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STATE OF ILLINOIS  
Pollution Control Board

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PEOPLE OF THE STATE OF ILLINOIS,, )  
 )  
Complainant, )  
 )  
v. )  
 )  
COMMUNITY LANDFILL COMPANY, INC., )  
an Illinois Corporation, and CITY OF MORRIS, )  
an Illinois Municipal Corporation,, )  
 )  
Respondents. )

PCB No. 03-191

**RESPONSE TO RESPONDENT, COMMUNITY LANDFILL COMPANY, INC.'S MOTION TO CANCEL HEARING AND COMPLAINANT, STATE OF ILLINOIS' RESPONSE IN OPPOSITION TO MOTION TO CANCEL HEARING**

NOW COMES the CITY OF MORRIS, an Illinois Municipal Corporation, by and through its attorneys, HINSHAW & CULBERTSON LLP, and for its Response to both the Motion of Respondent, Community Landfill Company, Inc.'s, Motion to Cancel Hearing and the Complainant, State of Illinois', Response in Opposition to same, states as follows:

1. As indicated in oral arguments presented to Hearing Officer Bradley Halloran earlier today, the City has and continues to maintain that it is essentially a putative, ancillary Respondent in this matter, essentially caught in a "cross-fire" between the Complainant State of Illinois and Respondent Community Landfill Company, Inc. (the entity which, even by this Honorable Board's admission at Page 14 of its February 16, 2006 Interim Order, conducted the day to day waste disposal activities at the facility in question. In turn, the City has made its position clear that it vigorously objects to having been found a party that "conducted a waste disposal operation" in this Honorable Board's Interim Order of February 16, 2006.

2. The City believes that actual prejudice will result to its position in this matter if this hearing is not continued until such time as Edward Prum can be compelled to testify. The City has included Edward Prum on its Witness List for the hearing in question (copy of such

witness designation being marked Exhibit A and attached hereto and incorporated herein by this reference and hereby served upon the parties).

3. Since (as established by the record in this matter) the cost of complying closure, post-closure financial assurance requirements runs literally in the millions of dollars, obviously since the State is claiming that the City is potentially responsible for such costs and expenses, it is essential that a full hearing be afforded to all parties, with all witnesses and all material evidence being received at that hearing.

4. As indicated in oral arguments presented to Hearing Officer Halloran earlier today, based upon its review of other depositions and other testimony given by the Pruim Brothers in other related matters, it fears that if only one corporate representative (i.e., Robert Pruim) is called in this matter that corporate representative will simply demurrer and defer to knowledge possessed by Mr. Edward Pruim (who is presently medically unavailable to testify in this matter at the hearing which is now scheduled). In turn, since Mr. Edward Pruim was the Treasurer and Chief Financial Officer of the corporation, and since closure post-closure matters by their very essence relate to financial issues, the City submits that it is absolutely essential that it be allowed to question Mr. Edward Pruim in detail as to why the parties find themselves in the present situation they do before this Honorable Board.

5. The City respectfully submits that its position in this matter is entirely consistent with this Honorable Board's Supplemental Order of June 1, 2006, which clarifies and expands upon the Board's Initial Interim Order of February 6, 2006. The text of that Order makes clear that (pursuant to Section 33(c) and 42(h) of the Illinois Environmental Protection Act), not only Board Member Melas, but the entire Board expects a full, complete and detailed explanation as to: (1) how the landfill facility in question found itself in the condition it did as of the initiation

of this enforcement action; (2) who was responsible for the condition of the landfill; (3) what (if any) further steps have been taken to address concerns raised by the State during the course of this action.

6. In response to the State's allegation that a "hearing" on the "proposed remedy" is necessary in this matter, the City notes that at Page 4 of the Board's order of June 1, 2006, the Board notes that the purpose of the Act (and the financial assurance obligations set forth therein), are to ensure that neither health nor the environment is harmed from the operation of a municipal solid waste landfill. The Board's June 1, 2006 goes further in noting that the Board must interpret the Act as it applies "...in each individual instance." (Emphasis added). As indicated in oral arguments had before Hearing Officer Halloran earlier today, in his 106 page deposition, expert witness Devin Moose has indicated that based upon the current status of activities which have been undertaken at the facility in question, no eminent and substantial threat to the human health and the environment is posed by the facility in question. (See pp. 70-75). As noted by Mr. Moose in his deposition, the site is essentially closed, and for the past two years, site characterization and preliminary closure activities have been undertaken by the City (pending final resolution of the City's alleged status as a party responsible for the posting of closure, post-closure financial assurance) to assure that the human health and/or the environment are not harmed. (See pp. 76-80 and Moose Deposition Exhibit 8). As such, (and as noted by Mr. Moose in his deposition testimony), the purpose of the financial assurance provisions of the Act have been squarely met. In turn, accordingly, there is no immediate need for the conducting of a remedy hearing in this matter, and the more paramount concern is affording all parties a complete hearing on all issues and factors noted by the Board in its June 1, 2006 order.

7. In summary, the City wishes to again make clear that it does not take sides with or support one part or the other in this matter. Rather, the City's sole and controlling concern is that it be afforded a full and fair hearing on all the evidence which exist in this case.

8. In turn, it is the City's fear that if it is not allowed to examine the Treasurer and Chief Financial Officer of the Co-Respondent, Community Landfill Company, Inc. in this matter, it could be substantially prejudiced, and the tax payers of the City could face exposure for literally millions of dollars of closure, post-closure obligations without having been afforded the opportunity to fully and completely present its case. Put a different way, this Honorable Board has consistently held in hearings such as this that for its own benefit (as well as the benefit of each party to such an action) a complete and full hearing on all relevant evidence should be conducted, and that the needs of all parties for a complete and full hearing should be satisfied. The City would submit that the basic precepts of fundamental fairness established by this Board required nothing less.

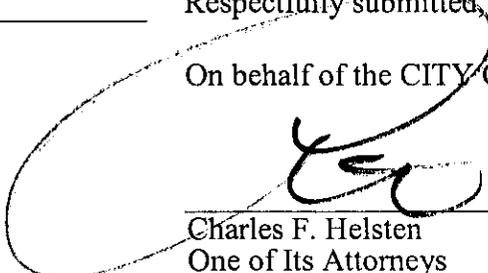
WHEREFORE, the City of Morris respectfully requests that the hearing in this matter be continued until such time as both Edward and Robert Pruim are physically and medically able to testify in this matter.

Dated: \_\_\_\_\_

9/28/06

Respectfully submitted,

On behalf of the CITY OF MORRIS

  
\_\_\_\_\_  
Charles F. Helsten  
One of Its Attorneys

Charles F. Helsten  
Hinshaw & Culbertson LLP  
100 Park Avenue  
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**AFFIDAVIT OF SERVICE**

The undersigned, pursuant to the provisions of Section 1-109 of the Illinois Code of Civil Procedure, hereby under penalty of perjury under the laws of the United States of America, certifies that on 9-28, 2006, she caused to be served a copy of the foregoing upon:

Mr. Christopher Grant  
Assistant Attorney General  
Environmental Bureau  
188 W. Randolph St., 20th Fl.  
Chicago, IL 60601

Mark LaRose  
Clarissa Grayson  
LaRose & Bosco, Ltd.  
200 N. LaSalle, Suite 2810  
Chicago, IL 60601

Ms. Dorothy Gunn, Clerk  
Pollution Control Board  
100 W. Randolph, Suite 11-500  
Chicago, IL 60601

Bradley Halloran  
Hearing Officer  
Pollution Control Board  
100 W. Randolph, Suite 11  
Chicago, IL 60601

A copy of the same was enclosed in an envelope in the United States mail at Rockford, Illinois, proper postage prepaid, before the hour of 5:00 p.m., addressed as above.

  
\_\_\_\_\_

HINSHAW & CULBERTSON  
100 Park Avenue  
P.O. Box 1389  
Rockford, IL 61105-1389  
(815) 490-4900

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PEOPLE OF THE STATE OF ILLINOIS,, )

Complainant, )

v. )

COMMUNITY LANDFILL COMPANY, INC., )  
an Illinois Corporation, and CITY OF MORRIS, )  
an Illinois Municipal Corporation,, )

Respondents. )

PCB No. 03-191

**WITNESS LIST AND EXHIBIT LIST**

NOW COMES the Respondent, City of Morris, by and through its attorneys, Hinshaw & Culbertson, LLP, and files its Witness List and Exhibit List, as follows:

**WITNESS LIST**

1. Devin Moose
2. William Crawford
3. John Enger
4. J.P. Pelnarsh Sr.
5. Robert Pruum
6. Edward Pruum
7. R. Michael McDermont
8. Joyce Munie
9. Blake Harris
10. Cristina Roque
11. Ellen Robinson



12. Mark Retzlaff

13. Brian White

14. The City also reserves the right to call any other witness in rebuttal of any position taken by the State or Community Landfill Company in presentation of their respective cases.

**EXHIBIT LIST**

1. Any and all exhibits and/or information attached to any pleadings, motions or other documents filed for the record in this case;

2. Any and all documents, records, reports, information, and/or other tangible things referred to in all depositions taken and all discovery requests (and responses thereto) made in this matter;

3. Any and all documents on file concerning the Morris Community Landfill with the Illinois Environmental Protection Agency.

4. Any and all documents produced by any party in response to information riders attached to depositions notices or discovery requests (including, but not limited to all documents produced by the City of Morris in connection with the depositions of John Enger, William Crawford and Devin Moose).

5. The City also reserves the right to call any other exhibits in rebuttal of any position taken by the State or Community Landfill Company in presentation of their respective cases.

Dated:

SEPTEMBER 25<sup>th</sup>, 2006

Respectfully submitted,

On behalf of the CITY OF MORRIS



Charles F. Helsten  
Hinshaw & Culbertson LLP  
100 Park Avenue  
P.O. Box 1389  
Rockford, IL 61105-1389  
815-490-4900

\_\_\_\_\_  
Charles F. Helsten  
One of Its Attorneys

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PEOPLE OF THE STATE OF ILLINOIS, )  
 Complainant, )  
 vs. ) PCB No. 03-191  
 ) (Enforcement-Land)  
 COMMUNITY LANDFILL COMPANY, INC. )  
 an Illinois corporation, and the )  
 CITY OF MORRIS, an Illinois )  
 Municipal corporation, )  
 Respondents. )

The deposition of DEVIN A. MOOSE, P.E., DEE taken before Linda A. Lance, C.S.R, R.P.R., a Notary Public in and for the County of McHenry, State of Illinois, taken at the offices of Shaw Environmental, Inc., 1150 N. Fifth Avenue, St. Charles, Illinois, on Wednesday the 2nd of August, A.D., 2006, scheduled at the hour of 1 o'clock but commencing at 1:10 p.m.

PRESENT:

STATE OF ILLINOIS ATTORNEY GENERAL  
 BY: MR. CHRISTOPHER J. GRANT,  
 Assistant Attorney General  
 188 W. Randolph Street, 20th Floor  
 Chicago, IL 60601  
 (312) 814-5388  
 appeared on behalf of Complainant;

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
 BY: MR. BRUCE A. KUGLER, Assistant Counsel  
 1021 North Grand Avenue  
 P.O. Box 19276  
 Springfield, IL 62794-9276  
 (217)-782-5544  
 appeared on behalf of Illinois EPA;

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1 LaROSE & BOSCO, LTD.  
 2 BY: MS. CLARISSA CUTLER GRAYSON  
 3 200 North LaSalle Street, Suite 2810  
 Chicago, IL 60601  
 (312) 642-4414  
 4 appeared on behalf of Respondent Community  
 Landfill Company, Inc.;

5 HINSHAW & CULBERTSON LLP  
 6 BY: MR. CHARLES F. HELSTEN  
 100 Park Avenue  
 P.O. Box 1389  
 7 Rockford, IL 61105-1389  
 (815) 490-4906  
 8 appeared on behalf of Respondent City of  
 Morris.

9 PRESENT VIA SPEAKERPHONE:

10 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
 Ms. Christine Roque, Bureau of Land

11 - - -

12

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 WITNESS: DEVIN A. MOOSE, P.E., DEE

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1 (Witness Sworn.)

2 DEVIN A. MOOSE, P.E., DEE,

3 having been first duly sworn, was examined and testified

4 as follows:

5 EXAMINATION

6 BY MR. GRANT:

7 Q Mr. Moose, my name is Chris Grant and I'm

8 with the Attorney General's office. I'm the attorney

9 representing the State in this case. First, let me ask

10 you, have you given a deposition before?

11 A Yes.

12 Q Approximately how many times?

13 A I'm not sure, six, eight, ten, twelve,

14 something like that.

15 Q Have you ever testified in court?

16 A Yes.

17 Q And can you tell me in what cases you've

18 testified?

19 A I've been in front of the Pollution Control

20 Board. I have been in front of the City of Chicago in

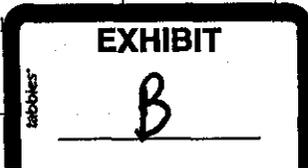
21 their, I think it's Administrative Law judge, I'm not

22 sure if that's correct, and I have been in front of some

23 other venues having to do with pollution control

24 facilities that I don't recall at this time.

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1 Q Do you remember if any of those were

2 enforcement proceedings, in other words, enforcement

3 action under the Environmental Protection Act, for

4 example?

5 A Some of them probably were. I don't recall

6 the specifics of them.

7 Q Were some of them also permitting types of

8 hearings?

9 A Yes.

10 Q And in each case did you testify for the

11 person who was seeking the permit as opposed to a

12 government agency?

13 A No.

14 Q In what cases have you testified on behalf of

15 a government agency?

16 A Although not part of a lawsuit, I represent

17 many units of government. I've worked for nearly 60

18 counties in the State of Illinois, currently employed by

19 over 20 municipalities in the State of Illinois. And

20 some of them that come to mind as far as working for the

21 jurisdiction as opposed to the applicant or the landfill

22 owner, I include the City of Chicago where I was the

City of Chicago's expert. I developed the City of

Chicago's landfill regulations, trained all of their

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1 initial inspectors, and was an expert for the City of  
2 Chicago on numerous landfill siting issues, operational  
3 violations or alleged violation issues. And one that  
4 comes to mind was the Land and Lakes 122nd Street, Land  
5 and Lakes 130th. I have worked for other counties  
6 representing their interest also for probably dozens of  
7 different disputes.

8 (Exhibit No. 1 was marked for  
9 identification on 8-2-06.)

10 Q I am going to show you what's marked as  
11 Exhibit Number 1. And I believe you've identified this  
12 as your CV or curriculum vitae; is that correct?

13 A It is.

14 Q Why don't you hold onto that. I want to ask  
15 you about your education and experience and you've sort  
16 of started on that. So, why don't you generally tell me  
17 about your post-secondary school education?

18 A I have a Bachelor's in Science degree from  
19 the University of Missouri-Rolla. I have been involved  
20 in -- and that is a focus in and double major in  
21 geological and geotechnical engineering. Those are  
22 having to do with the study of soils and groundwater. I  
23 worked for a geotechnical engineer on and off from '77  
24 through '83. Beginning in '83 I started working for --

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1 a continuing education requirement that I'm required to  
2 maintain. So, it's just a higher level of accreditation  
3 in the area of solid waste engineering.

4 Q How old are you?

5 A I'm 49 on the 22nd of August.

6 Q I was going to say, it's an awful lot of  
7 stuff. Are you from Illinois originally?

8 A Yeah, grew up in this area, lived here my  
9 whole life.

10 Q And where do you now reside?

11 A In St. Charles just outside of town.

12 Q Can you describe briefly your involvement  
13 with landfills specifically, permanent waste disposal  
14 facilities?

15 A Probably beginning in about the early '80's,  
16 I'm going to say '83 or '84, I became involved working  
17 on landfills predominately from a constructability and  
18 geotechnical aspect. At the time there were not very  
19 extensive regulations involved in landfills and my early  
20 landfill client was Waste Management, Incorporated. I  
21 had been retained by them on a more increasingly basis  
22 to help them with issues of construction dewatering,  
23 slope stability analysis, constructing liners and so  
24 forth. And some of my early assignments were the

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1 Q Was that your first professional job out of  
2 college?

3 A Yes.

4 Q And just to clarify, was your degree in  
5 engineering?

6 A Yes, I have a Bachelor's of Science degree in  
7 civil engineering. I'm a Registered Professional  
8 Engineer in Illinois and nine other states. I've been  
9 awarded the level of Diplomat by the American Academy of  
10 Environmental Engineers with emphasis in solid waste  
11 engineering.

12 Q Can you explain what that means?

13 A It's a higher level of accreditation. It  
14 requires that you become a Registered Professional  
15 Engineer. It requires that you -- in all the things  
16 that entails. It requires, I think it's seven or eight  
17 years of experience as a Registered Professional  
18 Engineer, and then it also requires a passing of another  
19 written examination, extensive written examination in a  
20 particular area of expertise. It also then requires you  
21 to pass an oral examination by a panel of your peers. A  
22 nationwide panel of peers are assembled and you have a  
23 day long deposition like asking you different questions  
24 about your particular area of the industry. It also has

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1 Woodman Landfill, Settler's Hill Landfill, and a  
2 landfill in Danbury, Connecticut which was a big valley  
3 fill that I worked on.

4 Over the years I got more involved in landfills  
5 just because of the increasing scrutiny that they  
6 received, increased regulatory requirements. And I got  
7 involved in groundwater monitoring, hydrogeological  
8 evaluations of new sites. All of that delved really  
9 good with my educational background in geological and  
10 geotechnical engineering. And as I continued to get  
11 more involved, I'd say somewhere in the late '80's,  
12 probably '87, '88, somewhere along those lines, I pretty  
13 much converted full-time to environmental engineering.  
14 And the environmental engineering focuses in two areas,  
15 solid waste landfills and remediation type projects.  
16 And I participated in the development of the landfill  
17 regulations in Illinois in commenting and working with  
18 the scientific panel on that.

19 Q Who was your client at the time you were  
20 commenting on the development of the solid waste  
21 regulations?

22 A Solid Waste Agency of northern Cook County.

23 Q Were you involved in the case, the Balefill  
24 case?

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1 A I am the senior project manager for that  
2 case. That's my project.

3 Q And you're currently employed with Shaw  
4 Environmental, Incorporated?

5 A Yes.

6 Q How long have you been with Shaw?

7 A We were acquired by Shaw approximately two  
8 and a half years ago.

9 Q When you say "we"?

10 A We were before that Envirogen. So, with Shaw  
11 two and a half years and its predecessors probably for  
12 nearly ten. So, I haven't quit work and moved. I just  
13 changed business cards, if you will.

14 Q And your business card says Director of Shaw  
15 Environmental. What are your responsibilities as  
16 director?

17 A My job is really to run the St. Charles,  
18 Illinois office. We have 30 employees here. We focus  
19 on solid waste and environmental remediation type  
20 projects. I'm also national director of solid waste  
21 planning for Shaw Environmental nationwide, and we're  
22 also the, if you will, go-to office for siting and  
23 development of new landfills or expanding landfills  
24 nationwide. We're currently working probably on six or

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1 financial experience[sic.] or financial performance or  
2 financial guarantees begin at the very beginning which  
3 in other genres is called an engineer's cost estimate.  
4 An engineer's cost estimate is used to develop  
5 projections of construction costs. In the landfill  
6 regulations that engineer's cost estimate is used  
7 predominantly in posting financial assurance for  
8 landfills and more specifically premature closure and  
9 post-closure care for landfills.

10 Q Let me separate my question a little bit  
11 because I guess there's two things I'm thinking of. One  
12 would be developing a cost estimate for -- that would be  
13 in compliance with financial assurance regulations, in  
14 other words, something that it essentially estimates  
15 closure and post-closure care, and the second -- the  
16 second part of that would be in actually working with  
17 the various mechanisms for planning financial assurance.  
18 So, let me split the question up.

19 A I understand the question.

20 Q Okay.

21 A And that is a necessary precursor for  
22 obtaining an appropriate instrument for financial  
23 assurance.

24 Q When you say that, you mean in coming up with

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1 eight states including the Bahamas.

2 Q Out of this office?

3 A Yes.

4 Q Okay. You say you were involved in  
5 commenting on solid waste regulations. I assume that  
6 you're familiar with the solid waste regulations in  
7 Illinois?

8 A Yes.

9 Q And with the Environmental Protection Act --

10 A Yes.

11 Q -- and the requirements of it? Are you  
12 familiar with financial assurance requirements --

13 A Yes.

14 Q -- pertaining to landfills?

15 A Yes.

16 Q Have you ever assisted, either with Envirogen  
17 or in your professional experience, ever assisted in  
18 obtaining financial assurance for a landfill client or  
19 for a governmental agency or something like that?

20 A Yes.

21 Q Can you describe your experience with,  
22 specifically with obtaining financial assurance for  
23 landfills?

24 A Our experience, my experience in obtaining

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1 an engineering cost estimate?

2 A Yeah. The State requires that a professional  
3 engineer be involved in the process. So, that process  
4 of developing the cost estimate is done by a  
5 professional engineer and has to be certified by a  
6 Registered Professional Engineer. Nobody else has the  
7 authority in the State of Illinois to do that.

8 The second part is actually getting the financial  
9 institution, the bonding company, for whatever other  
10 mechanism of there which are ten, which is the financial  
11 part, to accept and use that engineer's cost estimate to  
12 get financial assurance. As far as the second part, we  
13 consult with financial institutions and I'll just go  
14 back to the Balefill example for example. In that case  
15 I think we issued fifty, fifty some million dollars  
16 worth of public debt for that project. I worked closely  
17 with the bonding agencies to verify the costs and  
18 revenue projections for those facilities and the issue  
19 of land comp. That's a public agency. On private type  
20 agencies, like a land comp, which it was at the time a  
21 greenfield landfill site owned by a small private  
22 developer, he sought --

23 Q Where was that?

24 A That was in LaSalle County, Illinois. He

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1 sought two different types of financing. One is private  
2 institution financing as well as some municipal  
3 guarantees and we worked on those issues also closely  
4 with the financial institutions in posting that money  
5 and getting the financial assurance that he needed. So,  
6 the process kind of changes whether you're talking  
7 public or private. And with the large publicly traded  
8 companies we generally are involved in the, besides the  
9 engineer's cost estimate or estimating the cost, is  
10 working inside their internal pro forma. Each one of  
11 them have a separate model that they use so we work with  
12 them individually.

13 Q Is it fair to say that you really have an  
14 in-depth knowledge of the financial assurance process as  
15 far as post-closure, closure and post-closure care?

16 A Well, I understand how the cost estimates are  
17 put down. I understand the different mechanisms. I'm  
18 not an economist. I'm not an accountant but I clearly  
19 understand and I have a lot of experience in dealing  
20 with different institutions in getting through that  
21 regulatory hurdle.

22 Q Based on your experience as a consulting  
23 engineer, is arranging for financial assurance for  
24 landfills, in other words, with coming up with a cost

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1 estimate and then looking for the best or maybe  
2 something that's a compliant way of meeting the  
3 regulations, is that normally the sort of thing a  
4 consulting engineer does for a landfill client?

5 A It's the type of thing we do but, you know, I  
6 can't speak for other consulting engineers. Some  
7 consultants have more capabilities and expertise than  
8 others.

9 Q Just -- I would like to quickly go through  
10 the process, based on your experience, of how -- of  
11 coming up with a cost estimate and in providing  
12 financial assurance. What I am thinking of specifically  
13 is your interface with, in Illinois, with Illinois EPA  
14 in coming up with a cost estimate that everybody agrees  
15 on. How does that process work?

16 A Normally it's fairly straight forward in  
17 Illinois. Illinois requires a premature closure cost  
18 estimate and that is, simply put, that point in time  
19 when the landfill would be most costly to close prior to  
20 its closure. And the engineer that's designing the  
21 facility, in this case it would be somebody like  
22 ourselves, estimates when that would be generally. It's  
23 at some relatively early point in the landfill's life  
24 when there is -- when the excavation and waste is below

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1 grade. And we have to secure safe contours, close the  
2 facility with an engineered cap and potentially develop  
3 additional storm water related facilities. We come up  
4 with quantity estimates. We use a unit cost type method  
5 to come up with an estimated construction cost for a  
6 third party to come in and implement that work. We then  
7 do the same for post-closure care. After the facility  
8 is closed, the owner or operator are required to  
9 maintain closure care for a period of up to 30 years or  
10 more and that is monitoring costs, erosion repairs,  
11 repairs to the top cap and sedimentation basins. We  
12 then develop a cost estimate for a third party to  
13 perform that work and submit all of that to the IEPA for  
14 review, and we have always gotten our permits and got  
15 through that process.

16 Q I wonder if -- did we skip a step? Because  
17 the first thing you mentioned was premature closure cost  
18 estimate and then a post-closure care estimate. How  
19 about, you know, say a planned closure cost estimate,  
20 would that be the same as a premature closure or is that  
21 a number that you have to generate as well?

22 A A planned closer cost estimate?

23 Q In other words, just coming up with closure  
24 costs. And the only reason I ask is because you just

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1 mentioned a premature closure cost estimate that would  
2 probably be the most expensive option.

3 A We talked about --

4 Q So, let me -- do you also have to -- do you  
5 also come up with a closure cost estimate?

6 A Well, I don't think it's necessarily  
7 something you interact with the agency on because  
8 facilities are closed as they're constructed normally.

9 Q How do you mean?

10 A There's a financial incentive and good  
11 operating practice standard that landfills should be  
12 closed as soon as practicable. You are required to post  
13 closure cost estimates -- I'm sorry, you are correct,  
14 and get some of that money back if you close the  
15 facility quickly. I mean for every piece that you  
16 close, you receive that money out of it, the closure  
17 cost care.

18 Q When you say closure, you mean like final  
19 closure, in other words, that portion of the landfill  
20 would have everything in place that it would need for  
21 closure?

22 A Yes.

23 Q Now as far as working with Illinois EPA and  
24 getting the numbers approved, and that's part of the

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1 process, isn't it? In other words, you can't just come  
 2 up with a number. It has to be submitted to the  
 3 Illinois EPA for approval?  
 4 A Yes.  
 5 Q And for all -- for, say, premature closure,  
 6 for closure costs and for post-closure care?  
 7 A Yes.  
 8 Q How is that done? Is it done always in a  
 9 permit application?  
 10 A Umm, you know, I think it's also done under  
 11 a, by a consent decree type process, but I think  
 12 normally it's through a permit application.  
 13 Q So, for example, a landfill would be seeking  
 14 a development permit or to open up a brand new landfill  
 15 and in its permit it would, it would in that permit  
 16 application process would have gone through this,  
 17 estimating these costs for closure and post-closure? Is  
 18 that accurate?  
 19 A Yeah, I think that's predominately the way  
 20 it's done.  
 21 Q Okay. I am going to get a little more  
 22 specific of what we are here for which is the Morris  
 23 Community Landfill case. You are familiar with the  
 24 ongoing or with the case that the State has against

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1 BY MR. GRANT:  
 2 Q 24th through 27th. Are you planning on  
 3 testifying at that hearing or have you been asked to  
 4 testify at the hearing in the case?  
 5 A I have not.  
 6 Q Okay.  
 7 A If I had -- did, I forgot.  
 8 Q Okay.  
 9 A I don't recall as I sit here.  
 10 MR. HELSTEN: He will be asked. He was  
 11 asked to testify when he thought it was earlier. I gave  
 12 him earlier dates.  
 13 BY MR. GRANT:  
 14 Q Oh, okay. And are you aware that's -- that  
 15 the purpose of that hearing is for the Pollution Control  
 16 Board to decide what, if any, relief to grant the State?  
 17 A Um-hum.  
 18 Q Are you aware that the State's case has to do  
 19 with the failure to provide adequate financial assurance  
 20 for the Morris Community Landfill?  
 21 A Yes.  
 22 Q And you're familiar with the Morris Community  
 23 Landfill?  
 24 A Yes.

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1 Morris[sic.] Community Landfill -- for Community  
 2 Landfill Company and the City of Morris?  
 3 A I believe I am.  
 4 Q And you've been asked to testify at the  
 5 hearing in this case?  
 6 A Yes.  
 7 Q Are you aware that the liability has already  
 8 been found by the Pollution Control Board in favor of  
 9 the State?  
 10 A On certain aspects.  
 11 Q Are you aware that -- well, first off, are  
 12 you aware of the hearing that's scheduled for October of  
 13 this year?  
 14 A No.  
 15 Q Okay.  
 16 MR. HELSTEN: I haven't had a chance to  
 17 tell him that. Why don't you tell him when it starts.  
 18 I can't even remember.  
 19 MR. GRANT: I can't remember either. I  
 20 think it's the last week in October. I think Tuesday  
 21 through Friday are the dates to be kept open, the last  
 22 week of October.  
 23 MS. GRAYSON: Maybe the 23rd.  
 24 MR. KUGLER: 24th.

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1 Q I'll ask you a little bit about your  
 2 familiarity with the Morris Community Landfill. You can  
 3 just tell me when, and I'm done looking at the period  
 4 from 2000 to the present, when you first became aware of  
 5 potential problems or when you first became involved  
 6 with the Morris Community Landfill?  
 7 A Being in the business I think I'll take  
 8 liberty and maybe go beyond 2000 because I don't know  
 9 exactly what recollections were before 2000 and what  
 10 were after.  
 11 Q That's fine.  
 12 A I'm in the business every day and have some  
 13 awareness of every facility in the state. Morris  
 14 Community Landfill is well known to me before I was  
 15 employed by the City of Morris. I understand who their  
 16 customer base was. I understand that they were being  
 17 operated by CLC and the, for lack of a better term, I'll  
 18 call them the Pruim brothers. And I was in the late  
 19 '80's writing the solid waste plan for Grundy County so  
 20 I became aware of not only the facility but its volumes,  
 21 its general compliance record. I knew that it was owned  
 22 by the city. I knew it was operated by a private  
 23 entity. So, there was probably more than a general  
 24 awareness of precisely what was going on at that

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1 facility. I may have even been asked, and I don't  
2 recall as I sit here, I may have even been asked by a  
3 private company to do an environmental audit of this  
4 site to take waste. We do a lot of work for large  
5 corporations that ask us to look at facilities before  
6 they direct waste to them. And I've looked at most of  
7 the facilities in the state in that respect and I just  
8 don't recall whether we did that in the '80's or not as  
9 I sit here. I was with another company at the time and  
10 I wouldn't have those records with me.

11 Q How long were you working with Grundy County  
12 on their solid waste plan? Do you recall?

13 A You know, I don't recall precisely.  
14 Developing a solid waste plan is usually about an  
15 eighteen month, at that time a two year exercise. So, I  
16 would say it was probably along those lines.

17 Q Would you have, would you have been aware of,  
18 say while you were doing that solid waste plan, about  
19 projecting capacity for waste disposal at the Morris  
20 Community Landfill?

21 A I probably was at the time, yeah.

22 Q How about permit applications, would you have  
23 taken a look at permit applications filed for the Morris  
24 Community Landfill during that period?

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1 A Probably not, you know, it's not really a  
2 part, a necessary integral part of the planning.

3 Q As far as working on behalf of the City of  
4 Morris for the Morris Community Landfill, at what point  
5 did you become involved, not necessarily specifically  
6 for this case but say retained by the City of Morris, to  
7 do estimates or to do any work at the Morris Community  
8 Landfill?

9 A My real work at the Morris Community Landfill  
10 as it pertains to this case really occurred in December  
11 of 2004. I got a call from, a joint call from the Mayor  
12 and Mr. Helsten that they had been notified of an  
13 inspection that revealed some problems at the landfill,  
14 called me and wanted to retain me to help address or  
15 investigate those problems I think would probably be a  
16 better way to put it.

17 Q At the time was this, was Shaw Environmental  
18 the company at that time?

19 A Yes, I was with Shaw Environmental and  
20 specifically I got a letter now from Chuck Helsten dated  
21 December 14, 2004. I sent them a professional services  
22 agreement right about that time, so it was in December  
23 of 2004 that I was retained.

24 Q What specifically were you retained to do?

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1 A I was to investigate the inspection that was  
2 done by the State, which was in October I think of that  
3 year, and to evaluate whether there's validity to it,  
4 how serious was it, and what the operator needed to do.

5 Q Do you remember what that inspection was  
6 about?

7 A Yeah, I have it right here if I may refer to  
8 it.

9 Q Oh, sure. And if you can identify the date  
10 of it.

11 A This is an attachment to our work proceeding  
12 letter which is dated December 14 from Hinshaw  
13 Culbertson who asked us to look at the attached  
14 production by the State of Illinois which included  
15 inspection reported photos by the inspector and that is  
16 what we received and were asked to look at. It's an  
17 inspection that's dated October 20, 2004, and it  
18 included violations for failure to take remedial action  
19 under a landfill post-closure care, maintenance, and  
20 inspection of the final cover and vegetation, and it had  
21 an ongoing list of violations, which I'll refer to, that  
22 included leachate monitoring, groundwater monitoring,  
23 gas monitoring, and closure, post-closure care financial  
24 assurance.

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1 Q Can you -- can we take a look at this? I  
2 don't want to take a look at your letter but as far as  
3 the inspection?

4 MR. HELSTEN: Let me see what the cover  
5 letter says. The only thing -- well, this one is --  
6 here's my dilemma with keeping the cover letter on  
7 unless everybody waives any claim that if I give you  
8 this letter I waive the attorney/client privilege.

9 MR. GRANT: No, I'm most curious about  
10 who the inspector was.

11 MS. GRAYSON: Make copies of the report  
12 maybe.

13 MR. HELSTEN: As Mr. Moose's cover letter  
14 simply says the mayor is requesting that Mr. Moose  
15 initiate a study as to what matter -- what steps need to  
16 be taken but I'll give Mr. Moose back the letter.

17 MR. GRANT: I mean this isn't really what  
18 the deposition is about so we don't want to spend too  
19 much time on it. Clarissa, if you want, I can find a  
20 copy of that and send it to you later on.

21 MS. GRAYSON: Maybe we can make a copy.

22 THE WITNESS: We can just make them here.

23 MR. GRANT: I don't need to attach it as  
24 an Exhibit or anything.

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1 MR. HELSTEN: Well, it's relevant. It is  
2 the threshold of his involvement. The mayor was  
3 extremely concerned when he saw the report. Do you want  
4 to make copies of that?

5 MS. GRAYSON: That would be great if you  
6 don't mind.

7 (Exhibit No. 5 was marked for  
8 identification on 8-2-06.)

9 BY MR. GRANT:

10 Q I've got what's been marked as Exhibit Number  
11 5. Is this the inspection report you're talking about?

12 A Yes.

13 Q And can you just generally describe what sort  
14 of problems or what problems were disclosed by the  
15 inspection report that you were asked to be involved  
16 with or to look into?

17 A I was asked to take a look at the alleged  
18 violations in the inspection report, get up to speed and  
19 then ultimately I was asked to advise the city whether  
20 there was any relevance or health and safety concerns  
21 attached to these alleged violations. And the alleged  
22 violations, I think I mentioned before, is failure to  
23 monitor gas, water, and this was under the post-closure  
24 care category, 22.17. And then it had an attachment

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1 with what I think they referred to as ongoing violations  
2 which is in the back of the report after the  
3 photographs. And it had to do with contouring, cover  
4 materials, erosion gullies. It had to do with leachate  
5 monitoring, groundwater monitoring, gas monitoring, and  
6 financial assurance.

7 Q I think you said that you got the letter in  
8 December of 2004. When did you accept or when did you  
9 become retained by the city?

10 A We became retained in December of 2004.

11 Q What did you do after you became retained?

12 A We had to get the file. We had to get the  
13 file in its complete package. We visited the site.  
14 Obviously, we met with the people at the site. We met  
15 with the city. The city was basically unaware, in my  
16 opinion, of what was going on at the site. The  
17 operator, at least the person operating the site at that  
18 time, appeared to just lack the resources to implement  
19 all of the things and, you know, we ended up ultimately  
20 obtaining every 35 feet of historical records on the  
21 site.

22 Q When you say 35 feet, do you mean a 35  
23 foot --

24 A The files put in file folders constitute

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1 nearly 35 feet in length.

2 Q Where did you get the files from?

3 A The Illinois EPA. We had some of the files  
4 already in-house because we had FOI'd, F-O-I, filed a  
5 Freedom of Information Act request sometime earlier for  
6 another reason, and we refiled that request at some  
7 point, probably in December or January, December of 2004  
8 or January of 2005. I don't recall when.

9 Q Did you meet with anybody from, any engineers  
10 who were working for Community Landfill Company?

11 A I personally did not. I sent representatives  
12 down there and we may have met them but not  
13 purposefully. We didn't schedule a meeting with their  
14 engineering firm.

15 Q Was their engineering firm Andrews  
16 Environmental Engineering at that time? Do you recall?

17 A I don't know if it was Andrews. The  
18 individual project manager is a man by the name of  
19 McDermott. For awhile he was with Andrews and then at  
20 some point he left and I didn't know exactly when he  
21 left, so.

22 Q Was Mr. McDermott the one who you met with or  
23 representatives of Shaw met with?

24 A I don't recall any of us meeting with him.

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1 We may have met him just briefly but we never met him in  
2 the purpose of obtaining a lot of information that I  
3 recall. I never did.

4 Q Did you meet with anybody from Chamlin &  
5 Associates?

6 A I don't recall whether we did or not. I did  
7 not.

8 Q Do you recall meeting with Richard  
9 Schweickert?

10 A I know the name but I never -- I don't recall  
11 meeting with him for this purpose.

12 Q After you reviewed the file, what action did  
13 you take?

14 A We eventually made the conclusion that in  
15 certain instances the IEPA had valid concerns in the  
16 area of --

17 Q You're referring to Exhibit 5?

18 A Yes. In the area of leachate monitoring, I  
19 think that they for the most part were right that the  
20 leachate monitoring was not being conducted in  
21 accordance with the permit. In the area of groundwater  
22 monitoring, I agreed with the IEPA that they were in  
23 fact not doing all the groundwater monitoring that they  
24 are required to do as well as the gas monitoring. In

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1 the areas of erosion control, what I saw and what we saw  
2 out there, there was some work that needed to be done  
3 but all in all it wasn't that critical. It wasn't a  
4 significant issue and none of it posed any real threat  
5 to the public health in my feeling. And in the area of  
6 financial assurance, I thought that the financial  
7 assurance estimate was completely off base.

8 Q Okay, let's -- now that inspection report  
9 that was provided to you, the 10-20-04 inspection  
10 report, did that have any, set any violations for  
11 financial assurance?

12 A It said under page four of the attachment,  
13 Roman numeral IX, right near the back if you will,  
14 second to the last page.

15 Q Oh, okay. I've got it.

16 A So, yes, it did.

17 Q And just going to that under Roman numeral  
18 IX, I see condition IX.1, Roman IX.1, I assume that's a  
19 permit condition but I'm not sure. It requires removal  
20 of excess waste, revision of the cost estimate for the  
21 removal of waste, and then in the next paragraph it says  
22 requires respondents to adjust the cost estimates for  
23 closure, post-closure and corrective action. Is that  
24 what you're talking about when you're talking about

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1 financial assurance?

2 A Yes.

3 Q So, it doesn't specifically mention failure  
4 to provide financial assurance but really just talks  
5 about issues that would be related to financial  
6 assurance?

7 A Well, the last sentence says no application  
8 has been filed since the issuance. I guess you're  
9 correct in that but under the heading it says closure,  
10 post-closure care and financial assurance.

11 Q Sure. I guess this is a good time to get  
12 into the estimates of financial assurance. I think you  
13 testified or stated that you're familiar with the  
14 financial assurance requirements, how they're generated,  
15 how they're coordinated with the Illinois EPA permits,  
16 and that sort of thing. Prior to, say, 2004 were you  
17 aware of the amount of financial assurance required for  
18 the Morris Community Landfill?

19 A No.

20 Q And did you have any familiarity with the  
21 permitting process in the '90's where the financial  
22 assurance numbers were generated?

23 A Yes.

24 Q And how did you know about that?

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1 A Just through my work on other landfills, not  
2 on this particular landfill that I recall, and I was  
3 doing work in and out of Grundy County. But as far as  
4 this particular issue, I just didn't have any  
5 recollection of previous knowledge of the site and  
6 specifically the financial assurance I don't recall.

7 Q So, prior to 2004 you didn't know the amount  
8 of financial assurance that was required?

9 A No. I mean if I did at one time, I don't  
10 recall it. There are publications that sometimes you  
11 can see it in different reports, but I may have seen it  
12 and not recalled it.

13 Q I assume that when you -- when you say you  
14 reviewed the file that you reviewed the permits, the  
15 Signot(phonetic) permits for the landfill?

16 A Um-hum.

17 Q And the closure and post-closure tier  
18 requirements that are contained in those permits?

19 A Yes.

20 Q And when I talk about the permits, I've got  
21 them here if you want to take a look at them, but it's  
22 2000 -- I think it's 2000-155-LFM. As a matter of fact,  
23 let me not guess the permits I am talking about because  
24 these are the only ones really I think may be involved

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1 with --

2 A Are you talking about the current permitted  
3 financial assurance?

4 Q Yes. Yeah, the two permits that I'll be  
5 talking about are 2000-156-LFM -- let's see.

6 A I think these are it. I just took the  
7 liberty to copy what I believe are the permitted  
8 premature post-closure care cost estimates for parcels A  
9 and B.

10 Q Okay. And what I'll be talking about is the  
11 one I just mentioned which is permit number, just for  
12 shorthand purpose I'll call it 156 is for Parcel B, and  
13 permit No. 2000-155-LFM, which I'll refer to as 155, for  
14 Parcel A, or maybe I'll just say the permit for Parcel A  
15 or Parcel B.

16 A Okay.

17 Q But since there's been a number of permits  
18 there, this is the one that I'm referring to. Anyway,  
19 did you review the two permits, the one for A and the  
20 one for B in 2004 when you were looking at the file?

21 A It probably was in 2005 by the time I  
22 reviewed it but yes.

23 Q And the closure and post-closure requirements  
24 that were contained in the permits?

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1 A Yes.

2 Q And then also the amount of financial  
3 assurance that was contained in the permits?

4 A Yes.

5 Q Not getting back to what you said, you say it  
6 was your opinion at the time that the amount of  
7 financial assurance was higher than needed to be or --

8 A Well, I thought that the approach that was  
9 used to develop the engineer's cost estimate was (a) if  
10 it was implemented, would not necessarily be protective  
11 of public health, safety and welfare; (b) was really not  
12 a practical approach to the engineering challenges at  
13 the site, and in fact there were much better ways to  
14 approach securing the site then were proposed and  
15 ultimately approved in those permits. And I think it  
16 was really just a result of regulation interpretation  
17 that drove them as opposed to doing what was best for  
18 that particular piece of ground.

19 Q I wonder if you can tell me what specifically  
20 you thought maybe was improper as far as I mean the  
21 amount of financial assurances slightly in excess of 17  
22 million dollars for both Parcel A and Parcel B and  
23 that's both closure financial assurance and post-closure  
24 financial assurance. What elements in that, if you

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1 recall, were you specifically disagreeing with?

2 A Virtually every component. But I'll give you  
3 a couple of examples of not only did I disagree with the  
4 quantity of materials that were estimated but the actual  
5 work that was to be conducted. I'll just give you a  
6 couple of examples. The permit for closure required  
7 that the overfill in parcel, and I hope I get this  
8 right --

9 Q It's Parcel B.

10 A Parcel B would need to be relocated and the  
11 only space on this facility that had capacity to accept  
12 Parcel B overfill was in Parcel A. Interestingly  
13 enough, the agency reviewed the groundwater impact model  
14 for Parcel B and it passed. The agency reviewed the  
15 groundwater impact model for Parcel A and it failed.  
16 So, they were asking us to remove excess fill, just  
17 height not area, from Parcel B in an area that passed  
18 the model, pick it up and move it to Parcel A to an area  
19 that doesn't pass the model. It would be completely  
20 intuitive[sic.] to protection of the public health,  
21 safety, and welfare.

22 Q It --

23 A Counter intuitive I should say.

24 Q Yeah. Help me out with the groundwater

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1 model. Please tell me what that is.

2 A The regulations require that the engineer  
3 develop a groundwater impact assessment, and that  
4 groundwater assessment is a computer model that is a  
5 valuable tool for an engineer. Too often times the tool  
6 is misused and misinterpreted and it becomes a little  
7 bit of wag the dog. In this particular case I think  
8 that happened. The model is meant to take the precise  
9 design of the facility and insert that design into the  
10 precise hydrogeologic regime at that site and model the  
11 behavior of the landfill over time. We do that on every  
12 site we work on and we're modeling every day. What has  
13 happened is some people have gotten, have lost sight of  
14 it as a tool. In this particular case, I don't think  
15 the model -- let's go back to what the modeling is. So,  
16 that's really what it's meant to do. In Parcel A the  
17 model failed which means the engineer or the operator's  
18 engineer was unable to get the model to pass. I don't  
19 know if that's necessarily a component of his resources,  
20 his capability, or the natural conditions. I have not  
21 checked that.

22 Q When you say "pass"--

23 A But --

24 Q I'm not going to interrupt you but maybe you

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1 can explain.

2 A When it passes, it shows generally that  
3 you're not impacting groundwater within the zone of  
4 attenuation which is 100 feet from the waste at 100  
5 years time. That's what we consider passing, simply  
6 put. The issue becomes if you're required to do inputs  
7 or a sensitivity analysis that takes on more emphasis  
8 than it ought to and those inputs no longer represent  
9 anything close to real world conditions.

10 Now let's go back to this particular site. In this  
11 particular site the owners -- I'm sorry, the operator's  
12 engineer was unable to get the model to pass. Why, I  
13 don't know. I did look at several input parameters for  
14 the model, and I don't believe that the model in any way  
15 represents the conditions on the ground out there.  
16 Because he was unable to get it to pass, and although I  
17 did not participate in those negotiations with the  
18 State, my experience tells me that they pretty much just  
19 defaulted or some people might say threw up their hands  
20 and said, well, if you agree to, in this particular  
21 case, pump the groundwater and treat the groundwater,  
22 not the leachate, around the site for 100 years, we'll  
23 give you your permit. So, there are a lot of  
24 compounding in my belief and many more throughout the

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1 site that we need to talk about. One is just the model.  
2 Does the model represent real world conditions out at  
3 the site? No, I don't believe it does. Is it the  
4 State's responsibility to model it for the operator?  
5 No. Why the operator chose to do what they did, I don't  
6 know. I wasn't there.

7 Having said that, I've also read some of the PCB  
8 decisions, and the PCB decisions seemed to be focused on  
9 pumping leachate. But if you go all the way back to the  
10 model and where this comes from, it's not actually  
11 pumping leachate. It's pumping groundwater and treating  
12 groundwater that are the big numbers in these closure  
13 cost estimates.

14 Q You're talking about --

15 A I'll give you just one example of why the  
16 model is not reflective of reality. The groundwater  
17 that flows under the model -- or I'm sorry, under the  
18 landfill is represented as one particular number in the  
19 permit application. That one parameter I have measured  
20 in the last year since my involvement and that one  
21 particular number that I was able to check is off by a  
22 factor of forty thousand times.

23 Q Are you talking about direction or volume of  
24 flow or --

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1 groundwater below. It has to do -- one of the  
2 components that you look at is the footprint or the  
3 exposure to the ground beneath. And because we're not  
4 increasing the footprint as a result of that overfill, I  
5 don't believe there is any measurable difference in the  
6 two. Moreover, exhuming waste and moving it is not  
7 without its issues also.

8 Q Do you recall when we started this way you  
9 were talking about the total amount of financial  
10 assurance at the landfill and why you thought it may be  
11 excessive, and the first example that you used was the  
12 overheight. Do you recall what component of the total  
13 financial assurance requirement was? And if you can  
14 just tell us what you are referring to.

15 A I am referring to what I believe is the  
16 current repemitted premature and post-closure care cost  
17 estimates for Parcel A and Parcel B, and I can't find it  
18 right now.

19 MR. GRANT: Do you know Chuck?

20 MR. HELSTEN: I know how much it is.

21 MR. GRANT: I do too. I'm wondering if  
22 we can save you some time.

23 THE WITNESS: I can't find it.

24 MR. GRANT: It's \$950,000 I think.

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1 A Rate, seepage rate under the landfill. So --

2 Q You think --

3 A -- changing one factor is an inappropriate  
4 way to look at the model. The entire model needs to be  
5 reevaluated if that were going to be necessarily  
6 protective of the public health, safety, and welfare.  
7 But I think that at this point it's just more of an  
8 academic exercise than solving the real problem.

9 Q When you first mentioned the model, you were  
10 talking about waste relocation. And I'm assuming that  
11 you thought the idea of waste relocation from a place  
12 where the model was suggested it would be in compliance  
13 or would pass versus moving it to someplace that was --  
14 where it was questionable was not a good idea. I assume  
15 that's what you were talking --

16 A Well, I don't think moving the waste in this  
17 particular instance, knowing what I know now, I don't  
18 think moving the waste is going to protect the public  
19 health, safety, and welfare. Remember what I said is  
20 that what we are talking about here is an overheight  
21 issue and not a lateral spread because we're not  
22 increasing the footprint of the landfill as a result of  
23 that overfill, if you will. And really that landfill  
24 footprint doesn't present any increased risk to the

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1 MR. HELSTEN: It's around 950, 950 to  
2 975.

3 MR. GRANT: And I think it was like \$2 a  
4 yard to move it was put in the permit application.

5 MR. HELSTEN: If we're making statements,  
6 my recollection from my knowledge in this case --

7 THE WITNESS: I still can't find it.

8 MR. HELSTEN: -- is that there was an  
9 estimate of 300,000 plus cubic yards of overfill and  
10 there was a removal, exhumation and removal cost figure  
11 of \$2 per cubic yard attached to that, slightly over  
12 that, ergo, you come up with 950, \$975,000.

13 MR. GRANT: I think the amount of  
14 override we've always talked about is 475,000 cubic  
15 yards. That was in a permit app. from about 1996 on, so  
16 that's probably --

17 MR. HELSTEN: That would be the math  
18 then.

19 BY MR. GRANT:

20 Q Let's just assume that it was \$950,000. So,  
21 going back to the total financial assurance amount, if  
22 your opinion was, for example, the overheight did not  
23 need to be moved or was a bad idea to move it that that  
24 would reduce it by \$950,000?

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1 A If you assume that I agree with the two bucks  
2 cubic yard. I've just done this within the last four  
3 years at three sites and it's ranged from \$3.50 to  
4 \$5.50.

5 Q I think at the time everybody was asking  
6 about it, but I think, I believe it's true that  
7 everybody, we just sort of settled on that and that was  
8 accepted even though there was, if I recall, a dispute  
9 as far as the adequacy of the \$2 per cubic yard to meet  
10 it. But I believe, I think we can pretty much agree  
11 that the component that was put into the financial  
12 assurance total was \$950,000.

13 A I recall that. I just for some reason don't  
14 have it in front of me.

15 Q So if, for example, if that was reduced, if  
16 that was removed from the total amount of financial  
17 assurance, it would be something in slight excess of 16  
18 million dollars?

19 A If you were to accept those cost estimates,  
20 yes.

21 Q Sure. As far as -- let me ask you, what  
22 other elements in that cost, in the financial assurance  
23 amount do you believe are wrong?

24 A The groundwater pump and treat system for a

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1 hundred years. I mean that's the big cost and I don't  
2 think it provides any measurable protection to the  
3 public health. I think that is simply a residual effect  
4 of the engineer incapable of producing a model that  
5 passed. So, let's assume -- and I think I do have that  
6 cost around in here. I saw it a minute ago. \$101,000 a  
7 year or according to them 10.1 million dollars, I can  
8 think of probably a hundred things as I sit here that  
9 would be better to spend 10.1 million dollars on than  
10 pumping the groundwater at that site and treating it.  
11 The groundwater is very poor quality groundwater now.  
12 It is in a heavily industrialized area. It's surrounded  
13 by existing permitted landfills. It's got an area, an  
14 old coal mined area that has historical dumping on it  
15 since the 1940's. It's at best a Class IV groundwater.  
16 If the -- the water that we're measuring and monitoring  
17 in my opinion is not potable. There are no groundwater  
18 users in the vicinity of the site. Other areas on the  
19 site, if there is new development, can be served by  
20 municipal water which goes right by the front of the  
21 site. So, pumping and treating poor quality groundwater  
22 is a poor way to go.

23 Q Okay. Well, let's talk about treating  
24 leachate because the regulations require that leachate

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1 be pumped and treated as well. If you're talking about  
2 treating -- about collecting and putting an effective  
3 leachate collection system, monitoring that -- or not  
4 monitoring it but collecting leachate and treating that  
5 for a hundred years, how would that change the cost as  
6 opposed to groundwater outside of the -- there were  
7 only -- let me back up a little bit. When you're  
8 talking about groundwater, you're talking about  
9 groundwater outside of the landfill?

10 A Yes.

11 Q Okay. How far outside of, say, the waste  
12 boundary, the waste disposal boundary was the plan?

13 A The design is a little ambiguous on that. I  
14 can tell you from how I interpret what they're proposing  
15 to do is to pump and create a cone of depression around  
16 the landfill so that groundwater will always flow in 360  
17 degrees towards the landfill, which normally would  
18 require you to be within that zone of attenuation within  
19 a hundred feet or so of the landfill. I don't think  
20 that's a good idea at all. I don't think it's -- you  
21 know, I look at this as, I guess, much different than  
22 some of the decisions and proceedings that I've read. I  
23 think the most important thing to do is take whatever  
24 money is available and from who, that's something the

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1 court will decide, but let's take that money and spend  
2 it in the most efficient, practicable way that has the  
3 best, biggest, largest positive impact for the  
4 environment. And as far as my client is concerned this  
5 is taxpayers' money.

6 Q Okay. Let me just ask you about the  
7 specifics. I understand -- hopefully we'll get into  
8 that. But as far as -- let me first ask you, when you  
9 say a hundred feet outside the landfill, do you mean a  
10 hundred feet outside the waste boundary?

11 A Again, I don't think the design was real  
12 specific about that but that's normally what I would  
13 see.

14 Q Okay. So, it could be within the actual  
15 property of the landfill but still be, but outside of  
16 the waste boundary?

17 A But you'll also be inducing a flow from the  
18 landfill at the same time.

19 Q I understand. Now is it uncommon to require  
20 a landfill owner to create a zone of attenuation so that  
21 the leachate doesn't have the possibility of flowing  
22 out?

23 A No, but I don't think that's consistent with  
24 what we just talked about. We're talking about apples

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1 and oranges.

2 Q I thought -- that's what I thought you were  
3 describing and I'll ask you. When I say it's not  
4 uncommon, I mean for leachate treatment systems,  
5 long-term leachate treatment systems, isn't it generally  
6 preferred to have, to prevent a negative pressure so  
7 that the leachate will not -- will be flowing inward  
8 towards the leachate collection system as opposed to  
9 outward?

10 A Leachate collection systems, removing the  
11 leachate from the landfill and treating the leachate  
12 safely once it's removed from the landfill, is an  
13 appropriate, safe thing to do but that's not the same as  
14 treating groundwater around the perimeter of the  
15 landfill. And there's a significant difference,  
16 especially when you assume that a good cap is applied,  
17 in the volume of leachate treatment. Moreover, I think  
18 the board got that wrong also. I think there is a  
19 misunderstanding of the facts on the ground of what is  
20 being done where and by whom when it comes to leachate  
21 treatment.

22 Q The leachate treatment is really the largest  
23 single portion of the, of the closure cost, isn't that  
24 true, the 10.1 million I think?

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1 A I agree.

2 Q In general it's a requirement that landfills  
3 in both closure and post-closure not impact the  
4 groundwater outside of the waste boundary; is that  
5 accurate?

6 A Outside of the zone of attenuation.

7 Q The zone of attenuation.

8 A Which is a hundred feet from the waste  
9 boundary in three dimensions.

10 Q So, what you're saying is the regulations  
11 require that outside of the zone attenuation groundwater  
12 may not be impacted and that's the purpose of the  
13 leachate treatment?

14 A Well, it's more than just impact because  
15 everything we do impacts but let's just say does not  
16 materially degrade. You can impact it at a level that's  
17 so slow it's unmeasurable but you might still be  
18 technically impacting it. But there are requirements  
19 within the regulations that demonstrate what level that,  
20 for lack of a better term, impact is allowed. But you  
21 have to meet that point at a hundred feet from the  
22 landfill.

23 Q If -- as opposed to collecting groundwater  
24 that is outside of the zone of attenuation as far as

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1 A If you were to implement the plan that's  
2 permitted.

3 Q Yes.

4 A It's groundwater treatment at 10.1 million.

5 Q Okay. And for a hundred years, correct?

6 A Yes.

7 Q I may have asked this question but I don't  
8 know that we really got to it. As opposed to pumping  
9 and treating leachate if it was done appropriately as  
10 opposed to groundwater outside the landfill, and when I  
11 say the landfill let's talk about the waste boundary, as  
12 far as groundwater outside the waste boundary, as far as  
13 pumping and treating the leachate -- and maybe we better  
14 define terms here. When I'm talking about leachate, I'm  
15 talking about water that's run down through the waste  
16 itself or close enough to the waste itself that it's  
17 impacted by particulate matter or some sort of dissolved  
18 substance that might be in the waste in collecting that,  
19 is that pretty much -- is that how you describe  
20 leachate?

21 A Yes.

22 Q Whereas, groundwater would just be whatever  
23 is in either the shallow or the deep aquifer around the  
24 landfill?

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1 treating, collecting and treating the leachate within  
2 the zone of attenuation for a hundred years, do you have  
3 an estimate of what that cost would be?

4 A Again, I think we've got a mix-up of terms.

5 Q I think we do.

6 A The leachate that's within the landfill  
7 cocoon. Groundwater is any water whether it's in the  
8 zone of attenuation and surrounded by soil particulate  
9 or whether it's groundwater that's outside the zone of  
10 attenuation and still surrounded by soil particulate.  
11 The area of groundwater within the hundred foot zone or  
12 the zone of attenuation has the regulatory ability to  
13 be -- have a higher level of impact than that  
14 groundwater outside of the one hundred foot zone. So, I  
15 think, I hope that helps with what my understanding of  
16 the different terms are.

17 Q Well -- right.

18 A Water and soil particulate within the zone of  
19 attenuation is not leachate.

20 Q Okay. And the plan that was submitted that  
21 you think was not --

22 A Usual.

23 Q -- was not well thought out, in other words,  
24 the one that's referenced in the permit and has the

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1 financial assurance, the 10.1 financial assurance, I  
2 think you referred to it as a groundwater treatment?

3 A That's what it's called. That's not what I  
4 refer to, that's what it's called.

5 Q Okay. Based on your understanding of the  
6 currently permitted post-closure care plan, what would  
7 it be treating? In other words --

8 A I'll be honest with you, the volumes of  
9 documents that I have are less than perfectly clear and  
10 consistent. But, again, based on looking at them and  
11 based on my own experience, it appears to me that the  
12 IEPA said you can't get your model to pass. And this  
13 is -- I'm speculating here, you cannot get your model to  
14 pass, so you can't get your permit. If you want to get  
15 your permit with this particular design the way you're  
16 running your particular model, we want you to treat,  
17 pump and treat groundwater and that would give the IEPA  
18 the ability to say you're not impacting groundwater  
19 beyond a hundred feet because you're pumping the  
20 groundwater before or somewhere around that zone in  
21 order to prevent that. Is that clear?

22 Q Yeah. Did you see a diagram of the plans of  
23 where the wells would go, the collection wells?

24 A I don't recall a comprehensive design. I

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1 might have seen a sketch or two but inadequate and with  
2 insufficient data to really warrant construction or  
3 conclusions from it.

4 Q Based on your understanding of that plan, the  
5 one that's currently permitted, how far off from the  
6 landfill is it collecting groundwater?

7 A I don't recall.

8 Q But you say that, and I guess this is where  
9 I'm confused, because what you're saying is you're  
10 saying that it required the collection of groundwater as  
11 opposed to leachate?

12 A Correct.

13 Q I still don't think we've come to a common  
14 understanding of what liquid we're talking about is  
15 treated under the current permitted plan versus what  
16 you're saying really is what should have been looked at.

17 A Well, the current permitted plan also  
18 includes leachate, includes leachate and groundwater.

19 Q Okay.

20 A But the big 10.1 million dollars is  
21 groundwater treatment.

22 Q But it's, they're all, they're both included  
23 in the same, the same figure?

24 A They're both in the currently permitted

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1 post-closure care costs for Parcel A specifically.

2 Q Okay. And do you have an understanding of  
3 what groundwater as opposed to leachate is to be treated  
4 under the current plan?

5 A Yeah, it's going to be installing, and I'll  
6 try this again, it's -- leachate is liquid that's in  
7 contact with waste. Once leachate is defused or is  
8 deluded by and enters groundwater, which is water that's  
9 within a particulate soil mass, it may be contaminated  
10 or impacted groundwater, but I don't think it's fair to  
11 call that leachate anymore. So, that zone that needs to  
12 be -- leachate needs -- or, I'm sorry, groundwater needs  
13 to be withdrawn from, I think in order to be compliant  
14 with the regulations you would have to put those wells  
15 in at a spacing, at a depth, and at a distance from the  
16 landfill at some point so that you're pulling the  
17 groundwater out of the soil matrix so that when you get  
18 to a hundred foot away you can show there's no impact at  
19 that point.

20 Q And --

21 A And I don't know precisely what that is.

22 Q But one of the things that we talked about is  
23 creating a negative pressure or creating a zone of  
24 attenuation, in other words, so that there's no chance

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1 or there's a limited chance that leachate is going to be  
2 migrating out because the pressure from the well system  
3 is going to be pulling it in?

4 A That's the currently permitted well system I  
5 assume you're referring to?

6 Q Yes, yeah. And one of the questions I asked  
7 was is it uncommon for that to be a requirement of  
8 landfills?

9 A Let's I guess stay with the State of Illinois  
10 because I think that was your desire previously. I  
11 don't think there are many facilities that I'm aware of  
12 in the State of Illinois. None of the facilities that  
13 I'm working on are doing that, maybe one or two. So, is  
14 it a standard remedial technique? Yeah. Is it common  
15 for operating landfills to employ that? I don't know  
16 what the 52 operating landfills in the State of Illinois  
17 that are doing it. There might be a half a dozen, or  
18 six, or eight, or ten. I don't know.

19 Q I don't know a lot of them myself but I know  
20 in Congress they do that.

21 A Well, there's a difference I think between  
22 Congress. Congress is trying to create a new more  
23 gradient facility. That's different. That's where  
24 you're trying to keep the leachate level below the

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1 surrounding groundwater level, and that's a very common  
2 technique and a very proven technique. And I think it  
3 has a similar, similar physics behind it but I think  
4 there's a big difference between pumping leachate out  
5 and pumping groundwater.

6 Q One other question. Are you aware that at  
7 least in Parcel A of the landfill that that site was  
8 previously used for a municipal waste disposal?

9 A I just assumed it was but I don't really know  
10 who used -- who utilized the facility. Are you talking  
11 about what customers went there or was it --

12 Q No, about its actual use prior to, prior to  
13 the permitting, the 2000 permitting procedure. I mean  
14 to give you my understanding of it, it was -- would have  
15 been closed down for quite a period of time but it was  
16 formally a municipal solid waste landfill, in other  
17 words, garbage, municipal garbage was dumped.

18 A It's my understanding that it's been used for  
19 various kinds of dumping, including dumping and burning  
20 activities since the forties.

21 Q And do you know anything about the liner that  
22 may have been in place for that dumping, in other words,  
23 the dumping before 2000?

24 A Well, it was an old abandoned coal mine, coal

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1 mined it since, since abandonment of the coal. There's  
2 an underclay layer that lies under the coal. We see  
3 that in virtually all coal bearing zones. So, that  
4 underclay that underlies the coal has no economic value,  
5 and that underclay is a fairly impermeable unit. What  
6 we see in this area and what we saw also over at  
7 Streeter not far from here is that underclay was left in  
8 place because it doesn't have any economic value and  
9 that the coal mine subsequent to extraction of the  
10 minerals backfilled with water, became some kind of  
11 local pond/quarry. And indeed my own interviews with  
12 local people confirm that in fact it did have water in  
13 it at one time. They pumped the water out and they  
14 started placing garbage of municipal solid waste. It  
15 was burned occasionally. None of that surprises me.

16 So, I doubt and I'm confident that there was no --  
17 let me rephrase. I would be awful surprised if there  
18 was any compacted clay liner, manmade engineered type  
19 liner under it. My belief is it's probably underlain by  
20 the underclay of the coal which is there and the  
21 empirical evidence and the boring data that we have  
22 support this. And at some point in the '80's a liner  
23 was constructed over that previously filled area and  
24 meant to, I guess, make some type of an engineered liner

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1 at that point.

2 Q When you say liner, you mean what was put at  
3 the top for that cap or a liner? How would you define  
4 that?

5 A I think it was really a liner. It was  
6 orbicul. Conversely, it would have been a cap for the  
7 old landfill. But it was compacted clay and synthetic  
8 liner over the old facility. Now separating the, if you  
9 will, non-regulatory disposed waste from the regulatory  
10 permitted waste might be one way to refer to it as.

11 Q Can we take a quick break? Can you give us a  
12 minute so that we can talk to Chris a little bit?

13 (A brief recess was taken.)

14 BY MR. GRANT:

15 Q We'll go back on. We were discussing the  
16 leachate and groundwater issues and that sort of stuff.  
17 Do you have an estimate, have you estimated or do you  
18 have an opinion on what the cost would be, the  
19 third-party cost, for treating leachate at the landfill  
20 for a hundred years?

21 A No.

22 Q Do you have an estimate or conclusion as to  
23 what the cost would be to treat leachate for 30 years?

24 A That I think I do have. For leachate

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1 management which includes operations and treatment,  
2 \$809,400.

3 Q And for what period of time is that?

4 A That's for 30 years.

5 Q So, that's treating all leachate facility --

6 A Monitoring the leachate and there's some  
7 other associated activities with that.

8 Q And in coming up with that estimate who did  
9 you use as the treatment facility?

10 A City of Morris, POTW.

11 Q Are you aware that the city -- about the  
12 regulations requirement for a third party, for the cost  
13 for a third party to treat the leachate, in other words,  
14 not an owner or an operator? I know I am saying that  
15 poorly, but not someone directly involved with the  
16 landfill.

17 MR. HELSTEN: Object to the form of the  
18 question, the assumption. It assumes facts not in  
19 evidence. With that, Mr. Moose, I've made my objection.  
20 You may answer.

21 THE WITNESS: I think part of the rigid  
22 interpretations of the regulations on this is probably  
23 what got us to this point to begin with. We have a  
24 sanitary line that's in the public right of way outside

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1 of our facility that's currently accepting leachate from  
2 the facility. And to estimate the cost for something  
3 other than that seems completely illogical not only  
4 because it would be bad for the environment but it would  
5 take, theoretically if we were going to post financial  
6 assurance, money from putting it into the ground and  
7 giving it to some kind of financial institution. So,  
8 although the regulations do speak to that, I think there  
9 is -- I think there's a capability for the agency to  
10 interpret those differently.

11 Q Are you aware that the board has already  
12 ruled on the issue of whether a third party treatment  
13 estimate is required?

14 MR. HELSTEN: Also I'll object. I think  
15 it assumes facts not in evidence. But with that you may  
16 answer, if you know, Mr. Moose.

17 THE WITNESS: I have the board decision  
18 of February 16th. Is that the one you're referring to?  
19 BY MR. GRANT:

20 Q Of this year?

21 A Yes.

22 Q No, it was a 2001 decision.

23 A Oh. No, I'm not aware of that.

24 Q In coming up with your estimate of \$809,000

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1 private sector operators for leachate treatment?

2 A I don't recall as I sit here.

3 Q Did you take a look at that number? Did you  
4 review that number?

5 A I've looked. I may have. I don't recall it  
6 as I sit here. My own experience is it can be anywhere  
7 from as low as a penny and a half per gallon to -- or  
8 less to, I've seen up to five to six cents a gallon.

9 Q Okay. And just so I have this written down  
10 right, you said -- I have .086 per gallon. Is that  
11 .086?

12 A Let me find it.

13 Q In other words --

14 A Less than a penny a gallon.

15 Q Okay. Did you -- just so that I understand  
16 it, you did not come up with an estimate based on a  
17 third-party cost, in other words, for somebody else  
18 besides the City of Morris to treat it?

19 A No, it seems not practical or impracticable  
20 to me. It also seemed like --

21 Q It was really just a yes or no. Were you  
22 able or have you come up with an estimated cost of  
23 closing Parcel A and B of the landfill?

24 A I've come up with my own estimate, yes.

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1 for leachate treatment, how much did you or what cost  
2 did you use, what charge did you use for the City of  
3 Morris to treat the leachate?

4 A We used, I don't know if I have that with me  
5 here. Sorry, I should speak up. I think it's .086  
6 cents per gallon which is the contracted -- what I used  
7 is the contracted rate that they were going to charge  
8 CLC if they exceeded their amount. So, I got that out  
9 of their contract for operations to CLC.

10 Q Did you use that for the entire volume of  
11 leachate?

12 A Yes.

13 Q So, you didn't give them credit for any  
14 pretreatment?

15 A No.

16 Q You have -- do you have any knowledge about  
17 what other landfills pay for leachate treatment charges?

18 A Generally.

19 Q And in general terms how does, how does that  
20 .086 per gallon compare?

21 A It's probably less than they charge private  
22 sector operators but it's probably very close to what  
23 their actual costs are.

24 Q Do you know what the City of Morris charges

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1 Q And what is your estimated cost of closing  
2 the landfill?

3 A I hadn't quite broken it down that way. I  
4 had it really broken into four different tasks.

5 Q I'm going to get into the details on the  
6 tasks themselves, so.

7 A What do you want by closure?

8 Q An estimate of the cost of closing the  
9 landfills in conformance with their permit and let me  
10 modify that a little bit.

11 A Okay.

12 Q Because we've already sort of identified that  
13 there's some issues with waste relocation, but assuming  
14 no waste relocation from Parcel B to Parcel A, the cost  
15 of performing the closure tasks that are called for in  
16 the two permits.

17 A No. I thought they were completely  
18 impracticable and unprotective of the public health.

19 Q The closure costs themselves?

20 A Yeah, the whole approach.

21 Q Have you come up with an alternative plan or  
22 an alternative closure plan, in other words, not  
23 necessarily what's in the permit, and have you come up  
24 with the costs for that plan?

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1 A Yes.

2 Q What's your estimated cost of closing Parcels  
3 A and B?

4 A Total cost is right around 10 million  
5 dollars.

6 Q Okay. That's not post-closure?

7 A Including post-closure.

8 Q Okay. Taking out the post-closure aspect,  
9 post-closure care aspect of it?

10 A Be about 8.4 million.

11 Q And I'm going to assume that the post-closure  
12 is the balance of that. So, what do you calculate as  
13 far as post-closure care?

14 A Roughly 2.6 million.

15 Q And the post-closure care, was that done  
16 from -- on a third party basis?

17 A Yes.

18 MR. HELSTEN: 2.6 or 1.6 Mr. Moose? I'm  
19 doing the math.

20 THE WITNESS: 2.6. So, I must have been  
21 off by -- it must be 7.4.

22 BY MR. GRANT:

23 Q Okay, about 7.4. So, the total closure,  
24 post-closure you believe to be about approximately 10

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1 money they could afford to spend?

2 A No.

3 Q As far as the post-closure care, then let's  
4 assume 2.6 million dollars of post-closure care, have  
5 you discussed that separately with them, in other words,  
6 can the City of Morris afford to put up 2.6 million  
7 dollars of -- to assure post-closure?

8 A No, I did not discuss it separately with  
9 them.

10 Q You're familiar with the regulations. Can  
11 you tell me how with, with the current financial  
12 assurance that's in the permit of 17 plus million  
13 dollars, if you wanted to, as you obviously think that's  
14 incorrect, how would you change the required amount of  
15 financial assurance?

16 A I would implement a plan that focused on  
17 instead of financial assurance a series of tasks that go  
18 to the --

19 Q Before you -- no, I understand. Before we  
20 get into that, and I'm sure we will, I mean you'll agree  
21 that currently the permits for the landfill require at  
22 least 17 million dollars of --

23 A I agree.

24 Q -- closure, post-closure financial assurance?

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1 million dollars?

2 A Correct.

3 Q And of that 2.6 million is post-closure care?

4 A Correct.

5 Q Okay. You're going to -- I'm going to --  
6 we're going to give you the opportunity to discuss some  
7 of the things and I want to know about what you think  
8 needs to be done. I think that was in your disclosure  
9 as far as the tasks that need to be done at the  
10 landfill. But at this point let me just ask you about  
11 financing the total of the 10 million dollars, the 7.4  
12 and 2.6 million dollars. Your client is the City of  
13 Morris. Have you discussed the various tasks and  
14 especially the amount of money that's required to do  
15 these tasks?

16 A Yes.

17 Q Does the City -- can the City of Morris  
18 afford to do closure at a, say, 7.4 million dollars and  
19 2.6 million -- well, the two, the post-closure care we  
20 can talk, we'll talk about that separately. But as far  
21 as doing closure at 7.4 million dollars, can the City of  
22 Morris afford to do that?

23 A They tell me no.

24 Q Did they give you an idea about how much

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1 If you disagreed with that number and you wanted to  
2 legally, in other words, in conformance with the  
3 regulations in the Act, how do you change that number to  
4 a number that you think is --

5 A File a significant modification to the permit  
6 and try and change that number.

7 Q Has the city filed a significant modification  
8 permit application?

9 A Yes.

10 Q And when was that filed?

11 A Around November of 2005.

12 Q And can you tell me the current status of  
13 that?

14 A Currently we have a denial letter from the  
15 Agency on it for some numerous issues.

16 Q Denial letters up front are common in a  
17 permit application, aren't they?

18 A Yes.

19 Q Did it request modifications to it?

20 A You know, we just got the letter this week.  
21 I haven't had a chance to really dig into it. Again,  
22 that's not unusual. There's a denial letter in the  
23 interpretive process with the Agency is developed to  
24 resolve the outstanding issues.

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1 Q Did you in your permit application submit a  
2 recommended number for financial assurance?  
3 A Yes.  
4 Q And was that the 10 million dollar number  
5 that you --  
6 A For Parcel A I'm at 5.7.  
7 Q And as you're going through those if you can  
8 split out the closure and post-closure that would be  
9 great.  
10 A Parcel A I'm at closure at 2 million and  
11 post-closure at 3.7. And Parcel B I'm at closure of 5.1  
12 and post-closure at 1.4. That puts the total of the two  
13 at around 10. This is not the same as the 10 million I  
14 referred to earlier.  
15 Q And why isn't it the same number?  
16 A Because on this particular number we were  
17 bound by the model and a few other things, but the scope  
18 of work for this particular one is more congruent I  
19 think with the regulations and not as protective as what  
20 I'll call our practical approach.  
21 Q As far as -- just let me ask the question, as  
22 far as being protective of the environment, isn't it  
23 really the responsibility of the Illinois EPA?  
24 A It's also the responsibility of every

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1 follow the rules, that's correct.  
2 Q Or if you're a permitted landfill owner as  
3 well?  
4 A You know, let's take the case in front of us.  
5 I think clearly Morris contracted that responsibility to  
6 another party and then I think it's an issue of the law  
7 versus engineering.  
8 Q But Morris has a permit that's issued to it  
9 as owner of the landfill?  
10 A Morris is a -- all permits are co-issued  
11 between the operator and the owner. It's interesting  
12 that the permits specifically lists the owner separate  
13 then the operator as opposed to just requiring the  
14 owner. I read the PCB decision that indicated that  
15 Morris was an operator and I think that there's some  
16 material fact that they've misinterpreted, and I think  
17 they're quite wrong in their interpretation,  
18 respectfully speaking.  
19 Q No, I understand. But -- I mean the simple  
20 answer is that the permit has a number of conditions  
21 which bind the City of Morris; isn't that correct?  
22 A Well, you know, that's a legal question. I  
23 think it binds the operator and/or operator as I read  
24 the regulations. It doesn't say operator and owner. It

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1 Registered Professional Engineer in the State of  
2 Illinois. That's our first responsibility.  
3 Q But it's also the responsibility of both  
4 landfill owners and engineers to conform with the  
5 regulations in the Environmental Protection Act; isn't  
6 that true?  
7 A Well, certainly --  
8 MR. HELSTEN: Objection. It's  
9 argumentative and I object to the form. You may answer  
10 Mr. Moose.  
11 THE WITNESS: I think, you know, it's  
12 certainly an engineer's responsibility. As far as  
13 whether it's landfill owners or operators is another  
14 issue. I think that depends on who's responsible for  
15 what.  
16 BY MR. GRANT:  
17 Q The landfill operator does not have the  
18 choice of picking and choosing what regulations it can  
19 conform with; isn't that true?  
20 A A landfill operator I agree.  
21 Q And I mean it's a business and if you're  
22 going to be in the landfill business you have to follow  
23 the rules?  
24 A If you're a landfill operator, you have to

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1 says operator or owner as I recall the regulations. So,  
2 I think it really has to do with who's responsible for  
3 what. The aspects of operation in my mind are clearly  
4 the responsibility of the operator, and what  
5 responsibilities the owner has I think is, if you have  
6 an operator is -- if they're different parties, I think  
7 is not necessarily the same.  
8 Q But if the permit has a requirement that  
9 specifically says the owner or operator or the owner or  
10 the permittee, wouldn't that bind the owner of the  
11 landfill as well?  
12 A If a contract is specifically executed that  
13 delegates all of that responsibility to another entity,  
14 I think it goes to that entity, otherwise, the contracts  
15 are of no value.  
16 Q Is it your belief that a person can contract  
17 away their, with a private party, their permitted  
18 obligation under an Illinois EPA issued term permit?  
19 A I don't know. I think that's a legal  
20 question.  
21 MR. GRANT: Can you give me a minute?  
22 You guys can sit. Let's go outside.  
23 (A short break was taken.)  
24 (Exhibit No's. 2 and 3 were marked

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1 for identification on 8-2-06.)  
 2 BY MR. GRANT:  
 3 Q Let's get back on. I'd like to put in a  
 4 couple of Exhibits. Let's get these out of the way. I  
 5 have got Exhibits 2 and 3 which are copies of  
 6 interrogatory responses from the City of Morris.  
 7 Looking at Exhibit Number 2 which are interrogatory  
 8 responses from -- I'm sorry, I mean Number 3. I want  
 9 the supplemental ones which are interrogatory responses,  
 10 Supplemental Answers to State's Interrogatories  
 11 submitted on May 18, 2006. It says in disclosure  
 12 "Interrogatory No. 3: Mr. Moose may also testify as to  
 13 closure/post closure actions he proposes to be  
 14 implemented going forward." Do you see that?  
 15 A Yes.  
 16 Q Have you developed an opinion about what  
 17 closure and post-closure actions should be done at the  
 18 Morris Community Landfill?  
 19 A Yes.  
 20 Q Let's talk about this. Essentially before  
 21 getting into a lot of detail about it, if you could, is  
 22 there a way to split the tasks out into separate things,  
 23 maybe we can talk about them separately, in other words,  
 24 leachate is one?

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1 well. We measured the depth. We wanted to make sure  
 2 that it was still functioning. We compared that depth  
 3 to existing geologic and hydrogeologic data to really  
 4 assure ourselves that if we did obtain samples from  
 5 these wells that the wells would be -- yield valid  
 6 results or to the degree we were able to assure  
 7 ourselves that they were. That report was given to the  
 8 city in July of 2005 and since approximately that time  
 9 the city has granted us permission to go in there and  
 10 monitor those wells. It's important for me to  
 11 understand the impacts from the facility, which the  
 12 monitoring wells measure, in order to assess that  
 13 potential threat.  
 14 Q Let me just for identification, is that the  
 15 document that's titled Landfill Monitoring System  
 16 Evaluation Report dated at the bottom July 2005?  
 17 A Yes.  
 18 Q And a copy of this has been presented to all  
 19 parties today?  
 20 A Yes. And since that time we've been  
 21 monitoring the landfill and now we've had four quarters  
 22 of recent data, and prior to that I think our last data  
 23 was in 2000 or 2001 so there is a significant data gap.  
 24 Q Is that being done by Shaw Environmental?

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1 A Yes.  
 2 Q What general types of closure and  
 3 post-closure activities do you think need to be done at  
 4 the Morris Community Landfill?  
 5 A Well, as I indicated to the City of Morris,  
 6 first we need to assess whether there's an immediate  
 7 threat to the public health, safety, and welfare. And  
 8 based on my visual inspection of the site and record  
 9 review, I recommended to the City of Morris a series of  
 10 actions that be initiated as soon as possible to better  
 11 ascertain whether there is any potential public health  
 12 threat. Those resulted in Morris retaining us to  
 13 produce the three documents that I produced for you  
 14 earlier.  
 15 The first was completed in July of 2005. The State  
 16 alleged that monitoring of the landfill was not  
 17 occurring in accordance with the permit, and after close  
 18 evaluation of the facility not only was the monitoring  
 19 not being completed in accordance with the permit,  
 20 really the sanctity or the worthiness of the monitoring  
 21 system was in question by me. And I asked for  
 22 permission and received permission by the City of Morris  
 23 to go out and evaluate the monitoring system. We looked  
 24 at each monitoring well, located it. We purged the

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1 A Yes.  
 2 Q And as far as the monitoring parameters, are  
 3 those the same parameters that are contained in the  
 4 landfill permits?  
 5 A Yes. The second thing I wanted to do is  
 6 evaluate the presence of the leachate in the landfill  
 7 and the effectiveness of the collection system. That  
 8 report was -- that request was approved by the City of  
 9 Morris and that report was produced in September of  
 10 2005. And it evaluates from a leachate collection  
 11 standpoint what has actually been constructed and how it  
 12 functions and its functionality versus what was  
 13 permitted. And that was important for me to understand  
 14 the ability to withdraw leachate, how it was being  
 15 leached -- handled at the site.  
 16 Q Can you describe generally the leachate  
 17 collection system at Parcel A and Parcel B because I  
 18 know that B was operated as a municipal solid waste  
 19 landfill for a long time and it was an older landfill?  
 20 So, if you could just give us an idea of one parcel  
 21 versus the other.  
 22 A Parcel A -- well, let me kind of start with  
 23 an overall statement. Leachate collection at the  
 24 facility, both parcels, doesn't really meet today's

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1 current operating standards. And what was permitted  
2 versus what was constructed there's a disparity and  
3 there's a lack of comprehensive as-built diagrams for us  
4 to figure out precisely what was constructed at each.  
5 Having said that, we did go, and it's explained in  
6 detail in the report what we did, to try and identify  
7 what was constructed. Understanding that some of the  
8 stuff is still underground and some of the evidence was  
9 based on less than total comprehensive understanding we  
10 did make our best guess of what was actually  
11 constructed. So, between what our opinion is, and this  
12 is set forth in the report, and what actually might be  
13 there, there's probably going to be some divergence.

14 Right now the leachate collection system at Parcel  
15 A is really pumping leachate out of several vertical  
16 manholes and putting it into the gas extraction  
17 manifolds to a central point where a simple contractor's  
18 pump is used to pump the leachate into a municipally  
19 owned sanitary line out front.

20 And Parcel B, its -- and there's paragraphs and so  
21 forth within this report. Parcel B they had some  
22 vertical extraction points and it has an overliner and  
23 perimeter collection system around three sides or maybe  
24 two and a half sides that appears to be constructed and

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1 it gets incrementally increased over time. You know,  
2 without getting into more detail, I think that's  
3 generally it.

4 Q Yeah, I wasn't looking for detail, I was just  
5 curious about the issues from one to the other.

6 A The third thing I asked to do is in order to  
7 address the public health issues is to look at the  
8 landfill gas system. That report was put together and  
9 submitted in April 2006 on Parcel B. Parcel B is the  
10 west side facility. Based on our evidence that we had  
11 at the site, I didn't think landfill gas was much of a  
12 concern on the east side or Parcel A. So, we really  
13 looked at a couple of immediate things. First, we  
14 obtained the information as quickly as possible and  
15 ramped up on the site. Second, we received -- we  
16 recommended and ultimately received approval from the  
17 city to focus on the public health, safety and welfare  
18 in the area of monitoring, which is a critical factor to  
19 know, leachate collection and gas collection issues.  
20 From there we then developed a recommendation of what we  
21 would do to close the facility in the most productive,  
22 i.e., least cost, highest impact manner.

23 Q Did you investigate continuing to operate the  
24 facility? In other words --

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1 A I didn't understand the question.

2 Q Was one of the options that you looked at in  
3 evaluating the problems out there continuing to operate  
4 Parcel A, which I think has remaining waste to full  
5 capacity?

6 A By CLC?

7 Q By anybody. Did you look at as one of your  
8 options continuing to dispose of waste at Parcel A? I  
9 don't mean today or tomorrow but as an option --

10 A Well, there was volume available but I didn't  
11 evaluate several things I think that are all part of  
12 that question. I didn't evaluate whether we had the  
13 contractual capability to do that. I didn't evaluate  
14 who might be best to do that, and I didn't evaluate  
15 precisely what the cost/benefit ratio of that might be  
16 over time, if that answers your question.

17 Q Sure. So, basically all of the conclusions  
18 that you have were based on closing the facility as  
19 opposed to continuing to operate it?

20 A I assumed closing the facility.

21 Q Okay. Did you -- how about in closing the  
22 facility, how about the standard closure tasks of  
23 putting in a final cover and grading and those sorts of  
24 things? We've talked about leachate and gas in sort of

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1 assessing the immediate threat. Did you take a look  
2 at --

3 A Yes.

4 Q -- what would be required?

5 A We developed a closure approach that fell  
6 into five categories. One was the groundwater  
7 monitoring network. We wanted to do work on the  
8 groundwater monitoring network to make it more  
9 comprehensive and more reliable. We had recommendations  
10 under leachate management and monitoring -- let me back  
11 up. What we call groundwater monitoring network were  
12 tasks in the 100 series and all tasks connected to that  
13 we had sub 100 numbers. Series 200 numbers were  
14 leachate management and monitoring. Series 300 were  
15 final cover system and final land form. Series 400 were  
16 landfill gas and monitoring, and series 500 were  
17 post-closure care activities for 30 years.

18 Q And these were recommendations that -- I'm  
19 sorry, were these recommendations that you had come to  
20 conclusions of what needed to be done with all those  
21 where you developed a plan to deal with these?

22 A Yeah, these are my recommendations at least  
23 initially of what needs to be implemented at the site  
24 recognizing when you enter a project like this there's

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1 going to be changes and surprises probably along the  
2 way.

3 Q Before you talked about closure costs, 7.4  
4 million dollars. I think that's accurate, isn't it,  
5 your estimate of closure costs?

6 A Yes.

7 Q And also recognizing I think your two numbers  
8 were -- one was, and I asked you what your estimate of  
9 the cost of closure, it was 7.4 million dollars, and I  
10 think also you -- what I've got written down is that in  
11 your permit application that you submitted to the  
12 Illinois EPA you had closure costs of 2 million for  
13 Parcel A and for Parcel B 5.1 million. But I mean  
14 basically with the conclusion, your conclusions that you  
15 reached on what needs to be done in those five areas, is  
16 that where you came up with the 7.4 million dollar cost  
17 estimate?

18 A Yes.

19 Q So, a completion of these five tasks your  
20 estimate was 7.4 million?

21 A You're correct.

22 Q Right.

23 A No, I'm sorry. No, it was five tasks go to  
24 just over 10 million because it includes task five which

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1 my opinion. So, we have about \$28,000 worth of work for  
2 monitoring well installation.

3 Q And that's just closure, that's not  
4 post-closure?

5 A That's closure.

6 Q Yeah.

7 A I mean it's important for us to continually  
8 monitor the groundwater for us to make sure that our  
9 assumptions on public health, safety are always  
10 consistent. We have approximately \$15,000 for  
11 groundwater well abandonment. We have wells that are  
12 damaged that could be a potential pathway. We want to  
13 abandon those wells and seal them up and do the  
14 appropriate permitting with the IEPA to do that.

15 There are repairs that are needed to existing  
16 wells, wells that can be brought back to life with some  
17 minor work with about a thousand dollars for the  
18 repairs.

19 And we want to establish a groundwater management  
20 zone around the landfill versus the current no  
21 groundwater attenuation area. In this particular area,  
22 because it's an old abandoned coal mine, that it's got a  
23 long history of dumping that in certain constituents the  
24 up-gradient parameters or constituents exceed the

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1 is post-closure.

2 Q Okay. That's funny, I didn't write that one  
3 down. Okay. Well, one through four is 7.4 million?

4 A Correct, and change.

5 Q Did you -- in coming up with these  
6 recommendations did you attempt to make sure that you  
7 were complying with the existing permit requirements?

8 A No.

9 Q I'm not talking about financial assurance so  
10 much as the listed closure requirements.

11 A Yeah. I think that's what we attempted to do  
12 in the permit application that's currently pending. For  
13 example, just to select one thing in part, the current  
14 application that's pending, it includes waste  
15 relocation. I don't believe that is a wise endeavor.  
16 That's not included in we'll call it the alternative  
17 closure plan.

18 Q As far as the groundwater monitoring network,  
19 what sort of work would have to be done to --

20 A Got it broken out in five general categories.  
21 We have to expand the groundwater monitoring network,  
22 increase the number of monitoring wells. Some of the  
23 monitoring wells that we found were damaged, unusable.  
24 We have an insufficient amount of up-gradient wells in

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1 down gradient because we have a land use that's in and  
2 around a facility of highly industrial, because we're  
3 not using the groundwater and because the groundwater is  
4 not potable anyway, this is I think a perfect  
5 application for utilization of a groundwater management  
6 facility. And then we've got ongoing groundwater  
7 monitoring during the period of closure. So, that  
8 groundwater monitoring work is right about \$69,000. The  
9 task two work --

10 Q Let me just -- as we go through these I'd  
11 like to get an estimate about how long you would think  
12 you would estimate it would take to complete these tasks  
13 too. I don't know if this is maybe the right one to ask  
14 on.

15 A I think probably we have a schedule of  
16 implementation but you wouldn't necessarily do all the  
17 groundwater monitoring and then do the next. It's all  
18 done at different times.

19 Q Right.

20 A So, we have a year to year schedule of what  
21 we would do each year and what the costs would be for  
22 each year. For example, you would want to -- well,  
23 let's get into the next one. Task 200 level is leachate  
24 management.

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1 Q Sure, let's move on to that topic.

2 A That's task 201 is to complete the leachate  
3 collection system. We need to develop a system where we  
4 can extract the leachate from the facility. Leachate is  
5 one of the primary potential threats, and that's about  
6 \$701,000.

7 Q What's the current status of the leachate  
8 collection system in your opinion at the landfill?

9 A It's set forth in our report which you have a  
10 copy of. I don't believe it meets today's operating  
11 standards. I think currently I saw no evidence that it  
12 poses an immediate risk to the public health but it  
13 needs significant work. You can tell by the dollar  
14 figure alone. There's a significant amount of  
15 infrastructure that needs to be invested in the landfill  
16 in order to efficiently and comprehensively extract the  
17 leachate from the facility.

18 And then prepare a construction quality assurance  
19 report, again, we have in this reporting  
20 responsibilities and costs to report to the IEPA the  
21 completion of each activity to demonstrate that the  
22 activities were done in accordance with the approved  
23 approach. So, we've got about \$746,000 worth of  
24 leachate infrastructure investment.

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1 Q You previously mentioned \$701,000.

2 A That was just for the collection system.  
3 I've got another \$45,000 of other tasks here that are  
4 minor.

5 Q Okay.

6 A Final cover system and the final land form,  
7 the issue out there right now is nobody knows precisely  
8 how much soil cover is on top of specifically the west  
9 side portion. Based on visual evidence at the site,  
10 there are some fairly deep erosion gullies. But those  
11 deep erosion gullies, although they pose an issue of  
12 lack of maintenance, what I'm able to tell from them is  
13 that there is a fairly thick cover of soil over that  
14 facility right now which is a good thing. And the areas  
15 that I've looked at, I've seen certain areas where  
16 there's over two to three feet of soil existing over  
17 that site. But nobody knows what's there, and in order  
18 for us to design a cover system that is respectful of  
19 the taxpayers' money, which I'm assuming Morris is  
20 spending the money, we should evaluate what's on that  
21 cover system and utilize whatever we can of that cover  
22 system as opposed to just the assumption would be that  
23 it's not there at all. So, we have \$50,000 to go out  
24 and probe the cover system at fairly tight intervals to

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1 identify what's out there. Now we have seven, \$7,500 to  
2 design a cover system after we know what's there, and  
3 then design the final land form and storm water  
4 management system, which is really tying in all the  
5 contours of the site, of about \$10,000. For actual  
6 construction of the final cover, storm water management  
7 system, all the earth work if you will, we have 5.6  
8 million dollars. So, the final cover system we're  
9 running just about 5.7 million dollars.

10 Q And these numbers including both A and B,  
11 right?

12 A Yeah, A and B.

13 Q So, of the 7.4 million, 5.6 is what you  
14 estimate to be the cost of putting in the final cover?

15 A Yep. We have landfill gas management  
16 monitoring that includes evaluating the gas on Parcel A,  
17 design Parcel A gas management system, complete the  
18 installation of Parcel B gas management system, install  
19 and construct the landfill Parcel A gas management  
20 system, and then repairs to gas probes, and then conduct  
21 ongoing landfill gas monitoring. So, we have about  
22 \$841,000 worth of landfill gas construction work that's  
23 necessary.

24 Q How does that \$841,000 compare to other gas

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1 management systems at other landfills based on your  
2 experience?

3 A We do a lot of other landfills so I think  
4 acre for acre it's similar. We've got about 85 acres of  
5 footprint here. So, it's not, it's not a small closure  
6 activity, if you will. And then the final is  
7 post-closure activity.

8 Q Let me stay on the gas management just for a  
9 minute. What control device were you contemplating?

10 A The first task is actually landfill gas  
11 evaluation. We'll actually go out and do a study of the  
12 landfill and identify how much gas is there, the quality  
13 of the gas, and then make a recommendation on what's the  
14 best way to treat the gas.

15 Q So, you haven't decided yet which control  
16 mechanism?

17 A We just made assumptions. My assumption is  
18 that the west side is probably on the downhill side of  
19 the curve and there's probably not much on the east  
20 side. We could be wrong by that but you really need to  
21 go in and, you know, put a probe in and see what we got,  
22 see what the quality and quantity of the methane is and  
23 then do a pro forma and see whether or not it makes  
24 sense to just flare it, incinerate it, or go to gased

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1 energy.

2 Q Let me get you mad and back you up a little  
3 bit.

4 A Sure.

5 Q There's a question I wanted to ask you.

6 A It takes a lot to get me mad.

7 Q I only got three hours. Maybe I can do it.

8 A You can take all night, fine with me.

9 Q I just wanted to ask how long you thought,  
10 based on the findings that you came up with for the  
11 leachate collection system, how long would it take to  
12 construct the leachate construction collection?

13 A Well, it's really not necessarily a question  
14 of how long it's going to take. There's a series of  
15 events and approvals that have to occur. So, it doesn't  
16 make any sense for us to design a cap until we go out  
17 and do the probes and figure out what's there. We had  
18 scheduled beginning with this fall -- well, we've got  
19 this summer ongoing which is complete, the routine  
20 groundwater monitoring, complete the leachate  
21 monitoring, continue the landfill gas monitoring, and  
22 then the annual reporting that's required under our  
23 permit.

24 Beginning in the fall, if we were going to

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1 implement our alternative plan, we recommended another  
2 roughly a hundred thousand dollars work this fall which  
3 included establish the groundwater management zone. If  
4 we don't get that established and agreed upon with the  
5 agency early on, it changes all other factors. So, it  
6 doesn't make any sense for us to rush out there and  
7 start plunking dirt in the ground until we understand  
8 what we're doing. We've got the groundwater monitoring  
9 work to do this fall, the gas monitoring probe repair.  
10 And then, like I said, probe the landfill to figure out  
11 what we have out there.

12 Q Right.

13 A Then we have work scheduled for the winter of  
14 2006 and 2007 and we broke this into seasons  
15 purposefully. There are certain activities that don't  
16 lend themselves very well to summer work and there are  
17 certain activities that don't lend themselves very well  
18 to winter work. So, we tried to stage things in a  
19 logical order and then have earth moving activities  
20 occur in the spring and summer versus starting it in  
21 October.

22 Q Um-hum.

23 A We're looking to get the lay of the land.  
24 And that really has us beginning work this fall and

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1 going on for a period of six years until ultimate  
2 closure.

3 Q Can you just -- you may have done so, but can  
4 you clarify what work has been done as of today?

5 A We have done annual reporting. We've gone  
6 out and assessed the groundwater monitoring network. We  
7 have implemented groundwater monitoring. We've gone out  
8 and assessed the landfill gas system including the  
9 landfill gas monitoring system and implemented landfill  
10 gas monitoring.

11 Q Can you explain, and I hate to keep  
12 interrupting, but can you explain what you mean by  
13 landfill gas monitoring?

14 A We are required under the permit to monitor  
15 landfill gas in the landfill and around the perimeter of  
16 the landfill on a monthly basis.

17 Q Is that the surface scans?

18 A It's surface as well as subsurface.

19 Q So, it's like oxygen content, methane  
20 content, and those sorts of things of the gas itself in  
21 the wells?

22 A In the wells, right. And that had not been  
23 done reportedly or allegedly by the IEPA. We went out  
24 and looked at the probes and found them, figured out

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1 which ones we could use, which ones we couldn't, and  
2 began the monitoring system. We began monitoring what  
3 we could.

4 Q Your monitoring is monitoring of the gas  
5 probes themselves?

6 A Correct.

7 Q Not of the wells?

8 A Well, there's gas probes around. Wells are  
9 monitoring wells. Now we also started monitoring of the  
10 gas -- or the groundwater monitoring wells.

11 Q Okay.

12 A And then we've also evaluated the leachate  
13 collection system, what's there and what needs to be  
14 done to the best of our ability to understand that.

15 Q Have you done any construction out there or  
16 installed any, anything at the landfill, any wells or  
17 any --

18 A No, we have not participated in any  
19 construction activities. We have not participated in  
20 any cover repair. We have not had any city employees  
21 other than maybe the mayor or something standing at the  
22 gate, entering the site and doing any of the activities.  
23 I was instructed to go look at that inspection report,  
24 identify what's there and report back as quick as

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1 possible on health and safety issues, and my  
2 recommendation that these were areas that I needed to  
3 understand before I could make an opinion on health and  
4 safety.

5 Q As you know, obviously, Community Landfill  
6 Company is the operator of the landfill pursuant to an  
7 agreement with the city?

8 A Yes.

9 Q Does the agreement permit the city to come in  
10 and do any construction work? In other words, does the  
11 city have access to the site to do any construction work  
12 or any major work at this point?

13 A You know, I know what the intent is. If  
14 you're asking me for an interpretation of the contract  
15 between the two, I think that's probably beyond the  
16 scope.

17 Q If the city, for example, the city wanted to  
18 go in and install a new gas system today could they,  
19 based on your understanding, could they go in and do it?

20 A I don't know.

21 Q Did you deal with that whole access issue, or  
22 the contract issue, or the lease issue in your  
23 recommendations?

24 A I wouldn't say the lease issue. There was an

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1 access issue at the beginning of whether we did have  
2 permission to get on the site and do that. In my  
3 recollection there was a little jousting of whether we  
4 had permission to go on the site and do our  
5 observations.

6 Q Were you denied access at any point?

7 A I don't recall specifically. I know there  
8 was some discussion about it.

9 Q So, I think as far as I'm concerned you  
10 discussed the groundwater monitoring network and the  
11 leachate management system, the final cover, the cost on  
12 it, and the landfill gas. How about -- is there  
13 anything specific as far as post-closure activities.

14 A Yes. We recommended -- well, we categorized  
15 them into four large areas of activities including  
16 routine inspections and maintenance, this is for the  
17 entire 30 years, of about a little over \$401,000;  
18 routine groundwater monitoring at 1.3 million; routine  
19 leachate management and monitoring at \$809,000; and  
20 routine --

21 Q I wonder if we can start over because you're  
22 giving the numbers I was going to ask about.

23 A Too fast. The routine inspections and  
24 maintenance, \$401,000; routine groundwater monitoring at

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1 1.3 million.

2 Q Okay. Yeah, I think you said 3 million.

3 A Okay, sorry.

4 Q Okay.

5 A Conduct routine leachate management and  
6 monitoring, \$809,000; and conduct routine landfill gas  
7 management and monitoring at \$110,000, for a total of a  
8 little over 2.6 million.

9 Q Okay. Now the current permit calls for the  
10 groundwater treatment and leachate treatment for a  
11 hundred year period but you -- and you've used 30 years  
12 as your estimate?

13 A Right.

14 Q Why 30 versus 100?

15 A Because I don't believe there's any  
16 scientific evidence that warrants (a) pumping  
17 groundwater for a hundred years; (b) pumping and  
18 treating leachate for a hundred years. I'm not seeing  
19 the evidence to do that. I think, you know, the way  
20 that those numbers came about I think you have to  
21 understand the permitting process and specifically the  
22 groundwater modeling process. And I think if you go  
23 back and look at how the model was put together and the  
24 iterations that went back and forth, I think they just

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1 defaulted and said we'll do that just to get the permit.  
2 That doesn't necessarily make sense from a public  
3 health, safety and welfare.

4 Q Are the two periods, the 30 years and 100  
5 years, in the regulations someplace? I mean I really  
6 don't know myself.

7 A Yeah, the evolution of the regulations are  
8 interesting in and of themselves. The 30 years, there's  
9 a lot of debate about what the magic number is. The  
10 regulations in Illinois were written in that area pretty  
11 closely to Subtitle D, and what it says to the effect is  
12 that you're going to have to maintain this landfill for  
13 at least 30 years after you close it. The agency may  
14 require you to monitor it for longer than 30 years if we  
15 think it's still a threat. We haven't had Subtitle D  
16 facilities out there that long so we don't know, exactly  
17 know what that constitutes at some point. But we do get  
18 information from empirical evidence at older landfills,  
19 and we know that some of the older pre-Subtitle D  
20 landfills really do become relatively innocuous after  
21 somewhere close to that. The Subtitle D facility, I  
22 think we have all had the opinion and we're really short  
23 on evidence, empirical evidence, the hundred years comes  
24 from the groundwater impact model which is, which is

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1 not required in many many many states. In Illinois they  
 2 decided to adopt regulations that were much more strict  
 3 than Subtitle D, Federal Subtitle D regulations, and  
 4 require us to demonstrate via this modeling that the  
 5 facility is safe, meaning that it won't impact the  
 6 groundwater one hundred years after closure within one  
 7 hundred feet of the footprint. And I think the modeling  
 8 is a very very useful tool. I'm afraid that the  
 9 modeling has gotten a little bit out in front of  
 10 rational decisions and I think this is a good example  
 11 where the modeling has kind of lost the forest for the  
 12 trees what the real purpose of it was to begin with. I  
 13 think that's where the regulator was at this point.  
 14 They had to demonstrate some way if they were going to  
 15 issue a permit that the facility would not impact the  
 16 groundwater a hundred years, and the way they did it is  
 17 by just pumping the groundwater and treating it which  
 18 is, you know, kind of like an old Soviet Union type  
 19 approach, well, we'll just put a bigger engine on the  
 20 back of the thing, not a very elegant engineering  
 21 solution.

22 Q Is -- when we talked about it earlier, the  
 23 waste relocation I think, when we were talking about  
 24 waste relocation, you were saying that Parcel A passed

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1 have been. They passed the model and issued a permit  
 2 for it and the other parcel they did issue a permit but  
 3 they required this remediation system to be implemented  
 4 before they would issue the permit. And if you look  
 5 back at the permit and pour into it, it's because the  
 6 model as presented to the agency didn't meet that 100  
 7 foot, 100 year criteria. So, I guess it's a semantic  
 8 issue and I don't want to get into that. Simply put, it  
 9 didn't meet that burden and they defaulted to this other  
 10 approach.

11 Q But it almost sounds like if Parcel A had  
 12 never been opened none of us would be talking about this  
 13 hundred year leachate treatment; is that a fair  
 14 conclusion?

15 A I want to make sure I've got the right one.  
 16 Parcel A does not have the overfill, right?

17 Q Right.

18 A You know, there's a lot of different ways.  
 19 You could have maybe modeled it differently, maybe you  
 20 could have designed it differently. I didn't go back  
 21 and remodel the facility. We could do that but I don't  
 22 think that changes the facts of how we close the  
 23 facility. I think that would be an exercise in  
 24 academics. I mean really what we want to do now is be

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1 the model or the model suggested that it would pass and  
 2 Parcel B suggested it would not pass?

3 A I get those two confused all the time so I  
 4 have to go back. But, yes, the essence was that the  
 5 closure plan had a fairly low unit cost of waste  
 6 relocation of some two bucks a yard or something on that  
 7 order. The only way you could come anywhere close to  
 8 meeting that is assuming that the waste is relo --  
 9 assuming that the waste is relocated legally is that it  
 10 was relocated in the same facility. You wouldn't be  
 11 able to load it up and take it to a truck and take it to  
 12 another landfill at two bucks a yard. So, the only  
 13 assumption you can get to is that it was actually  
 14 disposed of within that same facility. If you were  
 15 going to take it off of A, the only other place was the  
 16 other unit which failed the model.

17 Q So, I guess what -- where I'm going is that  
 18 Parcel A or Parcel B -- Parcel B is where the overheight  
 19 is at.

20 A Go ahead, I'm listening.

21 Q And that passed the model which essentially I  
 22 took to mean that the groundwater impact was not so much  
 23 a problem on Parcel B.

24 A Well, that's what the IEPA's opinion must

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1 able to withdraw the contaminants from the facility that  
 2 pose the threat, put a cover on the facility so that the  
 3 contaminants are isolated from the environment, and  
 4 monitor the facility after those features are in place  
 5 so we can tell how successful we're managing this. And  
 6 at this particular site for several reasons that's  
 7 altogether a good solution. First, it's the presumptive  
 8 solution that the agency uses. It's the presumptive  
 9 solution that the U.S. EPA uses. And it makes sense in  
 10 a lot of cases because certainly it's the most  
 11 economical, and if we're talking about expending  
 12 taxpayers' money, that cannot be forgotten. The  
 13 taxpayers don't profit from the facility. They use any  
 14 income they got for other public needs but they also  
 15 have the unique capability to treat leachate cheaper  
 16 than anybody. And when you look at the surrounding land  
 17 use around this facility, this is a more -- even a more  
 18 appropriate approach. When you look at the existence of  
 19 city water, when you look at the water that we're  
 20 monitoring, the water of concern that we're modeling to,  
 21 you can't drink anyway. But there are no wells around  
 22 the site. It seems to me that we ought to, you know,  
 23 start really focusing on how to put the real facts in  
 24 front. And I'm concerned when I read the Pollution

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1 Control Board's decision that they misunderstood all of  
2 the facts. For example, they said that the city  
3 participated in operating because they operated  
4 ancillary facilities on site. Well, in fact, they did  
5 not. So --

6 Q Well, when you're talking about the Board's  
7 decision, you're definitely talking about a legal  
8 decision.

9 A Well, I know what operated ancillary  
10 facilities on site are.

11 MR. HELSTEN: I object Mr. Grant. He can  
12 go to the facts. He can discuss the facts without going  
13 to the legal conclusion.

14 MR. GRANT: I'll be happy to go through  
15 it but they, you know, they decided what they decided.  
16 I mean I try not to be argumentative on the issues.

17 MR. HELSTEN: But it goes to what's  
18 practical here and what's necessary and realistic here  
19 which is the heart, in my opinion, of the Board's June  
20 1, 2006 order. In several instances they say we should  
21 focus on what's practicable, feasible and realistic  
22 here. To do that you have to look really at underlying  
23 facts upon which they base their opinions, both the --

24 MR. GRANT: Oh, yeah, and I understand

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1 that and you were clear enough in your disclosure and  
2 that's one of the reasons we've gone -- we've sort of  
3 allowed you to go into the amount of detail you have  
4 about these things as opposed to, you know, being really  
5 technical on it because that is certainly the case.  
6 But, you know, as we've talked about Chuck, our job is  
7 to enforce the regulations. I mean if they're not being  
8 met, then it's a violation or you change it.

9 MR. HELSTEN: Sure.

10 MR. GRANT: Those are really the options.  
11 But if you're talking about legitimately his going to  
12 the 33(c) factors --

13 MR. HELSTEN: Right, that's what we  
14 think, which the Board said go to the 33(c) factors and  
15 any facts that hinge upon those determinations and I  
16 think that's what Mr. Moose is doing.

17 THE WITNESS: That's, you know, clearly  
18 what I'm doing. I think the 33(c) factors are  
19 consistent with my obligation as an engineer.

20 MR. GRANT: Yeah, it's -- okay, we don't  
21 have to talk on the record. I do want to talk with him  
22 one more time. I'll be back in a minute.

23 (A short break was taken.)

24 MR. GRANT: That's all I have at this

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1 point.

2 EXAMINATION

3 BY MS. GRAYSON:

4 Q I have a couple of questions. I was  
5 wondering if you could, and maybe you could use this,  
6 draw a very basic diagram, I'm a visual person, and in  
7 terms of the zone of attenuation that you're talking  
8 about. I kind of visualize it as a bull's-eye, that the  
9 center area may be where the waste is and then it kind  
10 of goes out like that. If you could, just do something  
11 that's real simple.

12 (Witness marking on blackboard.)

13 A Kind of like a pot pie, if you will. If you  
14 imagine a pot pie with the crust as the landfill and the  
15 metal as the liner, the landfill in cross section,  
16 although ours may not look exactly like this. It looks  
17 like this. One hundred feet from the edge of the waste  
18 we have to show compliance at this point. This area in  
19 here is called the zone of attenuation. We have to  
20 prove that anything that might come from the landfill  
21 does not measurably impact the groundwater on the other  
22 side of that line. In three dimensions this would be  
23 the ground surface. Let's do it like this. That's the  
24 landfill in three dimensions if you're following me, it

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1 would be a zone that would still go like that.

2 Q Okay. The other question that I had was when  
3 you were referring to all the different aspects of the  
4 closure and post-closure care it seems as if you had a  
5 piece of paper that you were looking at that had some  
6 figures on it and I was wondering if maybe you would  
7 like to mark that as an Exhibit and get a copy of it.

8 A For the existing permitted facility on Parcel  
9 A and Parcel B, they're simply copies out of the -- oh,  
10 this is not it, out of the existing permit. And then I  
11 have copies of the revised permit application that's  
12 currently pending and I can certainly do that. And I'll  
13 make four copies of each of these?

14 MR. GRANT: That would be great.

15 MR. KUGLER: Off the record.

16 (A discussion was had off the record.)

17 BY MS. GRAYSON:

18 Q I was referring to when you were going  
19 through items one through five, one being groundwater,  
20 two, leachate management, the latter part of your  
21 deposition after the break.

22 A That was a document that I prepared at the  
23 request of Mr. Helsten.

24 MR. HELSTEN: Yeah, I don't have a

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1 problem with this. It was going to the State anyway,  
2 eventually it was going to be submitted to you guys. It  
3 was done at my instruction to submit to the State, so.

4 MR. GRANT: Let's go off until he gets  
5 back.

6 (A short break was taken.)

7 BY MS. GRAYSON:

8 Q One other question. At one point when you  
9 were talking about the overheight you said that exhuming  
10 and moving is not without issues. What would some of  
11 those issues be?

12 A Well, when you exhume waste there is an odor  
13 issue. So, you're going to have a significant increase  
14 in potential for odors. You can mitigate that by doing  
15 it during the winter months, but in this particular  
16 case, you know, that would affect schedule also,  
17 limiting that to a particular window of time. If you  
18 were to -- when you move waste, you expose the  
19 construction workers to the leachate, sharp material, so  
20 that material and the construction work, you have to  
21 develop a construction worker safety plan to protect the  
22 workers. You also have residual leachate that may be as  
23 part of that, and in this particular case if we're going  
24 to be taking the garbage, loading it on vehicles and

1 taking it into the, at least for a short period of time,  
2 onto the public road or across the public road, it  
3 creates another potential safety or nuisance issue that  
4 needs to be resolved and addressed.

5 MS. GRAYSON: That's all I have. Thank  
6 you.

7 MR. HELSTEN: I have nothing.

8 (Exhibit No's 6, 7, and 8 were marked  
9 for identification on 8-2-06.)

10 MR. GRANT: We're finished. I would like  
11 to attach three exhibits. Exhibit Number 6 is titled  
12 Premature Closure Cost Estimate and was referred to by  
13 Mr. Moose during the deposition. Exhibit 7 -- I'm  
14 sorry, Exhibit 6 is Parcel B. Exhibit 7 is Premature  
15 Closure Cost Estimate - Parcel A, on the first page,  
16 and was also referred to and used by Mr. Moose. And  
17 Exhibit No. 8 is --

18 THE WITNESS: Maybe alternative closure  
19 approach.

20 MR. GRANT: Right. It's another  
21 document, at the top Shaw Environmental, Inc.  
22 Alternative, how would you describe it?

23 THE WITNESS: I'd call it the alternative  
24 closure approach.

1 MR. GRANT: This was also used and  
2 referred to during the deposition.

3 MR. HELSTEN: Mr. Moose, you have the  
4 opportunity to review the deposition --

5 THE WITNESS: Yes, I would like to.

6 MR. HELSTEN: -- for accuracy. So, you'd  
7 like to, okay. So, we reserve signature.

8 MR. GRANT: I'll order it up.

9 (Exhibit No. 4 was marked for  
10 identification on 8-2-06.)

11 MR. GRANT: Also, we would like to add as  
12 an exhibit, Exhibit No. 4 which is an outline of the  
13 topics that Mr. Moose discussed of the closure tasks and  
14 discussed during the deposition.

15 THE WITNESS: That was actually discussed  
16 with Mr. Child on June 13, 2006. It's basically an  
17 agenda for the meeting.

18 MR. GRANT: Okay.

19 MR. HELSTEN: It touches upon issues  
20 discussed today.

21 MR. GRANT: Sure.

22 - - -

23 (The deposition ended at 3:55 p.m.)

24 - - -

1 STATE OF ILLINOIS) }  
2 COUNTY OF McHENRY) SS.

3  
4 I, LINDA A. LANCE, Certified Shorthand  
5 Reporter No. 84-1565, Registered Professional Reporter,  
6 a Notary Public in and for the County of McHenry, State  
7 of Illinois, do hereby certify that DEVIN A. MOOSE,  
8 P.E., DEE, previous to the commencement of his  
9 examination, was duly sworn by me to testify to the  
10 truth and nothing but the truth.

11 I FURTHER CERTIFY that the deposition was  
12 taken at the time and place in the caption specified and  
13 that there were present those persons and parties as  
14 indicated on the appearance page of said transcript.

15 I FURTHER CERTIFY that I reported in  
16 shorthand the foregoing proceedings and thereafter  
17 caused to be transcribed the foregoing transcript, pages  
18 1 through 103, which is a true and correct transcription  
19 of my shorthand notes.

20 I FURTHER CERTIFY that I am not counsel  
21 for nor in any way related to any of the parties to this  
22 suit nor am I in any way interested in the outcome  
23 thereof.

24 IN WITNESS WHEREOF, I have hereunto set  
my hand and affixed my notarial seal this 14th day  
of August A.D. 2006.

*Linda A. Lance*  
Linda A. Lance  
Certified Shorthand Reporter  
Registered Professional Reporter  
Notary Public McHenry County



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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD  
 PEOPLE OF THE STATE OF ILLINOIS, )  
 Complainant, )  
 vs. ) PCB No. 03-191  
 ) (Enforcement-Land)  
 COMMUNITY LANDFILL COMPANY, INC. )  
 an Illinois corporation, and the )  
 CITY OF MORRIS, an Illinois )  
 municipal corporation, )  
 Respondents. )

I, DEVIN A. MOOSE, P.E., DEE, hereby certify  
 that I have read the foregoing transcript of my  
 deposition given at the time and place aforesaid,  
 consisting of pages 1 through 103, inclusive, and I do  
 again subscribe and make oath that the same is a true,  
 correct and complete transcript of my deposition so  
 given as aforesaid, as it now appears.

\_\_\_\_\_  
 DEVIN A. MOOSE, P.E., DEE

Subscribed and sworn to before me  
 this \_\_\_\_\_ day of \_\_\_\_\_, 2006.

MY OFFICIAL SEAL: \_\_\_\_\_  
 NOTARY PUBLIC

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June 7, 2006

**INSERT NAME**  
**INSERT ADDRESS**  
**INSERT ADDRESS**

Subject: Morris Community Landfill

Dear **INSERT NAME**:

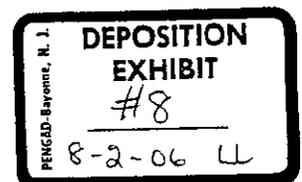
Shaw Environmental, Inc. (Shaw) proposes the following scope of service to close the Morris Community Landfill Parcels A and B in accordance with the requirements of the Illinois Pollution Control Board and the Illinois Environmental Protection Agency permits.

As you may already know, due to the difficult history and negligent performance on the part of the Community Landfill Company (the Operator), the City of Morris assumed at their own expense the responsibility for the IEPA required landfill monitoring activities. The City of Morris hired Shaw to perform these activities on their behalf beginning with the third quarter 2005 monitoring period.

In order to resolve the outstanding IEPA and IPCB compliance issues with the Morris Community Landfill, the City of Morris will also assume at their own expense the responsibility of completing the required installation / construction of the leachate management and monitoring systems, the landfill gas management system, the final cover system, and the stormwater management system. Also, the City of Morris will assume at their own expense executing all of the required closure and post-closure activities.

In order to close the Morris Community Landfill in a timely, cost effective manner while still being protective of the environment, and public health, welfare, and safety, the City of Morris respectfully requests from the IEPA an allowance for the modification of the permitted requirements that address the removal of the waste overfill on Parcel B, and installation of the Parcel A groundwater treatment system. If the IEPA agrees to these allowances, the City of Morris will take the following actions:

- Stop the receipt of waste in Parcel A and begin immediate closure of the landfill;
- Redesign the final landform to coincide with the lower waste height / waste volume across Parcel A, and the higher waste height / volume due to the overfill on Parcel B;
- Redesign the stormwater management systems for Parcels A and B to account for the modified final landform;
- Construct the final cover system which will exceed federal and state regulations;



- Complete the installation of all required facility systems including leachate management and monitoring systems, and landfill gas management and monitoring systems;
- Expand the groundwater monitoring system with six (6) new wells; and
- Develop a Groundwater Management Zone pursuant to 35 Ill. Adm. Code Part 620.250 to address the potential on-site groundwater contamination.

The following scope of service provides in detail the activities outlined above.

## SCOPE OF SERVICE

### Tasks 100: Groundwater Monitoring Network

Task 101 - Expand Groundwater Monitoring Network. Shaw recommends that an additional five (5) groundwater monitoring wells be installed to more appropriately monitor and characterize the groundwater quality upgradient and downgradient from the facility. These additional wells will be used to establish the Groundwater Management Zone as described later in Task 103. Shaw proposes one (1) additional well upgradient to the facility, and four (4) additional wells downgradient from the permitted facility property. Locations of these five additional wells are presented on Figures 1 and 2, contained in Attachment 1.

Additionally, Shaw recommends that the nine (9) non-permitted wells that were identified in the field (G-13E, G109S, P-13W, P-17D, P20S, P-21D, R-109S, R110S, and R111D) located adjacent to Parcels A and B be added to the groundwater monitoring program as piezometers. The piezometers would only be monitored for groundwater elevations every quarter at the same time as the groundwater monitoring wells are sampled. The non-permitted wells to be added as piezometers are shown on Figure Nos. 1 and 2, contained in Attachment 1.

Task 102 - Groundwater Monitoring Well Abandonment. Shaw recommends that the six (6) groundwater monitoring wells identified in the field that could not be correlated to existing boring logs, as-built diagrams, or any other documentation, be abandoned in accordance with the standards in 35 Ill. Adm. Code 811.316, and decommissioning and reporting procedures contained in the Illinois Department of Public Health's (IDPH) Water Well Construction Code, 77 Ill. Adm. Code, Part 920. The proposed wells to be abandoned are shown on Figure Nos. 1 and 2, contained in Attachment 1.

Task 103 - Repairs to Existing Permitted Groundwater Monitoring Wells. Shaw will make the following necessary repairs to the existing wells as listed below:

- Install bumper posts at groundwater monitoring well G128; and
- Install Well Caps at groundwater monitoring wells G131, G132, G133, and G136.

Task 104 - Establish Groundwater Management Zone. Shaw recommends establishing a Groundwater Management Zone (GMZ) pursuant to 35 Ill. Adm. Code Part 620.250 — in lieu of the permitted groundwater treatment system. A GMZ is defined as a *three-dimensional region containing groundwater that is being managed to mitigate impairment caused by the release of contaminants from a site*. The goal of the GMZ will be to remediate the groundwater to the level of standards applicable to Class IV groundwater (35 Ill. Adm. Code Part 620.430).

A GMZ cannot be established without prior approval from the IEPA. A written report must be submitted and evaluated by the Illinois EPA to determine whether the controls and management of the GMZ are adequate. Following their review, the IEPA will issue a letter in regard to the: (1) adequacy of the GMZ; (2) the continued management of the GMZ; and (3) conditions necessary to ensure that the requirements of 35 Ill. Adm. Code Part 620 will be met.

The written report must include the following information:

- Identification of specific units (operating or closed) present at the facility for which the GMZ is proposed;
- A USGS topographic showing the location of the site
- A detailed scaled map of the facility clearly delineating the location of each waste management unit;
- A description of the geology and hydrogeology within the proposed GMZ and the surrounding area;
- Groundwater classification at the site;
- Information regarding the release, including:
  - Identification of the chemical constituents detected in groundwater that are above the applicable standard in 35 Ill. Adm. Code Part 620;
  - A description of how the site has been investigated to determine the source or sources of the release;
  - A description of how groundwater has been monitored to determine the rate and extent of the release;
  - A description of the groundwater monitoring network and groundwater sampling protocols in place at the facility;
  - The schedule for monitoring of the groundwater; and
  - A summary of the results of the groundwater monitoring associated with the release;
- Scaled drawings identifying the horizontal and vertical boundaries of the proposed GMZ;
- Information regarding the approved remedial action including:
  - A description of the approved remedial action;
  - A description of how the approved remedial action has impacted the release;
  - A description of how the approved remedial action is operated and maintained;
  - A projected schedule for completion of remediation;
- A description of how groundwater at the facility will be monitored following the future completion of the remedy to ensure that the groundwater quality standards have been attained; and
- A discussion addressing the adequacy of the controls and management of the proposed GMZ at the site.

Shaw will prepare the written report as outlined above requesting IEPA approval to establish a GMZ.

Task 105 - Conduct Groundwater Monitoring. Shaw will continue to conduct routine quarterly groundwater monitoring at the Morris Community Landfill. Groundwater monitoring will include measurement of groundwater elevations, sampling and laboratory testing of groundwater, analysis of laboratory test results, and IEPA reporting.

**Tasks 200: Leachate Management and Monitoring**

Task 201 - Complete Leachate Collection System. Shaw proposes to complete the installation of the leachate collection systems for Parcels A and B with the system features that have been permitted by IEPA but not yet installed. The following list represents these features:

*Parcel A*

- Perimeter leachate collection piping, drainage layer, and associated manholes (L305, L306, and L307), leachate collection trench sumps (L313, and L314), and leachate extraction wells (L311, and L312);

*Parcel B*

- Leachate conveyance lines for the perimeter manholes, and leachate extraction wells (L303, L309, and L310); and

*Parcel A & B*

- Leachate storage tank to store leachate collected from both Parcels A and B and conveyance piping to the existing sanitary sewer line.

Task 202 - Complete Leachate Monitoring System. Shaw proposes to complete the installation of the leachate monitoring system which includes the installation of the following leachate monitoring points:

*Parcel A:*

- Leachate Collection Manholes (Task 201): L305, L306, and L307 for environmental sampling / testing;
- Leachate Collection Trench Sumps (Task 201): L313 for measuring leachate head elevations, and L314 for measuring leachate head elevations and for environmental sampling / testing;
- Leachate Extraction Wells (Task 201): L311 and L312 for measuring leachate head elevations; and

*Parcel B:*

- Leachate Extraction Wells (Task 201): L303, L309, and L310 for environmental sampling / testing.

Task 203 - Construction Quality Assurance Report. Shaw will prepare the Construction Quality Assurance Report upon completion of Tasks 201 and 202 as required by the IEPA and the IPCB for the leachate management and monitoring system.

Task 204 - Conduct Leachate Monitoring. Shaw will continue to conduct routine quarterly leachate monitoring at the Morris Community Landfill. Leachate monitoring will include measurement of leachate head elevations, sampling and laboratory testing, analysis of test results, and IEPA reporting.

**Task 300: Final Cover System and Final Landform**

Task 301 - Verification of Existing Permitted Final Cover. Shaw will inspect the landfill to verify areas that have had the permitted final cover system installed. Shaw will lay out a grid system, based on the site coordinate system and the existing site topographic survey, with 25 to 50

probe points (1 probe point for every 2-4 acres) to obtain field measurements of the final cover system thickness. Assuming that appropriate thicknesses are confirmed of the low permeability soil layer at the various probe points, Shaw will next collect soil samples at 2 - 4 locations for laboratory testing of moisture content, and soil classification. Assuming the thickness and quality of soil material are appropriate as permitted, Shaw will then push several tubes into the final cover soils to obtain undisturbed samples for hydraulic conductivity testing. Based on the results of this investigation, Shaw will prepare a report with the findings and conclusions.

Task 302 - Design of Alternate Final Cover System. Shaw will prepare the design for an alternate final cover system for Parcels A and B that will tie into areas of the landfill having permitted final cover. The final cover system will consist of a low-permeability layer to prevent precipitation from entering the landfill, and a protective soil layer to prevent erosion and maintain the long-term integrity of the landfill cover system.

The low-permeability layer will include a 40-mil LLDPE geomembrane and a one (1) foot layer of recompacted low permeable clay soil. The permeability of the 40-mil LLDPE combined with the recompacted clay soil will meet or exceed the IEPA required 3-foot clay liner having a permeability of  $1 \times 10^{-7}$  cm/sec. A geocomposite drainage net will overlay the geomembrane to drain precipitation away from the low-permeability layer. The protective layer will be placed over the geocomposite and will include a minimum of three (3) feet of protective soil, with the upper six (6) inches being a vegetative layer.

Task 303 - Design Final Landform and Stormwater Management System. Shaw will modify and design the permitted final landform and stormwater management systems for Parcels A and B. The redesigned final landform will take into account the lower waste height and waste volume in Parcel A, and the overfill volume left in place in Parcel B. The final landform will be designed to promote drainage of surface water runoff away from the landfill in order to minimize infiltration into the waste mass.

Shaw will redesign the stormwater management system taking into account the revised final landform and the resulting final grades. The stormwater management system will be designed to do the following:

- Facilitate drainage and reduce the potential for erosion of the final landform;
- Detain, manage, and control the release of a 25-year, 24-hour storm event; and
- Facilitate sedimentation of collected runoff thereby improving water quality.

Task 304 - Install Final Cover and Stormwater Management System. Shaw will oversee the installation / construction of the final cover system and stormwater management system. Shaw will prepare the required construction quality assurance and quality control documentation to be submitted to the IEPA as part of the final cover certification.

#### **Task 400: Landfill Gas Management and Monitoring**

Task 401 - Parcel A Landfill Gas Evaluation. Shaw proposes to conduct a test program to evaluate and characterize the landfill gas production from Parcel A in order to assess whether an active or passive gas collection system is required for Parcel A. Since historical records indicate that only construction and demolition debris was landfilled in Parcel A, the landfill gas

production may be such that only a passive collection system is needed. However, field testing will need to be done to accurately characterize gas production rates prior to developing a system design.

Task 402 - Design of Parcel A Landfill Gas Management System. Shaw will design the Parcel A landfill gas collection system based on the results of field testing and evaluation performed in Task 401.

Task 403 - Complete Installation of Parcel B Landfill Gas Management System. Shaw will oversee the completion of the Parcel B landfill gas management system installation. The following activities will occur during the installation and startup of the landfill gas management system:

- Installation of the landfill gas blower / flare station and connection to the existing landfill gas collection system;
- Evaluation of the existing landfill gas collection system to determine vacuum distribution, individual cell flow, gas quantity and quality, and header function;
- Any necessary repairs and/or modifications that were identified from the evaluation will be performed to optimize the performance of the landfill gas management system. Also, a system calibration will be done to optimize the efficiency of the system.

Task 404 - Install Landfill Gas Management System. Shaw will install the landfill gas management systems for Parcel A and B, and will prepare all required construction quality assurance and quality control documentation for submittal to the IEPA. For purposes of estimating costs it is assumed that a passive landfill gas collection system will be required for Parcel A, and the IEPA permitted Parcel B landfill gas collection system will not require modification.

Task 405 - Repairs to Existing Landfill Gas Probes. Shaw will install bumper posts at landfill gas probes X-125, X-126, X-126, X-128.

Task 406 - Conduct Landfill Gas Monitoring. Shaw will continue to conduct routine monthly landfill gas monitoring and reporting at the Morris Community Landfill. Landfill gas monitoring will include field sampling and testing of landfill gas probes, ambient air sampling and testing, analysis of test results, and IEPA reporting. (Note that the budgeted costs for Task 404 cover only 1 year of monitoring — the time estimated to close the landfill. Budgeted costs for Task 504 cover the monitoring costs for the 30 year post closure care period).

#### **Task 500: Post Closure Care Activities**

Task 501 - Conduct Routine Inspections and Maintenance. Shaw will conduct the routine facility inspections: quarterly from post closure years 1 through 5, and annually from post closure years 6 through 30. These inspections will be conducted to identify and document any areas of the final landform / final cover system that have been compromised requiring repair or maintenance, and any facility systems that require repair or maintenance. Costs budgeted for Task 501 will include the costs for the following routine maintenance and operations: repair of cover system, and mowing of vegetation.

Task 502 - Groundwater Monitoring. Shaw will continue to conduct routine quarterly groundwater monitoring at the Morris Community Landfill. Groundwater monitoring will include

measurement of groundwater elevations, sampling and laboratory testing of groundwater, analysis of laboratory test results, and IEPA reporting.

Task 503 - Leachate Management and Monitoring. Shaw will continue to conduct routine quarterly leachate monitoring at the Morris Community Landfill. Leachate monitoring will include measurement of leachate head elevations, sampling and laboratory testing, analysis of test results, and IEPA reporting.

Task 504 - Landfill Gas Management and Monitoring. Shaw will continue to conduct routine landfill gas monitoring at the Morris Community Landfill: monthly from post closure years 1 through 5, and quarterly from post closure years 6 through 30. Landfill gas monitoring will include field sampling and testing of landfill gas probes, ambient air sampling and testing, analysis of test results, and IEPA reporting.

**BUDGET**

The proposed budget for implementing Tasks 100 through 500 is presented in Attachment 2 and is based on our 2006 Fee Schedule.

**SCHEDULE**

The proposed schedule for completing Tasks 100 through 400 is presented in Attachment 3.

If you should have any questions, please contact Jesse Varsho or me at (630) 762-1400.

Very truly yours,

Shaw Environmental, Inc.

Devin A. Moose, P.E., DEE  
Director

## **SCHEDULE OF CLOSURE ACTIVITIES AT THE MORRIS COMMUNITY LANDFILL - PARCELS A & B**

The proposed schedule assumes that the following on-going tasks will be completed on a monthly or quarterly schedule, as noted:

- Complete routine quarterly groundwater monitoring (Task 105);
- Complete routine quarterly leachate monitoring (Task 204);
- Complete routine monthly landfill gas sampling (Task 406); and
- Annual Reporting (Annual Report, Tasks 105, 204, and 406).

### Fall 2006 (\$96,900)

- Establish Groundwater Management Zone (GMZ) report and submit to IEPA for review and approval (Task 104);
- Abandon six groundwater monitoring wells (Task 102);
- Repair existing groundwater monitoring wells (Task 103);
- Prepare permit modification request regarding groundwater monitoring network for IEPA review and approval (Tasks 101);
- Repair existing landfill gas monitoring probes (Task 405); and
- Verify the installation of any existing final cover for Parcels A and B. This includes collecting Shelby tubes for hydraulic conductivity analysis and determining thickness with probe points within a grid. Complete report of findings (Task 301).

### Winter 2006-2007 (\$70,700)

- Respond to IEPA comments on revisions to groundwater monitoring network and GMZ (Tasks 101);
- Install five groundwater monitoring wells (Task 101);
- Add nine non-permitted wells into groundwater monitoring network as piezometers (Task 101);
- Design alternate final cover system (if required), including tie-ins to existing final cover and revision to waste boundary based on existing waste limits for Parcels A & B (Task 302); and
- Design final landform, stormwater management system, and perimeter leachate collection system for Parcel A (Task 303).

Spring 2007 (\$186,500)

- Submit permit modification request to IEPA regarding alternate final cover, final landform, stormwater management system, and perimeter leachate collection system (Tasks 302 and 303);
- Install landfill gas blower/ flare station at Parcel B. Connect with the existing gas collection system (403);
- Begin evaluation of existing landfill gas collection system for Parcel B to determine vacuum distribution and individual cell flow, gas quantity and quality, and header function (Task 403); and
- Respond to comments regarding permit modification request to IEPA regarding alternate final cover, final landform, stormwater management system, and perimeter leachate collection system (Tasks 302 and 303).

Summer 2007 (\$186,500)

- Complete evaluation of existing landfill gas collection system for Parcel B (Task 403);
- Complete any necessary repairs to the Parcel B landfill gas collection system to optimize performance of landfill gas collection (Task 403); and
- Prepare and submit CQA documentation report to IEPA for Parcel B landfill gas management system (Task 403).

Fall 2007 (\$701,600)

- Install leachate storage tank for Parcels A and B (Task 201);
- Construct Parcel A perimeter leachate collection system and associated manholes (Tasks 201 and 202);
- Install Parcels A and B leachate extraction wells (Tasks 201 and 202);
- Install leachate conveyance piping for Parcels A & B (Task 201);
- Prepare and submit CQA documentation report to IEPA for Parcel B leachate conveyance system (Tasks 203 and 304); and
- Respond to IEPA comments on Parcel B landfill gas management system report (Task 403).

Winter 2007-2008

- Respond to IEPA comments on CQA report of Parcel B leachate and landfill gas collection systems (Task 203 and 404).

Spring 2008 (\$15,000)

- Field test the Parcel A landfill gas collection system to determine whether gas is passively or actively collected (Task 401); and
- Begin construction of Parcel B final cover (Task 303).

Summer - Fall 2008 (\$902,900)

- Construct 15 acres of Parcel B final cover system and submit CQA Report (Task 304); and
- Design Parcel A landfill gas collection system based on results of field testing and evaluation and feedback from the IEPA on the alternate final landform. Submit permit modification request to IEPA for Parcel A landfill gas collection system (Task 402).

Winter 2008

- Respond to IEPA comments regarding the design the Parcel A landfill gas collection system (Task 402).

Spring - Fall 2009 (\$1,905,000)

- Construct 25 acres of Parcel B final cover system and submit CQA Report (Task 304); and
- Construct Parcel A landfill gas collection system and submit CQA report (Task 404).

Spring 2010 (\$887,900)

- Construct final 15 acres of Parcel B final cover system and submit CQA Report (Task 304); and
- Begin excavating any required stormwater control features and stockpiling soils as necessary for Parcel A final cover construction (Task 304).

Summer - Fall 2010 (\$592,000)

- Begin excavating any required stormwater control features and stockpiling soils as necessary for Parcel A final cover construction (Task 304); and
- Construct 10 acres of Parcel A final cover system and submit CQA Report (Task 303).

Spring - Fall 2011 (\$592,000)

- Construct 10 acres of Parcel A final cover system and submit CQA Report (Task 303).

Spring - Fall 2012 (\$592,000)

- Construct 10 acres of Parcel A final cover system and submit CQA Report (Task 303).
- Complete Parcel A final cover system and associated stormwater controls such as downchutes (Task 304).

Spring - Fall 2013

- Respond to IEPA comments regarding CQA report to Parcel A final cover (Task 203).

Post-Closure Period (30 Years) (\$2,662,400 or 88,700 per year)

- Conduct Routine Inspections and Maintenance (Task 501);
- Conduct routine groundwater monitoring (Task 502);
- Conduct routine leachate monitoring (Task 503); and
- Conduct routine landfill gas monitoring (Task 504).

- I. Introduction
  
- II. Site Background
  - A. Key Facts
  - B. Site History
  - C. Permitted versus Constructed Design
    - 1. Overliner System
      - i. Design
      - ii. Constructed
    - 2. Leachate Collection System
      - i. Design
      - ii. Constructed
    - 3. Final Cover System
      - i. Design
      - ii. Constructed (3.75 acres certified closed)
    - 4. Landfill Gas Collection System
      - i. Design
      - ii. Constructed
      - iii. Landfill Gas Exceedances
    - 5. Groundwater Monitoring Network
      - i. 19 Existing/Permitted Groundwater Monitoring Wells and 2 Piezometers (G136 used for both Parcels A & B)
      - ii. Groundwater Flow
      - iii. Groundwater Quality/Exceedances
  
- III. Recommended Closure Tasks
  - A. Exemptions from Permit Conditions
    - 1. **STOP** accepting waste and initiate closure activities
    - 2. Overfill of Parcel B
      - i. Leave in-place
      - ii. Overfill volume is approximately 475,000 cubic yards
      - iii. Parcel A remaining volume is approximately 759,400 cubic yards
    - 3. Parcel A Groundwater Remediation System
      - i. Pump and Treat system
      - ii. Not installed, propose not to install
      - iii. Permit requires 100 years of operation

- B. Proposed Closure Tasks
  - 1. Groundwater Monitoring Network
    - i. Expand Existing Groundwater Monitoring Network
    - ii. Abandonment of Non-permitted Groundwater Monitoring Wells
    - iii. Repairs to Existing Permitted Groundwater Monitoring Wells
    - iv. Establish Groundwater Management Zone
    - v. Conduct Groundwater Monitoring
  - 2. Leachate Management and Monitoring
    - i. Complete Leachate Collection Systems for Parcels A & B
    - ii. Complete Leachate Monitoring Systems
    - iii. Complete Construction Quality Assurance Report
    - iv. Conduct Leachate Monitoring
  - 3. Final Landform and Final Cover System
    - i. Design of Alternate Final Cover System
    - ii. Verification of Existing Permitted Final Cover
    - iii. Design of Final Landform and Stormwater Management System
    - iv. Construct Final Cover and Stormwater Management System
  - 4. Landfill Gas Management and Monitoring
    - i. Parcel A Landfill Gas Evaluation
    - ii. Design of Parcel A Landfill Gas Management System
    - iii. Complete Installation of Parcel B Gas Management System
    - iv. Install Landfill Gas Management System
    - v. Repairs to Existing landfill Gas Probes
    - vi. Conduct Landfill Gas Monitoring
  - 5. Post-Closure Activities
    - i. Conduct Routine Inspections and Maintenance
    - ii. Groundwater Monitoring
    - iii. Leachate Management and Monitoring
    - iv. Landfill Gas Management and Monitoring
- C. Schedule

#### IV. Questions

**SHAW ENVIRONMENTAL, INC. BUDGET  
TO PROVIDE SERVICES TO THE CITY OF MORRIS  
FOR THE MORRIS COMMUNITY LANDFILL**

| Task Description  | Cost                |
|---|---------------------|
| <b>Tasks 100: Groundwater Monitoring Network</b>  |                     |
| Task 101 - Expand Groundwater Monitoring Network  | \$28,154            |
| Task 102 - Grounwater Monitoring Well Abandonment (includes preparation of IEPA significant permit modification application)            | \$14,700            |
| Task 103 - Repairs to Existing Monitoring Wells   | \$1,080             |
| Task 104 - Establish Groundwater Management Zone  | \$25,000            |
| Task 105 - Conduct Groundwater Monitoring (cost included in Task 502)   | --                  |
| <b>Subtotal:</b>  | <b>\$68,934</b>     |
| <b>Tasks 200: Leachate Management and Monitoring</b>  |                     |
| Task 201 - Complete Leachate Collection System  | \$701,567           |
| Task 202 - Complete Leachate Monitoring System (cost included in Task 201)  | --                  |
| Task 203 - Prepare Construction Quality Assurance Report  | \$45,000            |
| Task 204 - Conduct Leachte Monitoring (cost included in Task 503)   | --                  |
| <b>Subtotal:</b>  | <b>\$746,567</b>    |
| <b>Tasks 300: Final Cover System and Final Landform</b>   |                     |
| Task 301 - Verification of Existing Permitted Final Cover System  | \$50,000            |
| Task 302 - Design Alternate Final Cover System  | \$7,500             |
| Task 303 - Design Final Landform and Stormwater Management System   | \$10,000            |
| Task 304 - Install / Construct Final Cover and Stormwater Management Systems (includes CQA documentation and Final Cover Certification) | \$5,623,671         |
| <b>Subtotal:</b>  | <b>\$5,691,171</b>  |
| <b>Tasks 400: Landfill Gas Management and Monitoring</b>  |                     |
| Task 401 - Parcel A Landfill Gas Evaluation   | \$15,000            |
| Task 402 - Design Parcel A Landfill Gas Management System   | \$25,000            |
| Task 403 - Complete Installation of Parcel B Landfill Gas Management System (includes CQA documentation)                                | \$372,900           |
| Task 404 - Install / Construct Parcel A Landfill Gas Management System (includes CQA documentation)                                     | \$425,000           |
| Task 405 - Repairs to Existing Landfill Gas Probes  | \$3,000             |
| Task 406 - Conduct Landfill Gas Monitoring (costs included in Task 504)   | --                  |
| <b>Subtotal:</b>  | <b>\$840,900</b>    |
| <b>Tasks 500: Post Closure Care Activities (30 years)</b>   |                     |
| Task 501 - Conduct Routine Inspections and Maintenance  | \$401,300           |
| Task 502 - Conduct Routine Groundwater Monitoring   | \$1,341,700         |
| Task 503 - Conduct Routine Leachate Management and Monitoring Operations  | \$809,400           |
| Task 504 - Conduct Routine Landfill Gas Management and Monitoring Operations  | \$110,000           |
| <b>Subtotal:</b>  | <b>\$2,662,400</b>  |
| <b>TOTAL:</b>   | <b>\$10,009,972</b> |