they haven't -- you know, don't have an
- 7 approved pretreatment program.
- 8 MR. RAO: Okay. And I'm assuming that you had
- 9 conversations with the wastewater treatment plant
- 10 about accepting your leachate?
- MS. STEINHOUR: Yes.
- MR. RAO: And they looked at your leachate
- 13 quality and, you know, made a decision that it can be
- treated at that particular plant?
- MS. STEINHOUR: Yeah, with IPC.
- 16 MR. RAO: And I have one other follow-up related
- 17 to what Mr. Ingersoll was asking about at what point
- the waste will become delisted.
- 19 MS. STEINHOUR: Right.
- MR. RAO: You said you would like that to be in
- 21 a point where it leaves --
- MS. STEINHOUR: The storage tank at the -- When
- it leaves the storage tank at the facility and is
- 24 transferred to the truck.

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1 MR. RAO: Okay. And is that clearly reflected
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- in the proposed language you're giving to the Board?
- 3 I'll specifically refer you to Subsection G of the
- 4 proposed language. And here it says, "The leachate
- is transported in compliance with the requirements
- 6 applicable to an Illinois special waste" -- within
- 7 brackets it says, "35 Ill. Adm. Code Part 809" --
- 8 "and received by a permitted wastewater treatment
- 9 plant facility."
- 10 Does that mean that it also has to be
- 11 received for the delisting to apply?
- MS. SHARKEY: If I could respond.
- We amended the petition, as you know, a few
- weeks ago after speaking with the Illinois EPA about
- some of their concerns and found that the -- that
- 16 particular language "received by." So it must be
- 17 transported to and received by a wastewater treatment
- 18 facility that is permitted to accept this waste under
- 19 U.S. EPA's pretreatment program. So the "received
- 20 by" language came in in the amendment, particularly
- in response to Illinois EPA's concerns that it
- 22 couldn't just start out for the treatment facility.
- It had to actually arrive there and be accepted by
- 24 the facility.

- 1 MR. RAO: Okay.
- MS. SHARKEY: But is what we're getting at is it
- 3 delisted while it's on route?
- 4 MR. RAO: Yes.
- 5 MS. SHARKEY: Our belief is that language covers
- it as being delisted while on route.
- 7 MS. STEINHOUR: As long as it remains within the
- 8 actual tanker truck.
- 9 MS. SHARKEY: And under a special waste
- 10 manifest.
- MS. STEINHOUR: Right.
- MR. RAO: Because when we looked at this amended
- language of "received by," I think we read it as
- 14 delisting applies only when it is received by the
- facility, not when it is put into the tanker at your
- 16 landfill.
- 17 MS. SHARKEY: Let me say I think this is a
- 18 paperwork problem. I don't think the facility --
- that BFI would have any problem with continuing to
- 20 manifest it under the RCRA Subtitle C program --
- 21 MS. STEINHOUR: Yes.
- MS. SHARKEY: -- except for the fact that once
- it's received at the other end they cannot accept it,
- and so it's a paperwork issue. And, therefore, we'd

- like it to be delisted at the point that it leaves
- the plant under a special waste manifest.
- MR. RAO: Okay.
- 4 MS. STEINHOUR: And if there needs to be
- clarification that the waste is delisted, as long as
- 6 it's going into a tanker truck, remains in a tanker
- 7 truck until such point, and received by a facility,
- then we can cover the actual emptying from the
- 9 tank -- the storage tank into the tanker truck and
- 10 the transport. And I think what that would do is
- afford the protection that everybody's concerned
- 12 about, and that's with the spill and if it's -- if
- there's a spill situation, who's going -- under what
- 14 program is it going to be cleaned up under? Even
- though I would argue that the State site remediation
- 16 program would -- is as good as the federal RCRA
- 17 program.
- 18 MS. SHARKEY: But it would be under the federal
- 19 RCRA program. And it would be -- It would be a
- clean-up governed by the federal RCRA -- hazardous
- 21 waste RCRA program. And that would include all of
- 22 the corrective action parameters that would
- 23 automatically apply in that instance. And the
- 24 modeling, in fact -- and Mr. Maxwell's going to talk

- about this some more -- is all done on that
- 2 mismanagement scenario of a catastrophic spill. And
- 3 we've looked at the risk of that intensely here. I
- 4 think all of the work that's really been done here on
- 5 the risk analysis is really oriented toward that one
- 6 mismanagement scenario.
- 7 MR. RAO: Thank you.
- 8 MS. LIU: I do have one more question for you.
- 9 Good morning.
- 10 MS. STEINHOUR: Hi.
- 11 MS. LIU: In the original petition, BFI
- 12 estimated the cost for transporting and deposing of
- it at CID. Now, since you've had this turn of events
- and you're actually probably spending a lot more,
- 15 would you like to revise those cost figures just so
- 16 that we have some more updated information to use?
- 17 MS. STEINHOUR: It's \$2,000 per tanker truck.
- 18 MS. LIU: Okay.
- 19 MS. STEINHOUR: So \$2,000 per 5,000 gallons.
- 20 MS. SHARKEY: But we can get you more specific
- 21 written --
- MR. BALLENGER: It's approximately that.
- MS. SHARKEY: We can get you something in
- 24 writing responding to that question. Any questions

- 1 you have that we can't answer right here we will
- 2 follow up with written responses.
- MR. RAO: You had earlier mentioned how you are
- 4 going to get into the prefiled testimony after the
- 5 summaries.
- 6 MS. SHARKEY: Yes.
- 7 MR. RAO: Is it all right with you if we ask our
- 8 follow-up questions on each topic that we had
- 9 earlier? That way it keeps the discussion together.
- MS. SHARKEY: I think that makes sense.
- MR. RAO: All right.
- MS. SHARKEY: Okay. At this point --
- HEARING OFFICER HALLORAN: Mr. Ingersoll?
- MR. INGERSOLL: If I may. I mean, we're kind of
- 15 going out of sequence here.
- 16 HEARING OFFICER HALLORAN: Yeah, I agree.
- 17 RECROSS-EXAMINATION
- 18 BY MR. INGERSOLL:
- 19 Q. The question that Dr. Rao asked --
- 20 MR. RAO: Mr.
- MR. INGERSOLL: I'm sorry.
- MR. RAO: Everybody calls me doctor, but that's
- 23 all right.
- 24 BY MR. INGERSOLL:

- Q. -- Mr. Rao asked, I mean, are we really
- zeroing in on the use of the word "and" here?
- Because my super critical reading of the language may
- 4 indicate by the word "and" that both conditions have
- to be met before the delisting attaches.
- 6 A. I think though we could clarify the
- 7 language to state that the delisting -- the delisting
- starts at the point at which it's -- that it's
- 9 actually transferred from the on-site storage tanks
- to the tanker truck, and it applies as long as it's
- 11 handled in accordance with that box that we've drawn
- 12 around our delisting proposal.
- 13 Q. So we could maybe tweak the language and
- 14 maintain the conceptional framework?
- 15 A. Right.
- 16 MS. SHARKEY: I think we'd be amenable to that
- 17 definitely. If the Board were to feel that there's
- some ambiguity here, if the Agency feels there's
- ambiguity, we'd be happy to. I think conceptually
- we've expressed it pretty well for today.
- MR. INGERSOLL: Exactly. I mean, the
- 22 testimony -- I understand the testimony. I'm trying
- to make sure that the testimony squares with the
- literal reading of the proposal. I mean, the Agency

- did, in fact, come to agreement with BFI on this
- 2 language. But seeing that it -- you know, it has
- 3 raised a question, then maybe we can get together and
- 4 address that.
- 5 MR. RAO: That would be helpful.
- 6 MS. STEINHOUR: Is there any potential -- and I
- 7 know the Board has done this in other rulemakings --
- where you could actually include a clarifying note?
- 9 MR. RAO: Actually in this situation, you know,
- 10 you can just add it as one of the conditions and
- 11 clarify the language.
- MS. STEINHOUR: Okay.
- MR. RAO: And one of the reasons, you know, we
- 14 read it the way we did was because I think there was
- solid waste determination at the Board a few years
- ago where the condition very clearly said that
- 17 material will no longer be solid waste only upon
- 18 being received at a certain facility. When we saw
- 19 this, we thought, "Wow, is this what you guys are
- 20 asking for?"
- MS. SHARKEY: We apologize for the ambiguity on
- 22 this. It's a point that when you're -- Maybe when
- you're working on something as long as we've been
- working on this we knew what we wanted to do. The

- language didn't quite make it as clear as it could.
- We'd be happy to get together with Illinois EPA and
- 3 provide some revised language to the Board following
- 4 this hearing to attempt to capture this.
- 5 MR. RAO: Okay. And we have some more questions
- for related to the proposed language. We'll get to it
- 7 later.
- 8 MS. SHARKEY: Okay.
- 9 HEARING OFFICER HALLORAN: Any further questions
- of Ms. Steinhour?
- 11 All right. Mr. Maxwell, you can raise your
- 12 right hand and the court reporter will swear you in.
- 13 (WHEREUPON, the witness was duly
- sworn.)
- 15 MICHAEL B. MAXWELL,
- 16 called as a witness herein, having been first duly
- sworn, was examined and testified as follows:
- 18 DIRECT EXAMINATION
- 19 BY MS. SHARKEY:
- Q. Mr. Maxwell, would you state, for the
- 21 record, your educational background and your
- 22 professional credentials?
- 23 A. Yes. I have a bachelor's of arts in
- 24 qeological sciences from the State University of

- 1 New York at Geneseo and a master's in geology from
- the University of Iowa. And I've been working for
- Weaver Boos for approximately 12 years. And I'm a
- 4 senior project manager there and do many of the
- 5 management and technical tasks similar to
- 6 Ms. Steinhour, experienced with a number of different
- 7 RCRA landfills, and also focus on air, water, and
- 8 waste issues as well.
- 9 HEARING OFFICER HALLORAN: Mr. Maxwell, could
- you please state your first name for the record,
- 11 please.
- MS. MAXWELL: Michael, M-i-c-h-a-e-l.
- 13 HEARING OFFICER HALLORAN: Thank you.
- MR. MAXWELL: And Maxwell is spelled
- 15 M-a-x-w-e-1-1.
- MS. SHARKEY: And Mr. Maxwell's credentials are
- 17 also contained in Appendix I to the petition.
- MR. MAXWELL: And I am here to present the
- discussion relative to the delisting risk assessment
- software or DRAS, D-R-A-S, model, which is an
- integral part of the risk assessment that's
- associated with a delisting petition.
- In this specific instance, one of the
- 24 things that we've had to face is that -- because of

- the delisting language that's been proposed and the
- 2 assumptions associated with the draft DRAS model and
- associated with the generic delisting guidance
- 4 manual, really the manual and the DRAS software has
- 5 limited applicability, we think, to our delisting
- 6 proposal because we are proposing this conditional
- 7 delisting that we've talked about here today. And
- 8 that puts strict limits on how the waste would be
- 9 managed in order for it to comply with the delisting
- language.
- The DRAS model and the guidance manual for
- delisting, it's really built upon conservative
- assumption upon conservative assumption in terms of
- assuming a worst case type of land disposal scenario
- where the delisted waste is disposed of in either an
- unlined landfill or an unlined surface impoundment.
- We've talked about here this morning that's not the
- 18 case for the BFI waste. So one of things we had to
- 19 face is that the DRAS model does have these
- 20 limitations. Unfortunately, the DRAS model only
- 21 assumes disposal in the unlined landfill or in the
- 22 surface impoundment whereas our condition in
- delisting is contrary to that. Nevertheless though,
- in order to be conservative, we have focused on

- developing a DRAS model. One of the things that we
- face though is -- Essentially, in our situation, the
- question that we had to ask ourself is how do you
- 4 model -- Let me back up.
- 5 This idea of the conditional delisting,
- 6 USEPA quidance that we've reviewed indicates that
- your risk assessment model needs to be consistent
- with your proposed management scenario of the waste.
- 9 Using DRAS strictly, those two things don't match up.
- 10 We actually though have employed a DRAS model. The
- assumptions that we've made associated with the DRAS
- model is the worst-case mismanagement scenario where
- the 5,000-gallon tanker truck actually gets spilled.
- 14 So that was the focus of our DRAS model.
- The other question that we had to ask is --
- 16 Because of the delisting language, essentially what
- we're doing is we're transferring the regulatory
- 18 framework of our leachate from RCRA to the Clean
- 19 Water Act by specifying that the waste must be
- 20 treated at the pretreatment facility. And so we
- 21 tried to find a model that matched that, and really
- one of the conclusions that we came up with was --
- 23 Essentially because all of the risk is going to be
- 24 transferred to the Clean Water Act, in some ways the

- model may not even be applicable. How does one model
- 2 risk associated with waste being treated at the
- 3 treatment facility? So one conclusion that we looked
- 4 at was that modeling maybe isn't applicable in this
- 5 case. But in light of the delisting requirements in
- 6 the guidance manual, we did employ a DRAS model
- 7 focused on the 5,000-gallon spill scenario so that we
- 8 can say that we've performed a risk assessment. And
- 9 in most cases we found that our parameters of
- 10 concern, the concentrations that we've seen were
- 11 below the delisting levels.
- So the key -- I think I've touched on the
- key DRAS inputs, the 5,000-gallon volume in terms of
- the leachate. Because we're dealing with a liquid,
- we assumed that we're dealing with a surface
- impoundment scenario as opposed to a landfill, which
- 17 typically would receive solids. In terms of the DRAS
- input, we assumed that the maximum concentrations
- 19 that we saw of the constituents of concern in the
- leachate were entered as both the TCLP and the total
- 21 concentrations in our DRAS model, which we think is
- 22 conservative.
- In terms of the risks, we understand, based
- on prior petitions heard in Illinois, that the one

- times ten minus six cancer risk was the assumption
- that was made. We assumed that the hazard index of
- 1.0, which is consistent with the default number
- associated with the Illinois TACO program. And we
- assumed that the active life of the facility as one
- 6 year intended -- which was the shortest duration that
- 7 was allowed to be modeled in DRAS to match up with
- 8 the assumed catastrophic tanker spill.
- In terms of the DRAS results, we ended up
- modeling 43 constituents of concern in DRAS. The
- 11 constituents that were modeled in DRAS were based
- upon those constituents that we detected during the
- nine years of data that we had collected from the
- 14 leachate. We believe that the constituents that were
- non-detect of the 200 or more total constituents that
- 16 we looked at, based on the nine years of data that
- 17 we've got, based on the fact that we've got a closed
- 18 landfill that's been closed for a number of years,
- 19 that if something didn't present itself in the
- analytical data that we have to date that it didn't
- 21 warrant modeling in the DRAS model. In fact,
- that's what we found with some later research that
- was supported with some prior decisions on delistings
- in Region V that we were able to locate.

So -- And I should point out that initially 1 in our petition we had 39 constituents of concern. There were four constituents pointed out by the Board 3 in comments that we addressed prehearing indicating that there were another four. We added those four to our DRAS model and submitted that with the prehearing testimony. So we ended up with -- Out of 43 constituents of concern that were modeled in DRAS, we ended up with a situation where, of those 43, 39 9 constituents, the maximum concentrations that we saw 10 in the leachate, were less than the delisting levels 11 that were produced by the DRAS model. And we ended 12 up with four constituents of concern where 13 concentrations were greater than the delisting levels 14 that were -- the generic delisting levels that were 15 16 produced by DRAS. 17 Because of the method that we're proposing to -- the box that we've drawn around the delisting, 18 we think that warranted taking a closer look at these 19 20 other four parameters to try to match up with the 21 actual risk of these four parameters as relative to 22 our disposal method. And in the case of -- Methylene 23 chloride and TCE were two of the parameters that

exceeded the DRAS generic delisting levels.

24

In taking a close look at the data, we 1 found that actually the concentrations that -- the single concentrations that had exceeded the generic DRAS delisting numbers were from the same sampling event in 2006, I believe. And those stood out as outliers. It seemed like there was something atypical that was occurring with those -- with that particular data point. And the other data from the other eight years seemed to suggest that those were outliers. As a result, what we've proposed is the 10 DRAS generic delisting level for both methylene 11 12 chloride and for TCE. 13 The other -- One other parameter that we found with concentrations that exceeded our generic 14 DRAS delisting level was vinyl chloride. For vinyl 15 chloride, in accordance with 35 IAC 721.111, we 16 looked at the standards that need to be met in order to delist a waste. And there are various criteria 18 19 that are laid out in those regulations. attempted to focus on a number of those relative to 20 the vinyl chloride and the fourth of the four, which 21 I'll talk about here in just a minute. 22 23 But one of the criteria for vinyl chloride that should be considered is other relevant 24

- 1 regulatory programs and the toxicity characteristic
- 2 procedure -- or the toxicity characteristic
- 3 evaluation that was undertook by USEPA to develop the
- 4 current toxicity characteristic. Concentrations was
- one very relative other regulatory program that we
- 6 think is applicable here. Based upon that, we have
- 7 proposed that the toxicity characteristic level for
- 8 vinyl chloride, 0.2 milligrams per liter, be the
- 9 proposed delisting level for vinyl chloride.
- 10 The last constituent that exceeded -- that
- 11 identified concentrations over the generic DRAS
- delisting numbers was 1, 4 dioxane. And, again, using
- that same criteria that's laid out in the regulation
- 14 referenced earlier, we looked at developing a
- 15 site-specific model relative to the scenario where
- 16 1, 4 dioxane does happen to spill from the tanker
- 17 truck. And the two primary parameters associated
- with the transport of that specific constituent as
- 19 it's spilled to the environment are the infiltration
- 20 rate into the soil and also the environmental
- 21 degradation rate after it enters the environment.
- 22 And we presented in the petition a model that
- 23 documents that -- Actually, based upon those input
- 24 parameters, the -- the 1, 4 dioxane concentration

- 1 should it be released into the environment in a
- 2 catastrophic tanker spill actually decreased the
- 3 concentrations very quickly based upon the geology of
- 4 the area and the degradation rate of that particular
- 5 parameter. And that result showed that a
- 6 concentration of 1, 4 dioxane that's very high could
- 7 legitimately be a delisting level. We defaulted that
- 8 to a number of 100 milligrams per liter as the
- 9 delisting level for 1, 4 dioxane based upon this
- 10 model.
- And that was the summary of the model that
- 12 I had intended to cover.
- MS. SHARKEY: I have one direct.
- 14 BY MS. SHARKEY:
- Q. Could you elaborate a little bit more on
- 16 the 1, 4 dioxane and what numbers you actually came
- 17 to when you did the model and explain a little bit
- more about what modeling for the 1, 4 dioxane was,
- 19 what you look at specifically?
- 20 A. Yeah. What we looked at was we looked
- 21 at -- The degradation rate is the rate that it
- degrades, and we looked at the half life, meaning
- similar to radioactivity in the sense that it will
- 24 degrade -- half of it will degrade. It will take a

- 1 certain time for half of it to degrade. Based upon
- the half life, the degradation will take place over
- 3 time. As a result of the very low permeability of
- 4 the local soils, the amount of time that the leachate
- 5 will take to percolate down to the uppermost aquifer
- 6 is relatively large. In that time so many half lives
- 7 go by -- so many half lives proceed. In fact, it
- 8 takes hundreds of years for the leachate to get to
- 9 the groundwater that by the time it reaches the
- 10 groundwater there is very little risk.
- 11 And there was an equation that was
- presented in our petition that indicated that -- In
- fact, the number that was supported by the equation
- actually exceeded the one million part per million
- number, which, of course, is physically possible.
- 16 And 100 was a round number, and we were racheting it
- back to 100. We think there's very little risk in
- the unlikely event that there's the catastrophic
- 19 tanker spill during the transit.
- MS. SHARKEY: That's all I have.
- 21 HEARING OFFICER HALLORAN: Thank you.
- Mr. Ingersoll?
- MR. INGERSOLL: No questions. Thank you.
- 24 HEARING OFFICER HALLORAN: Ms. Liu? Mr. Rao?

- MR. RAO: We will wait until you get to the
- 2 responses.
- 3 HEARING OFFICER HALLORAN: Thanks, Mr. Maxwell.
- 4 You may stay seated, I guess.
- 5 MS. SHARKEY: Mr. Halloran, what I'd like to do
- 6 at this point is if I could provide the legal -- our
- 7 view of what the legal framework for the delisting
- 8 petition in this instance is and some of the relevant
- 9 legal questions. Then we go to the -- After I finish
- that, of course, if you had any questions about how
- we interpret the regulation, we'd be happy to take
- any questions on that as well. And then we would go
- to the prefiled testimony in response to the Agency's
- 14 questions -- or the Board's questions.
- 15 HEARING OFFICER HALLORAN: Did you represent
- 16 earlier you wanted to be put under oath?
- MS. SHARKEY: I'd be happy to do that if you'd
- 18 like me to.
- 19 HEARING OFFICER HALLORAN: It's entirely up to
- you.
- Mr. Ingersoll, do you have a problem with
- 22 that?
- MR. INGERSOLL: No preference.
- 24 HEARING OFFICER HALLORAN: Please raise your

- 1 right hand.
- 2 (WHEREUPON, the witness was duly
- 3 sworn.)
- 4 MS. SHARKEY: What we wanted to do is give a
- framework for the legal requirements here. We begin,
- 6 I believe, with the Illinois Administrative Code
- 7 720.122(a), and that actually directs us to the
- 8 parameters that the Board needs to look at in order
- 9 to make its decision. Of course, the first is that
- the -- If you'll give me one moment. I apologize.
- should have pulled out the regulations.
- 721.122 is the waste delisting provision in
- the Board's regulations. It, as I said, provides the
- 14 conditions under which the Board can grant the
- petition. The first is under (a)(1), that the
- 16 petition must demonstrate that the waste produced
- does not meet any of the criteria under which the
- 18 waste was listed as a hazardous or acute waste. The
- 19 second is that the Board must determine that there is
- a reasonable basis to believe that factors, including
- 21 additional constituents other than those for which
- the waste was listed, could cause the waste to be a
- 23 hazardous waste and that such factors do not warrant
- retaining the waste as a hazardous waste.

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Notably, that particular decision is --
 1
      There is then a reference to the EPA RCRA delisting
      program guidance manual, and it says that a Board
 3
      determination of that other factors question is to be
      looked at under the -- in reliance upon and in a
      manner consistent with the EPA guidance manual.
                The interesting thing about that is that --
      I just want to point out that the guidance manual
      is -- has been apparently adopted by the Board as --
      and incorporated into this regulation. Although,
10
11
      it's just an EPA guidance document. I did a little
      research and homework on this, and I'm quite sure
12
      Mr. Rao is nodding his head because he probably knows
13
      the history on this as well. What's interesting is
14
15
      that -- I'm not aware of very many instances in which
      the Board has ever adopted a guidance manual as an
16
17
      actual part of its regulation and decisionmaking in
      any way by an EPA guidance manual. Nonetheless, the
18
19
      Board appears to have done it here. And I think it
20
      was a matter of something that was done back in 1993.
21
                And then when the Board -- When that manual
      was updated, the Board realized there was a problem
22
23
      when it asked this question and was told -- the
24
      record of that rulemaking indicates that the Agency
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- at that time said, "Well, we look at this, and we
- treat it as something that we're required to look
- 3 at." So the Board went ahead and adopted this as a
- 4 part of its regulations.
- 5 But I point out that it is an unusual
- situation in that it ought to cause us to look
- 7 carefully at this because some of what we're going to
- 8 be talking about, I think, as we get into the
- 9 discussion of the technical staff's questions is that
- 10 EPA itself does not treat the -- its guidance manual
- as something rigid that they must live within. In
- 12 fact, they consider it -- They probably, in large
- part, act consistently with it, and there certainly
- are parts of it that they hold as being the Bible.
- But there are many parts of it that, indeed, they
- take different positions on. So I want to point out
- 17 that the language here is that the Board must be in
- 18 reliance upon and in a manner consistent with the EPA
- 19 manual. And that does not necessarily mean word for
- 20 word what the manual says.
- 21 Going beyond that, I think it's interesting
- 22 that when you have a toxic waste you go to
- 720.122(d). And for a toxic waste we have a specific
- 24 type of demonstration that must be made in the

- 1 petition. Petitioner must demonstrate, once again,
- 2 that the waste does not contain the constituent or
- 3 constituents that caused USEPA to list it as a waste.
- 4 Secondly, that although containing it -- If you have
- 5 the constituent in there, it's not a non-detect. You
- 6 found you have that constituent. You then have to
- 7 demonstrate that it -- that that constituent does not
- 8 cause the waste to -- Excuse me. Let me reword that.
- 9 Although containing one or more of the hazardous
- 10 constituents that caused EPA to list the waste, the
- waste does not meet the criterion in 35 Ill. Adm.
- 12 Code 721.11(a)(3) when considering the factors that
- are listed there, which are A through K under that
- 14 provision.
- So what's very interesting here is if you
- look at this there's no reference here to the
- 17 guidance manual anymore. The guidance manual is
- 18 referred to for characteristic waste. It is not
- 19 referred to for toxic waste. And I just want to
- 20 point out that I think that there appears to be some
- intention here because the guidance manual is
- referenced in some places and not others.
- In lieu of the guidance manual, in fact,
- 24 what we do with the toxic wastes is we go to 721.111

- and we look at those specific criteria. I think
- 2 there's a tendency in the delisting process for
- everyone to get wrapped up in this EPA guidance
- 4 manual and the modeling and the procedures and forget
- 5 that the actual regulation itself prescribes the
- 6 criteria. The DRAS modeling and the manual are one
- 7 way to get there. They're one way to, in fact,
- 8 address some of those provisions that are in 721.111.
- But I want -- I think it's worth going
- through and just focusing on the fact that if you
- 11 have a toxic waste it's after considering the
- 12 following factors, USEPA concludes that the waste is
- capable of posing a substantial present or potential
- 14 hazard to human health or the environment. So there
- has to be -- That's the ultimate determination. It's
- a criterion actually interestingly, not criteria.
- 17 There are not many criteria. There's a single
- 18 criterion. It must meet that standard after
- 19 considering a number of factors.
- 20 So what we want to point out is that --
- 21 What's interesting -- and I believe this is the
- 22 correct interpretation -- is that toxicity,
- concentration, potential of the constituent to
- degrade, to migrate, persistence, bioaccumulation,

- 1 plausible types of improper mismanagement, quantity
- of the waste generated, nature and severity of the
- 3 health and environment impacts that have been seen
- 4 with improper management, and then actions taken by
- 5 other agencies or regulatory programs based on health
- or environmental hazard. And then such other factors
- 7 as may be appropriate.
- 8 So all of those are really the factors to
- 9 be considered for a toxic waste to determine if it
- 10 can be listed in the first instance -- that's what
- 11 EPA considered when they were listing it -- and if it
- 12 can be delisted in this instance. And we just wanted
- to go back through that because we think this is
- 14 something that we will see as we go through some of
- the questions. And we want to make sure that our
- 16 understanding of this and our reading of this is not
- inconsistent with what the Board's interpretation is.
- 18 And if there is another interpretation that we should
- be addressing, we would very much like to have the
- 20 Board direct us to how they view these regulations.
- 21 I don't mean to put the technical staff on the spot
- 22 with this, but I just wanted to point out how we are
- looking at it and make sure that's a part of the
- record as we're going. And I think it's helpful as

- we're going forward with this.
- For right now, that's all of the overview
- 3 that I wanted to give on the legal. I would be open
- 4 to any questions.
- 5 HEARING OFFICER HALLORAN: Mr. Ingersoll, any
- 6 questions?
- 7 MR. INGERSOLL: Nothing. Thank you.
- 8 MR. RADO: I have just a question. Since
- 9 Ms. Sharkey gave very interesting testimony, I
- 10 thought I could ask her, you know, some questions to
- 11 shed more light.
- 12 As you know, Ms. Sharkey, one of the things
- with the Board's RCRA regulations are their identical
- 14 and substance rules. Whenever we deal with some of
- these adjusted standards, either delisting or other
- 16 RCRA delisting standards, we try to be as consistent
- as possible with what USEPA does because that's what
- these rules are about, trying to be consistent with
- 19 the federal actions. In delistings, I think in some
- of the prior decisions the Board has looked to US
- 21 EPA's decisions on individual delistings.
- Having said that, could you comment on
- whether you think what you proposed is consistent
- 24 with some of the recent decisions that the USEPA has

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issued, specifically Shell Oil that you cited in your
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- prefiled testimony?
- MS. SHARKEY: Yes. I would be happy to.
- And I quess I'd like to separate for a
- 5 moment that the Board adopted the delisting
- regulations almost completely in -- They adopted them
- 7 in an identical and substance rulemaking, and they
- 8 are almost word for word what the federal regulations
- 9 are except for this reference to this guidance
- 10 manual. So that is -- That, frankly, is a step that
- took the Board beyond an identical and substance
- rulemaking, and it's my legal opinion it's actually
- challengeable that that type of change could have
- been made in the identical and substance rulemaking.
- Nobody challenged it, I have to say, in part, because
- they were doing an identical and substance rulemaking
- 17 and there was no lengthy first notice, second notice,
- 18 comment period, and public participation in that
- 19 proceeding. However -- So let's put to the side the
- question of whether or not that guidance manual is,
- in fact, mandatory in some fashion here in Illinois.
- 22 If the question is do we believe -- does
- 23 BFI and do the people who are representing BFI here
- 24 today believe that it is relevant what USEPA is doing

- in their delistings, I think by virtue of the fact --
- 2 It's my legal opinion by virtue of the fact that it's
- 3 the same language except for this manual being
- 4 incorporated. I think it's very relevant what USEPA
- 5 has done in many of its delisting. We have gone
- 6 through and taken a hard look at a number of
- 7 delistings that we thought potentially relevant. We
- were looking for ones that involved wastewaters. We
- 9 were looking for ones that involved FO39. There are
- very few out there. But we've highlighted the Shell
- 0il Company case because that's out of a Texas -- a
- facility in Texas. The reason we've highlighted that
- one is because it is an FO39 delisting case. We
- think there are a large number of elements of that
- case that are very pertinent here. And we'll talk
- about them in greater depth when we talk about the
- 17 questions that have been posed.
- But, for example, just to say -- For
- 19 example, we think the testing regimen for verifying
- the nature of the constituents in the waste and the
- 21 concentrations that the -- what you have is a number
- of multi-year delistings by the federal government --
- and we'll be happy to go through in greater depth
- 24 with you -- that have looked at -- multi-year

- delistings where they are looking at land application
- even. And they have not required load-by-load
- testing. They've required verification testing that,
- indeed, looks very much like the program that we've
- 5 proposed. That is more intensive initial testing of
- 6 the material and then quarterly testing. And then
- 7 ultimately most of those go to annual testing. We've
- 8 only proposed going to semi-annual testing. We think
- 9 our testing regimen is more conservative than what
- 10 USEPA is proposing for even higher risk types of
- 11 disposal scenarios. So I think they are very
- 12 relevant.
- We are -- Our plan, by the way, would be to
- 14 follow up in greater depth on some of those providing
- the Board with those decisions and giving you more
- indepth on that following this hearing in writing.
- MR. RAO: That would be very helpful.
- 18 HEARING OFFICER HALLORAN: Mr. Ingersoll?
- 19 MR. INGERSOLL: Nothing. Thank you.
- 20 HEARING OFFICER HALLORAN: Do you want to take a
- 21 ten-minute break?
- We're off the record.
- 23 (WHEREUPON, discussion was had
- off the record.)

- 1 HEARING OFFICER HALLORAN: We're back on the
- 2 record after a short break.
- Ms. Sharkey, you may proceed.
- 4 MS. SHARKEY: Thank you.
- 5 At this point we'd be prepared to turn to
- 6 the questions that were raised by the technical
- 7 staff. Would you prefer to go to the Agency
- questions -- questions for the Agency? Because I
- 9 have a question for the Agency, but I can put that
- 10 after.
- 11 HEARING OFFICER HALLORAN: Let's put that
- 12 after.
- 13 MS. SHARKEY: Okay. What we would like to do
- is, for the record, go through the eight questions
- that the Board's technical staff posed to us through
- a hearing officer order. We filed prefiled testimony
- 17 responding to those questions. What we would propose
- to do is to simply read each question, go through --
- in as brief a manner as possible provide a synopsis
- of the -- our prefiled testimony answering those
- 21 questions, and then be prepared to answer any other
- questions on those particular points that either the
- Board or the Agency may have for us.
- With that -- Also, we're going to divide --

- 1 The panel here will be prepared to answer questions.
- 2 By the panel, I mean Mr. Maxwell, Ms. Steinhour, and
- myself will be prepared to answer any questions.
- 4 However, in terms of presenting the answers, we're
- 5 going to be dividing them between myself and
- 6 Mr. Maxwell.
- 7 The first question is one I'm going to
- 8 take. The question was posed regarding monitoring
- 9 frequency. The question was, "Please elaborate on
- the adequacy of quarterly and semi-annual leachate
- monitoring to demonstrate that each batch of leachate
- meets the proposed delisting levels."
- What we've proposed in the adjusted
- standard language is the following. The first three
- consecutive loads of leachate after approval of this
- delisting petition will be tested for compliance with
- the delisting levels, so the first three loads.
- 18 Thereafter, there would be quarterly sampling and
- 19 analysis for the first year. Following that there
- would be semiannual sampling and analysis every year.
- 21 We believe this is consistent and even more stringent
- 22 than the monitoring frequency that USEPA has required
- in other multi-year delistings, as I mentioned
- 24 earlier.

- 1 For example in Shell Oil, in that case,
- which we have provided in our -- We've provided the
- 3 post rule and final rule for the Shell Oil delisting
- 4 in our prefiled testimony. In that case, USEPA
- 5 required eight samples to be taken within the first
- 60 following the delisting. After that Shell was to
- 7 sample quarterly and thereafter annually.
- 8 In another case -- Excuse me for just a
- 9 moment. In another case on a delisting case on
- 10 behalf of Auto Alliance International, EPA provided
- simply for quarterly sampling and then went to an
- 12 annual verification sampling.
- 13 In another case, this one involved the
- 14 Hanford Nuclear Site in Washington, the applicant for
- the delisting was the Department of Energy. They
- 16 provided that DOE was to submit a plan. And they, in
- 17 that instance, were sampling every 15th tank from the
- 18 site. So it, again -- By the way, that was a land
- 19 disposal scenario, I believe.
- Nissan, a case that the Board had
- 21 referenced -- had questions referenced, involved
- one -- I believe it involved one initial test within
- 23 60 days and annual testing thereafter.
- Tenneco is another one, T-e-n-n-e-c-o.

- Just a one-time notification. I don't believe they
- 2 had any verification sampling.
- 3 Eastman Case, delisting quarterly for one
- 4 year. Subsequently annual.
- 5 And Shaparel is another one we looked at,
- eight full-scale treated batches and then annual.
- 7 So all of these delistings, I should say,
- except for Tenneco, were waste streams that were
- 9 being generated by an ongoing process. And I think
- it's significant because an ongoing process or an
- ongoing activity, of course, could change. So
- 12 consistency of that waste stream would be a real
- 13 question. Of course, we argue that's not the case
- 14 here, that we, in fact, have a very consistent waste
- 15 stream and that we know what it is.
- I quess I also wanted to say that in the
- 17 Waste Management case, the petition before the Board,
- in that case they had proposed to delist a filter
- 19 cake. But it was a filter cake that was being
- generated on an ongoing basis. It was not a closed
- 21 situation such as we're suggesting here. And in that
- one the Board noted particularly that it was the fact
- 23 that the future waste could be variable that was of
- 24 concern and why there was a discussion of actually

- 1 testing every load and every batch. So we contrast
- 2 the BFI waste as very unchanging. The landfill's
- 3 been closed for 20 years. As you've heard, it has a
- 4 low permeability cap. We have nine years of
- 5 monitoring data showing very little variability in
- 6 it.
- 7 Another distinguishing factor is BFI's
- large amount of analytical data and the lengthy
- 9 period over which it was obtained. I think that
- 10 gives, again, the specific chemicals that are there
- over this period of time. The range of
- 12 concentrations are not -- We believe we have enough
- data here -- And Mr. Maxwell can testify to this in
- 14 more depth. We have more data than others have, and
- 15 we think it's enough to demonstrate the stability and
- 16 the lack of significant variability of this waste.
- In contrast, BP Amoco, when they presented
- 18 the Board with a petition, came in with just three
- sampling events that were taken over a six-month
- 20 period. In Shell Oil, which is another example
- 21 before USEPA, they had four monitoring events
- 22 performed over a period of approximately three
- 23 months.
- I think the Board also asked about

- 1 whether -- the question of whether this is a batch
- operation and looking at some of the particular
- language that USEPA in its manual has about multiple
- 4 batch operations. And our answer to this is this is
- 5 not a batch operation at all. This is a single
- 6 source, a continual source, that is generating
- 7 leachate. It's the landfill. And it's not in any
- 8 way -- The fact that we are taking it out in
- 9 5,000-gallon batches does not convert this to being a
- 10 batch source.
- To close on this, we think that monitoring
- 12 every batch would be extraordinarily expensive. It
- would be extraordinarily onerous. It would effect --
- 14 probably would put us at a question mark of about
- whether or not it's worth doing this kind of thing if
- 16 you're talking about having to sample every single
- load of this waste as it goes out. We think that it
- hasn't been required elsewhere, that it goes beyond
- 19 even what the manual itself requires because the
- 20 manual looks at that from multi-batch scenarios. All
- of the above delistings that I mentioned, with the
- 22 exception of Tenneco, I believe were multi-year,
- 23 ongoing source scenarios. So all of those, and still
- USEPA has not required that level of sampling. So we

- think it's unwarranted.
- With that, we'd be happy to answer any
- questions on the sampling regime we've proposed.
- 4 HEARING OFFICER HALLORAN: Mr. Ingersoll, any
- 5 questions?
- 6 MR. INGERSOLL: No. Thank you.
- 7 HEARING OFFICER HALLORAN: Mr. Rao? Ms. Liu?
- MR. RAO: Yeah. We have some follow-ups on it.
- 9 MS. LIU: Thank you for that synopsis of what
- you put in your prefiled testimony. I do have a
- 11 question, and it's a little wordy. I apologize.
- On page 2 of BFI's prefiled testimony in
- response to this question about monitoring frequency
- BFI states that, "BFI's proposed sampling frequency
- is consistent with that required by USEPA in its 2005
- multi-year delisting of the FO39 leachate for Shell
- 17 Oil Company." BFI goes on to state that, "Shell's
- leachate was derived from an active landfilling
- 19 operation and subject to more variation than leachate
- 20 from BFI's closed landfill."
- It appears that Shell Oil's waste exclusion
- 22 includes a section stating quote, "If Shell Oil's
- 23 company significantly changes the process described
- in its petition or starts any process use that

- generates the waste that may or could significantly
- affect the composition or type of waste generated as
- established, it must notify EPA in writing, it may no
- 4 longer handle the waste generated from the new
- 5 process as nonhazardous until the wastes meet the
- 6 delisting levels, and it has received written
- 7 approval to do so from EPA." The citation is
- 8 70 Fed. Reg. 49, 192. This provision implies that
- 9 Shell Oil's leachate is derived from a relatively
- 10 consistent source and any process changes affecting
- the leachate quality need to be reevaluated and
- 12 reapproved by USEPA.
- The question now is, would you please
- 14 comment on whether BFI is aware of any other
- delistings where USEPA has allowed monitoring
- 16 frequency as proposed here for an FO39 leachate from
- 17 a landfill that had accepted many different types of
- 18 hazardous waste over a period of time for which the
- 19 waste types, including raw materials, are not fully
- 20 documented? If can't provide that obviously today,
- in a post-hearing comment that would be wonderful.
- MS. SHARKEY: Can I have one moment?
- MS. LIU: Sure.
- 24 (WHEREUPON, there was a short

- 1 interruption.) MS. SHARKEY: Yes. Thank you. We have a couple 2 3 of responses. I think the first and simplest response is we have looked for another delisting that looks -that is doing the same thing that we are proposing to do here. And we will say to you, no, we haven't seen that. With the exception, I would suppose, of being -- If you talk about a multi-source type of 9 10 leachate, if you were looking at your Waste Management proposal, of course, that was a filter 11 cake that was derived from a multi-source scenario. 12 But, again, that was not a closed landfill scenario 13 14 or a closed facility. It was an ongoing process. can tell you that we have absolutely looked for 15 delistings that have involved FO39 from a closed 16 17 landfill that accepted multiple waste streams and 18 haven't found them. But let me say to you this as well. 19 20 only reason -- Keep in mind the only reason that this landfill is deemed hazardous and that this leachate 21
- 23 2 percent of the waste was hazardous. There is an 24 excellent record of what all of that waste is. So if

22

then is deemed hazardous is because the -- because

- we're talking about some of these on-site landfill
- 2 scenarios where they have -- And some of these that
- 3 I've just mentioned previously are, indeed, on-site
- 4 leachate scenarios with ongoing -- generally ongoing
- 5 activities. They have -- They know what their wastes
- 6 are. That, as you were saying in the case of Shell,
- 7 may give some comfort of the consistency of that
- 8 waste stream.
- 9 Here in this instance we actually know real
- 10 well what the wastes were. There was a limited
- 11 period of time. The records were kept under the RCRA
- 12 program pursuant to the permit. We've put those
- 13 records -- One of the reasons your second volume, I
- believe, is as big as it is -- the binder that we've
- provided, is because it's filled with the records of
- that material, and the types of materials are well
- 17 known. If we had been limited to only looking at the
- 18 types of -- If we weren't looking at FO39, we might
- 19 have argued -- but for the fact that this went into a
- 20 landfill that also had other wastes in it, we would
- 21 have only be looking at a limited category of
- 22 materials that had gone in there. I think that --
- 23 Although we haven't seen any others, I think you can
- 24 take -- the Board should take some comfort in the

- 1 situation that we know what those waste streams are.
- 2 Again, we think -- We think we've got
- 3 greater data -- volume of data and greater controls
- 4 in this situation. And, of course, because it's
- 5 being destined for pretreatment, all of those things
- 6 go into giving greater comfort than the ones that
- 7 you've -- that USEPA has looked at where they're
- 8 ongoing operations. They're talking about land
- 9 disposal, and they don't have the kinds of very
- 10 limited -- They're not going to be pretreated.
- 11 And I quess this is the moment where I can
- 12 get this point as well. I want to make it clear that
- this material's not only going to be pretreated at a
- 14 pretreatment plant at IPC, it will then go to POTW
- where it will be treated again. So it's going to get
- 16 double treatment as opposed to those others that are
- 17 land disposal.
- 18 MS. STEINHOUR: I think it's important to note,
- if you look at all the delisting petitions, we
- 20 couldn't find a delisting petition that had as much
- 21 data covering as many years with the seasonal
- variations. That data was actually collected, and we
- have collected it over this nine-year period. In
- 24 these other instances, the source of that

- 1 nonhazardous -- that hazardous waste source was going
- 2 to remain present by placing it in a land
- 3 impoundment. With us, the source is actually being
- 4 treated, doubly treated, and then they're going to
- 5 discharge it under the Clean Water Act program. So
- 6 this isn't an instance where we're delisting it,
- 7 placing it in a lined pond or a lined landfill, and
- 8 leaving it there with the potential hazard for some
- 9 future event.
- MS. SHARKEY: I think part of that is to say, if
- there were some slight variability to occur, the
- 12 comfort you get here is that it's going to be
- 13 treated, you know. In the other scenarios, it's not.
- 14 It's just going to be there. It's going to go into
- the ground. So if they have that variability
- 16 problem, it has serious consequences. Here the only
- 17 scenario would be some variability that would be --
- 18 affects somehow the analysis done on that worst-case
- mismanagement scenario of the catastrophic spill.
- 20 But other than that, it's going to a treatment --
- 21 And, by the way, we're going to provide you with
- evidence, for the record, on the fact that the
- 23 catastrophic spill -- there's no experience of having
- that kind of spill by BFI in this region and by the

- 1 hauler that they use.
- 2 MR. RAO: I have a question relating to what you
- were just talking about, variability in leachate
- quality. You have testified that BFI has submitted
- 5 extensive leachate monitoring data to the Board, nine
- 6 years worth of data. Also, earlier Mr. Maxwell
- testified about, I think, four chemical constituents
- 8 which you found were about at delisting levels, which
- 9 I think some of them you indicated were outliers.
- 10 So did you do statistical analysis of this
- monitoring data to see what kind of variability's
- there were with the leachate quality and how that may
- affect compliance with the delisting levels?
- MR. MAXWELL: We have not.
- MR. RAO: How did you determine those values for
- 16 outliers? Was it based on a statistical analysis, or
- was it more about observing the data?
- 18 MR. MAXWELL: Primarily observing the data
- 19 relative to the other data points that were out there
- 20 and the fact that they both -- the higher
- 21 concentrations both occurred during the same sampling
- 22 events was the trigger for us thinking that there was
- something atypical or unusual about that particular
- 24 sampling event.

- 1 MR. RAO: Would it be possible to?
- 2 MR. MAXWELL: It's possible.
- MS. SHARKEY: We can give you a fuller answer to
- 4 that in our written remarks because we'd need to go
- 5 back -- I think Mike would need to go back and look.
- 6 But what I'm believing is, at the time that we looked
- 7 at it, there were other constituents that were
- 8 also -- while they didn't exceed anything, that were
- 9 also higher in that event, which led us to believe
- that there's something going on with that event, not
- just these two constituents.
- MR. RAO: Yeah. Any additional information
- relating to the variability of data would be helpful.
- We were hoping that if you had any statistical
- analysis that would also support your monitoring
- 16 frequency, that, you know, the analysis shows that
- 17 the radiations are not significant for any concern in
- 18 terms of going over the delisting levels.
- MR. MAXWELL: So the focus that you would have
- 20 would be -- or the focus that you would suggest would
- 21 be that we focus on the phase I -- the statistical
- analysis of the phase I data to try to represent
- variability within that data?
- MR. RAO: Yes.

- 1 MR. MAXWELL: Okay.
- MR. RAO: That's all we have on the monitoring
- 3 frequency.
- 4 MS. SHARKEY: We'd move then -- If there are no
- further questions on that, we would move to number
- 6 two, which was a question regarding one-time
- 7 delistings versus multi-year delistings. That
- 8 question was as follows. "Explain BFI's rationale
- 9 for not utilizing the multi-year approach to derive
- the delisting levels using the multi-year values of
- 500,000 gallons per year versus" -- excuse me --
- "5,000 gallons per year and seven-year" -- "a
- seven-year anticipated closure period." And I'm
- 14 going to take the answer to this one.
- 15 BFI's delisting petition seeks a
- 16 conditional delisting as defined in the United States
- 17 Environmental Protection Agency's National Policy for
- 18 Hazardous Waste Delistings, which was issued by
- 19 Elizabeth A. Cotsworth, C-o-t-s-w-o-r-t-h, who at the
- 20 time was acting director of the Office of Solid
- 21 Waste. This is a July 1998 document. We've provided
- 22 a copy with our prefiled testimony.
- The restrictions here do not allow for any
- amount of leachate to be directly deposited on the

- land in either a landfill or a surface impoundment,
- 2 as we've said now probably over and over again. But,
- 3 in contrast, the majority of EPA's delistings that
- 4 we've reviewed are land disposal. And I want to take
- 5 and walk through this. This is by way of getting to
- the answer to your question, but to point out that
- 7 land disposal is the focus of almost all of these.
- 8 The Automotive International Alliance --
- 9 Automotive Alliance International, that one was a
- delisting of a sludge filter cake that was going to a
- 11 Subtitle D lined landfill. The Shell was -- We
- believe that the Shell case involved going to an
- on-site facility that we believe was a land-based
- 14 facility. It's difficult to tell from -- if it was
- 15 going to a land-based, on-site treatment system. It
- 16 was going to on-site treatment. Okay. So that one
- 17 was not a landfill.
- The Department of Energy was going to a
- 19 state land disposal situation. That's the Hanford
- 20 case. Nissan was going to a Subtitle D landfill.
- 21 Tenneco to a Subtitle D landfill. Eastman to a
- 22 Subtitle D landfill. Shaparel to either an on-site
- 23 land disposal or a municipal industrial sold waste
- 24 landfill. And another one we found was a USG case

- 1 going to a Subtitle D solid waste landfill. We will
- 2 provide you, by the way, with the Federal Registers
- on all these USEPA delistings.
- 4 MS. STEINHOUR: I think it's important to note,
- 5 too, that in the Shell situation they were
- discharging directly to a stream. They weren't going
- 7 to -- like we have, to a pretreatment facility, then
- 8 to another facility that's going to pretreat it,
- 9 before it's disposed and discharged under an NPDS
- 10 firm.
- MS. SHARKEY: So rather than modeling, those
- folks did, indeed, I think -- It's unclear. It's
- very difficult --
- I shouldn't tell you this. I don't know if
- 15 you've tried to do this yourselves. But it's very
- 16 difficult to get the underlying petitions. What you
- 17 can get -- What's publically available information,
- 18 easy to get hold of, are the Federal Registers in
- which these delistings have been adopted. What's
- 20 more difficult is to actually get the petition behind
- 21 them. And we actually did get the petition behind
- the Shell case. I have to say it was a Freedom of
- 23 Information Act request. It took us -- It probably
- took six months to get an answer from USEPA, and it

- was missing a key page once we got it. As a result,
- the amount of information you have on these is
- 3 somewhat limited.
- 4 As you know, the facts involved are really,
- 5 really critical, we think, to the kind of
- 6 determination that's made in each of these cases.
- 7 But what we -- The information I've given you we were
- 8 able to derive from the Federal Registers. What
- 9 they've each done is they've -- We believe they have
- 10 modeled -- they've modeled one year of leachate in
- 11 their DRAS modeling, we believe -- or leachate waste
- 12 stream. What we've done here is not done that, and
- we've not done it because we're not going to a land
- 14 disposal unit. What we've done here is modeled what
- 15 we considered to be the reasonable worst-case
- 16 mismanagement scenario. We think that's consistent
- 17 with -- as we've said, with the Illinois
- 18 Administrative Code, Section 720.111(a)(3). I
- believe it's (j). The one that talks about the
- 20 implausible -- the plausible mismanagement scenarios
- and that that's the risk you're looking at.
- 22 In this case, of course -- We think this is
- conservative. To be honest with you, I think that
- we've been -- Some have suggested to us, "Why have

- 1 you gone this far? Why haven't you simply said it's
- going to a pretreatment facility? Why are you
- 3 modeling at all?" And the answer to this is because
- 4 we believed that the Board would like to see this
- 5 type of modeling, and it has required it in other
- 6 scenarios. But, indeed, we would point out that most
- 7 of those other scenarios were not as limited as this.
- 8 By virtue of limiting this, we've now got the only
- 9 scenario in which there could be land application,
- which is what you would be looking at with putting
- all of that material in one place.
- The only scenario is this catastrophic
- 5,000-gallon spill, and -- So we think it's
- conservative under the document that we've given you.
- But we also think it's just -- you know, that the
- 16 common sense behind this is -- should be evident.
- 17 There is no practical possibility that more than one
- tanker truck of leachate would be involved in a
- 19 catastrophic accident at the same location. We think
- 20 that there's -- We're talking about some multiples of
- the 5,000-gallon tanker truck. We think that's
- really pretty implausible. Moreover, there's clearly
- 23 no possibility that all of the tanker trucks
- 24 dispatched over an anticipated seven-year period

- would be involved in catastrophic accidents. I'm
- 2 sorry. I kind of like this. Even the more
- farfetched is that there would be a scenario where
- 4 all of these tanker trucks would be involved in an
- 5 incident -- catastrophic accidents at the same
- 6 location. And that's what you'd have to do to get to
- the scenarios that people are looking at when they
- look at land disposal and they talk about modeling
- 9 all of the material generated because they have to
- 10 because they're going into a land disposal scenario
- where all of that material actually could leach down
- into the groundwater into the ground. Here there is
- no possibility of that.
- 14 So we think we've really done the
- 15 worst-case scenario. And I want to point out that
- 16 it's consistent with -- This is consistent with the
- way that USEPA has approached coming up with the most
- 18 serious -- In the Federal OPA act, the Oil Pollution
- 19 Control Act --
- 20 MS. STEINHOUR: The Oil Pollution -- The Oil
- 21 Pollution Act. And it's a spill prevention control
- countermeasures program, the worst-case discharge
- 23 scenario.
- MS. SHARKEY: This can be found -- I've found

- 1 my notes. It can be found at 40 CFR 112, Appendix D.
- 2 They have an appendix there that is entitled
- 3 Determining Worst-Case Discharge Planning Volumes for
- 4 Purposes of Spill Prevention, Control, and
- 5 Countermeasure Plan under the Federal Oil Pollution
- 6 Prevention Regulations. So they have said one tanker
- 7 truck is the correct volume to look at.
- MS. STEINHOUR: And it's important to note that
- 9 when they developed this worst-case discharge they
- were concerned about a tanker truck that was actually
- 11 going to spill and run into a water of the US. So
- there would be some potential for transporting that
- spill across a large area other than just the ground.
- MS. SHARKEY: And I think this is a very
- important point because at this point we recognize
- 16 that the DRAS model has -- you know, generally says,
- 17 you know, put in a whole year's worth of your waste
- 18 stream and model that. But this is where we come
- 19 back to the DRAS is one tool. It doesn't fit this
- 20 situation very well. It really was a pretreatment
- and treatment situation. Therefore, it's
- inappropriate to use that one-year volume in it.
- And we looked to and we provided you with
- that 1998 policy guidance because we think that it

- explains that USEPA is well aware that conditional
- 2 listings can provide safeguards and that an agency,
- like the Board, that is charged with doing these
- 4 delistings can use its professional judgment to make
- 5 decisions where that model and where the DRAS manual
- doesn't fit precisely. And, again, we go to the 1998
- 7 policy memo where they've said, "The Agency
- 8 realizes" -- This is quote. "The Agency realizes
- 9 that for a relatively small number of petition wastes
- that are not or will not be managed under a scenario
- our generic delisting models can assess regions" --
- in this case it would be the Board -- "may have to
- consider site specific circumstances or consider
- adding specific conditions on a case-by-case basis."
- 15 And this is, of course, in their policy guidance on
- 16 conditional delistings.
- So, again, under the unconditional
- delistings, the Agency loses control. The Board
- 19 loses control. USEPA loses control of the waste
- stream. It's out of the system. Nobody -- It's
- 21 considered nonhazardous and nobody cares about it
- 22 anymore. In many states that don't have the special
- 23 waste manifesting like Illinois does. The material
- 24 might not even be tracked at all. The opposite is

- true where you have a conditional delisting. And,
- 2 again -- I won't go over it again and again.
- 3 The conservative assumptions that EPA has
- 4 made in its DRAS model and including -- assuming that
- 5 all of the waste generated will be disposed of in one
- 6 unlined landfill don't need to be made. You don't
- 7 need to have 100 percent assurance in this situation
- 8 from that because you are getting assurance from the
- 9 conditional delisting itself. And we've put more on
- this in the record in our prefiled testimony.
- But I would like to take you back to the
- Board's own response to Waste Management in an
- opinion in AS 05-07 where the Board found that Waste
- 14 Management had proposed to use a model that was for a
- 15 lined landfill instead of for an unlined landfill.
- The Board said, you know, "That's inconsistent with
- 17 USEPA policy. You really can't do this." But they
- 18 said, "What you can do is come back to us and tell us
- 19 why you can do this" -- "or why it is consistent."
- 20 And I'm going to quote here. I'll take the quote.
- "While having no bearing on risk and hazard analysis,
- Waste Management, Inc., may also propose adjusted
- 23 standard language that would condition the delisting
- on the disposal of the petitioned waste. For

- 1 example, only in a lined landfill."
- 2 So here was an instance -- We point this
- out because this is an instance of the Board itself
- 4 saying -- recognizing that even if -- even if your
- 5 modeling is different, if you're going to model for a
- 6 different scenario, you need to limit your adjusted
- 7 standard to that scenario. And so that's what we've
- 8 done. We think that it's very consistent with what
- 9 the Board said in Waste Management.
- I don't want to be repetitive. I guess I
- would just close by saying that we think this is an
- instance in which the use of the total volume of the
- material here does not comport with the -- with any
- reality involved with this situation. There's no
- 15 common sense scenario that would result in the total
- 16 volume being released to the environment. Apart from
- 17 that, the EPA has allowed this kind of thing.
- 18 There's latitude under the EPA policy documents for
- 19 fashioning in a conditioned, adjusted standard here
- that would address the concerns.
- 21 I think I will leave it at that. I'll be
- 22 happy to answer any questions.
- 23 HEARING OFFICER HALLORAN: Mr. Ingersoll?
- MR. INGERSOLL: No.

- 1 HEARING OFFICER HALLORAN: Mr. Rao? Ms. Liu?
- MS. LIU: Can I have a moment to confer?
- 3 HEARING OFFICER HALLORAN: Sure.
- 4 (WHEREUPON, there was a short
- interruption.)
- 6 MR. RAO: I just had a follow-up. This is more
- 7 related to what you testified earlier about getting
- information from Shell Oil.
- Just reviewing the Shell Oil decision that
- you had attached to the prefiled answers, it seemed
- like they used one year's worth of leachate that they
- generated. It seems like they used that -- At least
- they say they used the maximum volume. So in the
- information you got from them -- Because it's hard to
- tell from the Federal Register that they used. So I
- 16 just wanted to know did you get that information from
- 17 them as to what volumes or how they modeled?
- MS. SHARKEY: I'm smiling because last night I
- 19 asked my colleague at my law firm to look into that
- 20 very question because we were asking ourselves -- We
- 21 know what the volume was they talked about, but we
- don't know what they used in their model. We know
- 23 what their annual production was. We're not sure
- 24 what they used in their model. I don't think -- We'd

- 1 be happy to provide you with the portion of that --
- of the application from Shell that talks about that,
- 3 if that would be helpful. But we believe -- I'm
- 4 getting the nod that we believe that the amount used
- 5 was their annual volume
- 6 MR. RAO: Okay. In going through the additional
- 7 information you got from Shell, were you able to
- 8 discern why they did maximum volume over -- I don't
- 9 know how many years they modeled. When I was looking
- 10 at it, it seemed like their situation was similar to
- BFI's except they were hardpiping their leachate to
- the on-site treatment plant instead of shipping it
- out. But the modeling for -- If you can answer that.
- 14 If have you any comments to make on that, it would be
- 15 helpful to distinguish their situation from BFI's.
- 16 If not now, in comments that's fine, too.
- 17 MS. SHARKEY: I would like to make a note of
- that and get back to you in writing with an answer on
- 19 that question.
- MR. RAO: That would be helpful.
- MS. SHARKEY: Thank you.
- 22 MR. RAO: That is just a clarification question
- I had based on your response.
- 24 On page 5 of your prefiled answers and

- 1 looking at footnote 2, this footnote states that --
- 2 as follows. "Like RCRA treatment regulations, the
- 3 Clean Water Act provides regulatory assurance that
- 4 the leachate in this case will be treated to
- 5 nonhazardous levels at the wastewater treatment
- facility before discharge to environment. Therefore,
- 7 there is no risk associated with the disposal of the
- 8 entire multi-year volume of leachate."
- 9 Could you please explain what the phrase
- "treated to nonhazardous level" means in the context
- of this proposed standard?
- MS. SHARKEY: We're talking at the treatment
- 13 plant?
- MR. RAO: Yes.
- MS. SHARKEY: Well, we believe that the
- 16 treatment process at IPC and then the subsequent
- 17 treatment process at the POTW will assure compliance
- 18 with the Clean Water Act standards. Therefore,
- 19 they're going to be treated to a level of treatment
- that is equivalent -- that would be at a nonhazardous
- 21 level.
- MR. RAO: When you say that it would be
- 23 treated -- the leachate would be treated to
- 24 nonhazardous levels at the treatment plant, will they

- 1 be specifically focusing on all the constituents that
- are listed in Table A of the proposed language or
- 3 whatever the applicable water quality standards are
- 4 specified in their NPDS permit?
- 5 MS. SHARKEY: I think it's certainly the latter.
- 6 They're going to be treating this waste stream, as
- 7 they do every waste stream, for the constituents that
- 8 are -- I want to say that are trigger constituents,
- 9 that are constituents that are deemed to allow them
- 10 to -- If they treat for this particular constituent,
- 11 they are assumed to be treating for others. I
- believe that that's the way they work. I probably
- should defer to Mr. Maxwell to answer this question.
- 14 MR. MAXWELL: Indicator parameters. They would
- be indicators of an overall issue.
- MR. RAO: Okay.
- 17 MS. LIU: You mentioned earlier, I think, that
- 18 the leachate from the other two phases goes to IPC
- 19 already --
- MS. SHARKEY: Correct.
- 21 MS. LIU: -- and that there was no statistical
- 22 difference really that you found between the
- 23 constituents and their concentrations and the
- 24 leachate in the other two phases, and so far IPC

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- 1 hasn't shown any concerns with the type of discharge
- they're getting from their treatment process; is that
- 3 correct?
- 4 MR. MAXWELL: That's correct, yes.
- 5 MS. SHARKEY: I just want to make it clear, and
- 6 I think your question was going there.
- 7 The kind of treatment that they'll be
- 8 getting there will be -- There will be some testing
- 9 to ensure that this material can be handled. And we
- 10 actually have obtained -- through a Freedom of
- 11 Information Act request to Illinois EPA have obtained
- 12 files on IPC and what their treatment process is. We
- wanted to see the entire thing. And we have looked
- 14 at what the treatment process is. It does involve
- pretesting of the materials that come in, and it does
- 16 involve then several levels of chemical treatment
- that I believe our technical people -- and I probably
- 18 ought to ask Beth and Mike to answer this. But we
- 19 believe maybe -- it's as good as or better than
- 20 actually the treatment that the same material -- that
- 21 the hazardous material right now is receiving was
- 22 receiving at CID at its facility.
- MR. MAXWELL: I would agree with that.
- 24 MS. STEINHOUR: And these facilities -- This

- isn't the only wastewater that they treat. Like you
- 2 say, they're accepting wastewater from the
- nonhazardous units. They're accepting wastewater
- 4 from other industrial facilities, as well as what
- 5 they're receiving from the local communities. So,
- 6 you know, what we found is whenever we're asking
- 7 wastewater treatment facilities to accept
- 8 nonhazardous waste leachate they look at the
- 9 leachate. They look at their pretreatment program
- because this is data that they have to provide to the
- 11 Illinois EPA in order to have an approved
- 12 pretreatment program. So they're very cognizant of
- what they can accept, what they can treat, and how
- 14 that impacts their destruction of it.
- In this case, you not only have one entity
- 16 besides BFI that's going to be looking at the
- 17 leachate, you're going to have the second entity,
- 18 which is the Rock River Reclamation District. So
- 19 through the line, unlike Shell who has one
- 20 pretreatment and then the discharge, ours is going to
- 21 an independent entity that's going to be looking at
- 22 it and then to a second independent entity that will
- 23 be looking at what they're receiving.
- MS. SHARKEY: Mr. Halloran, I wonder if it would

- 1 be appropriate at this point -- I know this will, to
- 2 some extent, interfere with our -- the way we're
- 3 proceeding. But, as you know, BFI met with Illinois
- 4 EPA to discuss the adjusted standard over many years.
- In addition, we met with them after they filed their
- original recommendation, which was for denial of this
- adjusted standard. After that meeting and further
- 8 discussion, the Agency changed its position and filed
- 9 a recommendation with no objection to this adjusted
- 10 standard. You'll notice that some of what went in
- there in the change -- And we filed with our response
- to that document an amended petition that included
- the language that it shall have an improved -- USEPA
- 14 approved pretreatment program at the facility that
- 15 it's going to.
- My question here is whether or not it would
- be useful to have Illinois EPA's perspective on the
- 18 pretreatment program at this point in the record or
- if we just want to save that for later? I don't want
- 20 to speak for the Agency, but I believe the
- 21 Agency's -- part of the Agency's change in their
- position was, indeed, based on the fact that they are
- 23 satisfied that the pretreatment program would address
- 24 any issue that -- any constituents in that waste

- 1 stream.
- 2 HEARING OFFICER HALLORAN: Mr. Ingersoll, do you
- 3 have any preference on whether you want to call
- 4 Mr. Crites now or later?
- 5 MR. INGERSOLL: I have no preference. If we are
- 6 going to put him on, I want to have a short break
- 7 before we do so. And I would like to ask one
- 8 question.
- 9 Has BFI gone through a waste acceptance
- 10 process with IPC yet on this waste stream?
- MS. SHARKEY: I don't think that we have gone
- through -- that we have gone though them formally
- with this particular waste stream, no.
- 14 MR. INGERSOLL: You have looked at what their
- 15 acceptance protocols are?
- MS. SHARKEY: They have seen the data. I'm
- 17 being told by the BFI principals here that they have
- 18 shared their data from this particular unit, which is
- 19 called the phase 1 unit, with the IPC personnel. And
- they, of course, know very well the data from the
- 21 other units that are exposing their leachate there on
- 22 a regular basis, which is very similar. But the
- answer I think, Mr. Ingersoll, is yes.
- MR. INGERSOLL: Okay. Thank you.

- 1 HEARING OFFICER HALLORAN: Let's go off the
- 2 record for a second.
- 3 (WHEREUPON, discussion was had
- off the record.)
- 5 HEARING OFFICER HALLORAN: We're back on the
- for record. We're going to take a ten-minute break.
- 7 We'll be back on the record then. Thank you.
- 8 (WHEREUPON, a recess was had.)
- 9 HEARING OFFICER HALLORAN: Mr. Ingersoll, you
- 10 wanted to call Mr. Crites?
- 11 MR. INGERSOLL: Yes. Mr. Crites, could you take
- 12 the witness stand.
- 13 HEARING OFFICER HALLORAN: Raise your right hand
- and the court reporter will swear you in, please.
- 15 (WHEREUPON, the witness was duly
- sworn.)
- 17 MARK L. CRITES,
- 18 called as a witness herein, having been first duly
- 19 sworn, was examined and testified as follows:
- 20 DIRECT EXAMINATION
- 21 BY MR. INGERSOLL:
- Q. Please state your name and spell your last
- 23 name, please.
- A. My name is Mark Crites. The last name is

- 1 C-r-i-t-e-s.
- Q. Could you give us a description of your
- 3 educational background and your experience?
- 4 A. I have a bachelor of science in mechanical
- 5 engineering from Southern Illinois University at
- 6 Carbondale. I've been working for Illinois EPA since
- 7 1990 as a hazardous waste permit reviewer. I've done
- 8 reviews on various hazardous waste-related issues,
- 9 including other hazardous waste delistings,
- 10 regulatory development. If it's related to hazardous
- 11 waste, I've pretty much worked on it.
- 12 Q. Could you describe your involvement in this
- matter that led to the initial Agency recommendation?
- 14 A. We were contacted several years ago by BFI
- representatives saying that they were interested in
- 16 potentially delisting the leachate coming from the
- 17 phase I landfill at the Davis Junction facility.
- And, you know, we met with them and, you know, made
- it clear that it's a decision made by the Illinois
- 20 Pollution Control Board, but that Illinois EPA does
- 21 provide comments to the Board. It would be a good
- idea for them to work out things with us in advance
- 23 to try to minimize the disagreements.
- 24 We met with them a few times over that

- 1 period and reviewed a few draft documents, sampling
- 2 plans, analytical plans, and so forth. Eventually
- 3 they submitted a petition to the Board, and we did a
- 4 formal review on that. And we submitted our initial
- 5 comments that we weren't happy with the proposed
- 6 level for the 1, 4 dioxane.
- 7 Q. So you provided comments to the Division of
- 8 Legal Counsel for incorporation into the Agency's
- 9 position, correct?
- 10 A. Yes.
- 11 Q. And so all of the technical concerns of the
- 12 Agency -- technical and regulatory concerns of the
- 13 Agency found their way into that recommendation,
- 14 didn't they?
- 15 A. Yes.
- Q. That was filed in March of this year.
- 17 And then what interaction did you have with
- 18 BFI representatives following that?
- 19 A. We met with them once after the -- after
- they submitted the petition, but before we submitted
- our first comments. And then I believe we had a
- 22 phone conference call with them after our comments
- were submitted to the Board.
- Q. And what were the technical concerns that

- found their way into the Agency's recommendation?
- 2 A. Well, our initial concerns were with regard
- 3 to the modeling and going outside of the DRAS model
- 4 for -- especially for the one parameter for the
- 5 1, 4 dioxane and exceeding the land disposal
- 6 restrictions for that particular constituent as a
- 7 recommended delisting level. In discussing it with
- 8 them afterwards and in BFI proposing the more
- 9 restrictive conditions on the delisting, we felt like
- we were eliminating that potential mismanagement
- scenario by restricting the delisting so that it only
- applies if it meets the proposed delisting standards
- and is sent to a permitted pretreatment facility.
- Q. Permitted by USEPA --
- 15 A. By USEPA.
- 16 Q. -- through the Clean Water Act?
- 17 A. Through the Clean Water Act, yes.
- 18 Q. Did you -- Was there some issue about
- 19 transport catastrophes or --
- 20 A. Well, again, that was kind of our initial
- 21 concern. You know, we were focusing on the modeling
- and, you know, what would happen if there was an
- 23 accident. When BFI proposed the delisting would not
- 24 apply if the waste did not make it to that authorized

- 1 pretreatment facility, we felt like it kind of
- 2 sidestepped that issue of the modeling.
- Q. So the DRAS model may, in fact, be less
- 4 factually applicable than previously thought?
- 5 A. Exactly. You know, you have all these
- 6 controls in place.
- 7 MR. INGERSOLL: I have no further questions.
- 8 HEARING OFFICER HALLORAN: Okay. Mr. Inqersoll.
- 9 Ms. Sharkey?
- MS. SHARKEY: Just one follow-up question.
- 11 CROSS-EXAMINATION
- 12 BY MS. SHARKEY:
- Q. Mr. Crites, was it the Agency's position
- then that the pretreatment program -- a pretreatment
- program that was authorized by USEPA would be
- 16 sufficient to treat the leachate at issue here to
- 17 Clean Water Act standards?
- 18 A. Yes. We believe that's the case.
- MS. SHARKEY: No further questions.
- 20 HEARING OFFICER HALLORAN: Mr. Rao? Ms. Liu?
- MR. RAO: Just a clarification.
- 22 When you say that the pretreatment program
- is adequate to meet the Clean Water Act standards, do
- you mean that if it's pretreated it can be discharged

- 1 to waters of the state directly, or does it have to
- 2 go one more step?
- 3 MR. CRITES: They -- It will be discharged to
- 4 the POTW, so really it's a two-part process.
- 5 MR. RAO: When you are talking about complying
- 6 with the Clean Water Act standards, pretreatment is
- 7 only one step of it?
- 8 MR. CRITES: Yes.
- 9 MR. RAO: Thank you.
- I may have one more question that I wanted
- 11 to pose to the Agency later. Can I do it now?
- MR. INGERSOLL: It's up to you. We're here at
- 13 your disposal.
- MR. RAO: This may be a question -- I don't know
- whether it's for Mr. Crites or the Agency's counsel.
- We just wanted to get an idea as to how
- this delisting standard, if granted by the Board,
- 18 will be implemented. Is there any need for US EPA's
- 19 approval for this delisting standard?
- MR. INGERSOLL: Not to my knowledge.
- 21 MR. RAO: Okay.
- 22 MR. CRITES: It's a delisting that would only be
- 23 effective within the state of Illinois, so I don't
- see a need for US EPA's approval.

- 1 MR. INGERSOLL: The State is authorized.
- 2 MR. RAO: The reason I ask is in some of the
- water delisting standards that the Board grants we
- 4 have heard from the Agency saying that if -- you
- know, the Board's -- if the board grants a delisting
- 6 standard for -- in a certain way that USEPA will not
- 7 approve it. And I think they made us change the
- 8 language in some of the delisting standards. I just
- 9 wanted to get a clarification.
- 10 MR. INGERSOLL: I can comment better after
- 11 checking with all of the liaisons -- the record
- 12 liaisons. In my experience, at least in the RCRA
- program, we have that same kind of problem.
- MS. STEINHOUR: Can I add something to that?
- 15 When we were -- at first initially met with
- 16 Illinois EPA, we were actually working with USEPA on
- a delisting petition in the state of Indiana. So the
- 18 person that -- I wasn't the person directly that had
- 19 contacted USEPA. It was Ann Fritz from our office
- 20 who had talked to USEPA about this delisting petition
- 21 in Illinois that we were going to talk to Illinois
- 22 EPA about. They said, "Well, you need to make a
- decision. Are you delisting this on the national
- level? If you are, to allow this to be a delisted

- 1 waste that's transported to Indiana or to Missouri or
- wherever, you need to come to us and get the
- delisting petition. If you're delisting it within
- 4 the state of Illinois, don't talk to me. You need to
- 5 talk to Mark Crites."
- 6 MR. RAO: Okay. That helps.
- 7 MS. STEINHOUR: So we met with the Illinois EPA
- 8 then.
- 9 MR. INGERSOLL: And we had this definitely
- 10 within the authorized parts of our program.
- MR. RAO: And that's one of the conditions, that
- the delisted waste will be disposed of in Illinois?
- MS. STEINHOUR: Right.
- 14 MS. SHARKEY: Can I just ask, Mr. Rao? Would it
- 15 be possible -- You've got, you said, some water
- 16 matters, adjusted standards, where this question was
- 17 raised?
- 18 MR. RAO: I don't know how well I can recall.
- 19 But the issue was the Board granting adjusted
- standard from complying with the water quality
- 21 standard and IEPA coming back and telling us, "No.
- You have to change the water quality standard. You
- 23 cannot just say this particular facility will not
- 24 meet the water quality standard and the reason is

- that USEPA will not allow such a change."
- MS. SHARKEY: I can understand that.
- MR. INGERSOLL: Maybe the waters of the state
- 4 are also waters of the United States in that
- 5 situation. All of this activity is occurring within
- 6 our state.
- 7 MR. RAO: This is just something that we wanted
- 8 to --
- 9 MR. INGERSOLL: Okay. Like I say, I will check
- further both with the water people who go through
- this experience that you're talking about and try to
- 12 explain a little better why --
- MR. RAO: No. The only reason I bring it up is,
- if the board grants an adjusted standard, you know,
- 15 consistent with the federal actions, is there one
- 16 more revenue by the facts, or what --
- 17 MS. SHARKEY: It sounds very distinguishable
- 18 from what we've got here, but we'd be happy to
- 19 address that in our follow-up remarks as well.
- MR. INGERSOLL: As will we.
- 21 MR. RAO: Thanks.
- 22 HEARING OFFICER HALLORAN: Sir, you may step
- 23 down. Thank you.
- MS. SHARKEY: Thank you for taking that out of

- order. I appreciate it because I believe that it
- 2 provides context to put together the discussion of
- 3 the adequacy of the pretreatment at the point that
- 4 it's being discussed in the record.
- If the Board doesn't have any other
- 6 questions -- I believe we were -- it was the Board's
- 7 question that led to having the Agency's witness
- 8 sworn in. I don't know if the Board has any other
- 9 questions or if we should go on to our next question.
- 10 HEARING OFFICER HALLORAN: Go on to the next.
- 11 think you're on 3.
- MS. SHARKEY: Mr. Maxwell is going to address
- 13 this one.
- MR. MAXWELL: The third topic that was raised by
- 15 the Board had to do with the constituents of concern.
- 16 We were asked to elaborate on the test results for
- 17 the FO39 constituents that were listed in the Board's
- 18 Attachment A that do not seem to appear to be in
- 19 Appendix D of our petition, and Appendix D of our
- 20 petition was our analytical results.
- We realized after reviewing this comment
- 22 that the statement in the petition indicating that
- 23 all FO39 constituents were analyzed went above and
- 24 beyond the data that we actually had. The

- 1 clarification that we made with the prefiled
- 2 testimony is that all of the normally analyzed
- constituents were analyzed. And the list that we're
- 4 required to look at on a regular basis are the
- 5 40 CFR 264, Appendix 9, constituents. So those were
- 6 the constituents that were evaluated.
- Just one point of clarification. One
- 8 parameter that was listed by the Board p nitrol
- 9 phenol it actually is on Appendix 9. And we did have
- analytical data on that particular constituent, and
- the results were non-detect. I just wanted to
- 12 clarify that.
- The Appendix 9 parameters that we did
- evaluate, they're intended to encompass the likely
- 15 constituents that are found in a hazardous waste
- 16 landfill leachate and/or environmental monitoring
- 17 during complying monitors. Also, the Appendix 9
- parameters are also referenced in the delisting
- 19 guidance manual as representing the minimum
- 20 constituent list. Finally, that list -- that
- 21 Appendix 9 list was also the basis of the petition
- 22 that we referred to that Shell has submitted as well.
- We think that, based upon all of the above,
- that the constituents other than p nitrol phenol that

- were specified in the comment are atypical
- constituents and they're not likely to be found in
- 3 the leachate. We don't see the rationale for
- 4 continuing to monitor for those especially given the
- 5 stringent proposed adjusted language required in the
- 6 pretreatment and final treatment.
- 7 I guess I'd like to pause at that point to
- 8 see if there's any question on that information
- 9 before proceeding.
- 10 MR. INGERSOLL: Nothing.
- 11 HEARING OFFICER HALLORAN: Thank you,
- 12 Mr. Ingersoll.
- Ms. Liu? Mr. Rao?
- MS. LIU: You do mention in your prefiled
- 15 testimony plans to obtain analysis for those
- 16 parameters. Are you still planning to do that?
- MR. MAXWELL: Well, we wanted to clarify that
- here today. Our position is that we're prepared to
- 19 do that if it would -- if it would foster the
- approval. We think, though, the rationale is not to
- 21 do it.
- MS. SHARKEY: If I could ask a question.
- 23 Could you explain, for the record, the
- 24 effort that you went to to determine how we could get

- these additional atypical constituents analyzed? And
- explain -- I think it needs also to be said did BFI
- 3 request -- Maybe I'll ask this as a direct question.
- 4 Did BFI request that the FO39 -- to your
- 5 knowledge, that all FO39 constituents be analyzed?
- 6 MR. MAXWELL: We did request that with the
- 7 analytical laboratory. It was only upon receipt of
- 8 the Board's comment that we realized that the
- 9 laboratory unfortunately wasn't able to deliver on
- our request. As a result, we followed up with the
- laboratory. And, in fact, it was necessary to
- consult a couple of different laboratories to be able
- to find a specific laboratory that would be able to
- do all of the parameters that were listed by the
- 15 Board.
- MS. SHARKEY: Have you found a single laboratory
- 17 that's able to do that?
- MR. MAXWELL: We have not found one laboratory
- that would be able to do all of the parameters that
- 20 were listed. If it's required -- or if it's
- 21 determined that these parameters need to be analyzed,
- 22 we would have to send one sample to one lab and then
- a separate sample to another lab.
- MS. SHARKEY: Are there any specific problems

- that may arise when you're using different
- 2 laboratories for different samplings?
- MR. MAXWELL: Yes. Generally, good technical
- 4 policy is you would prefer to limit the number of
- 5 laboratories involved in a project. Even though
- 6 standard methods are utilized, they're -- oftentimes
- 7 inconsistencies are introduced as a result of the
- 8 laboratory. One would rather not have different
- 9 laboratories involved if one could help.
- MS. STEINHOUR: Isn't it correct that the
- laboratory that has been actually running the samples
- for BFI Waste Systems have tried to keep it as
- 13 consistent as possible?
- MR. MAXWELL: In fact, yes. All of the data
- that was presented in our original petition was
- generated by one laboratory, Heritage in
- 17 Indianapolis.
- 18 MS. LIU: Could I jump in?
- MS. SHARKEY: Yes, please.
- 20 MS. LIU: There was one constituent of concern
- 21 that jumped out at me that was among the FO39
- constituents, but not included in your analysis so
- far. Although you've made some discussion as to
- 24 perhaps why those other ones wouldn't necessarily

- 1 necessitate testing, there is one in particular.
- In attachment 1 of your original petition
- on page 6, the third paragraph down, I'll read it.
- 4 "Of the total hazardous waste disposed of in phase 1
- 5 unit, approximately 96 percent of the 26,000 cubic
- 6 yards consisted of heavy metal sludges, " on and on.
- 7 "And some of the wastes consisted primarily of spent
- 8 solvent still bottoms, spent solvent sludges." It
- goes on. And then the last thing mentioned is
- 10 pthalic anhydrite as one of the FO39 constituents for
- which no analysis was provided, but you specifically
- mentioned that it was present in the waste.
- 13 MR. MAXWELL: I think what I can do is look to
- see which specific laboratory is able to analyze
- pthalic anhydrite, and there's a good potential that
- that's going to be the lab that we've used all along.
- 17 So let me look into that, and we can get information.
- 18 MS. LIU: It would just help to complete the
- 19 picture since you did raise it as one of the specific
- things that was disposed of.
- MR. MAXWELL: Sure.
- 22 MS. SHARKEY: Can I have ask follow-up question
- 23 on that?
- If they could analyze it now, is there a

- 1 reason they didn't analyze it in the first place?
- MR. MAXWELL: The reason was that it's not part
- of their standard VOC or SVOC analysis, whichever
- 4 category that happens to be in. You've got to
- specifically request it. We thought we did request
- 6 it by asking for the FO39 constituents. But we'll
- 7 have to remind them obviously this time around that
- 8 that specific analysis is of interest.
- 9 MS. SHARKEY: And I guess I would -- If I may
- ask the Board if that would be adequate in terms of
- responding to your question? I'm sort of hearing
- that that's the constituent that really was of
- 13 concern. Given the -- some difficulties that are
- 14 posed by going through different laboratories for
- different constituent analysis, would it be
- satisfactory to simply test for this particular
- 17 constituent, which we can do at the same laboratory,
- and would you still want to see that additional
- 19 analysis from other laboratories to answer your
- 20 questions?
- MS. LIU: I don't think that's my call.
- MR. RAO: Yeah. We just, you know, review it
- and let you know what we think is maybe missing. So
- you can make a judgment call.

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MS. SHARKEY: We're in a process here that's
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- difficult to communicate sometimes. We would like to
- 3 provide -- As I said, we think there's a risk going to
- 4 another lab of inserting more ambiguities into our
- 5 data. But if -- Obviously there's been a tremendous
- 6 amount of work done on this petition. If that were a
- 7 critical point for the Board, we'd request that the
- 8 Board provide us with an opportunity to get that to
- 9 you if that would be critical to your decision.
- 10 HEARING OFFICER HALLORAN: You've made your
- 11 comment. It's on the record. If that's the case,
- the Board will probably notify me. There's a hearing
- officer order addressing such.
- MS. SHARKEY: Very good. Thank you.
- 15 MR. MAXWELL: Moving on then to comment number
- 16 4. It has to do with the final list of constituents
- of concern. The question was, "Please elaborate on
- 18 BFI's reasons for not including certain specified
- 19 constituents in the final list of constituents." The
- answer to this is that there were constituents --
- 21 four constituents that were identified that were
- 22 inadvertently left off of what we called the final
- list of constituents, which was the list of
- 24 constituents that we modeled in the DRAS model.

Upon receipt of the comments from the 1 Board, we did rerun the DRAS model, and we included 3 those four constituents that were cited by the Board. The results from the revised DRAS model indicated that the default delisting levels that DRAS produced for those four parameters were less than -- or that the maximum detected concentrations in the leachate were less than the DRAS generic delisting levels. There were three constituents that were cited in this comment by the Board that were not part 10 of the constituents available as part of the DRAS 11 model, and, therefore, could not be modeled in 12 accordance with DRAS. In order to address those 13 three constituents, BFI undertook an analysis of 14 15 other applicable standards that were out there. looked at the class I groundwater quality standards, 16 the USEPA secondary contaminate levels for drinking 17 water, and we also reviewed data in the IRIS 18 19 database. 20 As summarized in our response, using those three various criteria, we found that the 21 concentrations that were present in the leachate did 22 not exceed any of those specific generic standards. 23 24 So we think that the other three parameters, although

- 1 they're not in DRAS, the concentrations of the
- 2 leachate do not present any significant health
- 3 concern.
- 4 MS. SHARKEY: And did we provide that data in
- 5 the response to the prefiled testimony?
- 6 MR. MAXWELL: There was revised output from the
- 7 DRAS model. It was provided previously, yes.
- 8 HEARING OFFICER HALLORAN: It that it for
- 9 number 4?
- MR. MAXWELL: That's all we have for number 4.
- 11 HEARING OFFICER HALLORAN: Mr. Ingersoll,
- 12 anything?
- MR. INGERSOLL: Nothing. Thank you.
- 14 HEARING OFFICER HALLORAN: Ms. Liu?
- MS. LIU: Mike, you and I received an e-mail
- 16 from Todd Ramaly at USEPA, which we docketed as
- 17 public comment number 1. He included some background
- information on updates to the DRAS software. I was
- 19 wondering whether or not anything in there struck you
- as an update that you might want to make to what you
- 21 submitted in your prefiled testimony?
- 22 MR. MAXWELL: That is comment number -- It's the
- last comment? Do we want to jump ahead? Is that
- 24 okay? That's the comment relative --

- 1 MS. SHARKEY: Question number 8.
- 2 MS. LIU: I apologize.
- MR. MAXWELL: We can jump to 8, if you'd prefer.
- 4 MR. RAO: You might as well since she asked the
- 5 question.
- 6 MR. MAXWELL: Comment number 8 had to do with
- 7 the DRAS Version 2 user alert. Since DRAS Version 2
- has been issued, time has gone by. They found
- 9 various quirks and various errors in the DRAS
- 10 Version 2 model. I'm told that they're working on a
- DRAS Version 3, but it's close to being out now for
- 12 over a year.
- 13 EPA suggested looking at these various
- 14 factors that were laid out in the user alert. I've
- 15 looked at -- And the first issue was the dilution
- 16 attenuation factors or the DAF's. The user alert
- pointed out that the DAF's were landfills. It's
- incorrect, as has been discussed earlier. We're
- 19 modeling a surface impoundment scenario. But the
- 20 DAF's for various parameters that were cited in our
- 21 petition were zero for these few constituents, and
- that doesn't allow the model to run.
- 23 We discussed with Mr. Ramaly at USEPA what
- the appropriate DAF's were for a surface impoundment.

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- 1 Unfortunately, he did not have significant experience
- with a surface impoundment and wasn't able to readily
- give us the proper DAF's for those parameters. He
- 4 indicated that he would get back to us. This was a
- week ago. We haven't heard from him since we
- spoke -- since he issued that e-mail about a week
- 7 ago.
- 8 But what we have done is we have inserted a
- 9 dilution attenuation factor, a non-zero number,
- 10 because you have to have a non-zero number.
- 11 Otherwise, the model won't run. We have selected the
- lowest dilution attenuation factor for the various
- categories of chemicals that we're modeling. We
- think that that's conservative in the absence of
- hearing anything otherwise from Mr. Ramaly. So
- that's how we've addressed the dilution attenuation
- 17 factor question.
- 18 Questions?
- 19 MS. LIU: There's additional information that he
- 20 included in his e-mail as to toxicity values and
- things like that that would have been modified in a
- 22 Version 3 of the DRAS. Are those consistent with the
- ones that you updated on your own?
- MR. MAXWELL: We've looked at the items that

- were updated since DRAS came out, and in our prefiled
- 2 testimony we cited a number of different constituents
- for which the toxicity factors have changed. We've
- 4 updated those in the revised model that was submitted
- 5 with the prefiled testimony. So there's nothing,
- other than the updates, that were included in our
- 7 prefiled testimony relative to the updated toxicity
- 8 factors.
- 9 MS. SHARKEY: Is that going to the IRIS database
- 10 at this point?
- MR. MAXWELL: Yes, that's right. IRIS database.
- MS. SHARKEY: And have you submitted updated
- DRAS modeling data then with that to --
- MR. MAXWELL: We have.
- MS. SHARKEY: That was submitted along with the
- prefiled testimony?
- 17 MR. MAXWELL: Yes.
- 18 MS. LIU: And you believe that's consistent with
- 19 what USEPA provided us?
- MR. MAXWELL: Yes.
- MS. SHARKEY: Do you want to address these other
- 22 elements of question number 8?
- MR. MAXWELL: Jumping back to number 2, the
- 24 second item addressed in the user alert was the

- 1 carcinogenic/noncarcinogenic effects. That was
- 2 pointed out in the user alert that -- for certain
- 3 parameters that have both effects. The proper means
- 4 for evaluating them is to enter them twice into the
- 5 DRAS model. We have listed a number of constituents
- in our prefiled testimony for which that was that the
- 7 case. They have both carcinogenic and
- 8 noncarcinogenic effects. We did enter those twice in
- 9 the model. We reran the model submitted with the
- 10 prefiled testimony. It turns out that the delisting
- levels that were produced under the carcinogenic and
- 12 noncarcinogenic factor approach were the same. So we
- have updated our model, but it doesn't significantly
- 14 change our conclusions.
- And then the final issue was -- that was
- raised in the user alert is this idea of the fish
- 17 ingestion and the air volatiles pathway. Now, this
- one I have looked at subsequent to the filing that
- was made filed -- or the prefiled testimony. The
- 20 fish ingestion -- The issue is that the
- 21 calculation of -- the delisting levels that are
- 22 produced by DRAS for the fish ingestion and the air
- volatiles pathway in some cases may be inaccurate.
- 24 I've looked closer at that and found that

- the fish ingestion pathway isn't a relevant pathway
- that's part of our risk for any parameter. However,
- the air volatiles pathway is a part of the risk for
- 4 several different parameters. The user alert
- 5 provides an equation to hand calculate the delisting
- 6 level for that specific pathway, which I've done for
- 7 all the parameters that we modeled for which the air
- 8 volatile pathway was part of the risk. And we found
- 9 that in the case of every parameter, except for two,
- the delisting level that was produced using the air
- volatiles pathway was actually higher than the
- delisting level that we used. So that has no
- influence at all on our delisting levels because you
- want to propose the most stringent delisting level.
- There were two parameters that we
- 16 identified where the delisting level for the air
- volatiles pathway was less than the delisting level
- that we proposed. Consequently, I think it's
- appropriate to submit as a follow-up to this hearing
- a revised explanation indicating what's been
- 21 performed since we spoke with USEPA.
- MS. SHARKEY: And those constituents were
- produced. Tell us what the constituents were.
- 24 MR. MAXWELL: They were cis-1,3 dichloropropene

- 1 and heptachlor.
- MS. SHARKEY: And the maximum detected leachate
- 3 concentrations were below the air exposure pathway?
- 4 MR. MAXWELL: Yes.
- 5 MS. SHARKEY: I guess what we're proposing is
- 6 that we will submit a revised -- I don't want to call
- 7 it a petition. But we're going -- We'll submit a
- 8 revision with our comments -- a suggested revision
- 9 that would incorporate those new levels into the list
- of delisting levels that we will be sampling for.
- If there are no other questions, the next
- is number -- I believe it was number 5, which is a
- question that I was going to answer. This pertains
- to land disposal restrictions. The question is,
- "Please explain whether USEPA delisting guidance or
- policy allows delisting levels for constituents of
- 17 concern to be higher than the land disposal
- 18 restriction universal treatment standards, " which,
- 19 for the court reporter's benefit, we refer to as LDR
- and UTS.
- Our response to this question is that UTS
- are technology-based standards. They must be met
- 23 before a waste -- a hazardous waste can be applied to
- 24 the land -- can be land disposed. As the name

- implies, land disposal restrictions, they are
- 2 intended for disposal scenarios that involve land.
- They are, indeed, technology based. The record on
- 4 the adoption of those -- the UTS standards is very
- 5 clear on this point that the distinction between --
- 6 Excuse me. It's very clear on this point, and there
- 7 is a lengthy discussion in the preamble to the
- 8 adoption of the land disposal restrictions,
- 9 particularly the third third.
- There were three sets of land disposal
- 11 restriction regulatory dockets, and in a third
- they discuss the issue of the relationship between
- land disposal restrictions and the universal
- 14 treatment standards concentrations that were
- developed for those and risk-based health and
- environmental hazard-based limits. And they make it
- 17 very clear that USEPA was unable at the time that
- they adopted the UTS to actually promulgate
- 19 risk-health and environmental risk-based standards
- 20 for the UTS.
- As a result, what they did was they went
- 22 with a standard for treatability. And that standard
- is known as best demonstrated technology, BDT. It's
- 24 based on best demonstrated technology for specific

- categories of waste that the UTS were established.
- 2 So they really serve a totally different function.
- 3 They were technology based to begin with, and they
- 4 are designed for ensuring that wastes that go into
- landfills are treated to the maximum extent possible
- 6 under this best demonstrated technology.
- 7 In contrast, what the delisting -- what
- 8 listing and delisting involves are those -- again,
- 9 those -- that criterion that I mentioned in 721.111,
- which is the -- You know, again, I want to go back
- and make sure that it's in the record. The criterion
- is that after considering those multiple factors
- listed in the regulation there must be a conclusion
- that the waste is capable of posing a substantial
- present or potential hazard to human health or the
- 16 environment. So that's the criterion for listing,
- and it's also the criterion for delisting. And you
- look at that long list of items that I've mentioned
- before, the nature of the toxicity, the
- 20 concentration, persistence, bioaccumulation, all of
- that kind of thing. All of those are appropriate.
- 22 But I would point out that treatability --
- ability to treat is not on that list at all. So it's
- not a criteria for which you list or delist a waste.

- And I think that USEPA -- This question was actually
- 2 brought up in a lawsuit that was filed in -- on the
- 3 basis of the first two LDR UTS rulemakings. In the
- 4 first third and the second third, they had not used a
- 5 health-based criteria. In some instances, the
- 6 health-based criteria was higher than the
- 7 treatability standard. Frankly, industry people
- 8 brought that lawsuit and said, "wait a minute. You
- 9 should have to consider the health-based standards."
- 10 And the Agency -- the Court found, no, they were not
- 11 required to do it. In fact, the Resource
- 12 Conservation Recovery Act requirement for LDR's
- 13 was -- EPA was authorized to do it on a treatment
- 14 basis.
- 15 EPA explains then in the preamble to the
- 16 third third that -- you know, it goes back and
- explains again its action and explains that lawsuit
- and the opinion and better explains why they adopted
- 19 these as technology-based standards. So I think that
- the record and history of these regulations make it
- clear that it's not a delisting criteria.
- 22 Treatability should not be a delisting criteria.
- I'd also just like to say that they also
- 24 distinguish, by the way, in the Federal Register.

- 1 And this is from Fed. Reg. 6640, February 26, 1990.
- 2 EPA distinguishes the generally applicable treatment
- standards from -- and this is a quote -- "Standards
- 4 that are applied in particularized circumstances,
- 5 such as RCRA clean closures, no migration
- 6 determinations, and delistings." So I think they
- 7 clearly were saying that these are not the kinds of
- 8 standards that you would apply in a particularized
- 9 situation where, indeed, you do the case-by-case
- look, as we're doing here at the -- whether or not
- that criterion -- that health-based and environmental
- 12 criterion is met.
- We did look for any other EPA guidance on
- 14 this question of how LDR's are actually used. And I
- 15 wanted to -- I'll go back to the point that they are
- land based. Therefore, land disposal. So they, in
- 17 particular, would not seem to have a relevance in
- 18 this case. We did not find any reference to LDR's in
- 19 the USEPA guidance manual. I've tried to search
- using various terms and did not find any reference to
- 21 it at all.
- What we did find was a RCRA call center
- 23 response, and this is the extent to which I found
- 24 anything on this. And I will read it for the record.

- 1 This is the -- a call center response. And I
- apologize. I don't have the date of it here in front
- of me, but I will get that to you. They said, "The
- 4 generator must comply with the LDR requirements
- 5 before disposing of the delisted waste because LDR
- attaches at the point of generation. A delisting
- only absolves the generator from his obligation of
- 8 handling the waste as hazardous. If a particular
- 9 hazardous waste is eligible for a delisting and is
- 10 granted, the delisting prior to generation, then the
- 11 LDR requirements would not apply. Conversely, if a
- waste is generated and subsequently delisted, the
- qenerator would need to comply with the applicable
- 14 part 268 requirements before disposal."
- My view is -- in looking at this, is that
- what USEPA is doing is distinguishing LDR
- 17 determinations from delisting determinations. What
- 18 you hear is that there are two distinct elements to
- 19 it. There's a delisting, and then there's a question
- of whether LDR applies. It's a two-step process.
- 21 Notably, under this definition, the waste -- the
- leachate that BFI is generating would not be subject
- to LDR's even if it was going to a land disposal unit
- 24 if it was generated after the point that this

- delisting is issued. And so at that point -- Let's
- 2 say --
- I think that BFI at the Davis Junction
- 4 Landfill has a large tank that is holding this
- 5 material. After that material that had already been
- 6 generated were gone, were hauled off to Ohio
- 7 unfortunately, the rest of that leachate, I presume
- 8 under this definition, would not be covered under
- 9 LDR's even if it was going to a land unit.
- I also wanted to point out a precedent for
- 11 how EPA has dealt with this since because I think --
- We don't have to get to that question because it's
- irrelevant because it's not going to a land unit.
- 14 But another -- A case in which it was going to a land
- unit is the Nissan case that the Board had
- referenced, the Nissan delisting by USEPA. There you
- can see EPA's approach to land disposal restriction
- 18 UTS and how they used those in that delisting.
- 19 What happened is that EPA asked -- in the
- 20 proposed rule asked for comments on the use of LDR
- 21 UTS's for evaluating Nissan's delisting petition.
- Nissan got back in its comments and said that UTS are
- 23 inappropriate for setting delisting levels because
- they are not designed for such use. Rather UTS were

- 1 established to determined whether a hazardous waste
- 2 could be land disposed. Then in the final rule EPA
- decided not to set delisting levels based on LDR UTS
- 4 for Nissan. Again, you know, one could wish they
- 5 would be more express and talk about this better.
- 6 But I think this is an example of where they asked
- 7 the question, they got an answer, and they ended up
- 8 not using LDR's as delisting levels.
- 9 Finally, just to say, I think that it
- 10 actually could be counterproductive to use LDR levels
- as delisting levels because the incentives that were
- designed for the LDR program are to get waste streams
- out of land, keep them out of land as much as
- 14 possible, and have them pretreated before. So that
- 15 what we're doing here is actually very consistent
- 16 with that. None of this is going to go to land. It
- 17 will all be pretreated.
- 18 I hope that answers your questions, but
- 19 we'll be happy to answer any other questions on this.
- MS. LIU: Thank you actually for your very
- 21 lengthy analysis kind of exploring perhaps what USEPA
- 22 didn't have a chance or didn't vocalize. Thank you.
- 23 HEARING OFFICER HALLORAN: Mr. Ingersoll?
- MR. INGERSOLL: Nothing.

- 1 HEARING OFFICER HALLORAN: You may proceed,
- 2 Ms. Sharkey.
- MS. SHARKEY: Okay. The next question involves
- 4 the delisting levels and toxicity characteristic
- 5 levels. So just -- Previously we were talking about
- 6 the relationship between delisting levels and
- 7 treatability levels. Now, we're talking about the
- 8 relationship between delisting levels and the
- 9 toxicity characteristic levels. And, in particular,
- the Board's question was, "Please explain BFI's
- 11 rationale for not proposing the lower DRAS value as
- the delisting value for vinyl chloride."
- Our response to this is that, indeed, the
- 14 DRAS model calculated what we consider to be an
- overly conservative number for vinyl chloride. The
- number that it calculated was .028 milligrams per
- 17 liter. We believe that number overstates the risk
- 18 for vinyl chloride in this situation. We think that
- 19 the land-based assumption that you have to put into
- 20 the DRAS model results in a -- an overly conservative
- 21 number here.
- 22 BFI has used the DRAS model and is very
- 23 willing to accept the output of the DRAS model for
- the vast majority of the constituents that it looked

- 1 at. However, when you come down to one constituent
- 2 such as this or two because we'll be -- look at one
- for dioxane as well, that actually -- that exceed
- 4 that, we think it's appropriate at that point to go
- back -- as I said earlier, go back and look at what
- 6 are the real risks here. What's involved here? Do
- 7 these two constituents solely on their own out of
- 8 lists of hundreds -- the fact that these are slightly
- 9 over -- And I'd say it's an order of magnitude
- 10 difference to the criteria we're proposing for vinyl
- 11 chloride. Is that difference enough to say this
- 12 entire leachate must be treated as a hazardous
- 13 leachate? Our argument is no.
- With these two it's appropriate to go back
- and look carefully at the criteria in 721.111(a)(3)
- and to walk through -- look at that criterion and
- 17 walk through the factors that need to be considered.
- 18 In doing that, I think we've -- we've gone through
- 19 and taken a look at that. Among those that need to
- 20 be considered is the criteria -- factor J, which is
- 21 "Action taken by other governmental agencies or
- regulatory programs based on the health or
- 23 environmental hazards posed by the waste or waste
- 24 constituents."

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Unlike the technology-based treatability
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- 2 standards in the UTS, the toxic characteristic
- standards in RCRA -- I'm going to get my RCRA
- 4 regulations wrong, but I believe it's 261.24,
- 5 Table I, for vinyl chloride. The standard for vinyl
- 6 chloride toxicity is .2. And that's an instance in
- 7 which EPA listed specific levels at which they
- 8 believe certain constituents are hazardous based on a
- 9 health-based analysis.
- 10 It's very -- To me it's a very parallel
- analysis as the DRAS performs. And we took a look at
- the actual language in which EPA adapted the vinyl
- chloride standard for the toxicity characteristic,
- 14 and what they did was very similar. They first
- identified health-based concentration thresholds
- where drinking water was -- where drinking water
- MCL's were available, as was the case for vinyl
- 18 chloride. EPA used the MCL in the model saying that
- 19 MCL's are the most appropriate health criterion to
- use because they address groundwater ingestion
- 21 pathways and were developed pursuant to a rigorous
- 22 methodology in which all health information is
- 23 evaluated. So they took the MCL's and they then put
- 24 them into -- they applied a dilution and attenuation

- factor that was developed using the subsurface fate
- and transport model known as EPACML. It incorporated
- an unlined landfill or surface impoundment as the
- 4 worst-case mismanagement scenario. And then they
- 5 used a Monte Carlo approach for the dilution
- 6 attenuation factors, which includes a full range of
- 7 distribution of values for all parameters rather than
- 8 judgments made as to worst-case values. So they
- 9 used -- They used that model. And the number that
- they came up with was 0.2 milligrams per liter. And
- 11 that -- As I said, that number is almost an order of
- magnitude higher than the number that the DRAS model
- modeled here.
- 14 We believe that the analysis that EPA did
- 15 for that characteristic is a very valid review of the
- risk posed -- the health-based risk posed by vinyl
- 17 chloride at the .2 level. Clearly, EPA has accepted
- 18 that level. And, clearly, wastes all over this
- 19 country are being land disposed and being treated --
- 20 sent to treatment facilities and everything else at
- 21 that level. And, in fact, the leachate at the
- 22 phase 2 and phase 2 units at the Davis Junction
- 23 Landfill in some instances would exceed the DRAS
- generated level here for vinyl chloride on that very

- 1 restrictive level.
- Waste stream leachate all over the
- 3 country -- BFI has particular experience in this,
- 4 knows that vinyl chloride is a very typical
- 5 degradation product of a number of waste streams that
- occur in municipal waste landfills as well as
- occurring in hazardous waste landfills. And the
- number that's being generated here, if it were really
- 9 hazardous -- if it were really something that were
- hazardous to health and the environment, we are
- 11 then -- we would say that, indeed, that lower level
- should be applied to all of these waste streams, and
- it's not being applied that way. So we think the
- particularized factors here are ones that would need
- to be -- should be considered.
- And the fact that this waste stream is
- going to be handled through pretreatment ought to
- 18 allow us to step outside the DRAS model and look at a
- 19 criterion that is health based as 721.111 allows and
- 20 a criterion that is very consistent with how waste
- streams are being handled all over the country with
- that same level of that constituent in it.
- 23 And thank you. I'd be happy to answer any
- 24 questions.

- 1 HEARING OFFICER HALLORAN: Mr. Ingersoll?
- 2 MR. INGERSOLL: Nothing. Thank you.
- 3 HEARING OFFICER HALLORAN: Thank you,
- 4 Mr. Ingersoll.
- 5 Mr. Rao?
- 6 MR. RAO: We had a question not about vinyl
- 7 chloride. But the question that was submitted to you
- 8 through the hearing officer order, it was a two-part
- 9 question. I think there was one on lead. And we
- 10 didn't see an answer in your response.
- MR. MAXWELL: The issue was that the proposed
- delisting level for lead was greater than the
- 13 toxicity --
- MR. RAO: Yeah.
- 15 MR. MAXWELL: Perhaps that was an oversight on
- our part. I don't think that there's an issue with
- defaulting to the toxicity characteristic for lead as
- 18 the delisting level.
- 19 MS. SHARKEY: I'm sorry. I now recall. What
- 20 Mr. Maxwell said is absolutely right. We will go
- ahead and, again, in our comments recommend that the
- 22 Board insert the characteristic level as the default
- 23 delisting level for lead.
- MR. RAO: Okay. Thank you.

- 1 HEARING OFFICER HALLORAN: Last but not least,
- 2 number 7.
- MR. MAXWELL: Number 7 is detection limits. The
- 4 issue here is how do we handle constituents that we
- 5 analyzed for that weren't detected above the
- 6 laboratory detection limits. Let me point out that
- 7 since we've filed our prehearing comments we've done
- 8 some further research, and we looked specifically at
- 9 a petition that USEPA Region V acted on in Ohio, the
- 10 USG facility in Ohio, because we think it speaks to
- 11 this issue.
- 12 In looking at that decision by Region V
- 13 EPA, they indicated that -- and I'll quote -- "We
- believe it's inappropriate to evaluate a constituent
- in our modeling efforts if the constituent was not
- 16 detected using an appropriate analytical method." So
- we think that would be relevant in this case.
- 18 Because of all of the data that we've got, we think
- 19 that that ought to be sufficient to demonstrate that
- if it's not detected it's not going to be a
- 21 significant part of the risk. Therefore, it
- 22 shouldn't go into DRAS, and it shouldn't have to be
- 23 modeled, especially given the restrictive proposed
- 24 adjusted standard language. So that would be our

- 1 position.
- 2 It was a little -- in other prehearing
- 3 testimony, we did want to seek some clarification
- from the Board as to where you were coming from with
- 5 these -- with these comments as well. So that's kind
- of our position, but we do want to have some dialogue
- 7 about it as well.
- 8 MS. LIU: I think in the DRAS user guide it
- 9 actually states that all risk assessments are
- 10 conducted twice, once including those chemicals
- specified with concentrations that are detection
- 12 limits and once omitting them. That was on page 11.
- 13 The reason for that was to make sure that whatever
- analysis that the lab was using was producing a
- defection limit that was actually low enough that it
- wouldn't be a risk concern itself. I understand it
- would probably be a lot of extra work to go through
- 18 that process. I would like to hear that from you as
- 19 a justification as to why you wouldn't want to run it
- 20 twice.
- MS. SHARKEY: Well, one of the things to say
- here is that, unlike many delisting petitions,
- because this is FO39, there are literally -- there
- 24 are hundreds of constituents that were non-detect.

- 1 We'd be talking about a lot -- a significant amount
- of work to do that. So that's why you're hearing us
- saying, you know, unless we really think there's a
- 4 justification for this, this is a level we would hope
- we would not have to go through. We think that --
- 6 MS. STEINHOUR: Can I add one thing?
- Also, you know, in the delisting petition
- 8 that we've presented to the Board, unlike the other
- 9 petitions where they've gathered, you know, four
- samples over a period of six months, we have nine
- 11 years of data that's consistently shown that it's
- 12 non-detect.
- MS. LIU: Thank you.
- MR. MAXWELL: One other issue, too, is the
- 15 comment making reference to the target risk level of
- 16 10 minus 6. Is the implication there that -- Of
- 17 course, the 10 minus 6 risk level is associated with
- 18 carcinogens. Is the aim there that carcinogens are
- of concern, or all parameters are of concern?
- 20 MS. LIU: I believe the user guide just referred
- 21 to the target risk level. I don't know that they
- 22 mentioned the hazard index separately.
- 23 MR. MAXWELL: You know, that's more manageable
- 24 to look at the carcinogens.

- 1 MS. STEINHOUR: It's still considerable.
- MR. MAXWELL: Is it considerable?
- 3 MS. STEINHOUR: Yes.
- 4 MS. LIU: I can imagine. I know that even the
- 5 detection limits aren't necessarily the same from
- 6 test to test.
- 7 MS. STEINHOUR: Nine years of data would be --
- 8 not manipulating, but evaluating.
- 9 MR. RAO: I guess we wanted to hear from you as
- 10 to why that was not done. It's not, like, we want
- 11 you to do it.
- MR. MAXWELL: The answer to that question is we
- think that we've got enough data that's there to
- 14 demonstrate that it's not warranted.
- MS. LIU: Thank you.
- 16 MS. SHARKEY: With that, I think we have made it
- 17 through the questions that the Board's technical
- 18 staff had posed to BFI and our prefiled testimony.
- 19 We would be happy to hear any additional questions
- that the Board may have for us. If there's anything
- that's come up that is outside of those, we would
- 22 also be happy to answer questions, as we have
- 23 these -- our technical experts here today.
- MR. RAO: We do have questions mainly pertaining

- 1 to the proposed adjusted standard language.
- In Shell Oil's decision from USEPA, USEPA
- allowed Shell Oil to manage and dispose of
- 4 multi-landfill leachate as nonhazardous waste only
- 5 after the initial verification and testing was
- 6 completed to demonstrate compliance with the
- 7 delisting levels. And this is stated at
- 8 69 Fed. Reg. 77699. In contrast, the proposed
- 9 initial testing requirement in Subsection D of your
- 10 proposed language allows shipment and disposal of
- leachate as nonhazardous waste prior to completion of
- initial testing and verification.
- 13 Could you please explain the rationale for
- 14 allowing disposal of leachate as nonhazardous waste
- prior to initial demonstration that leachate complies
- with the delisting levels?
- 17 MS. STEINHOUR: I would respond -- Our response,
- 18 I think, is that in the Shell case they had a very
- 19 limited amount of data for a very limited period of
- time that they were relying on for their delisting
- 21 petition where we have data that encompasses a
- 22 nine-year period versus, you know, three or four
- samples over a six-month period. Also, they were
- doing some different -- a batch processing type

- 1 situation. We have a covered, closed landfill. The
- leachate we generate is fairly consistent, and it's
- going to a tank. We're not doing any type of filter
- 4 pressing or a situation like that.
- 5 MS. SHARKEY: Could I take a moment?
- 6 (WHEREUPON, there was a short
- 7 interruption.)
- MS. SHARKEY: If I could try -- I think I
- 9 understand the question to be, by virtue of the way
- that we have structured our sampling regimen, which
- is to look at these individual tanker truck loads,
- and by virtue of the fact that this is not a type of
- analysis that can be done on the spot, that involves
- sending the sample to a lab for analysis, we end up
- 15 with a situation where we would need to have a tanker
- 16 truck of this material sitting there, you know,
- waiting for a week potentially to get that
- 18 information back, which is just very unworkable and
- 19 expensive for the facility.
- 20 Given that difficulty, we believe that what
- 21 we're doing is based on all of the data that we
- 22 already have and that the leachate variability,
- again, is going to be very small, as Ms. Steinhour
- 24 said. If there were some additional avenue for

- 1 reasonably testing this prior to that first load
- 2 going out, I think BFI would be happy to do that. I
- 3 think we have testing activity that is going on
- 4 pursuant to the RCRA permit.
- 5 MS. STEINHOUR: We have February data, right?
- 6 MR. MAXWELL: Right now?
- 7 MS. STEINHOUR: No. We have February data we
- 8 just collected in February for 2008?
- 9 MR. MAXWELL: Yes.
- MS. SHARKEY: So, for example, we have that
- data. If it would be of -- If it would be of --
- helpful to the Board, I think we would be happy to
- amend this to have a sampling event immediately
- before or a week before, two weeks before the first
- load goes out in order to do that. I think what's
- 16 difficult is to do it on the tanker truck by tanker
- truck basis because of the fact that you'd have
- tanker trucks hanging out at this facility filled
- 19 with leachate waiting to go.
- 20 Our suggestion would be that if we -- If
- 21 that's a concern, our response is, A, that we already
- have that data or, B, if the Board believes it's
- necessary to have some more immediately before the
- 24 first truck goes out, we could accept an amendment to

- our delisting language that would have that type of
- 2 testing immediately before the first truck goes out.
- We'd like to suggest that might be in lieu of testing
- 4 individual truck loads if that were amenable to the
- 5 Board.
- 6 MR. RAO: In your petition also, I think you
- mentioned that there's some kind of a storage tank
- 8 where this leachate would be stored before it's
- 9 shipped out?
- 10 MS. STEINHOUR: That's where we collect it
- 11 within a storage tank, and then what we do is we take
- 12 a sample from the storage tank on an annual basis and
- analyze it. Under this delisting petition, we were
- taking it more frequently under a sampling and
- analysis plan to get the seasonal variation. It's
- all consolidated within one tank. So it's virtually
- like taking, you know, part of a glass of water and
- 18 pouring it into a smaller -- or a pitcher into a
- 19 glass. So we're taking it from that one storage area
- and then sampling.
- MS. SHARKEY: I believe it's a 60,000-gallon
- 22 tank.
- MS. STEINHOUR: No. It's 20. It's a
- 24 20,000-gallon tank.

- MR. RAO: Well, this is just -- In reviewing
- Shell, we saw this difference, and we wanted to bring
- 3 it up. I don't know whether I can --
- MS. STEINHOUR: Is the difference though that
- 5 Shell was actually taking -- It appears from -- And
- 6 we're going to look into this a little more deeply.
- It appeared that what Shell was doing though was
- 8 taking their wastewater -- They were somehow doing
- 9 some pretreatment to pull off the filter cake and
- doing this within some kind of surface impoundment on
- 11 site before hard piping it to a discharge --
- MR. RAO: I'm not very sure as to how they were
- handling it. But the delisting decision that USEPA
- handed down very clearly said, you know, they had to
- do this testing before they can take advantage of the
- delisting. That was their initial sampling and
- 17 verification. You had similar sampling and
- 18 verification, but this was while the waste was being
- 19 handled as a delisted waste.
- 20 Also, earlier one of the questions we
- 21 talked about was the variability of the leachate,
- 22 which Mr. Maxwell said he is going to take a look at
- 23 to see if this particular analysis could be given to
- show that the leachate does not have significant

- 1 variability.
- MS. LIU: We have a few more questions, and they
- all pertain to the structure of the proposed adjusted
- 4 standard language.
- 5 Again, mentioning Shell Oil because of the
- 6 similarity, USEPA had included several provisions
- 7 addressing recordkeeping and notification
- 8 requirements. The citation was 69 Fed. Reg. 77699.
- 9 Except for requiring a one-time notification to
- 10 Illinois EPA whenever there's a change in the
- disposal facility, the proposed adjusted standard
- language doesn't require that the Petitioner notify
- the Agency of the initial sampling and verification
- to comply with the delisting levels or any other
- subsequent exceedants if the delisting levels are
- 16 exceeded.
- 17 Could you please comment on whether or not
- such provisions should be included in the proposed
- 19 adjusted standard language?
- 20 MS. SHARKEY: I believe it should be included.
- I think we would be happy to include that.
- 22 MS. LIU: Thank you.
- MR. RAO: The next question goes to Subsection D
- of your proposed adjusted standard language.

- 1 Subsection D requires, "Monitoring samples to be
- analyzed for constituents listed in Table A and
- 3 hazardous characteristics as defined in part 721."
- 4 Further, Subsection D sets forward that, "Testing may
- 5 be continued on a semiannual basis if the delisting
- 6 levels have not exceeded."
- 7 Could you please clarify whether testing
- should also show that the leachate does not exhibit
- any hazardous waste characteristics before being
- tested on a semiannual basis, or is your intent just
- 11 to limit it to the delisting levels?
- MS. SHARKEY: I think we would intend the
- characteristics as well, yes.
- MR. RAO: So the language needs to be clarified.
- MS. SHARKEY: Thank you.
- 16 MR. RAO: We are sharing our questions here.
- MS. STEINHOUR: We appreciate the fact that you
- 18 took a hard look at this.
- 19 MS. LIU: The proposed adjusted standard
- 20 language at Section -- Subsection E sets forth that,
- "If concentrations of constituents listed in Table A
- are confirmed to exceed the delisting levels using
- 23 the verification procedures of Subsection D or if the
- 24 leachate is confirmed to exhibit a hazardous

- 1 characteristic, then the leachate shall be managed as
- a hazardous waste until the Petitioner demonstrates
- 3 that the leachate is below the adjusted standard
- 4 criteria."
- Would you please clarify whether the
- 6 provisions of Subsection C apply to both initial
- 7 testing and the ongoing semiannual testing?
- MS. SHARKEY: Our intention is that the
- 9 characteristics would be considered as well. Yes, I
- 10 think this is -- I think it was an oversight, but I
- think it was because we were basing what we were
- doing on some other petitions and delistings that
- didn't appear to have that. We believe that is
- appropriate, and we'd be happy to recommend amending
- the language to include that. Thank you.
- 16 MR. RAO: And the last issue is -- it relates to
- 17 Subsection E of the proposed language. Subsection E
- 18 states that, "Prior to reinitiating management and
- 19 disposal pursuant to this adjusted standard,
- 20 additional testing should be done to confirm that
- 21 concentrations of FO39 constituents are below the
- delisting levels."
- 23 Could you please clarify whether FO39
- 24 constituents referred to the Table A constituents

- included in the proposed adjusted standards, or is it
- a more limited number of constituents you're talking
- 3 about? Or should we just reference it to Table A
- 4 instead of bringing in FO39?
- 5 MS. SHARKEY: I believe our intent was Table A,
- 6 so that would be an improvement in the adjusted
- 7 standard language.
- 8 MR. RAO: Okay.
- 9 MS. SHARKEY: Thank you.
- MR. RAO: That's all we had.
- We really thank you very much for all the
- responses you gave us. We appreciate the time you've
- taken to go over this stuff. That's a lot of work.
- 14 We realize that.
- 15 MS. SHARKEY: Well, thank you. We very much
- appreciate all the time you've taken to carefully
- analyze this and recommend improvements in the
- 18 adjusted standard language. We're very grateful to
- have this opportunity to -- It's an opportunity to
- 20 talk with you because it's a process that is somewhat
- 21 difficult because it's an arm's length process unlike
- 22 the USEPA delistings. It makes it, I think, a little
- 23 bit more difficult for us to make sure there's a
- 24 meeting of the minds on the areas of concern here.

- 1 We, again, thank the Board for this opportunity and
- thank the Agency for their cooperation and their work
- 3 that they've put into this as well.
- 4 MS. STEINHOUR: We'd just like to acknowledge
- that the Agency has been working with us over the
- last five years. We know Mark and the other agency
- 7 people, you know, have limited resources, and they've
- 8 just put forth a lot of effort to help us and guide
- 9 us through this process.
- 10 MR. RAO: As you know, in most rulemakings we
- generally state even beforehand that all the
- questions that are asked by the staff are to develop
- 13 the record. We know that they work with the Agency,
- and, you know, they have a lot of input in this. We
- try to just help complete the record so that it will
- be easier for the Board to make its decision.
- 17 MS. SHARKEY: It's our goal to -- The reason we
- asked for this hearing was to allow us to have this
- 19 kind of dialogue because we know the process was very
- 20 arm's length. With the amount of work that's been
- 21 put into this, what we wanted to make sure is that we
- 22 didn't end up with a delisting being denied on the
- 23 basis of some -- either some misunderstanding or some
- 24 possible tweaking to the language that could be done

- to make it an acceptable delisting to the Board. So
- it would be our request that we would -- I assume
- 3 we'll have an opportunity to put in additional
- 4 information responding to some of the questions that
- 5 haven't been answered today. But we also understand
- 6 that --
- 7 I guess I have a question. Would the
- 8 adjusted standard be issued in a proposed form
- 9 allowing us another opportunity to review it before
- 10 it goes final?
- MR. RAO: I don't think we can answer. All I
- 12 can say is there is the motion for reconsideration.
- We have a number of instances where the Board has
- issued an order and reconsidered some of the
- 15 conditions later on.
- 16 HEARING OFFICER HALLORAN: Before we go off the
- 17 record and discuss post-hearing briefing schedules,
- such as it is, Mr. William Ingersoll, are you
- 19 finished for today?
- 20 MR. INGERSOLL: Yes, I am.
- 21 HEARING OFFICER HALLORAN: We'll go off the
- 22 record for a minute.
- 23 (WHEREUPON, discussion was had
- off the record.)

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           HEARING OFFICER HALLORAN: We can go back on the
 2
      record.
                First of all, I want to say that there were
 3
      no members of the public that presented themselves
      today. Secondly, I find no credibility with any of
 5
      witnesses -- credibility issues with any of the
 7
      witnesses. And I do want to thank everybody for
      their civility and professionalism. We had fun
      today.
10
                But, in any event, we were off record
11
      talking about the post-hearing briefing schedule.
      It's agreed that Petitioner BFI will file their
12
      opening post-hearing brief on or before June 30,
13
      2008, and that entails further addressing any other
14
15
      questions by the technical personnel, any revised
16
      suggestions, et cetera. The IEPA opening brief
      response will be due on or before July 11. BFI's
17
18
      reply, if any, is due on or before July 29, 2008.
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Any further questions? Issues?

This concludes the hearing. Thank you.

All right. All have a safe trip home.

(WHICH WERE ALL THE PROCEEDINGS HAD

IN THE FOREGOING CAUSE ON THIS DATE.)

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      STATE OF ILLINOIS
                             SS:
      COUNTY OF K A N E
 3
          I, MARGARET R. BEDDARD, a Certified Shorthand
      Reporter of the State of Illinois, do hereby certify
      that I reported in shorthand the proceedings had at
      the hearing aforesaid and that the foregoing is a
      true, complete, and correct transcript of the
      proceedings of said hearing as appears from my
 9
      stenographic notes so taken and transcribed by me.
10
          IN WITNESS WHEREOF, I do hereunto set my hand at
11
      Chicago, Illinois, this 15^{\prime h} day of May, 2008.
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      CSR Certificate No. 84-3565.
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